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Runaway Bay, Jamaica

November 13 - December 10, 1983

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Small Scale Industry Promotion

Report on a Field Project

by

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DAG Occasional Paper 7

ISBN: 0 7044 0387 0

March 1980

Price: £1.30 inc P & P

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Joint Centre for Regional, Urban and Local Government Studies
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SMALL SCALE INDUSTRY PROMOTION: report on a field project

INTRODUCTION

Small scale production, taking place on street corners, in workshops or small factories, was for a long time very much neglected both as a field of study and as an area requiring well informed public policy. When the emphasis in development was firmly placed on industrialisation, methods of production that seemingly reflected past traditions were seen only as something that would in time pass away. Recently however it has been noted that far from passing away the 'informal sector' (so called only because it supposedly contrasts with the formal organisation of large firms or government organisations) is in many cities growing, branching into new trades, and employing more people. How to interpret this phenomenon and what to do about it is now actively debated. From studies which simply estimated the extent of 'economic dualism', attention moved, with the ILO report on employment prospects and policies in Kenya (ILO 1972) to study of the constraints which operate upon small producers often found to be inappropriate market and urban planning regulations. More recently again, as the results of liberalisation policies - when these have been pursued - begin to come under examination, economic linkages between different sectors of the economy have become the focus of critical study (King 1978, Bromley 1978). Many small producers are found to be dependent upon large firms, and most informal sector workers lack the organisation to protect their interests and finish up much more vulnerable than organised labour in formal employment.

However, while increasing understanding of how informal production works has made many observers doubt that growth of this sector of itself will make up for the shortcomings of planned industrialization policies, administrators still face the task of having to take a number of practical decisions that affect the future of the self employed, and it remains the case that, other things being equal, the self employed should be helped rather than hindered.

In recognition that this has now become an important part of public sector policy in urban management it was decided to incorporate a field project on

the subject into a recent course for local government officers in Khartoum.(1) This report presents its proceedings and findings.

Local Government in the Sudan is an elaborate structure on a decentralised model, with extensive responsibility for urban management, planning and promotion of development. It contains also constitutional provision for the representation of various interest groups within the population, including workers and women, within its Councils. The field project was designed therefore to enable course participants to learn for themselves something of the problems and possibilities which faced producers within one sector of the urban population, for whom they are responsible, and who are represented, directly or indirectly on Local Government Councils.

The aim of the project was to investigate the position of small scale producers and to consider how the contribution which they made to the national economy can best be promoted. As an exercise it was designed both to enable course members and staff to test the relevance for public policy of some current ideas about the 'informal sector' and to demonstrate a technique in policy analysis.

The Project

The project had two stages. In the first, course participants and staff devised a checklist of questions to put to small scale producers and then spent a morning interviewing producers in two areas of Khartoum where small scale production is conspicuous, Khartoum North Industrial Estate and Sejana Market. When some initial results had been produced, the second stage followed in which the course divided into groups and, after devising checklists for themselves, went to interview some of the public bodies which are involved in either the promotion or control of small scale producers. After these interviews the teams reported their findings back to a plenary session of the course. The fact that we had spent time discussing the problems and possibilities of production in this sector, both in class and with some producers themselves, gave the teams a basis for critical appraisal

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(1) The Course was run by the Institute of Public Administration, Khartoum, in conjunction with the Development Administration Group. The Course was directed by A.Z. Briema; a guide to current approaches in 'informal sector' studies was prepared by A.W. Shepherd and the field project was organised by D.H.G. Lamb and myself.

of the policies of these institutions. Course members came away with some useful ideas about public policy towards this sector: both strengths and weaknesses. This report is based upon these findings though in some cases it carries the analysis further than it was possible to take it during the Course.

Issues for study

Our starting point was simply that anyone who makes anything is contributing to the gross national product of the country and, other things being equal, should be encouraged rather than discouraged. However a number of arguments have, in recent years, been advanced by the I.L.O. and other bodies for encouraging what has loosely been called the informal sector of urban economies, all based upon the presumption that there is no prospect of being able to create economies in which everyone can have a job in 'formal' government or private productive organisations.

These include:

1) that the informal sector producers are creating employment for themselves and others without government assistance and sometimes in spite of governments' health, planning, rationing, or other regulations.

2) That small scale productive organisations may grow into big units: that is the informal sector may be a vital seedbed for enterprises that will eventually provide the basis of formal sector or large scale production.

3) (As a partial alternative to 2), that small scale producers play a vital and an enduring role within the economy (1). The argument is that they have special characteristics which distinguish them from large scale producers. Here we test the ideas that:

   a) they use materials like waste products that would not otherwise be used,

   b) they provide vital services for larger producers (in a symbiotic relationship like pilot fish to sharks),

   c) that they make products which are particularly suited to production on a small scale.

(1) A possibility that has recently engaged the attention of planners in 'advanced' but staggering economies like that of Britain.

These issues about the nature and characteristics of a small scale producer lead conveniently into a more general examination of:

4) The opportunities and constraints facing small scale producers and the particular questions about whether any government provisions actually work to the disadvantage of small producers.

Finally,

5) We consider the question of representation of small producers within the political system, an issue which is rather neglected in the literature. Small scale producers are often seen as being in competition with other sectors of the economy over resources and for the attention of planners and policy makers. In the Sudan, in contrast to other countries, the constitution established after the May Revolution set up an elaborate machinery for representing different interest groups within the society. Although informal sector producers are not constitutionally differentiated from workers as a whole, they do, through their unions, have political representation. Without clear hypotheses, we felt that it was worthwhile asking some preliminary questions about the role of representation in maintaining an effective informal sector.

METHOD

Our methods were necessarily what is nicknamed in the trade 'quick and dirty'. Since the exercise was part of a course and its purpose was primarily educational only a few days could be spent over the entire exercise, both preparation and execution. Many of the essentials of thorough research had to be dispensed with. Some of the limitations of a study conducted so rapidly are as follows:

a) The ideas which we set out to test: the hypotheses: were loosely formed, being derived from some excellent work in other countries (particularly Zoe Mars' work in Kerela (Mars 1977)) but without the opportunity to test their relevance to Khartoum. The time was so short that only one of the field projects sites was visited prior to the day of interviewing. Classroom discussions alone helped to clarify the issues.

b) The checklist of questions was firmed up in classroom discussion and then tried out in a mock interview in class. This served to familiarise all course participants with the material, to clarify some of the problems of interpretation (English to Arabic) and to reveal areas where additional probing of issues might be useful. However the vital area of pre-testing in the field had to be omitted, with the consequence that several ambiguities remained and some of the questions did not yield the information that was required.

c) The producers who were interviewed were arbitrarily rather than randomly selected. The course divided up into pairs, were delivered to the chosen sites, and were launched out with instructions to spread out and interview as many producers as they could, choosing units of different size and mode of production if possible. The results worked quite well in terms of what the pairs got out of the experience, but were less satisfactory in terms of the representativeness of the interviews conducted.

d) We were able to conduct 37 interviews, plenty for the purpose of familiarising course members with the problems of producers, but again small for formal survey purposes.

In spite of these methodological limitations, our studies were able to come up with interesting findings both in terms of our understanding of the nature of the 'informal sector' and also in terms of possible policy implications. But with a survey so sketchily drawn up and so rapidly executed we clearly have more excuse than most to put forward the usual pleas for more research on particular issues. The benefits of hindsight loom large in what follows and we earnestly request that others follow in our footsteps to ask the questions that we failed to ask or answer.

Who we interviewed

37 questionnaires were completed in all, two of which were subsequently rejected from the collection on the grounds that they were not really producers. (One a wholesaler of building and construction materials, the other a dealer in scrap). So we have 35 interviews with producers, ranging in scope and scale between an employer of 85 workers in a small factory making clothes and suitcases to a self-employed tea maker. However, our choice of sites limited the range and representativeness of our samples.

We confined ourselves to the study of people who make things (even if only cups of tea), or mend things and seem to have caught quite a wide range of these. But most of the producers that we interviewed are officially recognised in the sense that they occupy factory sites or workshops built or rented out by the Councils.

Only a few worked from unofficially occupied sites, something that must be very common elsewhere in Khartoum. Our sample may also be uncharacteristic in its emphasis upon the metal and woodworking trades. Some of the bed making could be said to represent a 'traditional' craft, but much of the furniture produced was of modern design for the top end of the market, and the location of the workshops in Khartoum North Industrial Estate was such that one found a concentration of metal work, mechanical and vehicle servicing activities. So we cannot claim that the people we interviewed are totally representative of small scale producers.

Table 1 lists the producers by product in three groups according to the dominant mode of production. The classification which we adopted looked simple enough on paper but proved quite difficult to interpret in the field. Hand designates a manual productive process. The only difficulty in applying this criterion would occur if there were power tools around but not being used at the time of interview. Power means that power tools like electric drills and sanding machines are used to supplement manpower. Difficulties here were partly linguistic. Welding equipment for instance is often referred to as a machine, but is used as a hand tool. Machine implies that fixed power equipment is used, but it also implies that it is in continuous operation. The classification has to deal with the division of labour as well as the technology, and here there is scope for confusion. The sewing machines in one of the factories which fall into the machine class were more moveable than the planing machine that was being used in one of the furniture workshops. But the latter has been classed as a power tool because it was used only intermittently by workers who were doing other jobs as well while the sewing machines are in continuous use by one worker. If we take this work organisation aspect of the mode of production into account we find that power and hand categories are organisationally very similar. The point is illustrated below.

TABLE 1 - PRODUCTS AND MODES OF PRODUCTION

'MACHINE'	'POWER'	'HAND'
*1) Ready made clothing, and suitcases	7) 'Car boxes' (ie. pick up taxi bodies)	6) Restaurant
2) Packing of perfumery	8) Doors, windows & fences in iron	9) Local beds in wood
3) Confectionery manufacture	11) " " " "	10) Bakery
4) Engine reconditioning	13) " " " "	12) Furniture in wood
5) Sweets	14) Car & lorry bodies	19) " " " "
32) Shoes & Nylon thread	15) Doors & windows & maintenance of both	26) Boxes in scrap tin
37) Shoe polish	18) Doors & windows in iron	29) Mechanic
20) Furniture in wood	21) Electrical equipment maintenance	30) Bed making in wood
	22) Doors & windows in metal	31) Wagon builder
	23) Chairs & tables and clothes hangers in metal and plastic	33) Mattress Maker
	24) Doors & windows in metal	34) Leatherwork (purse & knife sheaths)
	25) Water cans etc. in zinc	35) Car spares & repair
	27) Beds	36) Tea making
	28) Beds in wood	
8	14	13
		(Total 35)

* Numbers refer to questionnaire identity Nos.

An alternative method of classifying these organisations is on the basis of the number of employees. This is perhaps the simplest defining characteristic of 'small scale' and it turns out also that in general the simpler the technology the smaller the concern. However machine type firms, with a mean of 28 employees in our sample nevertheless ranged between 81 and 1, while power type firms with a mean of 3.9 employees ranged between 8 and 2 and

hand type producers with a mean of 3.1 employees ranged in size between 13 and 0. (1) Amongst hand producers there were four self-employed working on their own, and if we put those into a separate category then the mean for the rest of the hand type producers would be four, the same as Power.

Although the Machine/Power/Hand distinction contained some anomalies and our classification of firms on this basis may be imperfect it was found to be more useful than other possible distinctions (e.g. number of employees, or type of building) for the purpose of the analysis which follows.

FINDINGS OF PHASE I

Employment

To show that small scale producers contribute to national employment is not really a problem since, if they exist at all, they are providing work. Activities that one can label 'informal sector' abound in Khartoum. (2) The ILO report on the informal sector of Khartoum estimated that there were roughly 27,000 informal sector establishments in Khartoum providing work of one kind or another within the Khartoum area for between 52,000 and 58,000 people approximately 23-25% of the total employed labour force (ILO 1976 p.382). From our survey we were of course not able to contribute anything to the analysis of the extent of employment generated in the sector.

Growth

The ILO report, using data on Khartoum, states that "it is not too far fetched to argue that informal sector activities are a training ground for future entrepreneurs" (page 387). This statement would support the proposition that small scale producers are likely to grow into large scale producers. However the previous sentence in the same report puts forward a rather different view "..... it is the small one man service and commercial establishment which is best qualified to provide goods and services to the mass of low income consumers in both urban and rural areas". This suggests the permanence and stability of small scale producers rather than an established pattern of growth of smaller firms into bigger ones.

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(1) Our 'sample' cannot of course be taken as representative of all producers in this sector.

(2) See, for a discussion of the limitations for the use of this concept of informal sector, the working paper produced for this survey by Andrew Shepherd.

The assumption that small scale producers are a seedbed for future large scale entrepreneurs is fundamentally questioned by Zoe Mars' work in Kerala where doctrines similar to those of the ILO encouraged the establishment of industrial sites for small industry into which it was thought successful informal sector producers would move to establish larger, more productive enterprises. Mars found that quite different men took advantage of these opportunities (where the sites were attractive at all). Unlike the informal sector producer who is typically experienced in a trade, the founders of these small factories were typically experienced in management, either in big industries or large landed estates. This leads Mars to use external linkages such as patterns of recruitment, trading networks, or financial arrangements as criteria for distinguishing between producers that were previously lumped together under the label of 'informal sector' (Mars and A.W. Shepherd op.cit.). So in this study, we tested the hypothesis that workshop type enterprises (Hand and Power) are quite different in leadership characteristics and managerial experience to small factories (Machine), with the implication that the one is unlikely to grow into the other.

TABLE 2 - SKILLS ACQUISITION

	MACHINE		POWER		HAND		TOTALS	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
FOREIGN EXPERTISE	3	(38%)	1	(6%)	0	(0)	4	(11%)
TECHNICAL TRAINING	2	(25%)	1	(8%)	0	(0)	3	(9%)
TECHNICAL EXPERIENCE LARGE CONCERN	2	(25%)	1	(8%)	0	(0)	3	(9%)
APPRENTICE	0	(0)	3	(23%)	6	(46%)	9	(26%)
FAMILY	0	(0)	4	(31%)	5	(38%)	9	(26%)
SELF	1	(13%)	1	(18%)	2	(15%)	4	(11%)
OTHER	0	(0)	2	(16%)	-		2	(6%)
TOTALS	8	(100%)	14	(100%)	13	(100%)	35	(100%)

This picture is confirmed by reference to Table 2, from which it emerges that the proprietors of the predominantly machine based production units; which include the small factories within the sample; gave answers to the

question "how did you learn your skills" in which formal training in college, experience in some large concern and, either travel abroad to acquire skills or the use of foreign experts, feature prominently. This contrasts clearly with the Power and Hand categories where the predominant modes of skill acquisition are apprenticeship or training on the job by some member of the family.

Experience in large scale industry or in a government department gives an entrepreneur both a wide range of contacts and also the ability to deal with the bureaucracy. Import licences and procedures, quota restrictions and a network of sales outlets can all be handled with such a background. By contrast the Hand or Power proprietor with his craft training, has no experience of these things. He organises the work, but for the most part buys and sells from his workplace ('over the counter') and otherwise has the same range of skills as his fellow workers.

TABLE 3 - EDUCATION

	Nil		Primary*		Secondary		University		Totals	
	No.	%	No.	%	No.	%	No.	%	No.	%
Hand	4	(50)	5	(38)	4	(50)	0	(0)	13	(37)
Power	3	(38)	7	(54)	3	(37)	1	(17)	14	(40)
Machine	1	(12)	1	(8)	1	(13)	5	(83)	8	(23)
Totals	8	(100)	13	(100)	8	(100)	6	(100)	35	(100)

* includes religious education

The machine type manufacturer is likely also to have more formal education. In Table 3, where educational attainments of the respondents are set out, it can be noted that university education is concentrated in this category. Formal training or education confers upon people a greater versatility in their approach to management. The point is illustrated by the comments of a university educated man, who without previous experience, went into the shoe making industry. He was experiencing great difficulty with quality control (due in part to the unavailability of imported materials) and his response to this problem was to consider moving into an entirely different line of business: something a craft trained man would be less able to do.

The Power, and Hand type productive organisations which we studied are much more alike in their managerial characteristics. They range from a one man concern to outfits employing a dozen or so men in which the owner or manager may spend most of his time organising the business. The business is likely to be conducted largely on site and the workforce is likely to learn something of the business skills as well as the technical skills of the owner or manager. This, we may suppose, sets a limit to the pattern of growth. A successful workshop entrepreneur may start as a one man enterprise and grow to the point where he employs a modest workforce about him but his scope for expansion will be limited both by his over-the-counter mode of operation and by a tendency for men whom he has trained to leave and start up on their own. Growth within the workshop sector of the economy will be by division of enterprises into like units (replication) because both the technical and managerial skills are relatively accessible to all participants through the apprenticeship system. (cf. Mars op.cit.).

Small factories, by contrast again, may grow both in scale and diversity. Managers can buy in the technical skills which they do not have themselves and develop managerial skills which are inaccessible to the workforce. (1) Although one of the features of small factories is the relatively large number of workers that are employed on any one task, growth may entail diversification into entirely different lines of business. (cf. Mars op.cit.). Capital in the hands of the specialist manager is free floating. One factory in our sample made shirts and suitcases on the same premises; completely unrelated technically, and had just taken over another of the factories in the same area which made confectionery; again unrelated technically. But the managerial skills required for these enterprises are the same and diversification has the advantage for the enterprise as a whole of removing total dependence on one product, or one kind of raw material, or one group of workers. These kinds of enterprises may grow by expansion.

SPECIAL CHARACTERISTICS

Three possible special characteristics of small scale producers are put forward above (p.3):

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(1) Inaccessible both because of better education and because of the tendency for management to be conducted in the privacy of an office.

a) That they use resources that large scale industry ignores like scrap

b) That they provide vital services to large scale industry or

c) That they specialise in products that can be most conveniently made on a small scale.

These can be dealt with in turn:

a) The firms which we interviewed were not distinguished by any tendency to use resources that would not otherwise be used. Very few use scrap and only one, which made boxes out of old tins, used scrap alone. Many rely heavily upon imported material over which different kinds of productive units compete for access. These producers did not reflect any general trend in terms of the use of materials. (see Table 4). However much depends upon the nature of the product and in other parts of the town there are small scale producers who are less dependent upon imported materials and who make greater use of local or waste material.

TABLE 4 - NUMBER AND PERCENTAGE OF FIRMS USING LOCAL, IMPORTED AND WASTE MATERIAL

	Machine		Power		Hand		Totals	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Local	8	(100)	6	(36)	10	(77)	24	(69)
Imported	7	(88)	10	(64)	9	(69)	26	(74)
Waste or scrap			½	(14)	1½	(15)	4	(11)
Totals in category	8		14		13		35	

b) Vital services for larger scale industry could take the form either of making a contribution to the productive process itself, or of providing services without which the large scale industry would find it difficult to operate. Examples of the former would be contract work through which a part of the product is 'put out' to a small firm, while examples of the latter would be activities like engine reconditioning or printing labels which a large firm may not wish to undertake for itself.

The ILO study, using a much more representative sample of small scale producers than our own, found that most of these producers sell their products to the public (ILO, op.cit., p. 3-80). From this we can deduce that there is very little putting out. But large firms can consume the produce of small. Taxi firms have their "car boxes" made in small workshops. Transport firms have lorry engines reconditioned in small workshops. House builders get their windows made up to order in small workshops. In this case many of the workshop type producers do clearly provide a range of activities without which large scale producers would be hard put to keep going.

The machine or small factory category on the other hand are mostly mass producers who have to get their goods into a mass market. Looking back at Table 1 it can be seen that all the producers for the machine category with the exception of numbers 4 and 20 are producing goods that are likely to be sold directly to the public through a chain of wholesale and retail outlets whereas the exceptions and many of the items produced by units in the power and hand category may be sold to other productive or service industries.

c) The same distinction can be made in relation to the question of the most convenient mode of production. In the mass production business machines are used on a continuous basis. Shirts, suitcases, sweets, shoes, thread, shoe polish; all these products, because of their replicability lend themselves to mass production (again excepting 4 and 20). By contrast windows (usually featuring ornate metal work designed to keep out intruders) and doors, even when made to standard designs can conveniently be made in batches as ordered. Vehicle body work for 'car boxes' or lorries are also either one-off or batch production processes. Examining firms in England which undertook batch production (though in this case employing over 300 men), Woodward (1965) found that they typically had short hierarchies of command, an informal problem solving approach to management, relatively little specialised management and close relationships with customers. They had these features she argues because the kind of work required it. The workshop type firms which we studied in Khartoum shared these features: the more because they are much smaller. Perhaps this is also because it is a sensible form or organisation for the type of product being manufactured(1).

(1) Among the workshop products which we discovered only water cans in zinc, bakery, mattresses and leather work are examples of products which could, on the face of it, be made equally effectively by mass production techniques.

One of the factors which decides whether unit, batch, or mass production is the most appropriate mode of organisation is of course the size of the market. In this case the size of the Khartoum, or indeed Sudanese market is a limiting factor. Some products like steel and plastic tape chairs (an obviously desirable product in hot countries) are, because of their bulk, conveniently produced for the town where they will be used. The limited size of any particular urban market would not warrant investment in machinery that could make these products by mass production techniques. A few workshops, using similar techniques will suffice.

CONSTRAINTS AND OPPORTUNITIES

The most interesting and controversial of our findings relate to the analysis of the constraints and opportunities which face small producers in Khartoum. They are controversial because we come to some rather different conclusions to those of the much more extensive and weighty ILO study and interesting because they suggest some different ideas about how small scale producers work.

Our analysis is based upon two sets of open ended questions: that is questions in which we simply asked people to identify problems without prejudging what their answers were going to be. The one simply asked producers to give their "main problems" and they were prompted to list three. Not all did provide three, but we think that their reactions will reflect their main difficulties as experienced at the time of interview. The second question, coming towards the end of the interview, asked "what new services would help you expand your business". The answers overlapped but significantly we found a different emphasis in each.

Table 5 presents the results of the 'main problems question'. The responses are presented in overall rank order of prominence but there are some interesting differences between the technology groups as well. Since firms were invited to give up to three main problems there are more responses than the total number of firms. Figures show how many and what percentage of total firms in each category, mentioned each problem.

TABLE 5 - MAIN PROBLEMS' BY TECHNOLOGY GROUP

	Machine		Power		Hand		Total Response	
	No.	%	No.	%	No.	%	No.	%
Materials Availability	5	(63)	6	(23)	9	(39)	20	(57)
Price of Materials	1	(13)	5	(36)	5	(38)	11	(31)
Power	1	(36)	5	(36)	2	(13)	10	(27)
Skills/ Labour	2	(32)	3	(21)	1	(13)	6	(16)
Space	0	(0)	2	(14)	3	(13)	5	(14)
Machines/ Tools	11	(13)	1	(0)	0	(0)	2	(8)
Foreign Export/import control	14	(50)	0	(0)	0	(0)	4	(11)
Various Selling Problems	1	(13)	1	(7)	0	(10)	2	(15)
Credit	0	(0)	1	(7)	0	(10)	1	(3)
Total firms	8	(100)	14	(100)	13	(100)	38	(100)

Materials availability is by far the most prominent grievance in all groups. This response may have been influenced by the fact that, due to a combination of factors including disruptive weather, Khartoum had recently experienced something of a crisis in all kinds of supply. But the finding is reinforced by responses to another question asking whether firms had to stop work at any time "this year" because of lack of supplies. 63% of all firms stated that they had, some volunteering that they were at a standstill for several months. So we concluded that actually getting hold of materials is a major problem and one to which the public policy should probably be addressed. We return to this later.

Materials availability can be linked with materials price. Many firms complained of the price of materials, again more in the Hand and Power categories than in the machine. Complaints about prices of materials

probably reflect cash flow problems, and an inability to raise selling prices enough, or quickly enough to compensate for increased purchasing prices. Our figures suggest that the workshop type producers find this most difficult, perhaps because of their less sophisticated management, perhaps because in some cases their products are sold to poorer sections of the population. In any case, put these two categories together, as supply problems and contrast with the much smaller and less clear cut selling problems, (1) and we find that 81% of firms listed supply of materials amongst their main problems.

The second most clearly articulated problem is electric power failure. This effects all groups (even producers in the hand tool group who can have cooking or lighting needs) but features as a major grievance in the machine and power categories for which power failure disrupts work. A short power failure occurred while we interviewed the owner of one of the small factories. He instantly grabbed the 'phone to complain, explaining afterwards that even a five minute cut leads to twenty minutes stoppage since all machines have to be switched off (to prevent powersurge damage) and the routine of work is disrupted. Short term power cuts will be less disruptive for the power tool users whose use of the tools is intermittent and whose work routine is more flexible, but nevertheless they complain equally about power failure; perhaps because many power cuts are of several hours duration.

Skipping over the space issue which is considered below, we come to a couple of responses about the availability of machines or tools, mostly an import problem at the moment which can be linked with the foreign exchange and import control category. Significantly this feature is an important problem for the Machine category of producer most of which are small factories with specialist management who import directly. They face a range of day to day problems in keeping their concerns going which the other categories do not and among these import problems are prominent. (2)

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(1) Selling problems included quality control, lack of display space, transport costs to market, as well as inadequate selling prices.

(2) Yet this also reflects one of the advantages which small factories have over workshops. By importing directly on their own account they do not face the 'mark up' in prices of imported raw materials which middlemen can impose upon the workshop producer who buys all his materials locally. This raises a policy issue to which we return later.

Finally we come to the category of credit. Only one producer stated as a main problem a lack of credit. From this we conclude that credit is not a priority problem for small scale producers in Khartoum. This is quite different from the findings of the ILO survey where a widespread need for credit was assumed. They derived their conclusion from responses to a question on expansion which are listed under the head "have not been able to expand because could not get capital need for larger building" which was the predominant reason given for lack of expansion. (ILO op.cit. p. 381). This is a very different finding from our own. Why the difference? Well admittedly the ILO reports on surveys covering a much wider and more representative number of informal sector operators including hawkers and others whose needs might possibly be different from those whom we interviewed. However there are three reasons, two theoretical and one methodological, why we believe that our findings should be taken seriously. These are:

- the discussion presented above about growth potential suggests that the main constraint on expansion for workshop type producers is management experience and limited ability to work in distant markets or with socially distant officials rather than capital assets or buildings.

- we also have figures which suggest that small scale manufacturers are predisposed to avoid credit. Table 6 gives responses to a question on sources of 'starting finance' which indicates that most firms claimed that they started without external sources of finance, relying upon savings or having inherited their firm. Only the Machine type concerns acknowledge using banks for starting finance (probable, given bank loan policies). There are grounds for doubting the reliability of these responses since it is probable that respondents felt free to put a favourable complexion upon these sometimes distant events as a true account of their origins. However we can deduce that they share a desire to avoid credit where possible. Either their claim is true or they would like it to be true and in either case it suggests that people will start a workshop type enterprise modestly out of personal savings when they can.

TABLE 6 - SOURCES OF STARTING FINANCE

	Machine		Power		Hand		Totals giving the response	
	No.	%	No.	%	No.	%	No.	%
NIL	31	(38)	12	(86)	7	(34)	22	(63)
RELATIONS	1	(12)	2	(14)	3	(23)	6	(17)
FRIENDS					2	(15)	2	(6)
BANK	3	(38)					3	(9)
(OTHER)	(1 shares)	(12)			(1 unknown)	(8)	2	(5)
Totals in category	8	(100)	14	(100)	13	(100)	35	(100)

- the third reason for favouring our conclusion about credit to that of the ILO concerns method. If the surveys on which the ILO base their findings really did ask the question as it is stated in the text of their document then this is a leading question which suggests its own most appropriate answer (in marked contrast to our open ended question). Asked something like 'have you not been able to expand because you could not get capital for a larger building' a man will picture a larger building and say to himself in effect 'well yes I would need capital for a larger building' even if this had never occurred to him as a realistic strategy for the future of his business.

For these reasons we think it is very important that the question of whether people really need or want credit be investigated thoroughly before any new policies towards the informal sector are initiated. In development theory it is all too often taken as an article of faith that producers need credit and that the only question is whether this credit is provided by big bad merchants or nice friendly cooperatives. This has often been the assumption behind quite disastrous credit programmes for farmers and it would be sad if the same prescriptions had the same effect upon small industrial producers. The assumption that farmers always need credit can be criticised from a number of different viewpoints but for the present argument it is sufficient to note that credit always involves risks and the smaller the

concern the more the strategy will be one of risk avoidance. (1) We found, in Phase 2 of our study, that banks only provide credit to small factory type producers. This may be a sensible strategy if workshop owners avoid credit as far as possible. This aspect of the status quo may be satisfactory. We conclude that public strategy towards the small scale producer should not be built around credit institutions.

SERVICES FOR EXPANSION

We return now to our question about services for expansion and at the same time pick up the responses about space which were put aside for later discussion above. We anticipated some overlap in responses to these questions and to the 'main problems' questions and in fact this proved to be the case. However when asked about services the respondents were clearly influenced by their expectations of what the authorities might be able to provide and in many cases do provide but not it appears adequately. We were asking in effect 'what should public policy towards you small producers be'? We did not expect the producers themselves to be fully aware of what the policy alternatives are or what effect a policy might turn out to have, but their responses are nonetheless informative.

Tables 7a and b reveal some differences between the responses of our few Machine technology producers and the rest. For the former better public policy on questions of access to supply of materials and machines takes precedence over everything else for reasons that have been explored above. The factories amongst these already have adequate sites so land is less important and demand for other services reflects the needs of the moment (the telephone request was for a second telephone). Again there is no great demand for finance.

The Power and Hand technology producers on the other hand give priority to more land. Sometimes they just want more space. Often they specify that they wanted their own place or said that they wished to build a larger building. A lot of the occupants of workshops in Sejana or Khartoum North industrial estate are quite apparently short of space. The nature of their

(1) My colleague, John Watson points out that in U.K. as well small firms have a strong preference for what finance men call 'low gearing': that is they avoid financial strategies which commit them to servicing a high level of debt.

TABLE 7a - SERVICES FOR EXPANSION

POWER AND HAND TECHNOLOGY PRODUCERS		
Land ('own place' or 'wider space')		11
Materials		
- better government control of prices or simply better supply	6	
- better political representation or cooperative organisation for supply	3	
- Machinery	1	
		10
Sanitary & Health Services		
- water supply	3	
- health services	3	
- public latrines	3	
- waste removal	1	
		10
Police		4
Repair (roads and shops)		2
Finance		1

TABLE 7b

MACHINE PRODUCERS		
Materials	3	
Machinery	3	
		6
Land		2
Finance		1
Telephone		1
Water		1
Power		1

productive process, with several men working on separate pieces of work at the same time, does require a lot of room and they do complain also of lack of space for storage of raw materials and finished products. This demand is also reflected in the 'main problems' response which we skipped over above. In that section (Table 4) space has a low priority overall but amongst Power and even Hand technology producers it is rather more important.

Nevertheless one way of interpreting the response of workshop proprietors is to say that they are wanting more space for less money (if 'own space' means less rent more than anything else). If this is the case the local Councils

will have to investigate the demand carefully before undertaking to provide more land for this kind of business. The request might be fair but on the other hand there is a public finance aspect to the question that needs to be weighed in the balance before a policy decision could be arrived at. Space costs money and the authorities should not lose out on providing space at less than economic cost.

A need for better access to materials is also apparent in these figures as well as in the 'main problems' section. Some economists would argue that what is wrong with price controls, import controls, and foreign exchange controls; the main instruments of public policy in supply which the Sudan Government uses; is that they cannot work. Rationing is inherently inefficient. Small scale producers seem to think, if we interpret their responses correctly, that what is wrong, is that the controls do not work for them. They seem to believe in controls but not in their effects. This may reflect an awareness that they often have to buy materials at open market prices while the bigger producers can get more of their supplies direct from abroad or at official prices. (1) Small producers differ as to what to do about getting better access to materials. Some call for more effective price controls by the government. Others, interestingly, see the need for stronger political representation or effective purchasing power through cooperatives. This latter measure would make them equal to the larger firms in their ability to get quotas of materials or foreign exchange. This is an important point on which the small producers union representative had things to say when interviewed in Phase 2 of the project. We return to this theme below.

From the 'services for expansion' section we can also identify a call for more traditional local government type services. Starting with the least prominent we find a couple of requests for maintenance of roads and rented buildings, then a plea for more protection from thefts through a greater police presence, then a call for a range of health and sanitation services (most of these from Sejana businessmen who are often dependent upon public taps, latrines, and other environmental services since their own premises, if they have a premises at all, are seldom more than a shed.)

Again there is only one reference to a need for finance in each category.

(1) We did ask the producers whether they could get materials at official prices but this was one of the questions which did not elicit very clear answers.

REPRESENTATION

Finally we turn to the results of our questions on representation. Table 8 shows responses to the question "if you have problems, how do you make your views known to the authorities". Responses could be grouped under the headings of personal or face to face (a couple of factory owners adding that they also wrote letters), petitions, which we take to be informal group approaches, or contacts through unions or trades associations. A few claimed that they made no contact with the authorities or had no problems.

Most showed a marked preference for direct, face to face contact with the local Council or with whoever else they considered should help them. According to a member of our course who had personally served in one of these districts local Councils are often unable to respond adequately to the demands that are expressed by groups at this level. Power lies in the Provincial Council and in consequence it has become the practice for individuals to seek personal support by appeals to this level. This habit unfortunately can lead to the general impression that it is favouritism or special influence which alone gets improvement. Probably large concerns are better at personal representation than are small and it is amongst the small workshop type producers that one finds most of the support for the use of representative unions or associations. Of these there appear to be several, some representing crafts, while one, the officially recognized Small Scale Enterprises Union, attempts to represent the sector as a whole.

It is likely that union representation also entails some personal representation. If a member has a particular complaint it is probable that a union leader will help him to present his case to the authorities acting as a middleman or "broker" between the individual and otherwise distant authority. This is a procedure that can also lend itself to attempts to bring special favours to individuals. But excessive use of brokerage in this way is likely to destroy the representative role of the union. Ultimately the strength of the union depends upon its ability to represent a broadly defined category of people facing similar difficulties. It relies upon mass support and it is on the basis of success in achieving this support that it must be judged. Our figures in Table 8 could not be said to represent massive support for union representation. However in interpreting these responses one has to recognize that much depends upon the extent to which the problems which

individual producers face are shared with people in like positions and upon the degree to which union leadership is able to articulate a common response. In the second phase of our field project we found that the Small Scale Enterprises Union did seem to have formulated a series of objectives that reflected a clear understanding of the position of its members.

TABLE 8 - REPRESENTATION

How do you make your views known to the Authorities

	Machine		Power		Hand		Totals	
	No.	(%)	No.	(%)	No.	(%)	No.	(%)
Personal/face to face	6	(75)	6	(43)	7	(54)	19	(54)
Petitions	0		3	(21)	0		3	(9)
Union/Association	1*	(13)	4	(29)	2	(15)	7	(20)
No contact	0		3	(21)	2	(15)	5	(14)
Other	+1 'Ministry'				+1 'Labour Office'		2	(6)
Total in category	8	(100)	14	(100)	13	(100)	35	(100)

* This was the wood furniture manufacturer - the least factory like of the category.

SOME IMPLICATIONS FOR POLICY

The survey of small scale producers raised a number of issues which have some bearing upon a Government policy towards the sector, but left aside others which might be of equal importance as influences upon strategy. The lack of priority that was given to credit, the prevalence of supply problems, and ideas about appropriate organisation came to the fore, but, due to the limited nature of the survey, other questions such as what constitutes an appropriate location for small producers within a town, had to be left aside. However some implications for good policy can be discovered. Good policy is taken here to be policy which encourages the small producer for his contribution to the economy - a rather limited definition of good, because objectives could also include ensuring a wide distribution of benefits from investment, or optimising the use of scarce imported materials, and foreign exchange, or improving technical training

opportunities, all of which could profoundly influence policy towards the small scale production sector of the economy. The minimum definition of good policy is the least ambitious but perhaps most widely acceptable.

The implications of the surveys findings are reviewed against what was discovered by course participants in the second phase of the field project when they divided into teams and called on a number of the authorities whose policies might in one way or another influence small scale producers. The bodies which the course decided to visit were, the Ministers of Industry, Commerce and Supply, Planning and Cooperatives. Teams also visited the Sudan Socialist Union Headquarters, some of the Banks, the Provincial Council and the Small Scale Enterprises Union. In most of these places the teams were able to have quite wide-ranging discussion of government's approach to small scale producers, but this report confines itself to those issues to which our survey findings might be relevant.

The low priority given to financial assistance in responses to both open ended questions - the one eliciting 'main problems' and the other about the need for government help - is perhaps the finding with the widest policy implications. At present very little is available from government in the way of credit. The Banks shy away from giving assistance to workshop type producers for the usual reason - financial caution. The main economic Ministries give priority to large scale industry or enterprise. So workshop type producers seeking credit are obliged to go to the private sector. It might well be better for them if they could avoid this, and the Small Scale Enterprises Union does take as one of its objectives obtaining access for its members to loans from the Bank of Industry. However the enterprises themselves seem to favour a business strategy which avoids indebtedness, and it would probably be a mistake to base any future policy towards small scale producers upon a large scale credit programme.

However, that having been said, there are financial implications in any attempts to overcome the poor supply of raw materials which was identified as the most prominent of the small producers production problems. The difficulty here however is not so much the cash as the ability to purchase government controlled supplies in bulk and, using foreign exchange, from abroad. This is something which small factories can do but which workshop type producers will never be able to do on their own because they lack both purchasing power and storage space. Additionally they are at present

usually unable to get the necessary clearance from the Ministry of Commerce and from the Banks to import in their own right. A possible solution to the problem raised by some of the producers themselves would be a cooperative for purchase of supplies - something which the Small Producers Union seems also to have in mind, though they envisage such an organisation being involved in production also. This organisation would compete with merchants in supply, having the ability to undertake the necessary currency exchange and import formalities and to control adequate circulating finance.

Interestingly the recently rejuvenated Ministry of Cooperatives, although anxious to help small producers, had not yet identified this need. Its officials spoke about the need to start consumer, producer or credit cooperatives. In conventional cooperative agency thinking wholesale cooperatives - which is what the situation demands - are second tier organizations that serve primary consumer or producer cooperatives. But whether in the Sudan this convention acts as a deterrent to the creation of wholesale cooperatives to serve individual workshop entrepreneurs, was not clear. In any case this is the kind of organisation which seems to be called for to help to solve the supply problems.

CONCLUSIONS

Small scale producers constitute an active and resilient sector of the economy, which is capable of growth to meet market demands either through the expansion of individual firms, or through the replication of workshop type enterprises. The sector provides some kind of employment for large numbers of people, and small scale, workshop type production is probably an efficient means of producing goods that are required in low volume and for local markets.

Small producers are remarkably self-reliant - in the sense that they do not need much and have received very little government support. They operate with low recurrent costs and have simple organizational structures and procedures. These are great virtues in an economy in which administrative skills are scarce and planning is difficult and of uncertain effect. However, while it would be a pity if the current wave of interest in small scale producers turned them from self sufficient producers into clients of the bureaucracy, some provisions they do require. The findings of our survey downplay the significance of financial assistance in the form of credit and emphasise the importance of improved means of access to raw materials.

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MOD

6

Liquidation or Consolidation of Indigenous Technology

A Study of the Changing Conditions of Production of Village Blacksmiths in Tanzania

Jens Müller

Aalborg University Press

Preface

The photo on the front cover of this book is of a village blacksmith at work near Kanyigo in Bukoba District, West Lake Region, Tanzania. He is adding an agricultural implement to the national product of his society. And so are more than 10,000 other blacksmiths all over the country. They are not working at the forge every day though, mainly because their *conditions of production* do not permit them to perform their trade on a full time basis. Consequently they are agriculturalists as well as craftsmen.

This book reports on a research study of these conditions of production. It is *dedicated* to the village blacksmiths, in particular those who very hospitably allowed me to interview them while at work.

The book is primarily *addressed* to practitioners of state directed rural development programmes in Tanzania. While writing the book I have especially had in mind the staff of the Small Industries Development Organization (SIDO). An important task of SIDO's is to improve the conditions of production of rural craftsmen as part of the rural industrialization efforts of the Government. This task is at times extremely difficult, and the technical assistants and economists who are daily confronted with these difficulties often feel frustrated in their work. I hope that the reading of this book will help them understand why their job sometimes seems almost impracticable. I hope they will understand that it is not always their »client« craftsmen who are to be blamed for this.

However, the problems SIDO is facing are not unique for this organization. On the contrary. Most other Tanzanian Government agencies which are engaged in rural development programmes encounter similar problems. Firstly because they operate on the same social scene, secondly because they use the same approach towards programme implementation, an approach which on many points is counterproductive to the declared aims of the Government. My exposure in this book of this contradiction is thus addressed to all Government officers concerned with planning and implementation of rural development programmes.' And likewise to their foreign

ISBN 87-7307-079-3

Maps and illustrations by Gyda Andersen
Photos by Frans Steffens, Aage Højbak, Jens Müller
Photosetting by Ulla Burskov
Printed in Denmark by Special-Trykkeriet Viborg a-s

Financial guarantee kindly provided by *Aalborg Diskontobanks Jubilæumsfond*

Distribution in Denmark:
Aalborg University Press
P.O.Box 159, DK-9100 Aalborg, Denmark

Distribution outside Denmark:
Scandinavian Institute of African Studies
P.O.Box 2126, S-750 02 Uppsala, Sweden

Aalborg University Press is independent of Aalborg University Centre and does not in any way bind the University Centre.

The DEVELOPMENT RESEARCH SERIES is edited by the Development Research Group at Aalborg University Centre. The group consists of research fellows, lecturers, and students and is a focal point for studies of development issues mainly in relation to the Third World.

No. 1:
Jens Müller, *Liquidation or Consolidation of Indigenous Technology*, Aalborg University Press 1980. 215 pp

No. 2:
Allan Christensen og Henrik Nielsen, *Turkana kalder – svarer Hellebæk-Ålsgaarde? Rapport om en lokalsamfundskampagne udført af hjemvendte u-landsarbejdere*, Forskningsrapport, Aalborg University Press 1980. 295 pp. (With an English Summary)

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counterparts working for the many foreign development aid agencies which render technical assistance to the rural development programmes of the country.

The study is first and foremost empirically, not theoretically oriented, i.e., the arguments are mainly supported by facts and figures relating to the »surface« of the Tanzanian reality. However, in order to understand *why* this reality appears to us as it does, we often need to broaden our theoretical and historical outlook. The study therefore goes some way towards adding to current theoretical and historical insights. In particular there is a need for incorporating into current development theory a theory on how the technological development of a society is determining and is determined by the socio–political developments of the same society. Thus, apart from presenting a lot of facts and figures, the book attempts to be instrumental in bridging the gap between theorists and practitioners in a way which I hope is fruitful for both. In other words, I also hope that fellow researchers and students of general technology and development questions will find it worth while reading this book, in spite of the fact that it wasn't written as an »ordinary« research report. I am moreover convinced they will find bits and pieces which fit into the situation of other African societies than Tanzania.

I finally want to *acknowledge* and express my great appreciation for good collaboration with the Director–General of SIDO and with ndugu Bray Mannyau, technical assistant in SIDO, who provided invaluable assistance during the field phase of the study. I also want to thank my former collegues at the Centre for Development Research in Copenhagen and my present collegues at the Institute of Development and Planning, Aalborg University Centre, Denmark, for critical and very helpful comments.

The study was financed by the Danish Council for Development Research. Parts of the study, i.e., the more implementation oriented parts, have previously been reported under the title »Promotion of the manufactures of rural implements in the United Republic of Tanzania« in the UNIDO publication »Industrialization and Rural Development«, UN New York, 1978, (ID/215 & ID/WG. 257/23).

Aalborg, May 1980

Jens Müller

Chapter 1

Introduction

Standing in a long queue in front of a shop hoping to manage to buy a *jembe* (digging hoe) I first got concerned about the topic of this book. My fellow queuers were Tanzanian peasants, workers and clerks. Most of us didn't get to the counter before the jembes were sold out. Daily, other queues waiting for sugar, salt or flour were turned down, and usually people would go home with expressionless faces. But for once, the frustrations surrounding me were obvious and easily discerned. We had not just been waiting for some means of consumption, but for an essential means of production. *The jembe is the single most important implement for the majority of the peasants.*

The incident occured in 1974 in one of the regional towns in Tanzania, Bukoba. It was directly occasioned by a directive from the Party, TANU, to all households and institutions – urban as well as rural – to plant a specified minimum acreage of famine crops, in this case one acre of sweet potatoes and one acre of cassava per family. Drought had hit various parts of the country, causing an overall shortfall in agricultural production, including food crops. The threat of famine was conspicuous. This was only averted by a drastic increase in import of foodgrain, mainly through commercial purchases, but also by food aid arrangements. During the financial year 1974/75 nearly 50,000 tons of maize, wheat and rice were imported, compared with 80,000 tons in 1972/73 and a net *export* of 40,000 tons in 1970/71. The famine crops campaign was not the only reason for the length of the queue,i.e., the sudden high demand for jembes. The drought coincided with the thrust of another country–wide campaign, namely »operation *vijiji*« (operation villages). This was a campaign for compulsory movement of the scattered peasant population into planned villages, also called development villages. During the second half of 1974 reportedly about 6 million people were moved. Millions of peasants thus had to break and plant new land, mainly by use of jembes.

But the reference to these campaigns only gives us part of the explanation for the length of the queue. It does not give us the reason for the protracted shortage of jembes at the shop end of the queue. In other words, we need to look at the supply side of the coin. Here the picture is more complex, since it is not possible to point to one or two single reasons for the under–supply. However, the supply–question can be split into three parts: Distribution, importation, and local production. By doing so we get the following preliminary answers.

Firstly, the distribution system had recently been reorganized. The previous main wholesale agent, the State Trading Corporation (STC), had been dissolved in 1973 and replaced by Regional Trading Companies (RTC), and these had seemingly not managed to establish themselves efficiently enough to cope with the sudden rise in demand. Whatever stocks were available in the country were at least not distributed very expediently. Secondly, the possibility of replenishment of stocks through emergency imports was hampered by the general world transportation and trade difficulties caused by the oil crisis. Finally the Ubungo Farm Implement factory (UFI) in Dar es Salaam which was established in 1970 with an annual production capacity of 800,000 jembes only managed to reach 33 % of its capacity in 1973 and 40 % in 1974. Shortage of raw materials, power cuts and other production interruptions were reported as the reasons.

In the end I made an arrangement for borrowing a jembe from a neighbour and repressed the thoughts about the shortage. As a member of a regional planning team I had other things to think about. We were preparing a draft for a five–year development plan for the region, the West Lake Region. One of my tasks was to make proposals for the development of small–scale industries. I therefore had to make extensive survey trips throughout the region.

On one of these trips I, almost by chance, discovered a village blacksmith with a stock of 18 jembes. His workshop was located only 30 km from Bukoba with its long queues. I was genuinely surprised because none of the district officers I had interviewed and asked about the existing rural industrial activities had mentioned the presence of blacksmiths in the villages. I also remembered reading in development literature that hardly any production of producer goods takes place in underdeveloped countries, and that indigenous craftsmanship had been exterminated during the colonial period. However, the jembes I saw here had a peculiar shape, so I didn't immediately buy one. They

Photo no. 1: Forging of a heart–shaped and pronged jembe in Bukoba District *(by Jens Müller)*

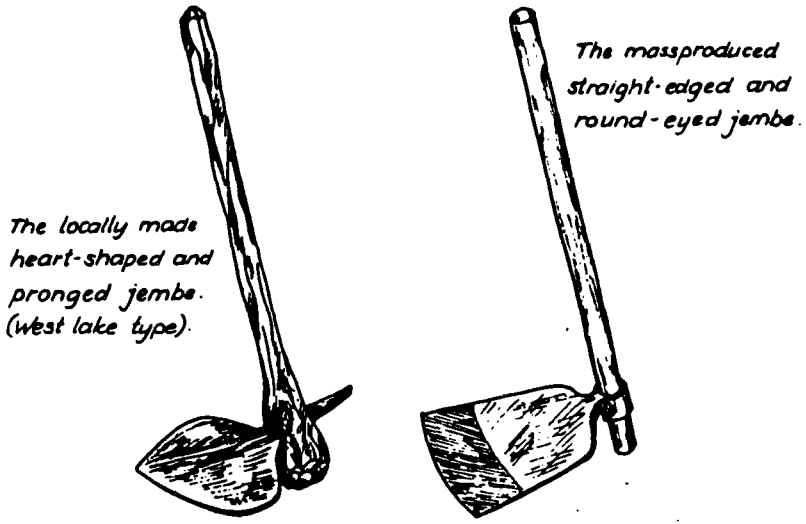


Fig. 1: Examples of locally made and of large–scale manufactured jembes

were not round–eyed but tongued, and were heart shaped not straight–edged as the jembes sold in town (see fig. 1). But my Tanzanian survey assistant bought them all after a few minutes of bargaining, and he also bought a number of other oddly shaped iron implements used for banana cultivation. We subsequently organized a systematic search to see if we could find more smiths. As it turned out, we found active village smiths in all districts of the region. We made it a rule to bring used steel from cars with us on the surveys. These were eagerly received as valuable raw material by the smiths for their jembe making.

In other words, my private concern about the shortage of jembes had become a professional preoccupation about the general demand and supply situation of farm implements in the region. Later, when the West Lake planning job had been completed, I continued the study of this topic on a national scale. The results of this study is contained in this book.

1.1 The specific topic and purpose of the study

It is often at times of externally caused crisis that longer term weaknesses in the economy of societies are exposed. In the case of the combined oil–price and drought–induced crisis in Tanzania in 1974, at least two, somehow interrelated deficiencies became evident. A deficiency in food production and a weak supply system for farm implements. Both were illustrated above by the anecdotal episodes from West Lake region. It needs of course much more documentation and analysis to state that these were signs of longer–term weaknesses, and not just incidental symptoms of the current crisis. Part of this book is such a documentation and analysis, directly in respect of the farm implement issue, more indirectly as regards food and other agricultural production. In fact, the agricultural issue is mainly dealt with in so far as it relates to the farm implement analysis, i.e., as the sector from where the demand for implements arises.

Various measures taken by the government in the aftermath of the crisis express awareness of the shortfall of an agricultural development policy which, already prior to the drought, had resulted in the country becoming a foodgrain importer. In spite of a proclaimed rural development policy emphasis since 1967, growth in overall agricultural production had not exceeded the population growth rate of about 3 % annually. It was therefore not just to relieve the effects of

the drought that the government followed up the famine crops campaign with a more consolidated campaign under the slogan *»Kilimo cha Kufa na Kupona«* (Agriculture as a Matter of Life and Death) in 1975. This was also initiated in an effort to turn the relative decline in agricultural production into a relative increase. The campaign was fairly successful, at least temporarily, especially as concerns food production. Although the campaign involved various coercive elements to convince the peasants to do as they were told, they probably didn't need much convincing to understand the importance of food production. The climatic conditions also improved, and perhaps more important, producer prices were substantially increased. For several years agricultural producer prices had been held fixed dispite increases in input costs. Of the more regular Government development programmes for increased agricultural production the National Maize Production Programme should be mentioned. It was initiated in 1973, but greatly expanded in late 1975 through a World Bank/IDA loan of 18 million US dollars to provide about 1,000 villages with maize production inputs.

Various arrangements, however less spectacular, were made to remedy the weak supply situation in respect of farm implements. The RTCs were generally extending their regional stores by establishment of sub–wholesale stores in district towns, although it is not clear whether very many extra farm implements have reached these stores. Imports of jembes went up and UFI started planning for a more than 200 % increase in jembe production capacity. The National Development Corporation (NDC) continued planning for a second large–scale farm implement factory. Some recognition of the presence of an indigenous production of farm implements came from the side of the Ministry of National Culture and Youth which started a campaign called *»Jembe ni Mali«* (literally translated »the hoe is wealth« but which was rather intended to mean »tools must serve the people«). One would have thought that every peasant had realized the importance of tools, and particularly the jembe. Nevertheless the campaign called the attention of the public that indigenously made jembes existed, and should be appreciated. But as reported above, the trading activity of my research assistant in West Lake region and our subsequent survey indicated that there already was some appreciation of the traditionally produced farm implements, and that people spontaneously resorted to this self–reliant technological capacity in the rural areas.

topic. I am aware of the risk of misjudgement at this point, but then I am not claiming to make a total analysis of the Tanzanian society. Like many others before me , I only claim to contribute towards such an analysis.

My arguments are further supported or derived from some theoretical considerations. These are partial and some may even characterize them as rudimentary. Nevertheless I am suggesting some clue as to why underdeveloped countries are generally not able or willing to, and at least hardly trying to, employ the indigenous technologies of their artisans or petty commodity producers in the development of their productive forces. Although the analysis refers primarily to Tanzania, I will point out which aspects of my conclusions I think are of more general value.

1.2 Some general questions emerging from the study

As indicated above, apart from containing a report of a survey and a presentation of an approach to rural industrialization in Tanzania, this book has a further purpose or ambition. The intention is also to identify the questions about industrialization and technological development which emerge from the study and to apply them to other underdeveloped economies as well. In other words, this book adds to the increasing flow of development studies on these topics. In particular the literature on »the technology question« has been expanding to the point of becoming almost fashionable. In fact a veritable *movement* for what is generally termed »appropriate technology« has grown up, not only with reference to underdeveloped countries, but also to developed countries. The movement can be characterized as an articulation of a critique of the direction »modern« technological development has taken. The number of conferences on this theme is also still on the increase, but has probably culminated, at least temporarily, with the United Nations Conference on Science and Technology for Development held in Vienna in 1979.

Together with the technology question often goes a discussion about small–scale versus large–scale industries. Explicitly or at least implicitly it is argued that appropriate technologies in various senses are small in scale, and thus also the industries which apply them. Most studies tend to conclude that small industries *should* be developed and *ought* to apply appropriate technology. Having concluded that, there is not very far to the next step, namely to assume that this *can*

be done. As shown in the previous section, this step from »should« to »can« is made in the case of Tanzania, and now I suggest that this case is not unique at all. What I further suggest, and attempt to prove in this book, is that the doubts, as to whether small industries applying some brand of appropriate technology can in fact be developed in Tanzania, are equally valid for many other underdeveloped economies.

I will do this by tracing some of the underlying assumptions upon which the appropriate technology/small–scale industries arguments seem to be based, firstly in the case of Tanzania, secondly more generally. In particular it appears to be assumed that technologies can be developed and applied *without* a simultaneous change of the prevailing conditions of production. In fact this assumption is often explicitly stated by advocates of the movement. It is said that »technology must be appropriate to the local conditions«, presumably implying that these conditions will not change. Against this I will argue and try to demonstrate that the technology in use, e.g., in rural Tanzania, *already* is developed as much as the local conditions allow. Broadly speaking, there is no room for any significant technological change, given these local conditions. I will not exclude that there might be some little bit of room, and, more important, that local conditions usually do gradually change. It is therefore possible to find situations where it can be demonstrated to be both technically and economically feasible to introduce some kind of appropriate technology/small–scale industry. Then, however, we are at another assumption often made which has to do with the view, that what can be proven to be technically and economically feasible is also socio–politically feasible. If and when this view is maintained, it is possible automatically to make the step from »should be done« to »can be done« which I mentioned before. Then one can ignore the socio–political implications, some would say the political economy, of technological choice. But ignoring this is at best self–deceptive.

In order to carry these arguments through I start by demonstrating that the way technology is usually defined or percieved blocks for an understanding of these implications. I therefore define a conception of technology which makes it inescapable to take a position on crucial aspects of the relationship between technological change and development in the rest of the society. In other words, it is imperative for me to stress that technology is *not* an independent variable which we or anybody can choose and apply at will, or according to some

technical or economical feasibility criteria we may wish to dream up. I hope that most readers will think that this statement is commonplace and superfluous. But half a dozen years of experience in trying to argue for this point of view have told me how stubbornly many refuse even to discuss it.

Technology is not the only concept which needs redefinition, infrastructure is another. Apart from that, I have already at this point of writing used some words or expressions, the precise conception of which I am not sure that I share with all readers. These concepts are mainly taken from marxist theoretical analysis, and to those who are conversant with these, the expressions have a relatively well specified meaning. To others they have not, they may even be mystifying. And since I hope that what I have to say should also be understood by non–marxist readers (perhaps primarily by such readers) I shall, by way of brief definitional discussion of some of the key expressions, try to demystify my choice of words as much as possible.

Finally an introductory note in respect of methodology. As outlined above, the study is an assessment of the feasibility and implications of introducing a »new« technology. New is put in quotation marks because I am not referring to new techniques, but – as already indicated – to a new approach towards technological development in rural areas, at least new as regards Tanzania. Understood as such I argue that the study makes up what has been called a *technology assessment.* The basic premises and characteristics of technology assessment are as follows: (a) It is a political tool, (b) it seeks to converge technological change and the objectives of the society, (c) it takes into account the wishes and needs of various social groups, (d) it merges relevant economic, social, cultural, environmental and political aspects, and (e) it takes secondary and tertiary consequences into account. Very elaborate systems analyses have been developed which claim to incorporate most of this, and various applications have been attempted, primarily in the context of industrialized countries. My main critique of technology assessment is that, although it formally recognizes (or admits) that there is a connection between technology and the rest of the »aspects« mentioned, including politics, it has so far been incapable of coming to grips with this connection. The reason, I suggest, is because it uses the conventional conception of technology which I have already said is a block precisely for an understanding of the connections. But with technology itself redefined, and maintaining the »programme« for technology

assessment presented above, I think that it could be developed to a useful methodology. I go some way in this book towards demonstrating how a technology assessment, in my view, should be carried out and what it involves. In particular it needs, as indicated before, to assess the socio–political feasibility of the technology in question. Only then it becomes a true »political tool«. Only then will it be possible for social groups, whose wishes and needs are perhaps not fulfilled, to devise real alternative technological development patterns.

1.3 Briefly on the structure of the book

Having presented the events and personal experiences which made the topics of this book a concern to me, a concern I think and hope others will share, and having outlined the specific purpose and more general intentions of the book, I now briefly explain how I have structured the presentation of the topics.

First of all I don't advise a reader to skip over any chapters, e.g., to go directly to chapter 6, where the UTUNDU programme is described. On the contrary, unless all the preceding chapters are read, chapter 6 is likely to be misconceived. In other words, there is no fixed and ready recipe in that chapter on how the »best« programme for rural crafts promotion could be designed. The reader is advised to read the chapters as they come, or to forget this book. Not following this advice might lead some to commit the same error as is made over and again, viz. to design a development programme which is not founded on an understanding of the historical process which shaped the present situation, and which is not based on an explicit interpretation of the social, economic and political context.

In the chapters 2, 3, 4 and 5 I try to provide precisely this understanding and interpretation. Chapter 2 contains the conceptual framework of the analysis. It is not a comprehensive theoretical presentation, but a brief exposition of the most important elements of my analysis and a guide to how I conceive the interrelatedness of these elements at a level of abstraction which makes it possible to detect some general pattern in the many empirical observations which follow in the next chapters.

Chapter 3 has perhaps the most important information and analysis of the study. It is a review of past events in respect of agricultural,

industrial and infrastructural developments in Tanzania. Current declared strategies are also described in respect of these three main sectors of the economy. Without this historical background analysis the rest of the analysis becomes detached from its social context and thus meaningless.

Then follows a description of the registered production, importation and distribution of »modern« farm implements. It is an absolute imperative that such a description is included in all studies of possibilities for promotion of small–scale production. The main results of my survey of the village blacksmiths in Tanzania are reported in chapter 5. The origin of the craft is traced, the approximate number of existing, active smiths is estimated, and the technology of the smiths is described.

The UTUNDU programme for consolidation and possible subsequent development of some of the village blacksmiths is then presented in chapter 6. This presentation is preceded by a critique of previous project proposals for doing the same. I try to expose the underlying development ideology of these proposals which has many similarities with the predominant ideology of the colonial period of the country.

The book has two concluding chapters. Chapter 7 concludes the analysis of whether or not it is advisable and possible to revive, increase and employ the technology of the village blacksmiths as part of an *agricultural* development strategy which aims at increasing the productivity of the peasants. Chapter 8 finally draws some general conclusions which, I argue, are relevant for other countries as well as Tanzania.

At last a remark on the notes of reference: Since this book is primarily addressed to practitioners, executives and bureaucrates who daily work with the question of industrial promotion in one way or another, I have tried to minimize the number of references. Such persons have neither easy access to, nor the time for, reading a lot of literature to supplement the topic dealt with, as is the case with people in the academic research community who often write books for each other. Only such notes of reference are made which are judged necessary to maintain the credibility of the study, e.g., to inform the reader from where particular bits of information are taken. All notes are put in the back of the book. However, in order to satisfy the curiosity of students and researchers who wish to to supplement, elaborate, or criticize my analysis in further studies, I have included a list of the literature which I

have used directly or indirectly for the study. The list is made so that the items are grouped according to the chapters for which they are most relevant. Some of the items are given a few comments about their contents, usefulness etc.

Chapter 2

Definition of concepts

It is important to keep the concepts we use, separate from each other so that we can distinguish bolts from nuts and from spanners. On the other hand, there seems to be a tendency both within the natural and social sciences to carry the separation of our concepts to such an extreme that we lose sight of their interconnectedness. We invent an increasing range of different bolts for all kinds of purposes, but in the end we tend to forget that their functions are essentially the same. It also becomes obscure which type of bolt fits which type of nut or spanner. Moreover, because of the splitting up into separate conceptions we sometimes fail to notice that a specialized bolt is quite useless without the corresponding nuts or spanners that go with it.

In particular we fail to conceive the dialectic nature of many of the things we deal with. For example, take technological change in capitalist societies; some seem to be so preoccupied with its oppressive effects that they overlook its liberating or civilizing potential. This has led to the extreme view that technology is increasingly ruling us. Technology is regarded as a separate entity with a life and will of its own. Consequently we hit out at the machines, forgetting that the machines are the result of human labour and directed by man. But in reality the machines are *means* which serve *both* the purpose of oppression *and* that of providing us with goods and services.

What we need is a theoretical frame which enables us to *combine* the many concepts we make use of without obscuring their separate and dialectic nature. Another requirement for this frame must be that those concerned are provided with guidance as to where and how to intervene and change matters, unless we are satisfied to study for the sake of studying. In other words, the frame must be operational. In the following I attempt to define two concepts, technology and infrastructure, in a way which both separates and combines, and which is operational.

2.1 Technology

Technology is one of the most loosely defined concepts in use. There seems to be almost as many different perceptions of technology as there are of the concept of »development«. Ask around, read books, and you hardly find two definitions which concur. Fair enough, we sometimes need those kinds of general concepts. But when we go on and analyse the choice, transfer, change or development of technology and even prescribe policies for these things, then we often get lost, at best frustrated, to a great extent because of the lack of concord about what we are analysing. An example here is that some people talk about tools and machines, others about know–how. They may refer to these as hardware and software technology, but frequently in a way which implies that these two aspects of technology could be separated and chosen, transferred, changed, developed in isolation from each other. But such separation can only take place »on paper« or in the thinking of academics, never in the work processes where the hard and the soft parts of technology are inseparable.

True, the process of industrial development has been historically precisely characterized by an increasing division of labour between »the work of the minds« and »the work of the hands«, between those who know how the machines are constructed and every detail of their function and those who just operate the machines, e.g., pull the handles or press the buttons. This division has become ever more accentuated as the know–how element of the technology increasingly becomes science–based. We can observe several consequences of this process. One is that since the workers really don't know »how«, they can more easily be controlled and oppressed than if they were able to master the whole work process. By keeping the know–how separate and to themselves, the owners of the machines keep the keys of control. Another consequence is that it has become possible to sell and transfer the hardware technology from one part of the world to another, e.g., from the developed to the underdeveloped countries, without necessarily transferring the entire corresponding software technology. This means that, although firms or governments of the underdeveloped countries become juridically owners of the hardware, they seldom get all the essential software »keys« of control. These are usually only rented to them in the form of restricting licence agreements or limited patent rights.

I hope by now to have established and illustrated that the concept of technology at least comprises two components, a hardware and a software component. The core of the hardware component is made up of the machines and tools. In marxist terminology these are also referred to as »the instruments of labour« which indicates that only when combined with human labour and raw materials, do we get something out of them. It is the man–machine–materials combination that constitutes the technical work processes and is thus the true expression of the hardware component of technology. This component will henceforth be referred to as *technique*. The core of the software component of technology was referred to as know–how. This expression really stands for a combination of applied science, accumulated experience and skill, and will be referred to as *knowledge*.

However, having separated and defined the above two components of technology we must explain how and by what means they combine. As said before, we must not be content with identifying our bolts and nuts without specifying how they relate and with what spanners they are to be put together. Thus we need to define a »spanner« component of technology, i.e., a concept which embraces by what means the knowledge and the technique are brought together.

Let me use another example to illustrate what we need. Assume that we have all the technical specifications, the blueprints and the accumulated knowledge and skill for the production of, say, sandals. We also have the capability to obtain the necessary labour, machines and materials. Do we get sandals merely by knowing and having these things? Of course not. We must have a place in which to put the things together, and we must make a time schedule which marks the sequence for doing so. Usually we also have to appoint a person or a group of persons to direct what to do, where and when. In short, all the bits and pieces need to be organized in one way or another in order to get the production of the sandals going.

The concept or technology component that I am trying to encircle goes under various names. »Management« is one. However, this expression provokes associations about a technology with a high degree of social and technical division of labour. We invariably anticipate a hierarchial line of command from a manager down to some workers on a factory floor. Such anticipation is adequate and characteristic of the production in most industrialized societies. But if

we want to describe the organization of the production performed by, say, a single sandal–maker and start to look for his »management«, i.e., the way he combines his knowledge with his technique, we may fail to find it. This is because he himself is the manager, the production engineer, and the direct productive worker in one person.

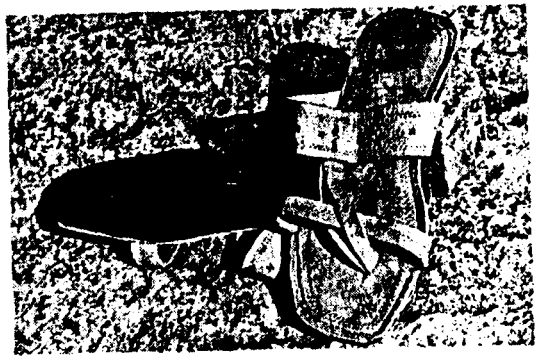
The marxist expression for the component is sometimes referred to as »the technical relations of production«. This is a much more universally applicable term in the sense that we are forced to focus on relations, regardless of the nature of the knowledge and technique in question. We do not exclude that the direct productive workers may be the technical masters of the instruments of labour. As for the factory set–up, we are led directly to look for who is depending on what and on whom for the performance of the production. The relationship between the different persons and the machines involved in the production is brought into focus.

For convenience I have chosen to refer to the above presented third component of technology as *organization* (of production). From experience I know that some people find it hard to accept that the organization of production is included in the technology concept as such. To me it is not important whether we define it as a component of technology (as I do it) or as something related to technology. I am not writing this chapter as an exercise in semantics, but insist that those who prefer to perceive organization as a separate entity always and automatically make it unequivocally clear what type of knowledge and technique the organization is tied to and is tying together.

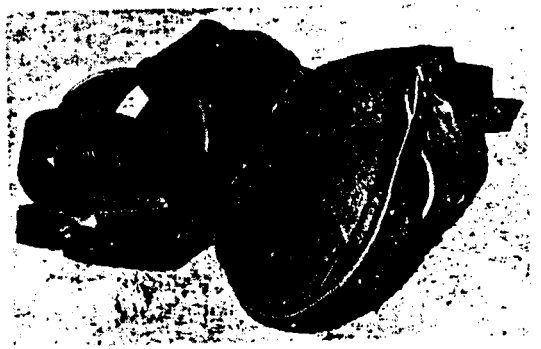
So at this point of the discussion I maintain that the technology concept must include components of knowledge, organization and technique. Any production of goods and services incorporates these, and we may say that they constitute the *producing* technology. By emphasizing »producing« I want to point out that the concept is a dynamic one, that we are not dealing with dead or static things. I further suggest that when we combine knowledge, organization and technique we do it on purpose, i.e., in order to achieve a result. This result we could call the *produced* technology. In the following I shall argue why this is so.

When we start up a sandal workshop or factory it is not for the fun of it. It is because we want to get sandals. In fact it is the desire to get sandals which initiately motivates us to set in motion the dynamics of whatever producing technology we have access to. We have

PLASTIC SANDALS



LEATHER SANDALS



TYRE-RUBBER SANDALS

Fig. 2: Three examples of physical results of sandal–production

registered a need for protecting feet from sharp stones. It may be our own need but more often it is the need of some other people. These people apparently value the use and function of sandals. This is also to say that a sandal is a product with a foot–protecting function and as such it is a *use–value*.

But usually we don't give away the sandals we make because of pity for the barefooted people. We want something in exchange. This something we need for either some or all of the following three reasons: (1) For satisfying our own consumption needs, (2) for maintaining the sandal production, and (3) perhaps even in order to expand the sandal production. These are really the ultimate purposes of producing sandals, of setting in motion the producing technology. It is the value we get in exchange which interests us. This is also to say that the sandal has an *exchange–value* and is a commodity.

Fig. 2 illustrates three examples of physical results of sandal production. They all have more or less the same *functional* characteristics, that of foot protection. For the sake of argument I hold that they have the same use–value in that respect. Yet they are different in what we could call *structural* characteristics. They have different dimensions and are made of different materials, viz., plastic, leather and tyre–rubber. Moreover, although we can't see it, we can easily imagine that they were produced by different machines or tools. The first by a plastic–injection moulding machine, the second by a sewing machine and the third by a knife and a hammer. The amount of human labour »consumed« in the production process also, most probably, differed. In other words, they were produced by different techniques. The knowledge requirements were also different. The first requires a lot of science–based know–how, the two others are relatively more skill–intensive, i.e., based on empirically accumulated knowledge. Finally, the organization of the production also varied substantially. The plastic sandal embodies a high degree of technical division of labour, the leather sandal may have been produced by one man, but may also have been made by a worker or apprentice directed by a master sandal–maker. The same could be true of the tyre–rubber sandal, but it is more likely that it was made by one person, who perhaps bought or stole the tyre himself and also sold the finished sandal himself.

In short, the three sandals represent three qualitatively different combinations of technique, knowledge and organization. They are the

exponents of different producing technologies and in that sense they are different produced technologies. And although they are physically separated from the workshop or factory where they were made, they embody, and in a sense inseparably carry with them, the three components of technology which produced them. I choose to define them – as I choose to define all other goods and services – as components of the technology concept. This last component of technology I shall call and refer to as *product*.

Technology is hereafter taken to comprise the entire correlation of all four components as defined above, and as summarized in *fig. 3*. Consequently when we talk about, or – more importantly – when we analyse the choice, transfer, change or development of technology this involves analysing the choice, transfer, change or development of knowledge, organization, technique and product. Of course we may want to study only *one* of these components and describe it separately. But the moment we leave the purely descriptive area and enter into something resembling analysis or prescriptions of how to change even tiny aspects of the component in question, it is absolutely indispensable to refer to the implications of such change for all the other three components. There might be room for some quantitative change of one component without necessarily changing the three other components very much. But if we speculate in changing technology qualitatively, there is no way of escaping considerations of qualitative changes in all four components. Trying to escape can be disastrous. I shall exemplify this »warning« by pointing out some of the consequences of such attempts in chapter 8.

A final word on what is sometimes referred to as the »technology policy of a country«. Following my definition this would involve much more than just the rules, regulations or facilities set up by the government or the state in respect of choice of technique. It would include educational and training systems, institutional arrangements and norms for the organization of the production and last but not least, it would include state initiatives towards regulation of the product mix. A very important instrument of the state for pursuing a particular technology policy is its development policy towards the infrastructure of the country. But before proceeding in this discussion I have to present my perception of infrastructure. This is done in the next section and in section 2.3 I take up the very important *connection* between technology and infrastructure.

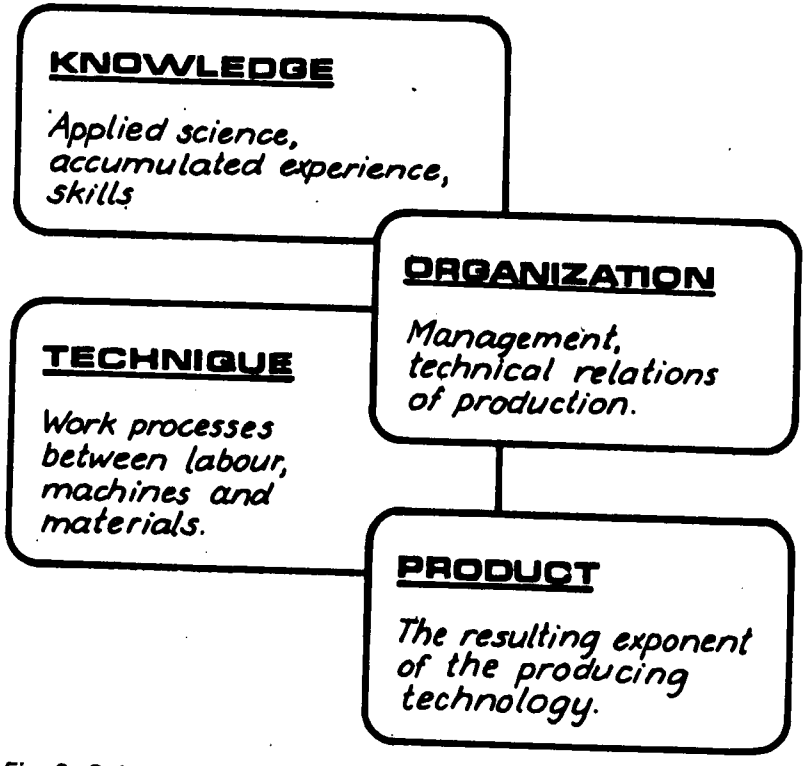


Fig. 3: Schematic definition of technology

2.2 Infrastructure

Infrastructure is also a concept susceptible of several interpretations. And since I intend to use it extensively it is necessary to specify how the concept is defined for the purpose of this study.

The term »infrastructure« originates from the terminology of NATO where it comprises the totality of military installations such as barracs, aerodromes, strategic roads and radar stations. These installations are necessary in warfare, but are only passively or *indirectly* taking part in the warfare process, i.e., their function is catalytic.

The term was adopted in the economic and physical planning literature which has boomed since the second World War. A subsection of economic and political science theories has even emerged as »infrastructure theories«. These theories attempt to explain the function of (civil) infrastructure and seek to justify the need for the immense expansion in state expenditure in this field which has taken place almost everywhere. Thus, from 1955 to 1968 total state spending grew 23 per cent faster than the Gross Domestic Product in the OECD countries taken together. In 1973 total public expenditure in the UK amounted to 50 per cent of the GDP, most of which was spent on what I define as infrastructure.

The explanation given is that infrastructure provides the basic services without which the economy can't work. It is, however, rarely specified very clearly what it is that makes these services »basic«, except for one characteristic, namely that they supposedly are collectively utilized, e.g., a road or a post office can in principle be used by all members of the society. It is therefore not difficult to argue that the state has to make the investments in these services. And since the state is assumed to be neutrally safeguarding the welfare interests of everybody, these investments are seemingly justified. It is, moreover, usually assumed that state investments are made according to rational planning, e.g., five year plans, which further legitimizes the investments.

Having dealt with the function and the establishment of infrastructure in these very general terms most bourgeois theorists continue by providing a purely sectoral and mechanistic division into various types of infrastructure. These often include most public service from law and order through education and public health to transportation, communications, power and water supply, as well as such agricultural

overheads as irrigation and drainage systems. Sometimes, however, the concept is restricted to transportation and power, which is what most people immediately think of when talking about infrastructure.

Characateristic of this way of categorizing is that the emphasis is on physical structures (e.g., roads as such, post office buildings or hospital buildings). In other words, the *material* infrastructure is in focus. Only seldom is reference made to what could be called the institutional infrastructure (institutions as such, with their set of norms and procedures which are contained in the buildings mentioned before). But unless we include these institutional aspects in our conception we shall never be able to analyse the true function of infrastructure. And more importantly, we shall not be able to penetrate and uncover the *purpose* of establishing the various physical structures we observe, let alone evaluate their real effect.

Marxist theorists approach this crucial point from another direction, i.e., in a more direct manner. They argue that since infrastructure is established by the state, the purpose of doing so is the same as for all other state activities. Although there is some disagreement about how the state should be conceived, e.g., about its emergence, role and nature, there seems to be agreement that the capitalist state is instrumental in maximizing the rate of profit and in maintaining social harmony, e.g., law and order. Nowhere does the notion of commom »welfare« as assumed by bourgeois theorists get into the picture. The next step is a *functional* division of state expenditure into three categories: (a) *Social Investment,* consisting of projects and services that increase the productivity of a given amount of labour and, other factors being equal, increase the rate of profit; (b) *Social Consumption,* consisting of projects and services that lower the reproduction costs of labour and, other factors being equal, increase the rate of profit; (c) *Social Expenses,* consisting of projects and services which are required to maintain social harmony.

According to this definition the ultimate purpose of state expenditure on infrastructure is clear. The difficulty in applying this definition is that several particular types of infrastructural installations really could be placed in more than one of the three categories. Just think of a road which may be placed within all categories at the same time. It may be used simultaneously by commercial vehicles, ambulances and police patrols. Most schools and schooling systems are designed both to impart productive qualifications and to induce disciplined behaviour

to the new work force. In other words, a road would be regarded as a social investment, consumption and expence at the same time. And so would a school.

Another illuminating expression for infrastructure sometimes used by marxists is »the common condition of production«. These conditions include the social investment and social consumption categories. The latter category might be termed the common conditions of reproduction, but since lowering the reproduction costs of labour is ultimately done in order to increase the rate of profit of production according to the theory, social consumption is also part of the common conditions of production.

By now I hope to have exposed some of the different ways in which infrastructure is perceived and thus the reason for this rather lengthy definitional discussion. On the following pages I shall specify my choice of concept definition. It will be seen that I base my definition on elements of most of the preceding presentation. Theoretically I can agree with the marxist perception, but for the sake of operationality (in the context of this study of blacksmithing in Tanzania) I need to be pragmatic and mechanistic along the lines of the bourgeois theorists.

In agreement with the marxist view I hold that the ultimate purpose of infrastructure needs more accurate specification than is usually given. However, whether or not the only purpose is »to increase the rate of profit« depends on which type of society we are dealing with. In particular, since we are concerned with state expenditure, it depends on the role or »nature« of the state in question. Most marxists are dealing with the state in advanced capitalist societies, but in this study we need a conception which can be applied to the situation in underdeveloped countries where the state might play a different role. Thus, we can't use any universal purpose of infrastructure, but need an analysis of the concrete situation of each state in question. We need especially to expose the role of the state in the struggle that exists between social groups or classes of the population, and assume that the purpose of infrastructural investments at any point of time is defined by and reflected in the development policy actions which are actually pursued and which emerge as a result of this struggle. Thus, if we look at the maximization of profit purpose, we need to know whose profit is in question, where it is accumulated, and how it is reinvested if at all. In other words, I reject any neutral conception of infrastructure and advocate a basically political conception.

One reason why it is necessary to stress the political, and not only the economic, implications of infrastructural investments is that we are still confronted with the argument that infrastructure is a blessing in itself. An example is that whereas it may be admitted today that colonial government caused some hardship on the indigenous populations it is still stubbornly argued that these populations benefitted from and should be thankful for the infrastructure left to them by the colonialists. Another example of more recent date is the Mekong River Basin Project which was a gigantic infrastructural development project designed with the declared purpose of »welfare to the people of Indo–China«. However, the way its implementation was executed exposes that the actual effect was primarily of strategic support to the US warfare in Indo–China. Out of a large number of various installations the first selected for execution were those which were of most importance to the US army, e.g., hydro–electricity to the huge army camps, strategic bridges and roads. The primary purpose of initiating the establishment of these installations was thus to support the imperialist power and not the people's welfare. The fact that certain benefits accrued to the populations in project areas was nothing but *incidental.* Later in this book I shall likewise argue that the seemingly »useful« functions today of previously established installations in Tanzania have arisen by accident rather than by intended purpose.

Having thus introduced the importance of looking for the primary purpose of infrastructure, and having accepted that other benefits might be incidental rather than intended, it becomes easier to adopt the distinction between social investment and social consumption mentioned before. I shall do so, but choose to refer to these categories as *economic infrastructure* and *social infrastructure.* These expressions correspond to the conventional terminology used by development planners, e.g., in Tanzania. I prefer not to introduce unfamiliar words. I am aware of the risk of being misunderstood, but this seems more acceptable to me than being completely rejected because of the use of mystifying language.

The social expenses category is excluded from my infrastructure conception since it falls outside the spheres of production. This is also to say that I propose to delimit infrastructure to what in one way or another can be taken to be catalytic to the production processes of society, much in the same way as military infrastructure is regarded as catalytic to war processes. We are then also provided with an

indicator for tracing the purpose of infrastructure, viz. this would essentially be the same as the purpose of the production processes. If and when the purpose of production is more than just maximizing profits, e.g., increasing the welfare of the people for their own sake, we are likely to find the same purposes applying to the infrastructure.

Within the two adopted categories of infrastructure I further distinguish between the material and the institutional part of each particular installation. It is really only by inclusion of institutions that a politically defined conception of infrastructure becomes operational. Normally, institutions are not regarded as variables in economic and spatial planning theory. This also explains why a neutral perception of infrastructure can be maintained. Finally, I list which type of arrangement or installation should be referred to which category on the basis of their *predominant* use–value to the purposes ascribed to them. Each such list would vary from country to country, since the nature of the states varies and thus their degree of effective control over the economy. This difference in turn influences the number of different types of items which, according to the adopted definition, belong to the infrastructure of a given country.

I thus end up by defining infrastructure in the following way: Infrastructure is a general denominator for all the projects and services which the *state* establishes, controls or maintains for the purpose of attaining its actual production development policy (which is not necessarily the same as its declared policy), and which in principle can be collectively utilized or consumed, e.g., does not directly produce tradeable goods. Each project and service has a *material structure* and an *institutional structure* which defines its shape and contents. Two categories are discerned: (a) *Economic infrastructure* consisting of projects and services that increase the productivity of a given amount of labour and, other factors being equal, increase the rate of investible surplus; (b) *Social infrastructure,* consisting of projects and services that lower the reproduction costs of labour and, other factors being equal, increase the rate of investible surplus and/or increase social welfare.

Below follows the country specific list of projects and services which in the Tanzanian context and in accordance with the adopted definition are judged to belong to the two categories of infrastructure. It will be seen that the list is rather extensive, particularly in respect of economic infrastructure, since various institutions are included which

are not usually looked upon as infrastructure in normal capitalistic market economies, e.g., wholesale or marketing organizations. In Tanzania these organizations are parastatal institutions, i.e., they are run by considerable state control and are rendering services which are in principle available to the whole public.

Economic infrastructure:

Public works facilities: Roads, railways, harbours.
Transportation: Transportation services for produce, goods and passengers.
Communications: Postal services, telegraph and telephone.
Power: Electricity supply.
Collection: Produce marketing corporations.
Distribution: Wholesale corporations. Cooperative retail shops. Public markets.
Financial institutions: Banks and credit organization.
Land development: Irrigation, forestation.
Extension service: Agricultural and small–scale extension service

Social infrastructure:

Education and trade training: Schools of all sorts, trade test arrangements.
Health: Hospitals, health centres and dispensaries.
Water and sanitation: Water schemes, boreholes, drainage systems.
Community development: Community centres.
Sports: Stadiums.

2.3 Social relations of technology and infrastructure.

In accordance with the purpose of this definitional discussion I now have to show how the two concepts, technology and infrastructure, combine. Both were by definition related to production. Technology most immediately, to a point that we can say that *there is no production without technology.* The reverse is not always true, since we can think of technologies which are not in use any more or which have not been applied yet.

As regards infrastructure, we can imagine various examples of production without infrastructure, although we would be hard pressed

to find people today who survive completely on such production. *By and large, we find no production without connection to infrastructure.* Later in this book I briefly describe a few exceptional cases from Tanzania where production of farm implements takes place practically without connection to any infrastructure. Iron is mined, smelted and forged into implements by use of »home–made« tools and mainly for use in the subsistence farming of the smiths themselves. This does not mean that there is no infrastructure in the area where this activity takes place. The point is that the people in their capacity as miners, smelters, and forgers don't make use of this infrastructure. Occasionally they may attend a health clinic or drink some piped water, i.e., make use of some of the social infrastructure. But the existing economic infrastructure is of no use to their iron production.

Does that mean that we sometimes find infrastructure without connection to ongoing production? In general not. The economic infrastructure in the area just mentioned is used to facilitate some other production, in this case production of coffee and various other marketed agricultural products. However, two important exceptions do occur. The first is where some old infrastructural installations exist, but where the adjunct production has ceased. The other more important exception is typically found in so–called development areas where infrastructure is established, but where the intended production has not yet started. There might be, as we have seen, some other production which nevertheless is unaffected by the new infrastructure. And sometimes the intended production never gets started.

In other words, infrastructure is a necessary, but by far not a sufficient condition for production to take place. Another necessary condition is, as said before, the presence of technology, i.e., knowledge, organization, labourers, tools and materials. *And it is furthermore required that the actual infrastructure matches the requirements of each particular technology in question.*

Take the three sandal–producing technologies described in section 2.1. The plastic sandal technology may require bank and credit institutions, world telecommunication lines, a port of importation for the machines and the plastic granule, access roads for big trucks, relatively high supplies of power and water, etc. The leather sandal technology would need, for example, postal and/or telephone communications and means of transportation to the suppliers of

leather. The tyre sandal technology requires wholesale or at least retail shops selling hammers, knives and nails. The technology of the plastic sandals and the tyre sandals have very few common requirements. So if we wanted to facilitate both types of production we would have to consider the particular requirements of both. It would not be sufficient for the tyre sandal production that an infrastructure purely for plastic sandal production were established.

Together, technology and infrastructure make up the basic human, material, and institutional conditions of production. We could term technology as the »specific conditions of production«. And it was mentioned in section 2.2 that infrastructure is sometimes referred to as the »common conditions of production«. As demonstrated above, this expression may be misleading if we read common as »common to all kinds of production technologies«. But if we are aware of this danger and instead read »common to some *range* of types of production technologies« the expression is acceptable and quite illustrative. It might be, for example, that the postal services and the transportation facilities needed by the leather sandalmakers are fully adequate for some blacksmiths in the same location for ordering and obtaining their steel materials. By connecting the tanneries and steel rolling mills in their respective locations of production to the sandalmakers and smiths, the postal and transportation facilities are commomly used by all four productive activities. This example also stresses the decisive *spatial* aspect of infrastructure. At the same time as a given infrastructure sets limits to the possible technical division of labour between various types of production it also defines the possible territorial division of labour. It would therefore be tempting as an illustrative expression to talk about infrastructure as the »common and spatial condition of production«.

By making technology and infrastructure synonymous with some *conditions* of production it is stressed that they are not active in themselves, i.e., that they don't develop by themselves according to some intrinsic logic. They only constitute the prerequisite for expansion and change in production. But nothing is said about whether they make up a sufficient set of conditions of production.

On the other hand, and now we are at the dialectic nature of the combined concepts: *together* technology and infrastructure constitute what marxist theory terms *»the productive forces«* of societies. This expression, I hold, is equally illustrative. It stresses the

dynamic potential of technology and infrastructure by embracing the totality of powerful societal means of production or, we could even say, means of development. From here on I have chosen to use the term productive forces for the combined concept of technology and infrastructure. I am regretably not in a position to say with certainty whether this interpretation of »the productive forces« is strictly in accordance with that of the marxist analysts. They very often use the expression; but so far I have not come across an *operational* definition of it, i.e., a definition which breaks it down into elements applicable for concrete analysis. It is usually applied at a level of abstraction which gives us little guidance for an empirically based analysis like the one I attempt in this book. But the reader can take this chapter as my suggestion of what the productive forces include, viz. knowledge, organization, technique, product, economic infrastructure and social infrastructure.

But to say that technology and infrastructure are combined under the term of productive forces is of course not to explain how they are brought to interact. Instead, it was noted that they don't always interact. And then it was only indicated that they need to be matched, not how and through what mechanism such matching takes place. However, in section 2.2 »the state« was defined as the initiator of infrastructural establishment and is thus one of the responsible agents of the mechanism we are looking for. Another agent must be the representatives of enterprises where the technologies in question are located. Lastly, possible representatives of consumers could be a third group of agents. There are many kinds of ways that these agents »meet« and determine how to organize what should be produced how, where and when. We say that there are many forms of societal or *social organization of production.* Decisive for how this organization is shaped are the interests of the different groups of agents and their mutual relations. And in this context the purpose of production is of primary importance.

In defining the product component of technology I pointed out two possible »ultimate« purposes of production; that of use–value production (without which any production would appear senseless) and that of exchange–value. The latter identifies the product as a commodity, which by definition presupposes socalled market exchange relations. These are characterized by the absence of any direct meeting between the agents of enterprises and the consumers. The market mechanism supposedly takes care of this part of the social

organization of production. However, this still leaves the state as a more or less active agent which, through its various policy instruments, influences the social organization of production. It interferes via price and wage regulations and, more important to this discussion, through its infrastructural development policy. Generally speaking, this policy sets the limits for what mix of types of technologies is conceivable and for the spatial distribution of production. To the extent that particular groups of enterprise or consumer agents are able to influence and direct the state, they naturally try to extend the infrastructural limits to satisfy their interests. Such groups also often see to it that more restrictive limits are imposed on possible competitors, i.e., groups with conflicting interests.

In the case of societies where the use–value purpose of production is in the forefront, the social organization of production is characterized by other types of relations between the said agents. For one thing, the consumers are more active in determining what mix of products maximizes the use–value. They are the ones who can tell best. They may even be identical with the enterprise agents. In this case the state has to cover up for less conflicts between the groups. This is not to say that the state has fewer tasks to perform, on the contrary it has to substitute for the market mechanism with some other intervention, e.g., some sort of planned distribution and marketing arrangement.

By adding the social organization of production to our list of concepts we have now nearly reached a point where we can talk about a sufficient set of conditions of production. However, I have not really described how a given social organization of production emerges, only that the purpose of production is decisive and that different interest groups are involved. But how does a purpose emerge? How are different interest groups constituted? I do not intend to dwell on these questions, as they exceed the scope of this study. Suffice it to say that these things happen in a historical process in which social formations change. In this process people change relations to each other, in particular in the context of their relations in the production processes. These relations are called *the social relations of production.*

Although the social relations thus emanate from the sphere of the productive forces they tend to lose flexibility, once established. This manifests itself most obviously in the consolidation of particular forms of social organizations which again, as said, determine the

development pattern of the productive forces. The social relations of production are thus dialectically connected to the productive forces via the social organization of production. These entities are inseparable in the real world and influence each other in the historical process of production. They together constitute a sufficient set of conditions of production. Each such set makes up a so–called *mode of production,* e.g., we operate with feudal, capitalist or socialist modes of production. Usually these are distinguished from each other with reference to their different social relations of production. According to the above conceptual presentation we could equally well refer to the productive forces, since different social relations of production imply differently shaped productive forces, e.g., we would have to distinguish between capitalist and socialist technologies and infrastructures. This is, however, rarely done, as yet. I know of no empirically based analysis using this approach and only of a few theoretical analyses. To succeed empirically would involve detailing and exemplifying how the interaction between the productive forces and the social relations of production does take place in reality. But this task would involve bringing the social relations into an operational form similar to what was done with the productive forces.

However, this is not necessary for our intended analysis of the conditions of production for the village blacksmiths in Tanzania. On the other hand, in the course of presenting this analysis I hint at instances of interaction between the productive forces and the social relations of production. I am therefore content to say that such interaction takes place. It is furthermore important at this point to discontinue this chapter's discussion of concepts and to go on to present the empirical substance of the study. Further theoretical considerations will be presented in chapter 8, both with regard to the present chapter *and* to the findings of the study.

Well aware of the danger of schematizing social relations, I have nevertheless tried to »picture« the components of a mode of production in *fig. 4.* The danger lies mainly in the fact that such a scheme completely misses the historical context. In other words, only if this context is »added« can the scheme be of any use. And the cultural values of the human beings involved also need to be added. In fact, man is only implicitly »pictured« or assumed to be present *everywhere* in the scheme. A final addition must be the conditions of production set by nature. These natural conditions could be viewed as an implied part of the productive forces. They are not a direct part of

my »picture«, perhaps because I was brought up to think of nature as a »constant«. This idea may be forgiven in a short run perspective, but not in the longer run.

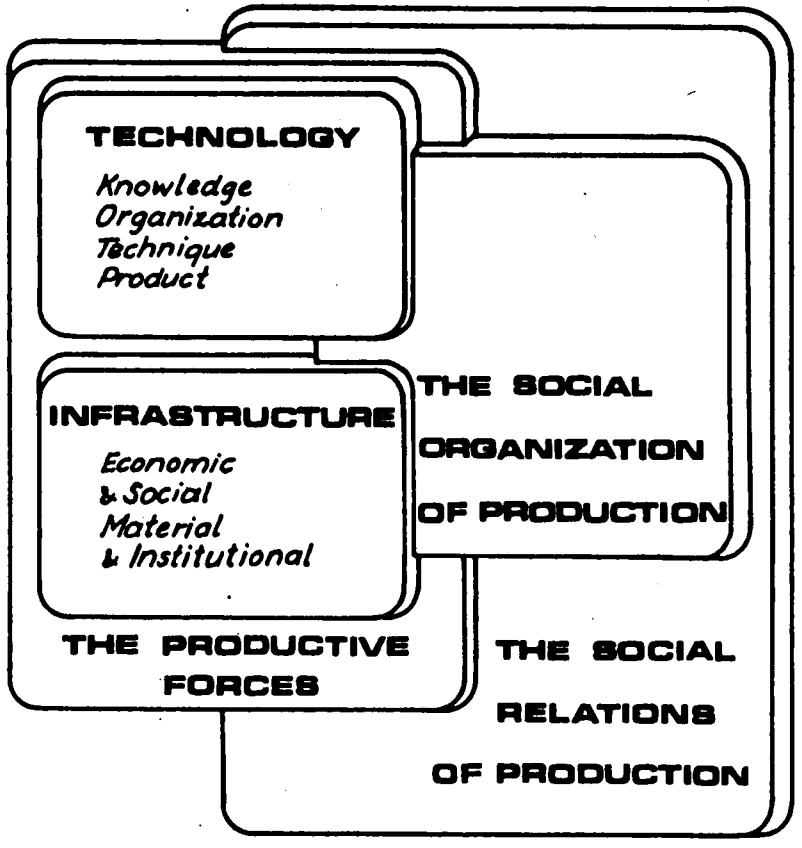


Fig. 4: Tentative schematization of the components of a mode of production

Chapter 3

Past and present developments in Tanzania

This chapter will record and review past and present development features of Tanzania in order to put the study into a historical context. Although I assume that the reader has some knowledge of Tanzania I still believe it is necessary to summarize the main points of its historical background here. Because, even if a reader is highly familiar with the events, she or he may have an interpretation of the implications of these events which is different from the one I give. In other words, this chapter is more than informative. It sets out an important part of the premises for my analysis, just as the conceptual discussion in the previous chapter did.

In particular when it comes to the record and review of the agricultural, industrial and infrastructural developments I choose to emphasize certain features as significant. Built into this choice is my conscious – but also sometimes unreflected – understanding of the history of the country. Moreover, since I rely on secondary sources, I invariably include some of the viewpoints of these sources. So if and when a reader should disagree with the conclusions of the study, these disagreements may as much be due to divergences in theoretical outlook *and* historical interpretations as the main analysis itself; therefore this chapter.

A final function of this chapter is, in a general way, to state the nature and dimensions of some of the agricultural, industrial and infrastructural development problems which Tanzania is presently facing. I also indicate the scope and direction that current planning seemingly is taking for each of these three sectors. This information is just as necessary as the historical review for an appreciation of my concrete proposals (the UTUNDU programme) as well as for my more general conclusions.

In the first section of this chapter some of the general features and events in the history of the country are recorded and a division into rough socio–political periods is made. The main emphasis is on an outline of the pre–independence periods. In the following sections I separately review the three sectors in question. This review

concentrates on the post–independence period. As regards industry, both a general and a regional perspective is presented. The fact that I review the sectors one by one makes some repetition and cross references unavoidable. On the other hand, had I chosen to look upon all three sectors simultaneously within each period, the particular development trend within each sector would have been difficult to distinguish. And it is these trends I find most important to present.

For quick reference *table 1* contains a number of the most basic data on Tanzania in respect of geography, population and production. *Fig. 5* depicts the regional towns, present communication lines, lakes etc.

3.1 Brief review of socio–political periods

Before 1884. Pre–colonial period. Most accounts on this period tend to concentrate on records of slave–raiding and intertribal warfare. An important source of information has been the sometimes rather exotic reports of the »explorers« who began their journeys into the »interior« of East Africa about 1850. They »discovered« the continent.

In summing up the reports of these explorers later historians were easily led to conclude that the African social order was extremely exploitative and in a process of self–destruction and the population in numerical decline. Whether it were these historians or the representatives of the subsequent colonial order who took this conclusion further and generalized it into a peculiar »definition« of the African is not important. It is a fact that the Africans directly or in all kinds of indirect ways were described as inherently backward, lazy, and crazy. This became a cornerstone of the ideology of the colonial system.

The reason why I give it prominence here is that we find reminicences of it on the social scene of Tanzania even today. I shall return to this point later and to some of its implications. Here and now it is more important to say that quite a different history of the pre–colonial period is in the process of being written. Slave–raiding and intertribal warfare are not denied, but explained in a different way. Moreover, a demographic hypothesis is emerging which contradicts the hypothesis of declining population. A point of departure for this has been to try to trace the market for slaves. Doing so demonstrates that the effective demand for all the slaves which supposedly were exported doesn't seem to have existed.

TABLE 1

BASIC DATA OF TANZANIA

AREA	945,000 sq.km
POPULATION	
total (1976)	15.1 million
growth rate (1970-75)	2.7 %
density of total land area	17 per sq.km.
density of arable land	28 per sq.km.
EDUCATION	
adult literacy rate (1975)	60 %
primary school enrollment (1975)	67 %
GROSS NATIONAL PRODUCT	
total (1975)	2,500 mill. US.$
per capita (1976)	180 US.$
rate of growth (1970-75)	5.4 %

GENERAL PRICE INDEX

100 (1969), 108 (1971), 129 (1973), 194 (1975)

PRINCIPAL COMMODITIES OF EXPORT

Coffee, Cotton, Sisal, Diamonds, Cashewnuts

EXCHANGE RATE

October 1975: 1 US.$ = 8.3 T.shs.

items of main importance. Settler farms and plantations were established.

Initially these events of course only affected a minority of the masses of population. What did effect them seriously though were animal and human diseases which the foreign contacts carried with them. The most mortal of these was the rinderpest which about 1890 killed some 95 % of the whole domestic cattle population of the country. This then probably was a contributory cause for the seriousness of the subsequent human epidemics of small–pox, sleeping sickness and sand–flee infections which killed or crippled vast numbers of people. The dying cattle left a nutritional and even an ecological vacuum. A crucial process of depletion of the pre–colonial productive forces had started and consequently also of the pre–colonial mode of production. It seems to be from this time and some 30 years onwards that we can talk about a numerical decline of population.

During this period of ecological and human disaster the Germans began establishing a social organization of production to suit their purposes. Labour for their farms and plantations were organized through many coercive means ranging from brute force to indirect economic compulsion, e.g., taxation. Another way of organizing the production of strategic important crops was to compel the peasants to grow these. Again a range of compulsory means was used.

The introduction of these arrangements was met with resistance from the Africans, both in passive and active forms. The passive or evasive reactions confirmed the »backward–lazy« part of the colonial ideology, whereas a series of armed rebellions was explained as »crazyness«. These rebellions culminated in the so–called *Maji Maji* uprisings 1905–06. They spread throughout the Southern half of the country. Following its bloody and costly suppression the top colonial administration began to reconsider the expediency of the settler and plantation orientation of the economy. The ideologically biased explanation of the resistance was even shaken. The Governor suggested seriously that the social unrest had economic roots and had to be pacified in the future by real economic incentives. In other words, *he tried to reject the backward–lazy–crazy thesis and indicated that the African peasants should be regarded as skilled, industrious and sane.* More concretely, it was suggested that the indigenous peasant technology was capable of yielding a satisfactory range of crops (e.g., groundnuts and cotton) and a taxable surplus,

given infrastructural support such as access to rail transport. It was also hypothesized that plantation labour would come forward more voluntarily, given improved wages and conditions of work. These ideas were hardly carried out in practice. The opposition from the settlers and planters was too strong. Not only were they against state resources being diverted towards an indigenous sector, they probably also felt that their own production would be seriously threatened by competition, both for labour input and for the sale of the output. Of course they wanted the state to control the social unrest, but they preferred the more conventional police methods.

Nevertheless, it is significant that an alternative social organization of production was seriously suggested at the beginning of this century. It shows that the pre–colonial system of production apparantly had elements which were worthwhile considering, even at a time when its ecological and human basis was in decay. I shall return to this question later in respect of today's Tanzania.

1918–1961. British colonial period. Britain received a mandate over Tanganyika from the League of Nations after World War I. Because of this relatively less assured colonial status, e.g., compared to Kenya, the British applied rather short–term profitability criteria to their activities in the territory. Their means of exploitation were similar to the ones previously preferred by the German settlers and planters, i.e., coercive labour procurement to the plantation sector and compulsory peasant export production in areas where the former policy didn't conflict with the latter. The relative importance given to these two policies varied over time depending on fluctuations in world commodity prices.

A third component of the colonial policy is equally important to mention in the context of this study: all other commodity production than that strictly for export was either not supported or it was actively harrassed. This policy applied to both the production of food and of items like domestic consumer goods or implements. The rationale of this was probably that there should be as few alternative employment opportunities as possible to the plantation sector and the export crop production. Another reason was a wish to sell imported items. The policy was implemented through a combination of restrictions to movement of produce over district boundaries and of limits to trade licencing. The trading sector was deliberately reserved for the Asian minority population. Any previous process of specialization and

division of labour between areas was stopped and probably even reversed. Each area was forced to subsist on own means apart from what was imported from abroad in exchange for what was exported. This territorial split up was politically cemented by appointment of a »native administration« for each district (supervised closely in every detail by a British officer). The essence of this system of indirect rule was to administer the Africans through their indigenous institutions. Thus the forcible preserving of elements of the pre–colonial social organization of production had the effect of further retarding any domestically oriented development of the productive forces.

After World War II the labour procurement problem was generally solved through the introduction of machines on the settlement farms and the plantations. An opening for some credit to some Africans was also granted, partly channelled through newly formed export produce cooperatives. A major function of these cooperatives was to break the Asian trading monopoly. They were also instrumental for the formation of a class, however tiny, of rich peasants. The cooperatives were thus a sign of growing pressure against the just described social organization of production of the early colonial period. Another sign was the formation of labour unions following a number of strikes which started in the export handling sector, notably in the docks. Finally, the formation of the nationalist party, Tanganyika African National Union (TANU), must be mentioned as the focal point of the more politically articulated pressure against the entire colonial system.

After 1961. Independence.
From one day to the next Tanganyika became independent, that is independent of direct British rule. Of course, the country didn't, all of a sudden, become independent of the former economic and technological ties to Britain and other trading links. Moreover, a kind of *internal* dependence on the old system also remained in the form of institutionalized norms and procedures for doing things, e.g., in 1967 you could still find many governmental paper forms printed in the 1950's. The only change was a rubber stamp across the top head of the form telling that the application, or whatever the form was about, was not made to the colonial government, but to the Government of Tanganyika. In some cases this stamp was again crossed out and replaced by a handwritten »United Republic of Tanzania« title. The number of copies of the forms to be filled in was also the same.

That old forms should be used before new ones are printed is of

course understandable from the point of view of saving paper. However, since forms are designed to serve a particular purpose derived from a particular social organization, they really should be burnt or reedited, *if* this organization is to be changed. Old forms also carry elements of the old ideology, however rudimentary, within them.

Perhaps I give this example exaggerated prominence. Nevertheless, I use it as a symbol of the early period of independence where in fact very little change took place. Certainly no structural change of the economy was effected. It wasn't aimed at either. By and large the social organization of production of the late colonial period was preserved. This point I shall detail further in the next sections of this chapter. Rather it can be asserted that the economic policy's purpose of increased export/import and foreign investment activities wasn't fulfilling expectations. This was due to a combination of external and internal factors, of which a drastic fall in sisal prices and the union with the revolutionary Zanzibar in 1964 were some of the more important ones.

My form example is also meant to hint at the fact that the newly independent state not only continued performing its state functions through the same bureaucracy as before. But these functions didn't change either. Shaped as they were as an extended arm of the British state, the »amputated« arm carried on doing the same things as before. I also want to make the point that it wasn't a full–fledged state body either. Whereas »ordinary« states have grown out of a long historical process accomodating over time all kinds of class interests and conflicts, externally and internally maintaining the longterm interests of a dominant class of people, a state which is created by way of amputation is bound to be frustrated.

In the case of Tanzania it so happened that the dominant class was cut away so to speak, i.e., remained in Britain. And there was no obvious and immediate replacement for it. The social groups which potentially could have articulated class interests were too insignificant, i.e., the rich peasants and the wage workers, or were initially brushed aside, i.e., the Asian traders and industrialists. A process resembling class formation then took place within the group of people who gradually took over the state apparatus from the civil servants of British origin. The group had no distinct interests based on production or trading activities. The common characteristics were that of a nationalist

outlook and of an education enabling the performance of administrative work. Its interests were rather defined in negative terms, i.e., *against* excessive influence of rich peasants, wage workers (the labour aristocracy), Asian merchants and entrepreneurs. Perhaps for lack of better defined interests, the group identified itself with the interests and the ideology of the state bureaucracy it was being enrolled in. I shall refer to it as *the state class,* but as the reader can see I have not very well understood what happened myself, and I am thus unable to explain it better. Nevertheless, my reason for mentioning the question of class formation is that I find it of utmost importance for an understanding of even the present situation of the village blacksmiths. It is one of the weak points in my analysis that I am not able to account adequately for this decisive aspect of the social relations of production.

In 1967 a remarkable change in declared overall policy direction of Tanzania was announced. This was stated in the much celebrated and later debated Arusha Declaration of the President on behalf of TANU and the Government. The direction was towards *self–reliance* and *socialism,* the first aspect implying a move away from the export/import orientation of the economy, the second a move towards public ownership of the means of production. As will be discussed in the following sections, the first move seems not to have succeeded to a very noticable degree as yet, whereas the second has succeeded.

Suffice it here to note that it is not till 1978 that a strategy for industrialization has been announced which could lead to reduced export/import dependency. This strategy is called the Basic Industry Strategy and is part of the Third Five Year Development Plan for the country. The socialism aspect was manifested in nationalization of the banks and some of the larger enterprises and the conversion of these into parastatal companies. In agriculture the focal point was the formation of villages with some communal production, called *Ujamaa* villages.

A last item of gereral information in this section before I procede to the sectoral reviews: In the early 1970's the Government decentralized parts of its decision processes and planning control. The intention was to achieve a high degree of integration or co–ordination between the different sectors through planning and implementation at the regional level. Besides a Regional Development Director with a very broad field

of responsibility, a number of regional and district planning officers were appointed. Similarly, many of the parastatal service institutions opened regional offices. Among these are SIDO's regional offices, each headed by a Small Industries Promotion Officer (SIPO) and assisted by one technician and one economist. As mentioned in the introduction, also the state controlled wholesale distribution system was decentralized by the creation of Regional Trading Companies (RTC). It was during this period of decentralization that the efforts towards centralizing the peasant producers of the country into planned villages took place. There are some 6–7000 such villages at present.

3.2 Agricultural developments and policies

About 10 % of the total land surface of Tanzania is at present under cultivation. This amounts to about 25 % of all potentially arable land. (See also *fig. 6*) Some 90 % of the cultivated area, or about 8.5 million hectares, are under peasant cultivation. 85 % of the peasant holdings are below 2 hectares. These are the crude orders of magnitudes relating to land–use when it comes to a description of the structure of agricultural production from which 90 % of the population live.

Another indicator of the situation is the distribution of this production between subsistence and monetary (officially marketed) production. Here roughly half is estimated as subsistence and half as monetary production in the national accounts. Around 60 % of the monetary production is export crops and has roughly remained so since the independence. Another way of presenting and comparing these magnitudes is shown in *fig. 7,* which indicates that agricultural production in 1973 made up 40 % of GDP or 69 % of the directly productive sectors' contribution to GDP. This means a relative decline in the importance of agricultural contribution to GDP since 1965 when it made up 46 % of GDP.

As regards the development status of the peasant cultivation techniques it is estimated that the present ratio between land cultivated by hand, by animal, and by tractor is something like 85–10–5 (%). These figures crudely quantify the significance of the *jembe* stated in the introduction. In addition to this information it should perhaps be noted that one man or woman with a hoe may cultivate less than 1 hectare per year, with a pair of oxen something like 10 hectares, whereas a tractor can make more than 100 hectares

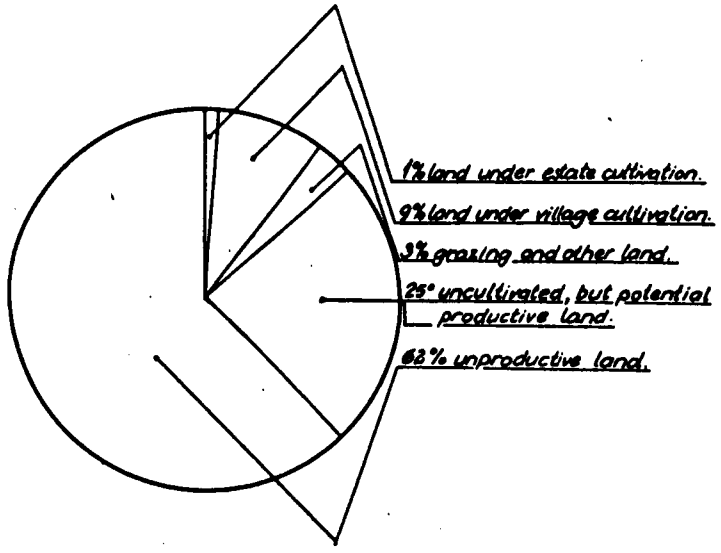


Fig. 6: Proportion of productive to unproductive land

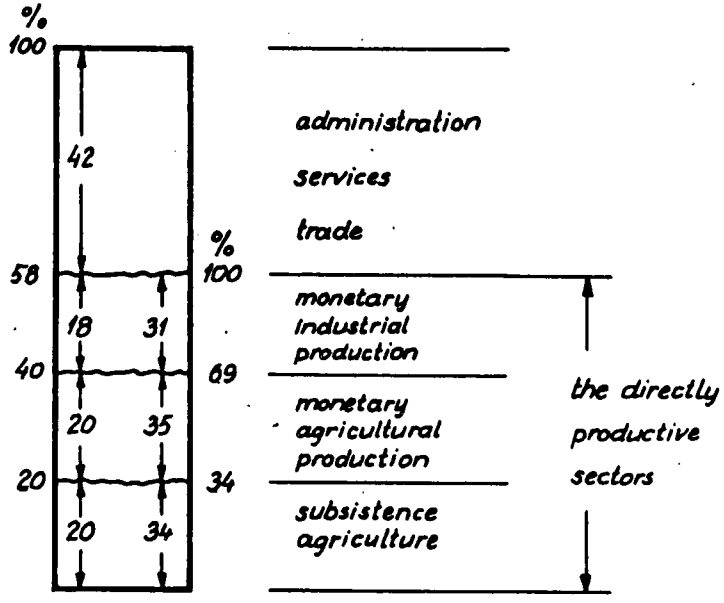


Fig. 7: Composition of Gross Domestic Product, 1973

per year, assuming favourable conditions that is. But conditions appear very seldom to be favourable, e.g., records of average tractor performance in Tanzania tend to range from 30–40 hectares per year.

To make this descriptive account of the agricultural situation is one thing, to explain it is certainly another matter. One of the immediate questions it raises is of course: Why have not more oxen and tractors been employed? But perhaps it is more fruitful to ask: Why has the jembe remained the main tool for so long? The iron jembe was widely used already in the pre–colonial period. The use of oxen was introduced already in the 1920's and the tractor in the last decades of the British colonial period, yet with little penetrative effect.

Now, it would make another book to answer these questions, (and books are being written about them). Here I shall only indicate some of the clues and, as said before, mainly concentrate on such aspects as I judge to be significant for an understanding of the past, present and future demand structure for farm implements. I have an additional intention though with the presentation which follows below. *My idea is that there are some development–trend similarities between the peasant production and the petty commodity production by rural craftsmen, e.g., the village blacksmiths.* The former we know quite a lot about, the latter which is the focus of this study we know less about. And as I shall argue later, the analysis of non–agricultural petty commodity production may gain from some comparison with what has happened within peasant production.

In the previous section, the general socio–political frame for a review of agricultural developments and policies was outlined. In this section I shall elaborate the frame more directly in respect of agriculture.

The starting point is, to repeat and bring home, that internal commodity specialization and exchange both of craftsmen's products and of agricultural produce were in the process of being developed in the pre–colonial period. We are told of various market centres and of caravans buying *surplus* food products. This process was stopped partly because of an ecological catastrophe, but also because the Germans and later the British deliberately replaced it with a pattern favouring primary production for export to Europe. Their means of achieving this have been described. The effects on the productive activities *outside* the spheres of export production were that the process of division of labour was retarded and part of the labour itself was forced away. Both specialization and labour are preconditions for

development of the productive forces. There thus seems much to be said for the view that the subsistence agriculture we know today, to some extent, is a colonial creation.

Let it be inserted here that another incentive for change in agricultural techniques was generally not present either, and is not even really so today. I think of scarcity of land. There was always a margin of land in most areas of the country, the cultivation of which could feed a growing population. Only in a few areas did land become so scarce that the renting and sale of land was introduced. These were, not surprisingly, also areas with favourable climate and soil conditions for both export and food crops, e.g., in the North Eastern and North Western corners of the country. Particularly the North Eastern parts were also the areas preferred by the colonial settlers which meant that infrastructure other than strictly for export crop production had gradually been established. And it was here that the rich peasants emerged. Some of these left the jembe and got tractors within less than a decade. On the other hand, vast areas to the South and West remained comparatively sparcely populated and at a subsistence level of production. These were the preferred labour recruitment areas.

Thus at independence a process of social and regional differentation had been set in motion. This process was supported after independence and legitimized by a policy of *»improvement«* based on »progressive farmers«. These farmers were to show the way of technical change through their supposed »demonstration effect«. The export crop production was still to be in the forefront, but food production for the towns, to feed the workers in industries and in the expanding service sector, was also included.

However, another policy was being simultaneously introduced mainly directed towards the areas with predominant subsistence production. The policy was caused by a realization of the untenability of leaving whole regions rather unproductive, in the sense that export crops extraction was minimal and mass labour migrations had become redundant due to the introduction of mechanization on the plantations. Rather the question of unemployment had cropped up and its concomitant search for means of keeping the rural people out of the towns, i.e., occupied on their land.

This other policy was designed to *»transform«* the »traditional« agriculture through a process of »modernization«. This process was to take place under »close supervision« since the peasants were still

regarded as backward and lazy, if not crazy. Implementation of the policy took the form of settlement schemes. A number of peasant families were attracted to move into these schemes. Land was cleared for them by machines, and housing materials like iron roofs, and food supplies for the first year, were provided. New seeds, fertilizers and insecticides were also part of the package. On the other hand, the new settlers were obliged to sell all their produce through the settlement manager, who thus controlled their entire income and also their work rhythms, etc.

The first policy, that of »improvement«, was sucessful in that the individual farmers did show signs of substantial progressiveness, i.e., expanded their activities on the basis of their own accumulation of capital (and initial credit). However, there was no noticeable spread effect via demonstration, i.e., the neighbours of the progressive farmers did not suddenly »take off«. Rather, we might guess, the neighbour sold his land to the progressive farmer, and perhaps he even became a labourer on the progressive farm. Another intriguing matter was that the progressive farmers tended to market some of their produce outside the official marketing systems, in particular their non–export produce, which meant that the government had difficulties in getting its share of the accumulation. This matter wasn't the problem with the second policy, that of »transformation«. In this case the snag was that very little or nothing was accumulated at all. People tended to leave the settlement schemes after the first or second year. This fact was declared by some managers, I talked to in 1966, as laziness bordering on craziness. Another explanation would be that, deprived of opportunities to market some of their output locally and in that way bypassing the management accounts, the settlement people didn't feel that they could make a living comparable to their previous subsistence standard.

In short, both policies failed in terms of yielding a surplus which the government could control for its other purposes, e.g., that of facilitating an industrialization or of expanding the bureaucracy. Both policies were abandoned with the Arusha declaration. The progressive farmers were implicitly denounced as class enemies of the peasants and workers (and of the state class although this has never been mentioned as such) and a policy of self–determined transformation of the production methods of the peasantry was adopted. The expression of the latter was formulated in the Ujamaa concept mentioned previously, e.g., it included a strong emphasis on changing

the organizational component of the agricultural technology.

Let me insert here that all along, during and after the colonial period, the directly executing institution for promotion of the agricultural policies has been the *extension service*. Its extension officers are charged with giving advice to the peasants on what to do, where and when. Not surprisingly, there has been a clear tendency for the extension service to concentrate on promotion of export crops, in fact to direct the peasants to comply with the interests of the government. In a sense the extension officers have acted as disguised controllers. The need to control is due to a discrepancy between the optimal technology seen from the point of view of the peasants and as seen from the government. The peasant wants to grow the product mix which satisfies his needs and income opportunities most, whereas the government wants to maximize surplus production of a particular kind. As far as the interests of the peasants are concerned the extension service has thus often offered irrelevant advice. Any resistance by the peasants to do as told has been interpreted as a confirmation of the backward–lazy–crazy ideology. In particular, since the extension advice is supposedly backed by scientific research, the idea of the backwardness of the peasant has been reinforced. To talk about promotion of some production without specifying what kind of production and for whose benefit can therefore be deceptive.

The Ujamaa villages were encouraged to use ox–implements. Thus, many of them were given a free ox–plough, and ox–training centres were established. In fact, one way of distinguishing an Ujamaa village from an ordinary village some years later was the presence of an ox–plough outside an iron–roofed storage building which had also been given, in part, free. However, most of the ploughs I have seen were rusty and had hardly been used. This was partly so, because in its enthusiasm for supporting the Ujamaa idea, the government started free, but costly tractor services to the Ujamaa villages, only a couple of years after the emphasis on »oxenization« had been declared. There might have been other reasons as well, but what happened in some instances was that the oxen were sold or given back to the ox–training centres »for further training«. But the ploughs remained. Admittedly, the situation of ox–cultivation is better off in some areas, where cattle population is substantial, due to good breeding conditions, than in other areas where there is practically no cattle. Yet the approach to oxenization seems to be the same for all areas.

The Ujamaa approach also carried the idea of voluntary grouping of the scattered peasant population into a village settlement pattern. Such a grouping is of course a condition for working closer together and for a division of labour on a larger scale than is possible within a household unit. But this idea became rampant in that both the communal organization of work and the voluntary aspects of the Ujamaa policy gradually faded out, and those who didn't move into villages voluntarily were forced to do so 6 to 8 years after the start of the Ujamaa policy. And most of the population now live in such villages. This in itself is of course not sufficient for adoption of more implement–intensive methods of cultivation, but can be said to be a step in that direction.

In the Third Five Year Development Plan announced in 1978 oxenization is again back as an aspect of the agricultural technology policy. It has lately been backed convincingly by studies by the World Bank. These conclude that a mix of cultivation methods by hand and ox is on the whole the most feasible policy and should be preferred to tractors, given the prevailing conditions of production, which presumably are predicted not to improve very rapidly. Whether these conditions are likely to improve in such a *direction* that ox–cultivation is further facilitated is a question to which I shall return.

But at the same time it is planned to expand the number of agro–mechanization stations. These are proposed to include a demonstration and testing farm of some 400 hectares. 360 hectares of these are to be cultivated by tractors, the 40 remaining by combined hand and oxen method. Personally, I wonder what kind of demonstration effect this potential competition between methods next to each other will bring about.

Anyway, such speculations apart, there is a declared will to attempt yet another drive towards ox–cultivation. The more concrete implications of this for the future implement demand structure will be discussed in chapter 4. Finally, the magnitude of the problems involved can be illustrated by the following figures. To reach the set target of self–sufficiency in food production, at least in respect of maize, by 1980 means an increase of some 45.000 tons of maize over the 1972 level of 880,000 tons. This can be accomplished by either expanding the total cultivated maize area by about 600,000 hectares (a 50 % increase) at the 1975 yield levels, or by raising average yields from 7.5 to 11.5 quintals. I have no data to tell how close to this target

the country is at present.

It is difficult to draw together the essence of this scanty outline of the agricultural development experience of the country. The picture is rather ambiguous. Should I nevertheless attempt a general statement it would be that there appears to have been little fundamental change in the approaches of the state since the colonial period. There seems to be hardly any confidence in the capability of the peasants to develop their productive capacity on their own premises. There is an element of control and even compulsion in most of the policies pursued. The peasants react to this as they always have by many forms of evasiveness which is still interpreted as backwardness and laziness. More specifically, they try to evade the state controlled marketing systems as the state tries to expand these as its major means of appropriation. The experience of the peasants is that to be dragged into the official monetary sectors leads to little benefits for more work. They might, but now I am really speculating, resist being »transformed« or »modernized« because they intuitively fear that the moment they become dependent on »modern« means of production, like tractors, they will lose their last means of resistance. As long as they stick to the jembe as their major instrument of labour they are relatively secured of control over their own production. This further points to oxenization as a feasible intermediate solution, since it possibly carries less social contradiction.

3.3 Industrial developments and policies

The characterizing, very general, features of industrial production in Tanzania are as follows. As already depicted in fig. 7, manufacturing contributed about 11 % to the total GDP in 1973, (the last available data are from 1975, but these are distorted due to the effects on agricultural production of the 1974–75 drought). This was an increase from a share in GDP of about 8 % in 1965. In the same period (1965–73) the proportion of wage–employment increased from 8 % to 14 %. The total number of those employed in industry by 1973 was about 60,000. The number of establishments with more than 10 employed increased from 390 to 490. Sisal decortication and repair activities are excluded, the former because of its extraordinary decline due to a large drop in world market prices of sisal, the latter because it is not counted as directly contributing to output.

These figures don't tell very much except that some industrial growth

is taking place. But we need to look at the composition of types and size of industries in order to grasp some of the structural characteristics of this process. *Table 2* gives an impression of these. We see that the consumer goods share in value added is dominant and has increased, but has fallen in terms of share in gross output. This tells us that the sector has developed substantially from primary–processing to near full–scale, sophisticated finishing of the products, e.g., from only cotton ginning to cloth weaving. The indicator of this is the proportion of value added to gross output which doubled from 16 % to 32 %. The opposite seems to be the case for intermediate and capital goods, i.e., that the new industries in these sectors have tended to be low value added types. In terms of size a clear tendency towards larger enterprises (with more than 100 employed) has been effected. The number of enterprises which could be termed medium sized in the Tanzanian context has remained constant. Finally, the regional distribution of industries is marked by heavy concentration in Dar es Salaam and 5 regional towns. Dar es Salaam had comparatively much less industrial activity at the time of independence, when Tanga and Mwanza were the most important centres mainly due to their processing of sisal and cotton respectively.

Again, the purpose of this study doesn't warrant a full record of all details. The main aim of this section is to enable us to get a notion of the industrial context in which the village blacksmiths and also the other implement manufacturers operate. I am therefore content to give a short historical outline of the emergence of the industrial structure just described.

The pre–colonial period had its manufacturing activities of utensils and tools. It even saw, as said before, an emerging specialization and exchange of durable consumer and producer goods. The best described of these goods are iron tools, cotton cloth, pottery, baskets, mats and tanned leather. I shall return to the iron tools in chapter 5 and just as an example mention here that cotton spinning and weaving was developed at some places to a point that there were two to three looms in every village. In addition, salt excavation and trade were important. Like the exchange of food products, most of the exchange in these manufactures disappeared in the early colonial period. However, and this seems to be important, some of the trades continued *within* the different locations in question. This means that they were not completely exterminated as we are often told. They became part of the subsistence social structure. Of the products

TABLE 2

STRUCTURAL CHANGES IN MANUFACTURING 1965 - 73

	value added % of total		gross output % of total		value added/ gross output	
	1965	1973	1965	1973	%	
CONSUMER GOODS						
Food, textiles etc.	56	59	71	57	16	32
INTERMEDIATE GOODS						
Chemicals, etc.	4o	32	24	33	34	31
CAPITAL GOODS						
Mainly assembly	3	8	1	9	42	3o
OTHER MANUFACTURE	1	1	4	1	7	13
TOTAL	loo	loo	loo	loo	2o	31

CHANGES IN SIZE OF ENTERPRISES

	1966	1971
Enterprises with lo to loo employed nr.	346	348
% of gross output	36	29
% of employment	35	22
Enterprises with loo or more employed nr.	92	12o
% of gross output	64	71
% of employment	65	78

REGIONAL DISTRIBUTION OF POPULATION AND INDUSTRIAL OUTPUT IN 1971

	% of population	% of industrial output
Dar es Salaam	7	6o
Designated industrial growth regions (Morogoro, Tanga, Arusha, Kilimanjaro, Mwanza)	33	31
Rest of the country	6o	9

mentioned above I think only locally made cotton cloth really disappeared, probably just as much because all the cotton grown was carefully forced into the export market, as because it was deliberately replaced by cloth of European origin seeking expanded market outlets. Iron making certainly continued, but in *hiding* as it will be explained later. The preliminary point I want to make is that even though the exchange of the products was stopped, the production of them may have continued. The technology didn't necessarily disappear, although it didn't develop.

Most historical accounts of the industrial development of Tanzania have not grasped this distinction. They seem to adhere to the disappearance thesis.

The industries which were established during the early colonial period were closely tied to the cash crop sectors. Cotton ginning, sisal decortication, coffee pulping, sugar refining, tobacco curing, saw milling etc. The main direct agents of these activities were of Asian origin. Being assigned the role of trading intermediaries between the primary producers and the ports of exportation, it was an obvious thing for these merchants to invest some of their surplus into primary processing. The machinery was imported from Europe, but it was of a type which could be run by a bit of mechanical engineering insight. Gradually this insight developed through accumulation of experience to such a degree that many of the essential spare parts could be made on the spot. This took place in scattered workshops attached directly to the ginneries and decortication plants. A similar trend of *internal* workshop arrangements has continued till today. Some of the old workshops exist and here the remnant of a peculiar racial division of labour can be observed. Remarks from disappointed African workers about their exclusion from learning the essential processes in such workshops are evidence of this phenomenon of one group of people monopolizing carefully their know-how. It looks as if the Asian population in part took over the European ideology of stamping the Africans as backward and lazy. Their plain discrimination against the African workers, preventing them from getting technological insight is however also a sign of an awareness that if the African workers could get on-the-job training, they would be capable of competing in know-how. This phenomenon of discrimination is not necessarily based on racist grounds though. Artisans and craftsmen at all times have tried to keep the secrets of their trade within the group of their own kin. Whatever the true reason is, it doesn't alter the fact that the

African workers were and still are largely excluded from the learning processes of the production in the workshops in question.

The pattern of primary–processing for export was gradually supplemented during the late colonial period by some production for the home market, to substitute what was previously imported, and by some final processing plants. Of the former type a brewery can be mentioned, whereas a meat cannery is an example of the latter type. These eventually called forth a bottle and a can making factory. The early pattern was characterized by smaller scale enterprises of below 50 employed, the new factories were of a larger scale. At independence these larger plants were gaining in importance, the multinational capital had appeared on the scene and the concentration of industries had started.

Independence brought little change in industrial strategy although some production of heavy intermediate goods was added to the primary–processing and light import–substitution manufacturing. These intermediate goods were fertilizer, petroleum, aluminium, steel rolling and cement. All of these were and still are dependent on imported knowledge, organization and technique. Most of the raw materials are also imported except for the cement production. When the state with nationalization took over the majority shares in these investments, agreements for continuous supply of knowledge, raw materials and spare parts had to be made. No essential change in organization and technique was effected, neither has this been the case for new industries established after nationalization.

In short, the export/import orientation was maintained which implies that inter–industry linkages are minimal. As already mentioned, only in 1978 a plan for breaking this industrial structure has been announced with the Basic Industries Strategy. The key goals of this strategy is structural change and self–reliance. The main significance for this study is that the strategy involves establishment of steel production based on Tanzanian coal and iron deposits. But such a production is really only justified if the home–demand for steel is substantially increased. It would be a dubious undertaking to build up a steel–making capacity without simultaneously building up a steel–using capacity. Doing so would be to replace the present steel import dependence with a steel export dependence which is dangerous since the world market in steel is highly competitive. Apart from that, the real argument for emphasis on a metal engineering

sector is that it potentially has more linkages than any other sector. It also provides the capacity for technical innovations and thus facilitates growth in productivity and adaption of techniques to Tanzanian conditions. It would be the training ground for vital industrial skills of many kinds.

Another significant feature of the new strategy is that it includes an expressed intention to reserve part of the market and the resources available for industrial investments for small–scale industries. The criterion for selection of such investments is that they should be capable of competing reasonably well in price and quality with larger–scale techniques. What is to be deemed »reasonable« would thus be a weighted mix of considerations about the degree of protection required against what the market would dictate. And together with these considerations goes an idea of a regionally balanced industrial structure. Three levels of industries are envisaged. A national, a district and a village level. The last level is assigned to production of things characterized as simple goods for village consumption. The implications of these rather vaguely formulated intentions are that the planners of small industries promotion for the village level are left to define what would be »reasonably« competitive and what would be regarded as »simple« goods. I shall come back to the ambiguous nature of these criteria in chapter 7. Here I would add that the difficulties in planning for the village level, and also to some extent for the district level, are increased by the fact that there doesn't exist a comprehensive account and analysis of the small industries' situation. This is the reason for the conspicuous absence of reference to the structure of the small–scale industries in the exposition of industrial developments given above. We are not told what happens to the enterprises or crafts workshops which have below 10 people employed. I shall try to give an impression of this in the following section.

It needs to be said, however, that efforts to promote small industries and crafts are not a new thing. And it is important in order to understand the promotion approach and programme which I advocate in chapter 6 that we take a look at how the previous efforts have materialized.

Already the Second Five–Year Development Plan (1969–74) envisaged that 15 % of total industrial investments should go to projects involving employment of from 10 to 70 persons. In addition to

this, the Plan assigned an important role to crafts and cottage industries. Two institutions for their promotion were mentioned: The Cottage Industries Training Programme and the National Small Industries Corporation Ltd. (NSIC). The former was to be the »focal point« for expanded vocational training of the craftsmen, even at their workplaces; i.e., *apparently assuming that they didn't know their trades well enough.* NSIC was started in 1967 as a member of the group of companies which belong to the National Development Corporation (NDC). This corporation was established in 1965 and after the Arusha Declaration it became the main implementation instrument of the state controlled and directed industrialization policy. NDC is wholly owned by the government and is intended »to function as a profit–making organization, charged to do all such acts and things as may be necessary to uphold and support the credit of the Corporation and to retain and justify public confidence, and avert or minimize any loss to the Corporation«.

NSIC, being attached to NDC, had to comply with this profit–making objective. It thus sought out various small industrialists who seemed to be capable of running profit–promising projects. We may say that NSIC tried to rely on *progressive* industrialists, an approach which in a way could be compared with the »progressive farmer« agricultural policy mentioned in the previous section. At the regional level, NSIC provided intensive support to relatively few, selected small industries in urban centres. A series of industrial workshops were built, and small–scale industrialists were encouraged to move into units of these workshops which also had common facilities. The workshops had the function of small industrial estates. The craftsmen worked under heavy direction from the NSIC managers though, who seem to have had a hard time trying to retain some of the surplus of the production for the corporation, i.e., making sure that the craftsmen didn't sell their products without the mediation of the management.

However, NSIC didn't perform well and in 1973 the National Executive Committee of TANU issued the directive on the establishment of small–scale industries in the country. This document implicitly denounced the »progressive« industrialists approach. It stressed the need for rural industrialization based on control by the people themselves, using existing skills and materials and avoiding heavy capital expenditures. NSIC was subsequently dissolved and SIDO was created. SIDO is not to own any industries, its function is to be purely promotional. Its means range over planning, *extension service,*

training, hire purchase, etc. The main extension agents in the regions are, as mentioned in section 3.1, the SIPOs and their assistants.

Another vehicle of SIDO's promotion activity is industrial estates which are gradually to be established in every region, most often in the regional urban centres. Here people are invited to set up production units guided and assisted by SIDO's respective departments. The idea has similarities with the former NSIC workshops, but since SIDO is not in a sense risking anything, the entrepreneurs may be put under less direct management. We might however see the emergence of a *close supervision* pattern. SIDO may, for example, want to make sure that equipment supplied on hire purchase agreement is duly paid, that raw materials and rents are paid, etc. It is all in all tempting to compare the industrial estates with the agricultural settlement schemes of the period just after independence. Although the same words are not directly used, the estates are there to facilitate a *transformation* of the small entrepreneurs into *modern* industrialists.

I probably overstate the similarities between past agricultural policy approaches and the small industries' promotion approaches. But the »progressive« producer, the »transformation« under »close supervision« and the »extension« ideas have been and are still there.

3.4 A regional survey of small industries and crafts

In the last section the macro picture of industrial developments was outlined, i.e., the situation at the national level was described. The following is an attempt to give the reader an impression of the situation at the district and village level. When I later discuss the conditions of production of the village blacksmiths it is important that we also know something about the micro context, so to speak, in which they work. For lack of better data I present a summary of the results of one regional survey only. This survey was conducted by me and a couple of colleagues in 1974. It was made in connection with the planning project in West Lake Region already mentioned in the introduction.(1) West Lake could not be claimed to be »typical« of all 20 regions of the country. The data put forward are therefore probably not representative of all regions *in detail.* However, there are reasons to believe that if we regard the survey results as depicting a *general* account of the industrial development trend at the regional level we can be reasonably well informed. For quick reference some very general information about the region is given in *table 3,* and *fig. 8*

TABLE 3

BASIC DATA OF WEST LAKE REGION

	Bukoba district	Karagwe district	Ngara district	Biharamulo district	Total of region
AREA sq.km.	8,000	7,000	3,000	11,000	29,000
POPULATION (1975)	453,000	139,000	94,000	140,000	824,000
POP. GROWTH RATE 1967-75	2.1	4.4	- 0.3	7.0	2.8
MAIN FOOD CROPS PROD. 1975 (tons)					
Bananas	440,000	200,000	56,000	38,000	734,000
Legumes	24,000	15,000	10,000	8,000	54,000
Maize	6,000	4,000	1,500	6,000	17,500
Root crops	160.000	40,000	18,000	80,000	258,000
EXPORT CROP PROD. 1973					
Coffee (tons)	13,000	1,600	40	25	14,665
Cotton (bales)	-	-	21,000	-	21,000
Sugar (tons)	7,000	-	-	-	7,000
Tea (tons)	400	-	-	-	400
RATIO OF ALL-WEATHER ROADS TO TOTAL OF ROADS (%)	29	34	34	46	36
PROP. OF POPULATION LIVING WITHIN 5 KM TO ALL-WEATHER ROAD (%)	60	64	55	50	58
PROP. OF POPULATION WITH PIPED WATER SUPPLY (%)	19	15	23	9	17

(Source: West Lake Planning Project)

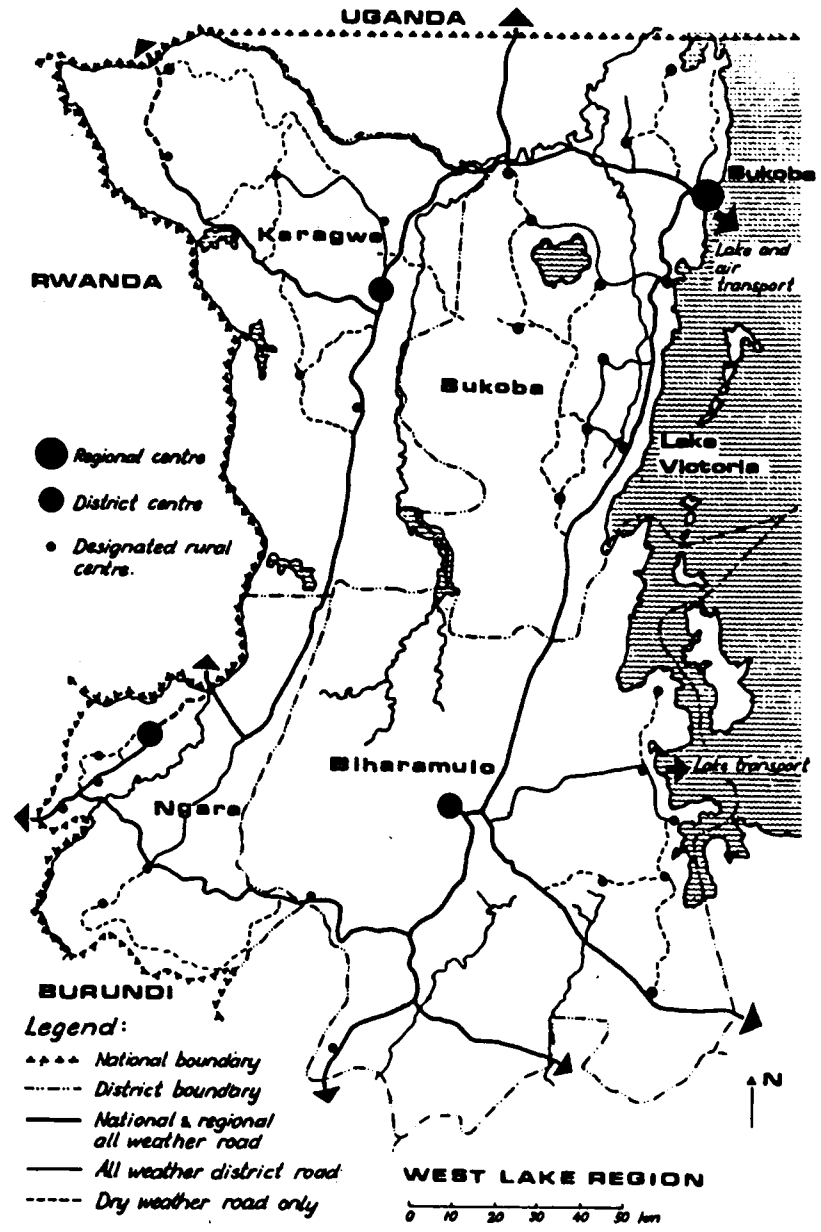


Fig. 8: Map of West Lake Region

shows the most important geographical features.

For the purpose of the survey we made a distinction between registered and unregistered industries. In some sense this corresponds to the distinction of the formal/informal sectors which has gained prominence lately. The reason why I don't use the term formal/informal is because it is usually used in connection with a dualistic conception of the situation in the underdeveloped countries which I find dubious. By saying registered/unregistered I just want to point out that some industries are *institutionally* included in the monetized market system, appear in some statistics somewhere, and are directly taxable, etc., and other industries are not. Those which are not can hardly be called industries either. They usually only occupy craftsmen as will be described later together with other implications of not being registered. So it is purely for the sake of a practicable and functional distinction that I use this term and that I refer to them all as industries.

Of the registered industries in West Lake region 5 may be called relatively large in scale. They are all processing–industries for the export crops mentioned in table 3. Their capacity corresponds at least to the volume of production given in the table. The cotton ginnery is situated in Chato, Biharamulo district; the sugar factory lies at the sugar estate near Kyaka, Bukoba district; the tea is processed very close to Bukoba town. There are two coffee factories in Bukoba town, a coffee pulpery and a powder coffee factory. The number employed in these industries totals approximately 1000, but apart from that they have very little impact on the regional economy. No auxiliary industries have been established in their wake. The factories are almost fully self–contained in respect of repair and maintenance facilities. Another characteristic of the industries is that they are owned by parastatal corporations. The coffee powder factory is managed by a Swiss based multinational company, Nestlé, and the tea factory is managed by Williamson's Tea (EA) Ltd.

The rest of the registered industries in the region are small in scale and are all situated in Bukoba town, i.e., in the regional centre. They are (in 1974) 24 in number and employ about 200 people. They are listed in *table 4,* which shows their distribution among types of industries. We also see that the number of firms has doubled since 1965 and that employment has more than doubled. This could give the impression of a fairly satisfactory development trend. However, by a closer look this

TABLE 4

REGISTERED SMALL INDUSTIRES IN BUKOBA TOWN 1966 - 74

	1965		197o		1974	
	No.of firms	No. employed	No.of firms	No. empl.	No.of firms	No. empl.
Bakeries	2	25	2	17	2	24
Coffee roasting	1	5	1	8	1	13
Flour milling	2	12	3	18	1	17
Spices	-	-	1	1o	1	19
Carpentry	1	5	4	1o	4	2o
Engineering	2	6	3	9	5	2o
Footwear	2	12	3	15	2	15
Printing	1	2	2	12	2	11
Cosmetics	-	-	1	7	1	8
Soap	1	8	1	6	-	-
Tailoring	-	-	-	-	4	27
SIDO work-shop Carpentry & metal work	-	-	-	-	1	2o
	12	75	21	112	24	194

(Source: West Lake planning project)

picture gets distorted. The thing is that the new firms shown in 1974, i.e., the tailoring and SIDO workshops, are really not new enterprises. These manufacturing activities existed before 1974. But in that year they were registered, not because they suddenly began to produce more, but because of stricter registration rules, e.g., to enter a SIDO workshop meant having to register. Considering thus the 1974 increase as extraordinary, we note in effect a decline in the number of industries since 1970, although we still see some increase in employment. Other observations confirm this impression of stagnation in the small industries' activity since 1970. It should also be added that only 8 of the industries listed make use of some raw materials from the region. The industries can therefore be characterized as being small also in terms of impact on the regional economy on most accounts.

The fact that some industries could suddenly enter the statistics at all is an indication of the existence of manufacturing activities outside the reach of the statistics. These are then the unregistered ones. I guess we would find about the same amount of people employed in unregistered productive activities in Bukoba town as we find in registered ones. Total employment doesn't therefore amount to more than about 400 in that town for all small industries.

It is however what happens outside the town that is of most interest in the context of this study. When we started to look systematically around it became apparent that there are numerous craftsmen working throughout the region. Their activities are undertaken in tiny, often grass–roofed, workplaces on the farm or in the open air in market centres. Production techniques are simple, and sales take place either directly in the location, or through local middlemen who circulate the goods to so–called »local products« markets. The majority of the craftsmen are employed on a *part–time* basis only. They produce for a very unstable market and the customers often have to buy their own raw materials and bring them to the craftsman. *Our survey indicates that about 5 % of the economicly active population of the region, or about 16.000, are engaged in such activities.* Of these about 70 % work in construction and wood products (brickmakers, masons, woodcutters and carpenters), 25 % in consumer goods (tailors, shoemakers, potmakers, and other handicrafts) and 5 % in metal works (blacksmiths, tinsmiths, bicycle and automobile repairmen).

Other surveys of the region have shown that about 35 % of the active population supplement their farm incomes with other incomes, and these incomes make up more than half the total incomes. It was found that about 10 % were permanently occupied in non–agricultural activities. This figure together with the 5 % employed in part–time crafts activities indicates that something like 20 % of the active population are engaged in trade, as casual labourers or in various services.

It is important to know why one third of the households are engaged in other occupations than farming. The explanation seems to be that the agricultural sector has expanded just enough to cope with the population growth. Only a few peasants seem inclined to invest their surplus in agricultural expansion. This is probably due to the fact that prices of agricultural products have not increased as much as expenditures on marketing and transport have, resulting in a decrease in the producers' share of total incomes from agricultural products. Thus, the producers' share of total imcome from sale of coffee has decreased from 80 % in 1956 to 36 % in 1968. *To compensate for this the peasants feel forced to resort to the non–agricultural activities for supplementary incomes.*

The implications for the craftsmen of this conclusion is therefore that they don't operate in response to an increasing demand, but they engage themselves in their activities out of necessity for earning incomes which the farm activities don't provide.This means that they are not engaged part–time in the industrial production because they have to attend to the farm work, but in general because the demand is not there for full–time work or for some other reason. And it should be noted that the persons permanently occupied in non–agricultural work have no difficulties in having their farms run by wives, relatives, and casual labour. On the other hand, they keep their landholding for a combination of cultural and social security reasons.

Let me illustrate these observations by quoting some of the household level data available. They express the structure of incomes and expenditures in two areas of Bukoba district, the Ihangiro ar nd Ibwera area. In Ihangiro it was found (1969) that the pe peasants had incomes twice as high as the full–time peasants of the fact that the full–time peasants had a larger averag farmholding. The pattern of expenditures was quite simile types of peasants. About 35 % of their cash incomes we

food (meat and fish). Seen from a small industries point of view it is however more interesting to look at the expenditure on items which could possibly be produced by such industries. Here »household equipment« accounts for 10 % and another 10 % was spent on »investment in house and farm«. Of the latter, again about 10 % was spent on »essential farm implements«. This corresponded to an order of magnitude of 10 T.shs per household per year. As we shall see later, 10 T.shs are hardly enough to buy one jembe today, it might have been just enough in 1969. (2)

The Ibwera area survey gives us an indication of the concentration of cottage industries in relation to various social variables. The area is situated in Bukoba district and consists of three sub–areas or wards (of which one is also named Ibwera). See *fig. 9.* The area was selected for the survey because it appeared to be characteristic of three of the four districts in the region, viz. Bukoba, Karagwe and Ngara. One noteworthy difference is however that the area is relatively closer situated to the regional centre, Bukoba town, than other areas we could have picked. But the survey is interesting just as much because of the differences between the wards *within* the area as for the total picture of the area in comparison to other areas in other districts. Some of the differences are tabulated in *table 5.*

We note that population density falls drastically as we move from Ibwera ward to Izimbya ward, but that the reverse is true of population growth rates. This means that Ibwera ward is more heavily settled and that Izimbya ward is an inmigration area. The next thing to notice is that incomes from marketed agricultural products are nearly twice as high in Izimbya compared to Ibwera, and that the reverse probably is the case in respect of incomes from cottage industries if we look at the concentration of these industries in the last lines of the table. (3)

The average income figures presented could have made us believe that demand for cottage industry products would be higher in Izimbya than in Ibwera, and thus also the concentration of industries. But as the Ihangiro area survey showed, incomes from non–farm activities can be quite high so perhaps the part–time farmers in Ibwera area earn incomes which compensate for their relatively low farm incomes. The proportion of part–time farmers to full–time farmers was actually about the same in both wards, but the Ibwera part–timers may earn more than their Izimbya neighbours. By and large average total incomes and demand might therefore relatively speaking be of the

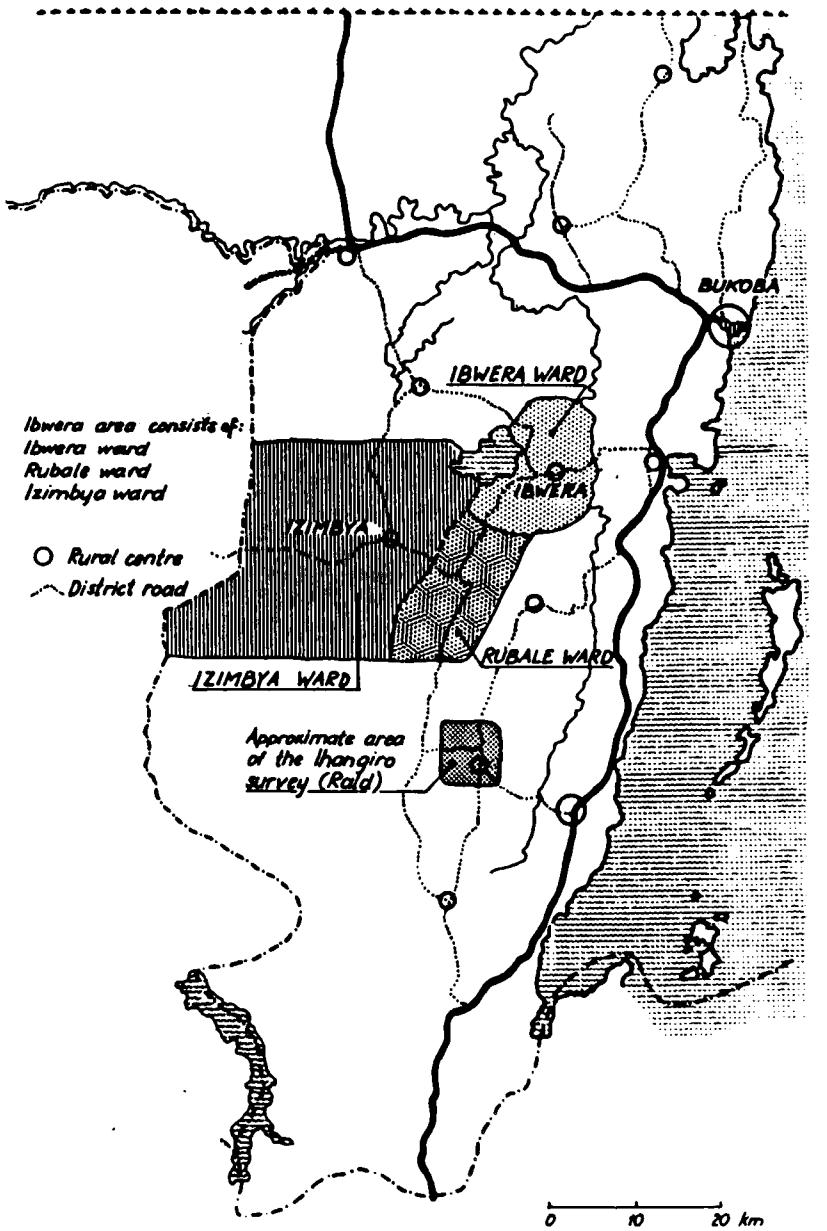


Fig. 9: Map of Ibwera area, Bukoba district

TABLE 5

IBWERA SURVEY: COMPARATIVE DATA OF STRUCTURES OF INCOMES AND OCCUPATION

	IBWERA	RUBALE	IZIMBYA
SIZE OF POPULATION	17.1oo	12.5oo	12.2oo
POPULATION DENSITY inhb./km^2	13o	9o	3o
ANNUAL POPULATION GROWTH since 1967 (%)	1	1.8	4
AVERAGE ANNUAL CASH INCOME FROM MARKETED AGRICULTURAL PRODUCTS (T.shs)	66o	97o	1.o6o
PROPORTION OF THIS INCOME ACCRUING FROM THE MAIN EXPORT CROP: COFFEE (%)	66	82	84
TOTAL NUMBER OF COTTAGE INDUSTRY WORKSHOPS	77	36	29
NUMBER OF WORKSHOPS PER 1000 INHABITANTS	4.5	2.9	2.4
NUMBER OF WORKSHOPS per km^2	o.58	o.26	o.o7
RELATIVE WORKSHOP/AREA DISTRIBUTION	(8.3)	(3.7)	(1)
CORRESPONDING RELATIVE POPULATION/AREA. DISTRIBUTION	(4.3)	(3.o)	(1)

same order of magnitude. And other observations from the region make me believe that the demand question is of secondary importance to an explanation of the existence of crafts activities. This is to say that we should look for other explanations for the higher industrial concentration in Ibwera than in Izymbya. Immediately one would then think of the population concentration as a causal factor. We may hypothesize that there could be a direct relationship between population concentration and area concentration of industries. But this is not the case either. The population densities are distributed between Ibwera–Rubale–Izimbya in the relative proportions 4.3–3.0–1.0, whereas the corresponding figures for the industries are 8.3–3.7–1.0. In other words, there appear to be twice as many industries in Ibwera ward as one could have expected following that hypothesis. But with higher population concentration may follow higher pressure on land which forces more people into cottage industries than otherwise. This may be true of Ibwera ward, on the other hand, there was the same proportion of part–timers as in Izimbya.

The last causal factor I will suggest has to do with the existing level of infrastructural service. And here the Ibwera ward is much better off than Izimbya. Ibwera has an all–weather access road, a reliable bus route, and a post office, none of which Izimbya has. I therefore hypothesize that *with a better infrastructural service level we are likely to find more crafts activities.* This statement seems perhaps rather obvious, but the significance of it has far reaching implications which I shall come back to later.

3.5 Infrastructural development in a regional perspective

The micro context of the village crafts activites remain in focus in this section. And again, since I don't know of any comprehensive, country–wide analysis of infrastructural developments seen from a regional perspective, I resort to my material from West Lake region. Besides the task of planning for rural industrialization, the planning team did a comprehensive survey of the regional infrastructural situation. Limiting my exposition to the regional level may imply that I overlook important national level aspects. A few references to the national situation are therefore made in a brief historical review which follows.

The emerging specialization and territorial division of labour in the

pre–colonial period had its trading routes, market institutions, etc. These must have been primarily internally oriented, e.g., the trading in iron implements, cotton cloth and pottery was an internal affair. Since there was no single state authority to provide the various facilities they must have been established spontaneously. The same was probably true of the outward oriented facilities which gradually supplemented the others as the slave and ivory export increased. When the colonial state had been established the spontaneity was replaced by a deliberate and purposeful infrastructural policy. The overriding purpose was that of expeditious and reliable export supplies of raw materials. Agricultural technologies, i.e., agricultural knowledge, organization, techniques and products, were directed towards that purpose, so it almost goes without saying that the same was true of infrastructural direction. In fact, the shaping of the infrastructural facilities was one of the main instruments used by the colonial states to direct the technological development. As a derivative of the overriding purpose followed other intents, in particular that of protecting the territory against outside military interference and inside disorder.

The Germans applied considerable politico–strategic considerations to their infrastructural constructions. Thus, apart from the railways which of course were also made for economic reasons, a number of impressive fortresses, stone paved roads, etc. were built. It is all in all evident that the infrastructural installations of the Germans were made in anticipation of economic pay–off over a long period.

But it was during the subsequent period of British dominance that the infrastructure of the country was really shaped. Although they left some autonomy to some of the local chiefs they took complete control over most of the economic spheres and encouraged Asian traders to act as middlemen. This meant gradually forming not only the material part of the economic infrastructure, but also the institutional, to suit their purposes. And the British were more directly concentrating on immediate economic exploitation than the Germans. The raw materials of the country had not the same strategic importance as to the Germans, and the territory had mandatory status only. On the whole therefore, the British activities had more the nature of a »hit–and–run« operation than in other places. The best example of this behaviour is perhaps the Nachingwea groundnut scheme in the Southeast of the country. A 200 km long railway was built (1949–50) in connection with the scheme, but as the scheme failed and no other

immediate export object was found, the rails were picked up again (1962) and sent to Uganda where more instantaneously profitable schemes were at hand. Only five years later and after independence, a very expensive road was constructed more or less connecting the same areas as the railway, because the area is, and was, densely populated, and the need for transportation is obvious for promotion of *general* agricultural development.

The tendency not to invest more in projects than absolutely necessary for limited aims is also clear in West Lake region. Here the road network was expanded in step with the expansion of small–holder coffee production enforced by the British upon the peasants. However extensive the road network might look today, it is mainly only of so–called dry–weather standard, i.e., it is not passable in the wet season. Only the roads which are necessary for administrative purposes are all–weather roads. Most of the roads are aligned on the top of ridges in order to economize on drainage structure and where they pass low points the bridges and drainage structures are of a very low standard. On the other hand, the population prefer *not* to settle on ridges, since the soil is thin and generally not very fertile, and since natural water sources are not there. For the purpose of coffee export the network is however adequate enough, because coffee is picked at the end of the wet season (May–June) and the harvest needs not to be transported immediately after. Once dried, coffee can easily be stored under rather primitive conditions until the roads become passable after the rains. In contrast, say, tea production needs good all–weather roads, since the best quality is achieved by harvest just after heavy rains, and needs to be in the factory within hours after being picked. Therefore we find exellent roads in tea areas, and »tea–roads« is a concept often seen in loan applications. But we never see mentioned »coffee–roads«. Nevertheless I would maintain that the West Lake roads can be called coffee–roads, i.e., they were primarily constructed for the purpose of coffee–export.

Regarding other economic infrastructure than roads it is also evident that the British only established or encouraged such arrangements as were essential for the coffee export, e.g., the marketing and extension service dealing with coffee. The marketing was initially done by the Asian traders and later supplemented by cooperative unions of the coffee producers. Collection posts were scattered throughout the region in a well organized pattern, so that only few coffee producers needed to walk more than 5 km to a buying post to sell the produce.

Distribution on the other hand was not very important since there is no essential inputs to coffee production which need to be distributed at exact times of the year, as is the case with maize production. The provision of most social infrastructure was left to the missions.

In sum, my contention is that the pattern of infrastructural development during the German and British rule at the *regional* level corresponds closely to what has been well documented and analysed for the national level. In particular in respect of transportation it has been shown that very little was done in support of inter–regional integration. Somewhat extremely formulated, each region got direct transport connection with foreign countries, but only very weak links with other parts of the country. *The West Lake region analysis shows that the same thing was true of intra–regional integration.* I do not claim that this fact is an extraordinary, surprising discovery. However, actual intra–regional infrastructural policy even today seems to indicate that it is being grossly disregarded, if not overlooked.

At the time of formal political independence Tanzania was thus taking over an infrastructure which to the smallest detail was tailored to extractive economic exploitation. No wonder that only very little basic change in the economic function of the country could be brought about in the first years after independence. Even if the institutional contents of various services were changed, the material shape couldn't be changed very rapidly. Roads, for example, are not easily reoriented. A real change in institutions was initiated and manifested with the Arusha Declaration in 1967, which charted out a new course of development emphasizing *internal* integration.

It is further true to say that a qualitative change in the material infrastructure wasn't initiated until 1967 either. It is only when the aims of state policies change that the purpose of infrastructure changes. But as a declaration of independence doesn't have an immediate effect upon the shape of infrastructure, the Arusha Declaration didn't immediately have so either.

In any case, surveying the infrastructure of West Lake Region in 1974 did reveal that not only most of the shape, but also most of the functional contents of the colonial founded infrastructure had not yet been changed, particularly as regards the economic infrastructure which I describe in a moment. In other words, the survey ascertained that the seven years since the Arusha Declaration had not been sufficient to remould the infrastructure to such an extent that its shape

and contents clearly manifested the declared change in the aim of the state. One obvious explanation could be that it requires more resources and time to bring about a qualitative change in infrastructure than has simply been available. Another crucial explanatory variable is however, as discussed in section 2.2, the »nature« of the state. The two fundamental questions which need clarification are (a) to what extent is the Tanzanian state dependent on external, international relations in its concrete actions, and (b) to what extent are the declared aims in accordance with the interests of those who have the decision making power within the state apparatus. Both questions are related to infrastructural shaping. It is outside the scope of this section, and even of this book, to provide answers to these questions, although, as I put forward in the concluding chapter, the final analysis of the probability for success of a policy of decentralization of industries to a large extent depends on these answers.

One observation might give a hint to part of the explanation though. This relates to the villagization campaign referred to several times. This was a declared attempt to move the peasant population to closer proximity of *existing* infrastructural installations, e.g., to roads or schools. The primary assumption behind this operation was that economic and social growth, in definite phases of development, is connected with spatial concentration of people and of means of production. But another assumption seems to have been a realization that, given the established shape and contents of the existing infrastructure, it would not be possible to distribute these to a satisfactory proximity to where a large proportion of the population lived. This assumption is in all probability correct, but it could at the same time imply that no or little qualitative change in the shape and contents of the infrastructure is envisaged. At least I would argue that *there appears to be an implicit reluctance towards changing and redefining the established shape and contents of the infrastructure.* If this is the case, the villagization campaign might be of dubious value to the peasants. Because, apart from the inevitable disturbance and thus drop in production caused by the movement, the fact that the movement is made towards infrastructural installations founded for *other* purposes than those laid down in the Arusha Declaration may turn out to have effects which will outweigh the assumed benefits of bringing people closer together. There is, for example, little immediately to be gained for banana and maize growers when moved

to coffee roads, in particular when these roads are situated on top of ridges. Bananas grow best in valleys with fertile soils and natural water supply. Maize requires more reliable serviceability than coffee. It needs finally to be pointed out that nucleating people along roads potentially facilitates easier control of their production than otherwise.

It seems to be only in education (which of course is extremely important) that a visible effort was simultaneously set in motion towards a redefinition of shape and contents. That is, if the achievement of Universal Primary Education can be accomplished as fast as declared (10 years ahead of a previous target), it means by necessity changing the established standards and notions of how a school should look in order to be recognized as a school. It still remains to be seen whether the result will just be a lowering of the standards in force prior to the announced change of emphasis, in terms of poorer buildings, more pupils per teacher, poorer teacher training, etc., or whether a qualitative change in aims and notions of schooling will be brought about. A notional revolution has probably to take place in other fields as well. Generally speaking, a lot of set standards need to be abolished which from a *functional* performance point of view are either unnecessary or have directly opposite effects of what the declared purposes are, e.g., which only serve prestigious aspirations for »modernization«.

Let me cite an example of what I have in mind. There seems to exist a notorious preference for extravagant public market buildings in the towns. Certainly, markets must be clean and proper, but in the cases of new markets I know of, cleanliness and tidiness could have been achieved far below the costs of what was actually spent. On the other hand, the rural local produce markets hardly have any places alltogether.Usually the rural markets are held on a weekly rotating basis within, say, a district. Local petty traders thus have the opportunity to travel from market to market ensuring some distribution of *essential* goods like tools and utensils. But these rotating markets are sometimes forbidden and ordered for Saturday afternoons only. The reason given is that the population is hanging around, lazy and drunk, wasting time which otherwise could be used on intensified agricultural production. I mention this perhaps extreme example to indicate something about the »status« which the rural markets apparently have in the minds of some administrators as compared to urban markets.

In the following chapters I repeatedly come back to the question of required change in infrastructural development policy. I mean *required* when and if the changes in the rural production pattern or technology are to be effected as declared. To support this statement and the analysis in the following chapters I end this section by providing an overview of the infrastructural situation as it was in 1974 in West Lake region. If anything, West Lake is probably better off in respect of infrastructure than many other regions of the country.

Roads

The total length of roads in West Lake region is about 3,700 km, but 2,400 or 65 % of these are of dry–weather standard only, i.e., they are closed for normal traffic during protracted periods of the wet season. The district centres (see fig. 8) have all–weather connections to the regional centre, although twice in 1974 it happened that the Karagwe district centre was cut off for several days. This tells something of the all–weather standard we are talking about: The roads are all of gravel or earth, so a 100 % serviceability is impossible to achieve. But it is when it comes to the designated rural centres that the trouble starts. 11 out of 30 rural centres are not on the all–weather road network. This means that they are practically without road connections to the rest of the region for something like two or three months of the year. As the rainfall intensity is very unpredictable most of the year this results in just as unpredictable accessibility to these 11 rural centres. But as said, the poor accessibility in the wet season to large parts of the region doesn't seriously affect the coffee production. It is much more serious for, say, small–holder maize production the planting and harvesting of which takes place in the months with chances for high rainfall. And maize production is highly dependent on timely deliveries of inputs, e.g., seeds and fertilizers, and of proper storage and transportation of the harvest. Most craftsmen who would opt for full–time occupation in their trade would also be seriously disturbed by the unpredictable accessibility, at least if we think of such productions which depend upon intra–regional deliveries of inputs or sales of output. By the way, *such craft production which doesn't depend on such connections are by and large already there.*

Transportation.

Transport within the region is limited to buses, lorries and smaller vans. A large part of the hinterlands is undersupplied or unsupplied with transport facilities, leaving passengers to wait for days and agricultural products, e.g., bananas, to be wasted because of this situation. About half of the population of the region live more than 5 km from a bus route, but considerable variation exists between the districts. In Karagwe district the proportion is 70 %. It is practically only the coffee marketing trucks which reach all parts of this district, and they frequently arrive empty to the collection posts and leave with only coffee. Garage facilities and petrol supply is almost non–existing outside Bukoba town. This means that transporters have to carry their own mechanics, spares and fuel supplies to the districts if they want to have a fair chance to be able to return on their own.

Communications and power.

The postal service to the districts is inadequate and rather unevenly distributed in favour of Bukoba district, although it could be argued that it would be the districts most distant from the regional centre which are in need of the best coverage with this service. The only telecommunications to the districts are the police radios at the district centres, but these are not for public use. Electricity supply exists only in Bukoba town apart from a few small private generators.

Marketing and collection

Marketing of locally produced goods and food crops has remained on a small–scale and has not to any noteworthy extent been incorporated in the formally recognized and controlled marketing system which is mainly concerned with the coffee and cotton produce of the region. It will be pointed out later, but should be mentioned here as well, that the products of the cottage industries are not marketed through the ordinary retail shops. Even the cooperative shops tend only to buy and sell »recognized« mass–produced items of the registered industries. The products of the cottage industries are thus dependent upon the local markets only. Some organized food crop marketing had been established in the region by the cooperative union (mainly formed by coffee producers) and the National Milling Corporation. The food marketing activity of these two institutions was not clearly

coordinated though, and was all in all hampered by lack of proper stores (with solid walls and shelves), good bags, proper ventilation etc. All the cooperative unions were dissolved in 1976 and the food marketing organization in West Lake was taken over by the Tanzania Coffee Board as far as the collection within the region goes. But it appears that it will take considerable time before food will be collected as efficiently as the coffee. The number of coffee collection posts was near 200 and only 30 % of the population (and a smaller percentage of coffee producers) had more than 5 km to walk to the nearest post. So at least the coffee collection worked fairly well as did the cotton collection in Biharamulo district.

Distribution

Until recently all wholesale trade was located in Bukoba town. However with the establishment of the Regional Trading Company, the districts also got some wholesale facilities. How well these function now I don't know, but a check–up in several district RTC stores during 1976 and 1977 gave me the impression of very few things in stock indeed. I admit that I only asked about the stock of farm implements (of which I found practically none). So I guess that if a shop keeper wants to buy something a little bit unusual for his customers he must probably do as he had to do in 1974, namely travel to Bukoba. If his shop is in Karagwe district this means travelling up to two days to get to the wholesale shops in Bukoba Town, sometimes having to wait several days to obtain what he wants, and then spending two days again to get back by bus to the district centre and then hitching a ride the rest of the way. The same would be the situation for a craftsman wanting to get, e.g., bolts and nuts or even nails. It will only be when sub–wholesale is established in the rural centres that the craftsmen will get a satisfactory situation in this respect. As a whole, insufficient distribution of supplies to the rural areas appeared to be a major constraint for most basic production. If inputs can't be delivered to the farmers and to the craftsmen , and in time, they can't be expected to adopt improved techniques. If necessary consumer goods can't be delivered, incentives to produce are reduced even more, and apparant lazy attitudes are bound to prevail.

Financial institutions

Banking facilities are solely the responsibility of the National Bank of Commerce. It has offices in the district towns. The bank has also started operating bank agencies which are mobile bank units visiting an area on certain fixed days. In 1974 only 4 such agencies were in operation. But as argued in section 2.2 it is not sufficient to note that so and so many banks are in operation. We need to look into how they operate. In the context of this study we need to know how the craftsmen are served. The bank has been instructed to give loans to small industrialists, and time will show whether the bank will succeed in reaching out to the rural areas in any significant way. One requirement for doing so is a redefinition of credit worthiness. This will imply a notional redefinition of what an industry should »look like« in order to be recognized as such. At least until 1974, the Factory Act which had not been revised substantially since Independence was applied. This act demanded various physical installations to be present, such as concrete flooring and waterborne sanitation, in order to get the approval of the factory inspection. Such demands of course exclude the cottage industries from recognition. SIDO is however now active in facilitating loans.

Land Development

Under this heading I just want to mention that a new concept of small industries site and service schemes was introduced for the purpose of the regional plan. No provision of site development for small rural based industries had been made before. What the idea implies is really only the setting aside of a, say, two acre plot as close to the market place as possible and gradually providing it with a small access road, water supply, drainage, and eventually electricity. Perhaps fencing. Nothing more. Groups of craftsmen can then put up their workshops, be registered and assisted by SIDO according to requirements.

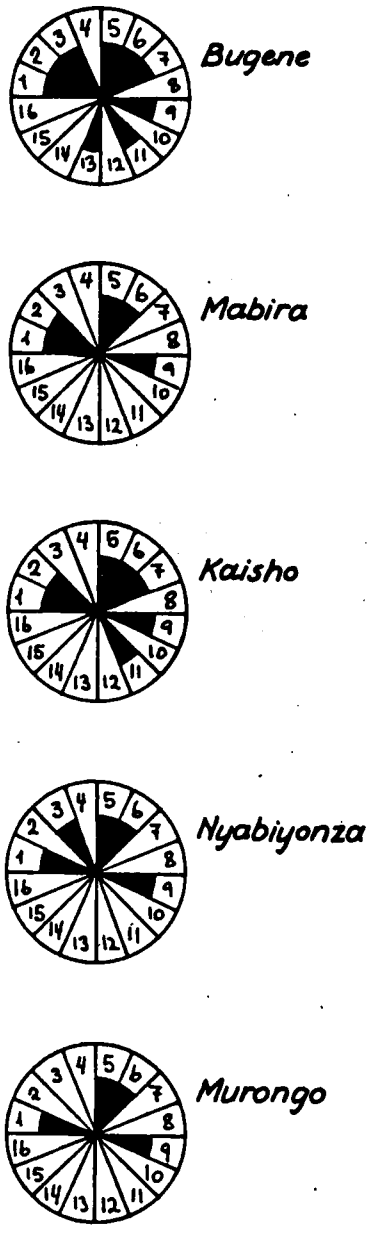
Rural centres.

Now I partly leave the review of existing facilities and present some of the proposals of the planning team for improving the situation just described. At the same time, the presentation is a kind of summary of the existing situation relevant for this study.

With the aim to achieve a coordinated decentralization of economic

infrastructure in the rural areas of the region the planning concept of »rural centre« was introduced. A total of 30 such centres were included in the final plan. The choice of a location to be designated as a rural centre was based on the following strategic considerations in the plan: (a) Area potential in terms of priority production, (b) anticipated population concentration at the end of the five–year planning period, (c) farm to centre travel–distance, and (d) existing infrastructure and level of economic activity. Then a list of administrative, social and economic services was put up to serve as a *model* for a viable rural centre, which would support an increase in *both* food crop production and cottage industries production over and above the existing level. This list is presented in *fig. 10* and depicted on *fig. 11* for one of the districts, together with the results of a survey made of existing facilities in all the designated rural centres of that district. All districts were surveyed. Accessibility to the centres was included in the account. A corresponding model was made for what was deemed to be a viable district centre in terms of services other than those scheduled for the rural centres. The list of these services is contained in *fig. 12.* The plan was prepared in such a way that both models could be implemented according to a phased programme, not fully within the five–year plan period, but to a large extent. In fact it was stated in the plan that if the regional authorities would not give highest priority to the encouragement and control of the implementation of the district and rural centres programme, including the road upgrading programme, NO increase in production and NO development could be expected to result from the planned efforts in the other sectors of the regional economy, be it agriculture, fisheries, cottage industries, etc.

The results of the survey of how many services were already existing in the rural and district centres are summarized in *table 6* and visually expressed on *fig. 13.* For both types of centres a rating system is made which includes 4 points to »administration and access«, 4 points to social infrastructure, and 8 points to economic infrastructure. Each point represents a particular service item as listed in the models. The table gives a quantitative account of the extent and distribution of the various services. The map summarizes this account. It clearly comes out that Bukoba district is much better provided with services than Karagwe and Biharamulo districts, whereas Ngara rates somewhere in between. This trend is even more pronounced in respect of economic infrastructure of which there isn't very much in any case.



ADMINISTRATION AND ACCESS

1. Ward or division office
2. All weather access road
3. Bus route
4. Bus stand

SOCIAL INFRASTRUCTURE

5. School
6. Dispensary or Health Centre
7. Piped water supply
8. Community development centre

ECONOMIC INFRASTRUCTURE

9. Primary marketing society
10. Sub-wholesale
11. Postal service
12. Banking service
13. Petrol & garage
14. Small industries site and service scheme
15. Grain mill
16. Electricity supply

NB: Where a section is fully shaded it means that the service is available to a "satisfactory extent".

Fig. 10: Karagwe district: Inventory of services in rural centres

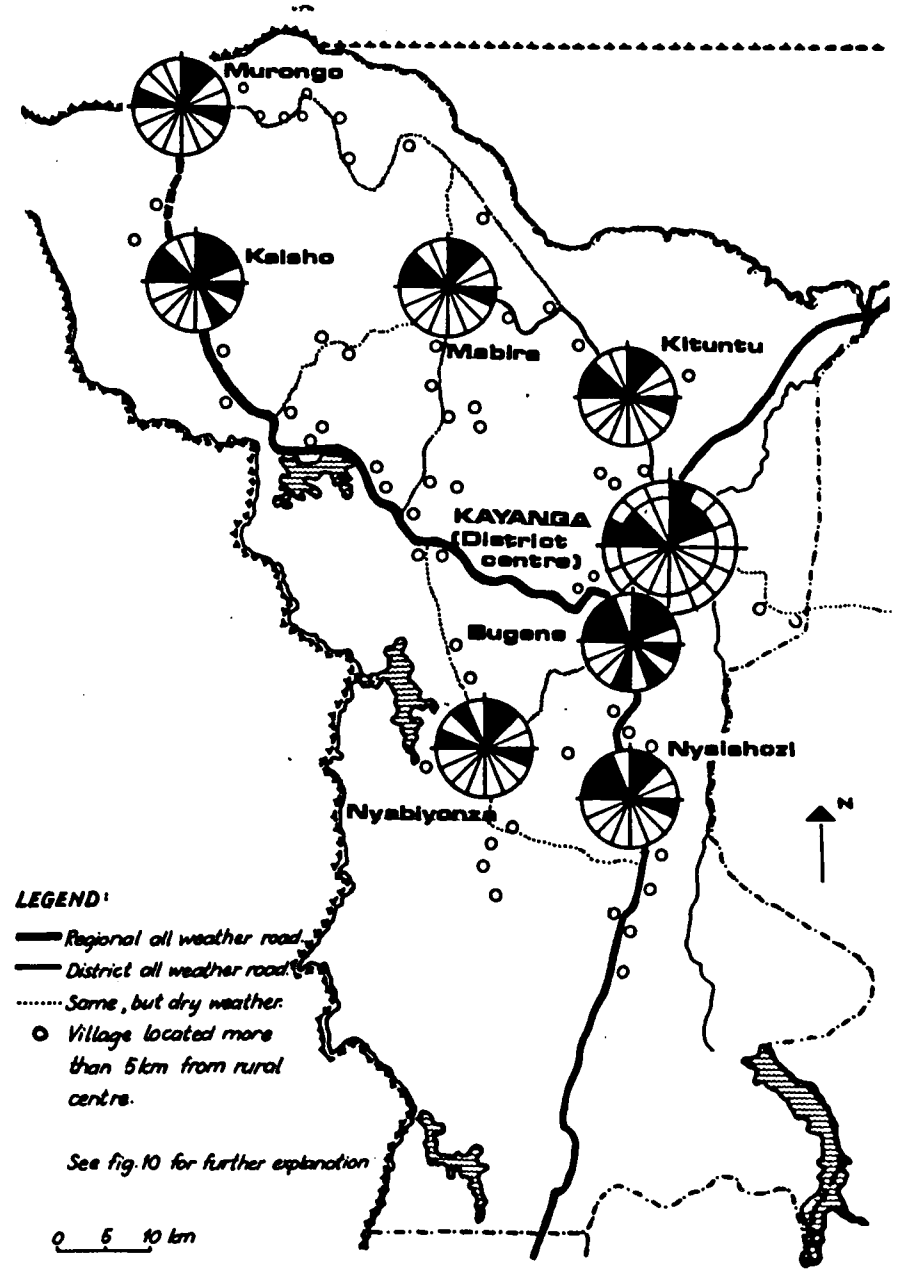
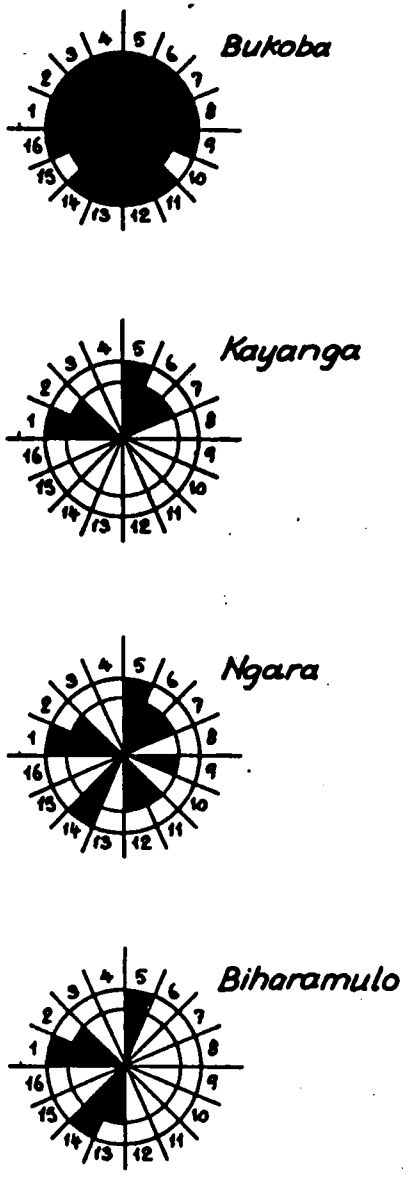


Fig. 11: Karagwe district: Distribution of rural centre services



ADMINISTRATION AND ACCESS

1. District offices
2. E & M garage
3. Busstation
4. Telephone

SOCIAL INFRASTRUCTURE

5. Hospital
6. National housing scheme
7. Community centre & library
8. Stadium

ECONOMIC INFRASTRUCTURE

9. Cooperative export crop marketing branch
10. Food crop marketing organization
11. Coop. wholesale branch
12. Coop. transport branch
13. Regional Trading Corporation branch
14. Market
15. Small industries site & service
16. Electricity supply

NB: Where a section is fully shaded it means that the service is available to a "satisfactory extent". Partly shaded means that the service is available to a limited but not sufficient extent.

Fig. 12: West Lake region: Inventory of services in district centres

TABLE 6

RATING OF SERVICES AVAILABLE IN RURAL AND DISTRICT CENTRES IN WEST LAKE REGION

DESCRIPTION	BUKOBA	KARAGWE	NGARA	B'MULO
DISTRICT CENTRES:				
ADMINISTRATION AND ACCESS (maximum 4 points)	4.o	1.5	1.5	1.5
SOCIAL INFRASTRUCTURE (maximum 4 points)	4.o	2.o	2.o	1.o
ECONOMIC INFRASTRUCTURE (maximum 8 points)	7.o	o.o	2.5	1.5
TOTAL POINTS (max. 16)	15.o+)	3.5	6.o	4.o
RURAL CENTRES: (average points per centre)				
NUMBER OF CENTRES	1o	7	5	8
ADMINISTRATION AND ACCESS (maximum 4 points)	2.6 2.6	2.1 2.1	2.2 2.2	2.o 2.o
SOCIAL INFRASTRUCTURE (msximum 4 points)	2.6	2.3	2.2	2.1
ECONOMIC INFRASTRUCTURE (maximum 8 points)	2.5	1.4	2.o	1.5
TOTAL AVERAGE OF POINTS (maximum 16 points)	7.7	5.9	6.4	5.6
TOTAL POINTS OF DISTRICTS AND AVERAGE RURAL CENTRES (maximum 32 points)	22.7	9.4	12.4	9.6

+) The reason for the comparatively high points for Bukoba district centre is that it is the regional centre as well.

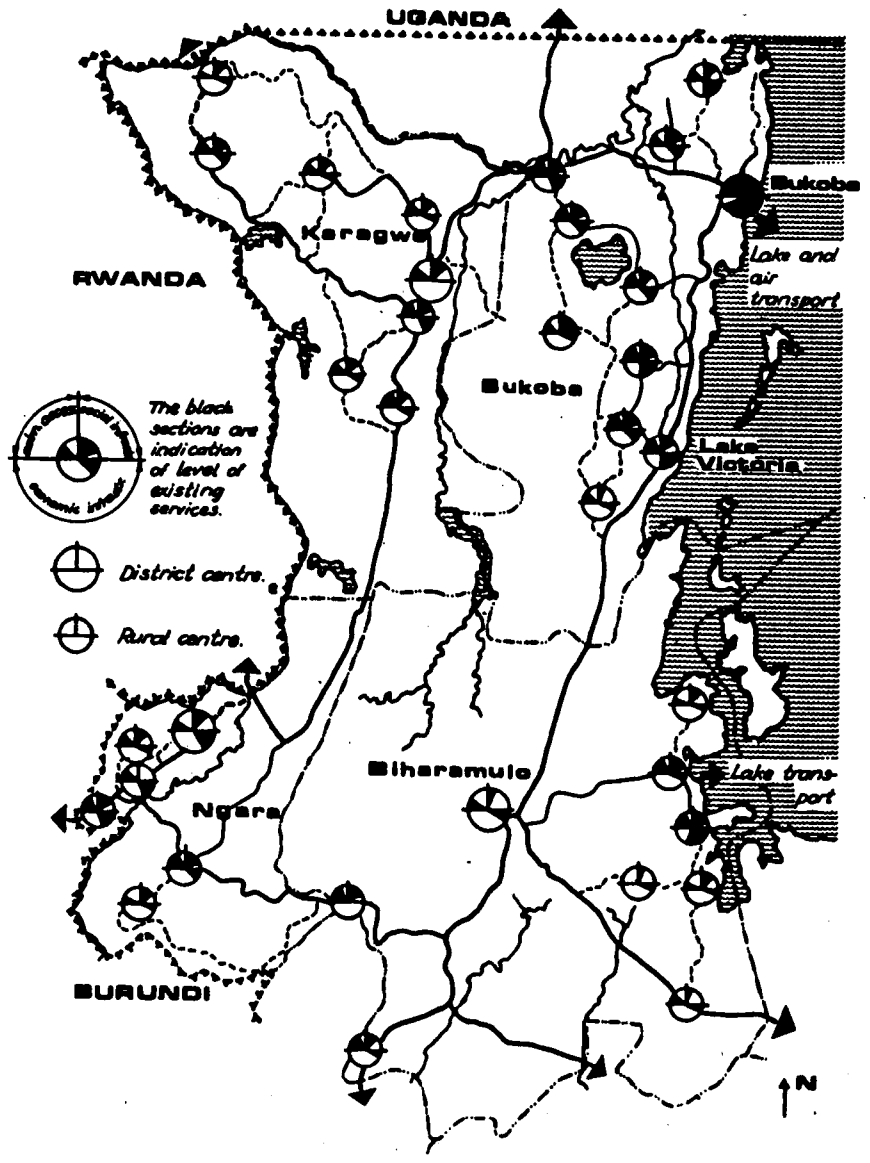


Fig. 13: West Lake Region. Summary of social and economic infrastructure in rural and district centres

It should be stressed though that the existing services as described were adequate for an export of some 15,000 tons of clean coffee and of 21,000 bales of cotton (1973). No wonder, as it was made for the purpose of this production, or in other words, it was made to match the requirements of the coffee and cotton technology. What is illustrated on fig. 13 and symbolized by the white sections of the small circles is what *more* is required before the infrastructure can be said to meet the requirements of small–holder food technology, say of maize, *and* of most cottage technologies. The degree of overlapping between the requirements of these technologies and of the export crop technologies is not very large. (4)

With regard to the future infrastructural development policies, there appears to be an expressed intention in the Third Five–Year Development Plan to concentrate investment in directly productive projects at the expence of indirectly productive ones, such as infrastructure. I am not able to judge the consequences of this policy, except that I can confidently state that the rural infrastructural tasks ahead are tremendous, particularly in respect of economic infrastructure to catalyze small–holder production and crafts activities, provided, of course, that expansion of such production and activities is wanted. There seems also reason to believe that little attempt so far has been made towards a qualitative change in the shape and contents of the infrastructure away from the established norms and notions, e.g., towards an internal integration. I admit that this rather negative impression builds on an intuitive impression, only supported by few factual observations. These primarily refer to the reception of the regional development plans made during 1974–76, including the West Lake one.

The West Lake plan was politely received by the regional authorities, but subsequently kept confidential and not distributed to the district authorities concerned in the region. The official explanation given was that it was »too sophisticated« for that region, i.e., again a somewhat polite or even tactical reasoning. The top regional administration had difficulties in hiding that they were disappointed with the contents of the plan. They had wanted a series of rather big and capital–intensive projects or schemes included in the plan, something we neither found justified nor possible within the budgetary constraints. But more important, the terms of reference for our planning work expressly stated that the main aim was an *integrated* plan of all the regional sectors, and not a project by project formulation exercise. The big

projects would have been notoriously in conflict with that aim. In other words, there clearly appeared to be a contradiction between what the regional authorities wanted and what we were told to do by the central planning authorities, at least by the department concerned with the formulating of the plans. Be as it may, West Lake region does *not* yet have a plan for rural infrastructural development which is likely to be implemented very soon (5). I don't know the exact fate of all the other regional plans, but at least two other plans got in effect the same reception as the West Lake plan. They may all have been bad plans, including the West Lake one, in the sense that they didn't provide for enough integration, or that they envisaged too rapid integration, etc. However, the critique or whatever we may call the rejection of the plans didn't argue on those grounds at all.

Chapter 4

Demand and supply of farm implements

Before discussing the village blacksmiths it is necessary to record what other production takes place in the farm implement trade. Too often studies of small industries only in the end bring a few lines of reference, if any, to what happens in the large–scale end of the same trade. Such studies are of limited interest, and certainly of little use for an appraisal of the prescriptions offered, e.g., to enable a judgement of the expediency of promoting the small–scale end. Moreover, I present this chapter's record of the large–scale end of the industry before the small–scale because I want to make it clear that I have no preconceived opinion about smallness necessarily being desirable, beautiful or whatever. My starting point, as mentioned in the introduction, was a concern about the inadequate supply of farm implements in rural Tanzania: Without provision of these means of production, there will be no production.

Consequently I begin this chapter by looking at the supply side, as it appears to be, based on available information, i.e., on the registered production and import. Some mention of the registered past demand is also made. I then indicate what medium–scale production capacity there seems to be. Finally some demand projections are made which make the depiction of the apparent demand–supply »gap« possible.

4.1 Supply of large–scale manufactured farm implements

All large–scale manufactured farm implements distributed in Tanzania until 1970 were imported. That year a relatively large factory started its operation, the Ubungo Farm Implement Manufacturing Company (UFI), located in Dar es Salaam. Construction of it began in 1966 after a government agreement had been made between the Peoples Republic of China and Tanzania for an interest–free loan. The company was incorporated and became a member of the NDC group of enterprises in 1968. The initial investment was 8.4 mill. T.shs. (about 1 mill. US dollars), and the number of employees is presently about 350. Although the factory was set up with Chinese expertise, it was soon handed over to complete Tanzanian management.

The factory was fitted to produce a wide range of both hand tools, animal implements, and hand–operated processing equipment, such as jembes, axes, ox–ploughs and spares to these, groundnut shellers and winnowers. In other words, the product line was quite multi–purpose and versatile. Potentially, such a plant is conducive to the generation of innovations and adaptions for the ultimate benefit of the users, but also for the workers as they can gain useful experience and trade training. If allowed to exploit this potential, the plant could thus become more than just an import substitution project: It could make a contribution to what has been termed the »technological capacity« of the country. Since the adoption of the Basic Industries Strategy this aspect has gained increased importance. All possible kinds of metal engineering skills will be demanded, if the strategy is to be carried through.

So far though, the factory has had other things to cope with. Initially it had marketing problems since its products had to be sold through the State Trading Corporation together with imported implements. This was solved when the STC in 1973 was restructured into the Regional Trading Companies. By then UFI was given the monopoly of control of importation, production and sales of all simple farm implements. But other problems cropped up such as shortages of raw materials, lack of space in ships to transport them, lack of machine spare parts, and occasional water and electricity interruptions. These problems of adapting the local infrastructural conditions to the technology are probably gradually being solved. Incidentially these problems are not unique for UFI, they are rather quite common to the establishment of large–scale industries. It should be noted, however, that the cost of the adaption of the local conditions to these industries are rarely debited the industries, neither directly nor in cost comparisons with alternative technologies.

For the said reasons UFI was not able to utilize its full capacity. On an average yearly basis its jembe production capacity of 800,000 was only utilized at about 40 % during its first five years of operation. The utilization of its 8,000 ploughs per year capacity has been somewhat higher. Some axes and groundnut shellers have also been produced. But all in all, capacity utilization has been below 50 %. The recorded jembe production figures are shown in *table 7* together with the volume of imports since 1966. We also see that average yearly consumption dropped between 1970–74 compared to the 1966–69 period.

TABLE 7

IMPORT, PRODUCTION AND SALES OF JEMBES (1966 - 74)

Year	Imports	Comsumption out of imports	Local large scale production	Total home consumption
1966	1,555	1,549	-	1,549
1967	1,773	1,761	-	1,761
1968	1,516	1,51o	-	1,51o
1969	2,266	2,254	-	2,254
197o	1,96o	1,941	273	2,214
1971	1,222	1,121	493	1,614
1972	76	72	153	225
1973	733	729	269	998
1974	927	887	328	1,215
Total	12,o28	11,824	1,516	13,34o
Average 66-69	1,777	1,768	-	1,768
Average 7o-74	984	95o	3o3	1,253

(Source: NDC 1975)

The initial difficulties have not discouraged the company. The jembe production capacity is presently in the process of being more than doubled, i.e., to 2.2 mill/year. Also increased capacity for ploughs, axes and pangas (machets) is being considered. This may be taken as an indication of more and more emphasis being given to mass production of relatively simple products, i.e., towards the import substitution type of production policy, and as we shall discuss later, even towards possible future exportation.

In connection with an announcement about the increased capacity I came across a hint about »de–bottle–necking« of certain features in the original production line. I was not able to find out exactly what the bottle–necks were. But a foreign aid expert told me that the factory had been troubled by »design errors in its layout«, and that these were also the reasons for the low capacity utilization. However, we should understand the talk about bottle–necks as an expression and confirmation of the intentions of the UFI/NDC management to use the factory for mass production purposes. I therefore find reason to *guess* that the original purpose on the part of the Chinese layout was for a more diversified production than what eventually suited the UFI management. Being a member of NDC, the primary purpose of UFI can also be taken as more or less identical with that of NDC, viz. profit–making, as was the case with NSIC as mentioned in section 3.3. It is probably seen in the light of this fact that we should understand the design error claim. After all the Chinese do transfer technology in much the same way as everybody else, directly and without very many adaptions. And just as the Chinese themselves use another profitability criterion than most others, certainly than the capitalist countries, they use this other criterion abroad. They may, for example, value the in–built innovative potential of their particular choice of technology relatively higher than pure profit–making.

A new factory of about the same size as UFI is planned by NDC to be located in Mbeya (in the southern part of the country, next to the new Tanzania–Zambia railway). The site has been surveyed and trial production might be started in 1979–80. Messrs. Mysore Implements Factory of India has been designated to provide technical collaboration. The investment is of the order of 40 mill. T.shs. (about 5 mill. US dollars) in 1975 prices. About 300 jobs will be created by this plant when it reaches its installed capacity of 2,815 tons of hand tools (including 1,000,000 jembes), 730 tons of animal drawn implements,

and 565 tons of tractor drawn equipment (mainly disc ploughs and harrows). This proposed production programme also indicates that mass production/import substitution is in the forefront of NDC's policy.

Annual gross output is valued at about 55 million T.shs. This corresponds roughly to a sales–value of 13 T.shs. per kg. of finished products. This very crude figure I shall use later in an attempt to make some kind of comparison with other types of implement production. I shall refer to this new factory as the Mbeya plant.

4.2. Medium–scale production of farm implements

All registered production of farm implements other than the Mbeya plant and UFI I call medium–scale industries in this context. No hard data exist as yet about the type of implement production or the volume of production which takes place in these industries. UFI is the only enterprise quoted in the 1975 directory of industries as having farm implements as its main production.

Visits in 1976–77 to a number of general engineering workshops in Dar es Salaam and in 8 regional center towns showed that although the machines, skills and exess capacity for making farm and other rural implements are present, practically no such production takes place. A few ploughs were made or rather rehabilitated and some wheel barrows were occasionally produced. None of the firms had any plans either for organized production for the market. They were willing to take limited orders, but for years no orders had been made. Nobody saw this as a direct consequence of the UFI control over the market, the explanation given was rather that the firms themselves considered their present production of steel furniture, steel doors and windows, hospital equipment, etc., as more profitable. They also carried out a substantial amount of odd repair jobs. However, one owner of such an enterprise confided to me that he didn't want to have anything to do with farm implements because, as he explained, these are »political products«. I wasn't able to have this concept elaborated more, but I take it as an indirect reference to the UFI monopoly status and its price regulatory function.

Some of the firms visited were also capable of making more complicated products related to agricultural production, i.e., various processing machines. One firm had developed a maize grinding mill in

various sizes. The capacity of the firm was said to be 30 – 50 mills per month. However, their production had almost stopped because of difficulties in importing the diesel engines that power the mills.

Although not based on a comprehensive sample I nevertheless quite confidently can say that a typical, but rough profile of the kind of firm I am trying to describe is as follows: It is privately owned and the owners are of Asian origin. Fixed capital assets are valued at between 50,000 – 100,000 T.shs. (6,000 – 12,000 US Dollars). 10 % of the machinery is less than 5 years old, 60 % between 5–10 years of age, the rest installed more than 10 years ago. The number of permanent workers is 10 – 16, mainly skilled, 2 – 4 of which are of Asian origin. It was almost impossible to get any clear picture the annual value of output, my best guess is that it might be about 1.5 times the fixed assets. There are something like 25 firms of this type in the country.

There are signs of expressed awareness from the side of the state class that the particular technology of these firms could be a valuable asset. Being descendants of the managers of the old ginneries or sisal decortication plants their owners' technolocy is highly adapted to the local infrastructural conditions. But as the owners belonged to the class of Asian merchants and industrialists, the state class deliberately didn't allow them to expand their production, and thereby the state disconsolidated their influence. The signs of awareness I mentioned above are seen, for example, in a 1978 announcement that the Industrial Licencing Act will be amended so that it will be easier to get licences at the regional level. It has also been proposed by a high powered governmental committee that a clarification of »the ownership issue« be considered. This issue is about the fear of nationalization on the part of the Asian private capitalists. If it hasn't been solved as yet, it might perhaps be expected that the issue will be solved by some kind of state assurance, that private capitalists would be allowed to operate within certain limits determined by size of investment, number of employed, and share in the national market. Talking to some Asians in early 1978 left me with the impression that their optimism indeed was growing. So far we can only guess what has brought about this change. Either the state class feels confident of themselves to be able to control the Asian bourgeoisie. Or, the state class being in a shaky, transitional position itself, might seek an alliance or even eventually merge with them. The reason why I dwell at this guesswork is that the answer has consequences for the direction which the rural industrialization efforts might take.

A particular institution needs to be mentioned in this context of medium sized production, viz. the Tanzanian Agricultural Machinery Testing Unit (TAMTU). This is a Ministry of Agriculture unit, and although it was primarily established for testing, adapting and designing of farm implements (mainly ox–drawn implements), it also carries out some production for sale. It has furthermore 6 »satelites«, called Rural Craft Workshops (RCW), in the regions, and these have mainly been concentrating on production so far. As such TAMTU and its RCWs can be counted as a medium–scale enterprise. The total capacity is rated as equivalent to about 400 ox–carts and 150 ox–ploughs per year. Full capacity utilization has not yet been reached though. One RCW, visited in May 1977, had 18 ox–carts standing in its yard waiting to be sold. Potential buyers had been identified but no means of transporting the carts to the more remotely located farmers had been found. The RCW had therefore started making frames for windows and doors until the distribution problem could be solved. Another RCW, located in a traditional ox–using area, had raw materials supply and management problems and could not meet the demand of the area for carts and ploughs.

The ministry has proposed six new RCWs during the next couple of years. The aim is eventually to have one RCW in each region and to add an ox–training and demonstration component to all of them. The RCWs are also supposed to provide craftsmen's training and to encourage the creation of village workshops. On the latter point the function of the RCWs is therefore to some extent overlapping that of SIDO. Moreover the RCWs themselves might come into a competing position with similar workshops which SIDO tries to promote in the regions, e.g., SIDO's industrial estates general engineering workshops, if careful coordination between SIDO and RCWs is not made. The competition may not be as much for the market as for the supply of raw materials, especially steel.

The cost of a new RCW is about 4.5 mill. T.shs (about 0.5 mill. US Dollars) of which the workshop equipment and plant account for about 1 mill. T.shs. Each RCW is scheduled to employ some 30 persons. Of these only 12 are productive workers and about 8 are clerical type of staff.(6) In other words the purely productive side of the RCW is not very important relative to the training and demonstration aspect. This makes cost efficiency comparisons with other similar production units rather difficult. Considering the

relatively costly production machinery though, one could doubt the value of the kind of training the locally recruited craftsmen will get at the RCW if, as it is foreseen, these trainees are to return to the villages to continue ox–equipment production. Only in very rare cases will the trainees be equipped with similar production machinery in their respective villages as what they have been trained on in the RCWs. Granted, they may find use for their new skills somewhere else.

But also from another point of view the idea of the RCWs being production sattelites to TAMTU could be critizised. It is not that there isn't a need for actual production of the prototypes developed at TAMTU. On the contrary, for a long period the drawback of the TAMTU set–up was that, once a prototype had been developed, it was practically left there to rot or rust, i.e., it wasn't put into the mass production it deserved, or into the production by the masses that it was designed for. It seems of doubtful value to organize the production within the regie of a ministry which isn't geared to production. Invariably the production is hampered by bureaucratic procedures, and thus loaded with heavy overhead costs. And as such neither mass production nor production by the masses are brought about. In order to effect such type of production, either UFI should have been involved, or existing groups of craftsmen been employed and assisted to copy the prototypes. The former solution presupposes cooperation between TAMTU and UFI, the latter solution would have demanded confidence in the capability of local craftsmanship. Neither of the conditions appear to have been present in the past. Only lately there seems to have been some change in this state of affairs. UFI and SIDO have now been involved in considerations about changes in the TAMTU and RCW set–up.

To the reader without any previous insight into these affairs, the above presented discussion may look unnecessarily detailed. But in the discussion of various types of approaches to promotion of rural crafts in chaper 6, I refer to the TAMTU/RCWs as a concrete case in point of previous approaches.

Finally, SIDO in Tabora region has worked on plans for a medium–scale farm implement enterprise. Its capacity would be for 260 tons of animal drawn implements per year. The investment is of the order of 2.7 mill. T.shs. (0.3 mill. US Dollars) and there will be employment for some 70 people. The enterprise is proposed as part of a World Bank sponsored rural development project for the region. It

should primarily cater for the demand within the region, but may also have capacity for supplying neighbouring regions with ox–equipment. For the purpose of comparisons later, I can quote that the total sales value per kg. has been estimated to be of the order of 12 T.shs. I shall refer to the enterprise as the Tabora plant.

4.3 The registered distribution of farm implements

As already mentioned, UFI is charged with controlling the registered sector distribution of all agricultural hand tools and animal drawn implements. In practice, as we have seen, this means distribution of its own production and of what is imported. The main channel used is the RTCs. These place their orders directly to UFI. Once delivered the tools are placed in the stores of the RTC in the regional centre towns. Gradually RTC has also established sub–wholesale stores in the district centre towns, i.e., the tools will eventually be distributed from the districts also. Shop–keepers then buy the tools from the RTC stores.

It is the policy of RTC and other state controlled wholesale agents primarily to sell essential tools and consumer goods to cooperative shops and government agencies, i.e., to disfavour privately owned shops in order to promote cooperative retail distribution. The idea is of course to retain trade profits within state control. However advantageous this policy may be, it has had repercussions for the consumers. The distribution of farm implements is a case in point. The policy has namely resulted in a shortage of implements in the villages in the building up period of the RTCs and the cooperative shops. How long this period will last we can only guess of course. It hadn't ended by mid 1977 when I made a check–up in quite a number of district RTCs. There was hardly anything in stock, and almost no farm implements. The main reason given was »the problem of transport« which incidentally is accused of causing practically all other difficulties talked about in the regions. This problem, as far as wholesale and retail distribution is concerned, was previously overcome by a network of privately owned vans and pick–ups, e.g., many shop–keepers had their own means of transport. This the cooperative shops may eventually also have, and the RTCs may also get sufficient trucking capacity to ensure timely deliveries to the districts.

The old private system of distribution had seemingly also a close communication network from the consumers in regard to their

preferences or complaints. These were reported to the importers who subsequently adjusted their product mix. Certain new innovations in products may also have been spread through more or less agressive sales promotion activities. Another advantage was the small cash credits offered by both wholesale agents and even retail shops. Neither of these advantages for the consumers are presently at work.

Another snag of the new system has to do with the internal function of the RTCs themselves, e.g., their ordering procedures and price fixing arrangements. This appears not yet to have reached the same efficiency and necessary flexibility as the previous system. As could be expected, it is still characterized by bureaucratic rigidity. Thus, one regional RTC had quite a quantity of Brazilian made jembes in stock which, however, were of a very poor quality. They broke after a few minutes' use on the hard soils of the region. However, there appeared to be no procedure for the RTC management whereby it could sell the jembes at a much lower price than originally fixed, nor could it send them back. It furthermore seemed reluctant to order other jembes before the poor ones had been sold. This example is probably an exception and does not make for a fair evaluation of the RTCs. I cite it nevertheless, to illustrate the point of what problems of internal function the system has to cope with.

In more theoretical terms, the issue I have been discussing is about the set–backs encountered when an aspect of the social organization of production is changed. In this case the aspect has to do with a change from private ownership and control to state ownership and control over the distribution of means of production. The crucial variable seems to be the rate at which the old system disappears, which is faster than the rate of establishment of the new one. Viewed as such, one could argue that my study makes too much fuss over a situation in transition. However, the period of transition seems to be made unnecessarily long and painful for the peasants. I believe that there exist means at the disposal for the state class by which it could relieve the painfulness.(7) Chapter 6 contains some prescriptions of those means.

I have no means to measure the relative effectiveness of the distribution system at present, and no direct quantitative figures for the overall magnitude of the unsatisfied demand for implements, only indirect indications. One indication is that while the total demand for new jembes in 1976 was projected at about 3.2 million, RTC and UFI

had some 1.4 million in stock at the beginning of that year. As shown below (section 4.4) the expected demand should in 1976 only have been 2.5 million under »normal« distribution circumstances. We may therefore guess that 1975 had an under–supply in the order of 0.7 million jembes, as distinct from a deficit in production or importation. Another indicator of the relative desperation of the situation can be read out of the National Agricultural Development Programme (NADP) proposed for 1977–80. Over the first three years of the programme it was envisaged that about 15.000 pieces of ox–equipment, 40,000 pieces of hand tools (30,000 of which were jembes) and 700 pieces of post–harvest equipment should be extraordinarily imported and directly sold to peasants through the agricultural extention officers in the districts. This scheme was to be financed by a loan for IDA of about 24 mill. T.shs. (3 mill. US Dollars). We should note the very high ox–equipment contents of this consignment, since it is indicative of a NADP drive towards oxenization.

In section 6.2 I further discuss the importance of having as detailed a picture as possible of the function of the distribution system when rural industrialization is on the agenda. It needs perhaps to be said that I by no means try to ridicule or »accuse« any particular institution by detailing the present deficits of the situation. I substantiate my study by reference to the actual orders of magnitude of the problems, because such problems are too often discussed in abstract form. Consequently, readers are rarely able to appreciate both the relative and total seriousness of the many symptoms of underdevelopment which we deal with.

4.4 Demand–supply balance

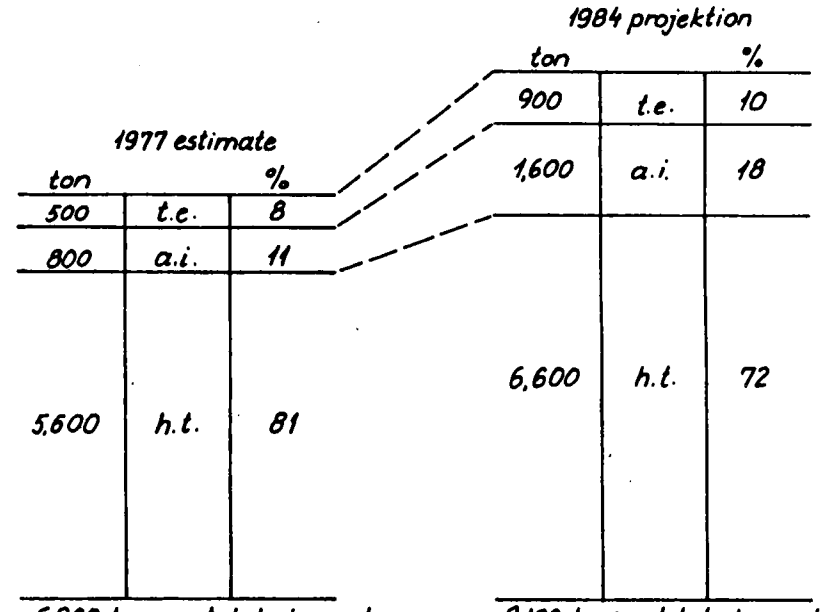
In line with what was just said about looking at both relative and total magnitudes I conclude this chapter by recording what I know about the demand–supply balance of farm implements. In other words I want to identify and quantify the »gap« between demand and supply, so far only loosely referred to as an undersupply.

Regrettably it is only jembes that I have some reliable data for on the past trend in the demand–supply gap. But as the jembe is still the most important implement, we may regard this trend as indicative for the rest of the more simple farm implements. And even the jembe gap is hard to specify, particularly the demand side of it. A rural household

survey made in 1969 did however record an average figure of 3.1 jembes per household. (8) Assuming that this average holds for 1975 as well, i.e., assuming more or less constant technology, and taking the average household size to be 4.6 people, then the 14 million rural people in 1975 had 9.4 million jembes in their possesion, *or would have liked to have had them.* Various other surveys tend to confirm that this figure is quite a realistic estimated order of magnitude.

To arrive at a rough picture of the size of the annual jembe demand we need to make some more assumptions. The first is about the average lifetime of a jembe which is said to be 4 years, viz. a 25 % annual replacement rate. The second is about the growth in demand in proportion to population growth. Here I assume that both growth rates were the same, namely 2.7 %, up to 1975. Thereafter we might expect a decrease in jembe growth rate to about 1.5 % due to the agro–mechanization efforts of the government. But still 2.7 % might be closer to reality, so I will use both rates as possible limits in my projection. This contention is supported by a demand projection made by NDC in 1975 in connection with the plans for the Mbeya plant. In fact, this is the nearest I could come to a *quantified* statement in respect of an agricultural mechanization policy. No direct policy statement was made, but the demand projection contained an implicit policy intimation in that it predicted that the relative share of total demand, *measured in ton,* between hand–tools, animal–implements and tractor equipment would change from 81–11–8 (%) in 1977 to 72–18–10 (%) by 1984. Moreover, the total weight of hand–tools demanded anually is projected to increase from approx. 5,600 to 6,600 tons over the same period, representing an average annual increase of 2.3 %. These magnitudes are pictured in *fig. 14.*

On the next figure, *fig. 15,* the past, present and future »gaps« are illustrated as they appeared in 1976. The top lines of the figure depict the estimated demand. We note that it splits up into two in 1975, i.e., into a »pessimistic« line based on an annual increase of 2.7 %, and an »optimistic« line based on 1.5 %. In the following I mainly refer to the optimistic line (in order to avoid accusations of being an undue alarmist). As regards the past supply, I have plotted sales *both* from imports and from UFI production using the figures already presented in table 7. What is called »the past gap« in the figure is now easily visualized and calculated. On an average yearly basis it was of about o.4 million jembes in the 1966–69 period. Thereafter, i.e., in the 1970–74 period, it was 1.2 million on the average. The average figure



6,900 tonnes total demand. 9,100 tonnes total demand.
t.e. = tractor equipment. a.i. = animal implements. h.t. = hand tools.
Source: NDC 1975.

Fig. 14: Projection of total and relative demand for hand, animal and tractor implements

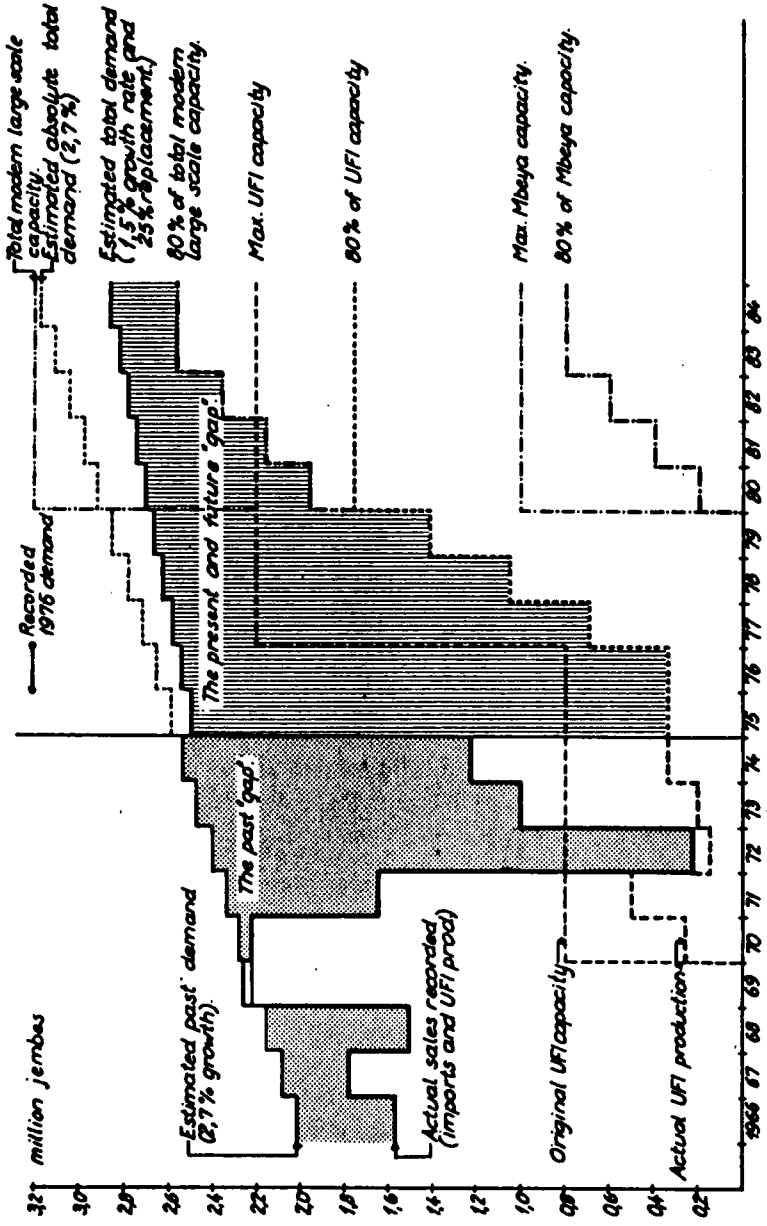


FIG. 15: DEMAND - SUPPLY BALANCE of JEMBES 1966 - 84.

was 0.8 million for the whole period.

The figures invite a number of considerations about the situation in 1975. The jembes in use must have been pretty worn down, possibly resulting in difficulties to keep up agricultural production . But production statistics do not give us any hints we can go by, since the 1973–75 period was affected by extreme dry–weather conditions. The crop year 1975/76 experienced improved weather conditions and crop outputs did increase, although they did not reach the pre–1973 levels. We thus have to look elsewhere for signs which may confirm the undersupply hypothesis. This will be discussed in section 5.4 where I take a hitherto statistically overlooked source of supply of farm implements into consideration, i.e., the production which takes place in the villages. In other words I already here intimate that the above quoted 0.8 million jembe/year gap of the 1966–74 period is not a true picture since it is based on the registered sector supply figures only.

As for the »present and future gap« shown in fig. 15 we note first that possible imports of jembes are excluded. Secondly the increased capacity of UFI and of the new Mbeya plant is depicted. These increases are scheduled to reach 2.2 million for UFI during 1977, and 1.0 million for Mbeya in 1980. In sum this will give a total, modern, large–scale capacity of 3.2 million in 1980. These capacities are maximum figures and may not represent targeted production volumen initially. As we have seen, it takes time to reach full capacity. On the graph I have therefore assumed a three–year building–up period, and I have made the perhaps realistic assumption that only 80 % of full capacity will be reached. Finally, I am able to draw a resulting line marked »80 % of total, modern, large–scale capacity«. It is the area between this line and the line marked »estimated total demand« that I propose as a reasonable estimate of the present and future (until 1985) demand–supply gap of jembes.

The total gap in the period 1978–84 is about 5 million jembes, starting by being 1.55 in '78, reaching a minimum of 0.25 in '83 and increasing again to 0.29 in 1984. In case the agro–mechanization programme, together with the efforts to increase yields by improved seeds, etc., is very successful, the demand curve may decline. If not, it may even increase, making it necessary to use the upper demand curve called »estimated, absolute, total demand« in the gap calculation. In case actual modern large–scale production is not stepped up as foreseen on the graphs the gap will obviously also be larger than estimated.

Considering these uncertainties, and moreover considering the past deficits in supply, I confidently conclude that my »gap« estimate is realistic, perhaps rather too optimistic than too pessimistic. At least I feel that the estimate is a reasonable order of magnitude starting point for the discussion in chapter 6 about how the gap can be filled. I also think that it is significant for my later discussions to notice that NDC apparently attempts to aim at a production capacity which actually overshoots the demand, i.e., completely closes the gap in the early 1980s.

I could continue this exposition by presenting what data exist about the demand and supply of other farm implements. But first, these data are more incomplete and secondly, further quantifications are not really necessary for my case study discussion. Suffice it therefore to note that there appears to be demand–supply gaps for practically all other essential farm implements. At least if we continue only to take large and medium–scale produced implements into account.

There is another aspect of implement manufacture which should finally be mentioned though. This concerns those types of relatively simple tools other than those used directly in agriculture. I think of tools used by village craftsmen, e.g., blacksmiths, carpenters, masons, etc. They can't of course be regarded as important as are the farm implements. Yet, considering the substantial number of craftsmen in rural and urban areas, identified in section 3.4, it has some significance to look into the question of how they are supplied with their instruments of labour. In particular, when it comes to a discussion in the next chapter of how the blacksmiths operate it is important to have this aspect in mind. Another reason for at least indicating how the market is supplied with craftsmen's tools is that the village blacksmiths at present make a number of these tools, including some of their own tools. They also make a range of household utensils as we shall see, so from the point of of view of assessing the full range of potential diversification of the smiths' production, the registered sector supply of these items ought to be considered as well.

However, this matter is rather quickly reviewed. No large–scale production of craftsmen's tools and basic household utensils takes place, except for some aluminium pots and pans of quite sophisticated quality and mainly for the urban market. And this production is a secondary line of an enterprise which primarily makes corrugated aluminium and galvanized plates as well as pipes. Of medium–scale

enterprises there is one which makes enamelware, a few making galvanized buckets and stainless steelware, and one which manufactures kitchen knives. All are producing for the market, but in relatively small quantities compared to the size of the market. Then some of the previously mentioned general engineering workshops occasionally make a series of buckets and other sheet metal utensils, but only to order. Some of the mentioned products are hardly in demand by rural households, simply because of their price. Apparently only the buckets and the knives reach the rural households. We also note that practically no craftsmen's tools of any significance are made in medium–scale firms.

In other words, most of the rural tools and utensils supplied by the registered sector are imported. Just to indicate the approximate order of magnitude of this import we can quote that the aggregated value in 1973 was 20 mill. T.shs. (2.5 mill. US dollars) for imported hand tools and about 10 mill. T.shs. for cutlery, buckets and other domestic metal utensils. As for the distribution through the RTCs the picture is presently as described for farm implements, i.e., rather grim. Essential hand tools appear simply not to be available in many regions of the country. This is probably not just because of inefficient distribution, but also because of insufficient imports.

kingdoms where much of the reason for this power and wealth was their mastery of the technology of iron. A German lieutenant reported in 1892 that he had estimated the number of jembes annually traded at the Tabora market, the main centre for inland trading then, to be 150,000.(10) This corresponds to the production at UFI 80 years later! From the area on the East shores of Lake Victoria we are told that 20 jembes were traded for 35 pounds of ivory. Also that hoes were a regular means of barter around the lake. In fact the reports about iron smelting and forging are so numerous from practically all corners of the territory that it has been suggested that we should correct our perception of »pre–colonial« being equated with »pre–industrial«.

However, the German and later the British colonial authorities actually *forbade* the blacksmiths' trade in many districts of the country, presumably in those districts where they were most active. In case the smiths defied the ban and were discovered by the district authorities, *their tools were confiscated.*

The exact reasons for these attempts to exterminate the trade are difficult to guess. But the smiths were told instead to grow a given amount of, say, coffee or cotton just as the other peasants in the districts. Behind this injunction is probably also the general colonial policy of wanting to secure a market for imported items. The fact that the inter–district exchange of local commodities was actively discouraged, further adds to an explanation. Yet another reason for the ban might be that all smiths were told to stop smithing because some of them were able to make guns.

But these, largely administrative, measures to sabotage the blacksmiths were only partly successful. The smiths withdrew into *hiding* in the forests and swamps. *Thus, to many observers it looked as if they had completely disappeared.* At least we are told that their trade to all intents and purposes died out during the colonial period. During World War II the trade had a short–lived revival, according to studies made in Kahama district. More products may have appeared on the market then than otherwise, presumably because of extreme low supplies from abroad. But I hesitate to believe that the blacksmiths in Kahama had abandoned their production completely until the demand suddenly called them back to their workshops. Rather, they *increased* their production and were allowed to market their things more freely because of the emergency situation.

Of course, I can always argue that since the blacksmiths are still there

today it is because they must have kept up some level of production. But this simple argument doesn't explain why they continued producing even under illegal circumstances. A reason for this seems to have been that the rural population was partly dependent on the supply of tools to the subsistence agriculture for its survival. It further seems plausible that, apart from the illegal status, a reason why the iron–working technology did not develop into a more sophisticated and diversified trade, i.e., remained largely at its pre–colonial level, is that little development took place in agricultural production techniques. We could probably also turn this argument the other way round to some extent: Because the smiths were not allowed to produce freely, the agricultural production techniques didn't develop more than they did. Some of the old smiths, I talked to, told me that always having to be prepared to move your workshop means »that you don't want to have heavy tools«. Finally, in most places the blacksmiths' activities were so deeply integrated in and significant to the cultural life of the villages that the administrative ban by the colonial authorities couldn't stop them effectively.

Incidentally, my survey of the smiths' workshops wasn't always easy. Let me give an example of the difficulties. During 1974 I had visited a relatively well equipped workshop in a village. We spotted it by chance. Wanting to revisit it in 1976 turned out to be a problem. I couldn't remember where it was located in the village. In fact, I was first told that there was no blacksmith workshop there any more. »Try at the next village« (30 km away) I was told. After insisting, I was finally taken to a workshop, which looked very shabby and with only few tools. The blacksmith threw up his arms and complained how bad his business had been for many years. But then we suddenly recognized each other, laughed and off we went down the hill to his real workshop. This I then recognized, and it looked almost as neat and busy as it did two years before. He confided to me that he had always kept away from »government« as much as possible. He was about 50–60 years old.

To complete this section: At independence the blacksmiths were perhaps ostensibly legalized. But as was the case with other rural non–agricultural activities, the activities of the blacksmiths were neither suddenly recognized nor registered. Another thing is that their very specialized skills did not fit into the code for skilled labour inherited from the British, e.g., a master smith can't pass a trade test even of the lowest grades. The smiths are thus still regarded as

un–skilled labour by the system. Their technology appears far apart from that of the registered metal–working technology.

5.2 A rough count of the rural smiths

As said, nobody ever dared or cared to try to enumerate comprehensively the entire population of village blacksmiths. And certainly, if one wants to make a statistically tenable estimate which gives the number of smiths with a precision of, say, plus/minus 100 the task is extensive and costly. In this respect I personally have the advantage of not being a statistician, i.e., I have no professional pride in application of »correct« census methods. Consequently I may come out with big errors, and more alarming, I can't tell how big my errors are. Nevertheless, I believe that it is better to make errors in this case than to do nothing at all, as long as we get a rough order of magnitude guess. And as long as we stick to the »conservative« end of this magnitude, when it comes to using the result of the count for planning purposes, I am convinced that crude methods are justified.

Fortunately, I didn't have to start from zero information level. As mentioned in the introduction, bits and pieces of information were available, and SIDO had started some collection of data from the various regions. So the first part of the work was to put this information together. Subsequent field trips supplemented this information, although the primary aim of these trips was to form a qualitative picture of the blacksmiths, i.e., to collect case study material. The following is a summary of the results of this counting exercise.

The 1967 population census had the economicly active population counted by occupation. The category »blacksmiths, tool makers, machinists, plumbers, welders, and related workers« amounted to 0.09 % of the total *rural* population. The census also enables us to examine the same ratio, region by region. One of the regions, Mwanza region, known for its active blacksmith groups recorded 0.11 %, i.e., not very much higher than the national average. The figures include all kinds of workers in the metal trade, and as such we should regard the figures as overstating the blacksmith population. However, machinists, plumbers, and welders in the rural areas are certainly few, and I guess that they are a minority within the rural metal trade category. Apart from that observation, it is my experience that most part–time blacksmiths are reluctant to say that they are blacksmiths.

So I am pretty sure that the population census people recorded quite a number of part–time smiths as having farming as their occupation. This points to the view that the census did in fact understate the blacksmith population. I therefore, for lack of better data, suggest we use the census figures as quoted.

Then there are the regional planning projects from 1974–76, of which the West Lake project was one. However, only two others of these projects made a special survey of the rural craftsmen population, as far as I know, i.e., the projects in Tanga and Rukwa regions. The Tanga survey counted both blacksmiths and tinsmiths together, and a ratio of 0.29 % of the total rural population can be deduced from it (11). This relatively high percentage compared to the population census figures may be caused by the thoroughness of the survey, e.g., it included part–time craftsmen. But it probably also reflects the fact that Tanga historically was one of the more industrious regions of the country. The highest figure recorded is from Rukwa region (12). Here the ratio was reported to be 0.35 %. Again this can partly be explained by the fact that the survey was conducted very systematically and directly aimed at counting the rural craftsmen, especially the smiths. Rukwa seems also to be the region which perhaps has experienced the most extensive iron works activity through history. Rukwa region includes the Ufipa plateau where iron smelting is known to be of very old origin (13). For West Lake region the ratio turned out to be 0.12 %, excluding tinsmiths.

Finally, pilot surveys of village skills have been conducted in three districts, more or less during the same period as the regional planning projects (14). The districts are Bagamoyo (Coast Region), Same/Pare (Kilimanjaro) and Kyela (Mbeya). In the preface of the report it is stated that the surveys were »prompted by several examples in officialdom of people's skills being disregarded while at the same time demanding scarce, formally trained and educated manpower«. I am thus not the only one who has noted that indigenous skills are often disregarded. Another interesting observation from the survey is that in many instances the people interviewed didn't regard their own skills as skills, e.g., building of traditional houses was not considered a skill. This is not my experience with the blacksmiths. They seem to be aware of themselves and to have considerable self–esteem. In any case, what I can use from the surveys in this context is the ratio between village iron– and metal–workers to the total population of the districts. This ratio turned out to be 0.09 %.

In *table 8* these figures are listed together with the implied total rural metal working population, in case the different figures are applied to the whole country's rural population of about 14 million. Totals range from 12,000 to 49,000 metal workers. Considering that the registered industrial employment is in the order of 70,000 of which 5–6,000 are engaged in metal transforming industries of some kind, the range of 12 to 49,000 rural smiths is a magnitude worth considering. Whereas we could confidently say that 0.1 % of the rural population or 14,000 people are village iron–working people, I prefer to be cautious when it comes to the use of this figure for planning purposes. This caution is also due to the fact that the number in all probability is declining. *I am therefore content with quoting the number 10,000 as being the approximate population of rural smiths.*

5.3 The production technology of the blacksmiths.

Check–up survey trips were made to Tanga, Arusha, Mara, Mwanza, and West Lake regions in the North and to Mtwara, Ruvuma and Iringa regions in the South of the country to supplement the guesstimate of the previous section with a qualitative description of the technology of the blacksmiths. This section presents a summary of the findings in respect of the producing technology, i.e., of the knowledge, organization, and technique of the smiths. These findings are based on 22 interviews. i.e., on average 3 in each of the regions visited.

One of the things we were looking for was active groups of iron–smelters. We only managed to meet one such group of smiths, and they were not engaged in smelting iron when we saw them. We arrived in July, but they told us to come back in August to attend their smeltings. The group lived at Mufindi in Iringa region. In Ruvuma region we were told that active smelters are found at Mbamba Bay at Lake Nyaza. Unfortunately we had not enough petrol to reach that far, and there was nowhere in the regional town, Songea, where we could get any. And the petrol pump at the government petrol depot was »out of order«. We were also told that active smelting might still take place around Ufipa in the West and in Geita in the North. I have reason to doubt the last information because touring Geita district gave no result. The only smeltings which the Geita smelters may undertake are those occasionally arranged by the Museum at Mwanza. A similar arrangement was recently made in Bukoba district. Here some old

TABLE 8

GUESSTIMATE OF TOTAL RURAL METAL WORKING POPULATION

Source of the various percentage computations	Percentage of metal workers to total rural population	Approximate implied total metal working population out of 14 mill. rural people
Extract of the 1967 population census, all regions	o.o9	12,ooo
Mwanza region as example from the above census	o.11	14,ooo
Survey in connection with the Tanga regional development plan 1974	o.29	4o,ooo
Survey in connection with the Rukwa regional development plan 1977	o.35	49,ooo
Survey in connection with the West Lake regional development plan 1974	o.12	17,ooo
Extract computation of BRALUP's village skills survey 1975 of Bagomoyo, Same/Pare and Kyela districts	o.o9	12,ooo

smiths agreed to demonstrate their smelting technique in the same area where they used to smelt.

The reason why it is of some importance to study the old smelting technique is more than anthropological curiosity. It is also because it has been suggested that this technique could possibly be revived. At one point SIDO raised the question in connection with the *»jembe ni Malik«* research. But it should be said at once that it is doubtlessly *not* feasible, neither from an economic nor from an ecologic point of view, to try to encourage the type of charcoal fired kiln–smelting in question. The pig iron produced is of high quality, but estimates based on the West Lake experiment just mentioned reveal that it requires about 20–30 man–days per kilo of pig iron or a minimum cost of 40 T.shs. (or 5 US dollars) per kilo. The corresponding price from the steel rolling mill in Tanga is about one tenth of this. Moreover, it takes about one ton of wood per kilo iron for the charcoal burning. In some of the places visited the smiths told us that one of the reasons why they stopped smelting was that the particular type of wood they needed was not obtainable any more. Even the subsequent forging of the locally produced pig iron requires this particular type of charcoal. One of the smiths had some old pig iron from smelts long ago. He agreed to demonstrate how he could make a jembe of it, but insisted that we should bring him charcoal from a special tree. He told us where we could find a few of these trees. We got to the place and went into some hard bargaining about the price of one such tree. When we finally the next day got the bag of charcoal from it the price was about 60 T.shs. or ten times as high as the price of ordinary charcoal sold for kitchen use.

The Mufindi smelter–smiths were aware of the poor economy of what they were doing. They all told of the hard labour involved in smelting, both for themselves and their relatives who have to walk long distances in order to bring them food while at work. There are obviously habitual and cultural elements in the activity, but they all said that they would happily abandon it if they could get sufficient iron of good quality from other sources. They collect all the scrap iron they can get hold of, but the pressure of demand for their products must be so high that they still choose to supplement this with iron of own production.

In more theoretical terms we can say that the smelter–smiths seem to regard their opportunity cost of labour as very near zero in the

agricultural slack season, given the fact that suitable scrap iron is as scarce as it is. But they would change this view if iron could be made available from other sources in sufficient quantities to keep them busy. From a national division of labour point of view it also seems inefficient to have these highly skilled people chopping and burning wood for charcoal production, digging holes for iron excavation, etc., while they could otherwise make useful implements. To have this point accepted at a national planning level, of course requires that they are officially recognized as skilled people, and that the use–value of their products is acknowledged.

But as said, the actively smelting smiths represent the exception. Most of the smiths who previously did extract their own raw material iron have stopped doing so for a combination of reasons, mainly because scrap iron became obtainable and because of deforestation. The smiths in West Lake region stopped smelting about 40 years ago. Still, when it later comes to a description of the »average« technology of the village blacksmiths, it is significant to note that some of them were previously smelters.

The knowledge base of the smiths' technology is difficult to describe in terms which we are used to applying when describing our own science–based knowledge. It is an »inherited« craftsman's knowledge which is founded purely on accumulated empirical experience. It is built into the knack and skill of its executant, i.e., it can hardly be separated from him. This means that the only way in which the knowledge can be transferred is through intensive apprenticeship. When given a piece of scrap steel, the smith weighs it in his hand, puts it in his hearth, observes how long it takes for the steel to get what colour, and finally he beats it with his hammer, observing what kind of sparks it makes. He notices even the smell of the sparks and hears the sound of the blows. Incidentally, some even »talk« to the red hot iron they are working. Having finished this trial beating the smith knows what kind of steel he has in hand, in the sense that he knows what type of implement the steel can be forged into as well as what it can't be used for. He can't »translate« his knowledge into percentages of carbon content, etc., yet he »knows«. We must also note that the testing procedure just described is very much dependent on the use of exactly the smiths' own tools, e.g., hearth and bellows, hammer and anvil. Given other tools, he might be lost, or it would at least take him some time to adjust his knowledge. To the knowledge of the use–value of the particular piece of steel he has in hand we should add

his knowledge of the users themselves, if not personally, then at least indirectly in that he knows the crops and ecology of the area of the users.

The smiths are typically organized as individuals, or in groups of individuals. This doesn't mean that the smiths are working alone. They each have one or two assistants or apprentices. One of these operates the bellows, the other assists in the forging, sitting opposite to the master–smith. The apprentices are typically sons or close younger relatives. The smith takes part in all operations himself, even the travelling for collection of scrap iron, the charcoal burning and often the selling of the products as well. At the same time he is a farmer, i.e., he is only part–time occupied in smithing.

When organized in groups, the master smiths occasionally assist each other, but essentially what they have in common are the workshop premises. However, 4 of the 22 groups had started some closer collaboration and had introduced some division of labour. In one village in Masasi district 15 master–smiths were sitting under one long roof. They had recently moved in there during the general movement of the scattered rural population into villages. They had started collective collection of scrap iron and burning of charcoal, and talked of collective marketing, once production becomes larger than the consumption of the village itself. In another village all the villagers had assisted in the construction of a semi–permanent workshop building with corrugated metal sheet roofing. Here the smiths, 8 in all, had introduced what they themselves called »staged« production. Stage one was cutting up the scrap into pieces of almost equal size, the next was a rough semi–finishing forging stage, and the last stage was the final shaping stage. In other words, a division of the forging process itself had been introduced. By the way, *these two cases are examples of evidence of positive effects of villagization. Positive, because a division of the smiths' labour is a condition of increased productivity.*

A number of smiths in Bukoba district, who still worked in their own workshops, had started building a big workshed next to the road passing their area. They had opened a bank account and had applied for registration as a cooperative producer group. They had done so in anticipation of assistance from SIDO, something which hadn't materialized by the time of my visit. The most important of their requests to SIDO was for simple hand tools like hammers. When I asked them if they had enough money in the bank to buy hammers,

the answer was yes. But nowhere in the region could hammers be bought, they claimed. Only carpenters' hammers, not the 2 kg forging hammers they needed. They had agreed to work in the new common workshop 3 days every week, the rest of the week–days they would work in agriculture.

The techniques of the smiths have already been partly described. The tools are mostly anvils of stones half buried in the ground, the charcoal fired hearth is placed next to the stone in a hollow in the ground, the bellows are of goatskin activated by sticks and the air is blown through wooden and clay pipes. I also came across bellows made of paper bags of the types used for cement. This was in the South East corner of the country where goats are few. The smiths usually sit on the ground using various hammers and tongs, often home made. In one workshop the assistant had dug himself a hole in the ground so he could beat the iron while standing. Usually the assistant uses a bigger hammer than the master, and this particular assistant explained that you can drive a bigger hammer better if standing than if sitting. Chisels are used to cut the red–hot iron, peculiar home–made drills are used for making smaller holes, and files are used for sharpening of edges. See *fig. 16.* The workshed is typically low, open, with thatched roof and situated on the farm compound of the smith. We saw signs only in few cases of reinvestment in improved or new tools or buildings, e.g., the bellows had been replaced by a bicycle–wheel–driven mechanical air blower or the stone anvil by a heavy piece of steel. Practically all groups interviewed said that they would like to have better tools. But almost all such wishes essentially referred to the same type of work–processes: Hand forging and shaping according to an inner vision of the smiths of what the end product should be. We can almost say that the smiths are *modelling* each item.

Most smiths were working on a number of different items simultaneously. Jembe making was predominant, but in between they worked on smaller items like spears or knives. Thus, while beating on a jembe, there could be a couple of spears in the hearth. In this way the charcoal was economized. But it also meant almost unbroken hammering, something which looked as if the smiths were always in a hurry. The fact that the hammering is constant made it easier to locate the workshops. You can walk by the sound of them, and some can be spotted if you care to stop the landrover engine. I describe this detail, because for a long time I couldn't understand why so many of the

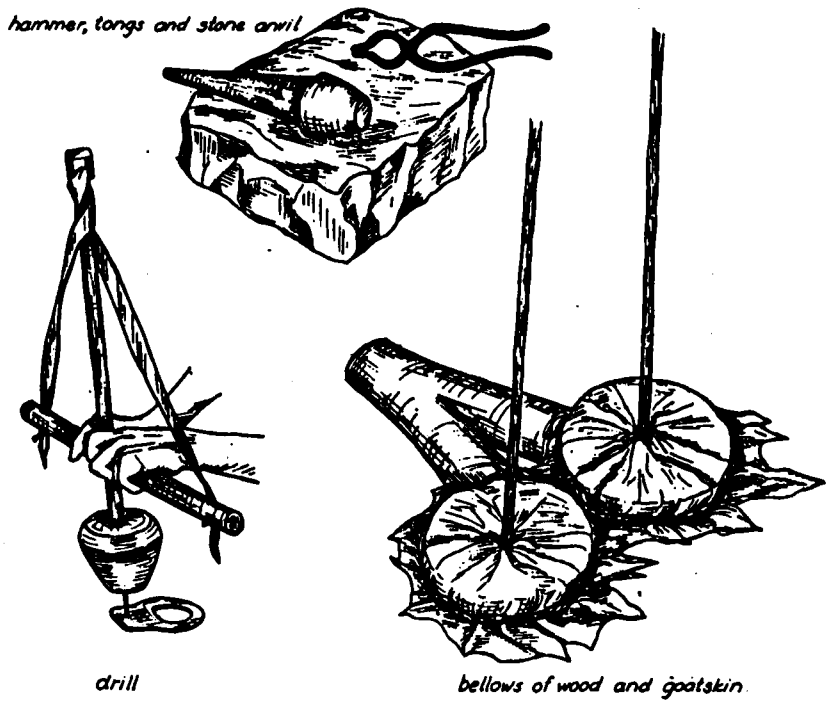


Fig. 16: Examples of self–made tools of the blacksmiths

Photo no. 2: The final »touch« being given to a planting spear *(by Jens Müller)*

Photo no. 3: Typical blacksmiths' workshed *(by Frans Steffens)*

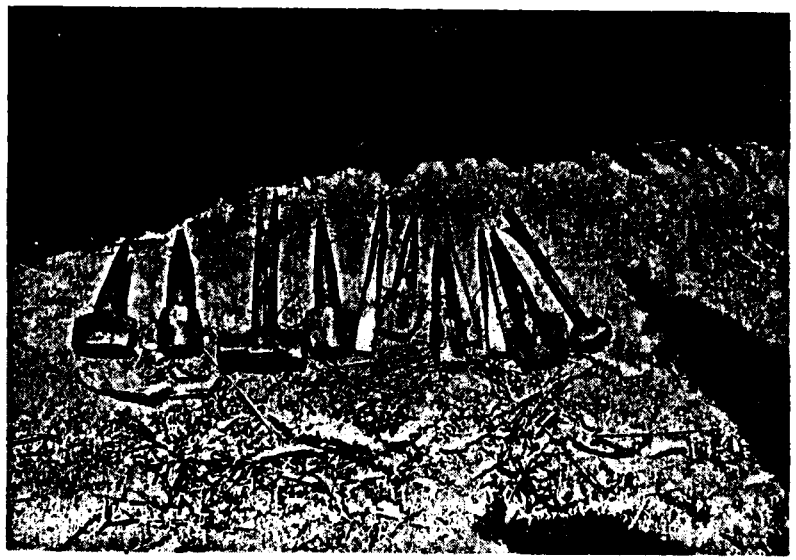


Photo no. 4: Selection of hammers. All except one are self–made *(by Frans Steffens)*

district officers whom I asked about blacksmiths denied the presence of them. The best explanation I can offer is that these officers also always appear to be in such a hurry that they don't stop their landrover engines very often. However, a few of them, when told about some of the groups I had interviewed, appeared to be bored or reluctant to discuss my findings. So I can't help suspecting that my landrover engine noise explanation of their ignorance doesn't hold in all cases. I think that lack of interest to bother about »backward« craftsmen could partly be another explanation.

Regarding the productivity of the »average« village blacksmith group, I arrived at the following order of magnitude. A group consisting of one master–smith and two assistants can make about 10 kg of iron–implements per full working day. To this labour input should be added another day of scrap collection and charcoal burning for the same group. In other words, an output of 1.6 kg is achieved per man–day. I return to this crude productivity measure when I compare the different technologies for implement manufacture in chapter 7.

One of the village groups visited had refined their producing technology so much that they could make ox–ploughs. It was located in a very remote area in Mara region. In fact we left the road network and went about 20 km further along bumpy cattle tracks to reach the place. The group had 3 master–smiths and 6 assistants. Their tools were essentially the same as the tools used by other groups in the survey. But anvil and hearth were raised so that all were standing while working, except for the airblower who was half–way lying down pedalling a bicycle placed upside down connected to the air blower. As it turned out we got part of the explanation for why the group had diversified into ox–equipment production: they had an almost unlimited supply of steel scrap from a nearby abandoned goldmine. The plough frame was made of a piece of dump–wagon track, the shear of a thick piece of steel plate, etc. The smiths claimed that the only thing they didn't make themselves was the very small front wheel which is of dubious value anyway. *So, a plentiful supply of raw materials may lead to advances in product mix.*

Besides the 22 village blacksmiths I also visited a number of semi–urban workshops. Common for these was that the smiths had had some kind of formal training, either directly from trade schools or from registered type workshops. Incidentally, the particular schools or workshops named to me by these smiths were all connected to some

missions. The production was mainly of ox–carts, water tanks and similar larger things than the hand implements of the village groups. The most interesting products made were various workshop equipment, mainly made for use in their own workshops, e.g., pedal–driven forging blowers, swaging machines for bucket making, metal cutting or bending devices, etc. All of the workshops had either gas or electrical welding facilities, drilling machines, vices, etc. Forging was not the main activity.

5.4 The smiths' products

As noted above, the work–process of the village smiths is a modelling process. A common characteristic of all of the products made is therefore that no one item is exactly identical with another. A smith may make 100 axes, but since none of these are precisely of the same shape, he strictly speaking makes 100 different axes. However, if given exactly the same shape of raw iron, and told that the axes are going to be used by the same user for the same type of wood cutting, he would make axes of such similarity that only micro–measurement tools could detect the difference. This is also to say that the use–value of the axes would be the same. But as no two smiths have the same inner vision, and as they get all sorts of shaped scrap iron pieces, and as they know the variation in preference of the individual customers and the different type of wood cuttings these mainly have to do, the axes do come out looking different. Yet we should note that the use–value of each different ax probably has been optimized, given the constraints of production of each smith.

The main type of product is the jembe. And the variations in shape are much bigger than described for the axes. One can almost say that the shapes are as varied as the soils and crops vary throughout the country. Some are heart–shape pointed, some are straight–edged and others are almost fan–shaped for hard, medium and soft soils respectively. Some are big and heavy, some are small and light. Most of them are made for digging, but ohters are made for weeding. All are pronged, since the smiths can't make them round–eyed. In fact the preference for the pronged type is very outspoken. In connection with the Rukwa regional planning project a group of smiths were given a semi–finished round–eyed jembe from UFI and were asked to finish it. The first thing they did was to fold up the eye, making it into a prong. See *fig. 17.*

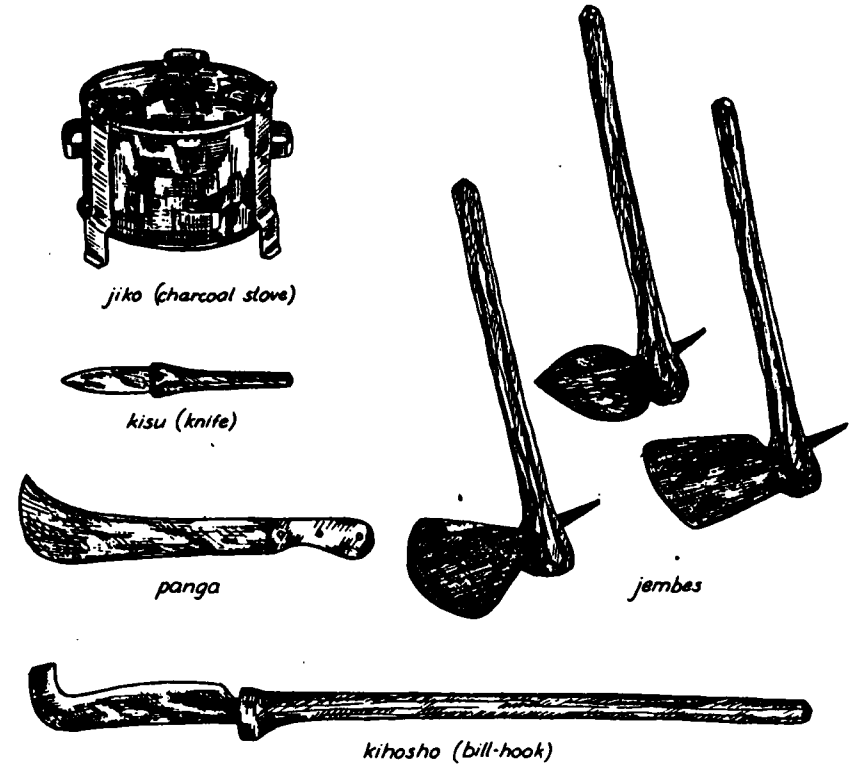


Fig. 17: Examples of the blacksmiths' products

Photo no. 5: Some of the smiths' products: Hammer, chisel, self–smelted pig iron, jembe and ax *(by Jens Müller)*

Modifications are also sometimes made to the UFI jembes in order to make them into the preferred shapes. The reason is that UFI only makes one shape in two sizes, i.e., 2 1/2 lb and 3 1/2 lb. Thus, the village blacksmiths seem to perform a useful function of adapting these to the users' preference. I was also shown numerous UFI and imported jembes which were broken at the neck or at the edges. They were lying in the workshops waiting for repair. When the smiths eventually get suitable pieces of steel plates they rivet them onto the broken ones. It was said that the jembes had broken because of too hard soils. When I added »or too bad quality« this was admitted, but partly contradicted by remarks such as »people in this area don't usually use large jembes«. Some district officers told me that the preference for small jembes is a sign of laziness and that attempts were made to convince the peasants to use larger ones. One of the means of convincing is to ensure that only larger jembes are marketed. When told that the peasants sometimes have the larger jembes made smaller by help of the village smiths, the reply had invariably to do with something about backwardness on the part of the peasants. Perhaps I elaborate this small point too much, because personally I am not able to say which size of jembe is the better. I only feel that the peasants may be right in their judgement of what type of tool is most appropriate to their soils and crops. These observations apart, the point to stress is the function of the local smiths as producers, adapters and repairers of the most important implement in Tanzanian agriculture.

The smiths are also making *pangas* (long cutting knives), sickles and slashers. These are other examples of items which are also imported or made by UFI. *However, the smiths' product–diversification extends far further and includes a large number of items which are neither imported nor found elsewhere in the country.* Spears and arrows are commonly known tools, but we soon get to such items for which there are practically only local words – not even precise Swahili words. These tools are all highly essential for the subsistence type of production which is still widespread, e.g., spears and arrows are important tools for vermin control.

I have no information about how many different types of implements are made, let alone how many of the special implements are in use, compared to the more common types. We get, however, some indication of the last question from *table 9.*

TABLE 9

DISTRIBUTION BETWEEN LOCAL AND MANUFACTURED HAND TOOLS, IBWERA AREA, BUKOBA DISTRICT 1974

Item	Average number per household	% of which is locally made	% of which is bought in the area	Duration in Years	
				manu.	local
JEMBES	5.1	18	46	5	11
PANGAS	1.8	29	21	8	13
AXES	o.5	28	48	16	19
BANANA PANGAS	1.4	loo	74	-	12
SICKLES	1.7	loo	56	-	21
KNIVES	o.7	loo	65	-	13
SPEARS	o.8	loo	64	-	32
PLANTING JEMBES	1.8	loo	49	-	13

Source: West Lake Planning project

This is the result of a survey of 30 peasant households in the Ibwera area of Bukoba district mentioned in section 3.4. We read, for example, that out of the 5.1 jembes per household, 18 % were locally made, i.e., by the village smiths, the rest were imported or UFI-made. 46 % of the locally made were made by smiths in the same area. The last column gives the peasant's answer to our question about durability. They apparently regarded the local jembes as more than twice as durable as the manufactured ones. Perhaps because the smiths can repair their own products more easily than the manufactured ones, but probably also because of better suitability to the soils at hand. We see that the planting jembes, the sickles and the banana pangas appear to be just as commonly in use as the ordinary pangas (between 1.4 and 1.8 per household), and that these specialized items are wholly locally made, as are the spears and knives. It is no wonder, because of these items only the knives are obtainable from imports or medium-scale production.

Incidentally, in section 3.4 an average expenditure on »essential farm implements« in Ihangiro area was said to be of the order of 10 T.shs per year per household. For Ibwera area this would correspond to something like a total expenditure of 100,000 T.shs per year for all the households there (1974 prices). The total turnover of the 7 blacksmith groups in Ibwera area we estimated at 28,000 T.shs per year. However approximate these figures are, we may guess that the Ibwera smiths are capable of satisfying one third of the Ibwera peasants' demand.

What I am after is of course some measure of how many jembes are locally produced in proportion to all the jembes in use in the country. For lack of better information we may use the situation described in tabel 9 as a typical, yet hypothetical, case of the situation in the whole country. More concretely, I use the 18 % locally made jembes as a country average. Assuming that the total demand was as estimated in section 4.4 and illustrated in fig. 15, viz. 2.5 million in 1975, the 18 % country average guess would mean that something like 450,000 jembes were village produced in 1975, or that each of the estimated 10,000 smiths in the country would have made 45 jembes each that year. Not at all an unrealistic assumption. By the way, 450,000 jembes is about the highest amount UFI had produced in any one year until 1975.

Continuing a bit further on this line of guessing, the demand-supply »gap« pictured in fig. 15 may now be revised. In fact, »the past gap«

which was estimated to about 0.8 million on average per year for the period 1966–74 gets to somthing like 0.4 million only, when village produced jembes are added to the supply line. Similarly, the total gap between 1978–84 which was calculated to be 5 million jembes, gets reduced to approximately 1 million only. And the 0.25 million deficit in jembe supply estimated for 1983 becomes a 0.25 million *surplus* production!

Whether the proportion of village made jembes to total demand is in fact 18 % is not really important to verify any further. Had the proportion been 10 % or 20 %, it wouldn't have disturbed the point I want to make: *The village jembe production is of significant dimensions.* This partly explains why agricultural production wasn't as badly affected by the deficit in registered jembe supply in the past, as could be expected by looking at the past gap in fig. 15. We also get a notion of the implications of keeping up the village jembe production , or even of promoting it. These implications will be taken up in chapters 6 and 7.

Here I just want to wind up this exposition of village made products by saying that, apart from farm implements, the blacksmiths even make various tools for the village carpenters and masons. They also make kitchen knives, scissors, frying pans, etc. The tinsmiths make lamps, stoves and other scrap sheet–metal utensils. Some of those visited made items such as buckets, chicken feeders and watering cans from plain galvanized sheets. And all the workshops mentioned did a substantial amount of repair jobs and even simple spare part manufacture, particularly of course to implements of their own making. But repairs and spares were also made for bicycles and shotguns.

5.5 The local distribution system and infrastructure

Most of the products made by the village smiths are made »to order«, in some cases only provided the customers bring the necessary raw materials. This type of production poses no distribution problem, although its existence might be an indirect sign of marketing difficulties. But a noteworthy portion of the products is made to be sold through the »local« distribution system. Local is put in quotation marks, because this word is what government officers usually call the non–registered trading system in the rural areas. In other words, the registered co–operative shops are not included in the system, and

thus not labelled »local«. The markets and the products which the system involves are called »local markets« and »local products« respectively.

The reason for explaining these expressions so carefully is that they are often used in a derogatory sense. *Yet the local markets are the only outlets for the products described in the last section.* During the survey of the blacksmiths, many of these markets were visited and the petty traders selling the implements were interviewed. It was disclosed thereby that quite a number of the products had been brought over considerable distances, say, up to 100 kilometres. The tradesmen had bought them directly from the smiths and then travelled by bus or hitchhiked by trucks. Some tradesmen even said that they had not come to the area of the market particularly in order to sell the implements. They had other errands. But knowing that the implements in question were in big demand in the area, they brought them, more or less in order to pay for the travel. Other tradesmen were the smiths themselves or relatives. In such cases visits to the worksheds of the smiths and subsequent interwievs were easily arranged.

Persistent bargaining procedures with the tradesmen were carried out in order to get as close to the actual selling prices of the items as possible. (This was more difficult to do during the interviews with the smiths themselves, simply for reasons of politeness). The prices obtained at the market place were generally a bit lower than those quoted to us by the smiths themselves. When more than one implement of a type was for sale I also discovered that, although all had the same price quoted at the out–set of the bargaining, we quite quickly arrived at varied prices due to minor differences in shapes. For example, we once asked about the price of two seemingly identical jembes. The price was initially put at 12 T.shs each. My Tanzanian assistant then took both jembes in his hands, »weighed« them, knocked at them, scratched them with a pocket–knife, etc. I did more or less the same and made sure that I wasn't taken as a tourist. In the end we got one of the jembes for 9.45 T.shs and the other for 9.60 T.shs. The former had a very small hole in it, due to a hole in the original scrap material. In other words, *each particular item had its particular price.*

This observation may seem insignificant. But in quite a number of discussions with representatives of the UFI/RTC marketing system

over whether or not some of the local products could be sold through that system, it was in one way or another invariably said that this wasn't possible. The reason given was that it is impossible to fix standardized prices for products as different in standards as these products. But it is possible for the local marketing system to fix different prices! When confronted with this argument, the answer was that fixation of a different price on each item was an insurmountable task. And even if this task could be overcome, one RTC manager told us, the formal price setting system had no way of fixing the price *level* anyway. In theoretical terms, what we were discussing were the difficulties in fixing the exchange–value of the implements in question.

These difficulties were exemplified in the extreme in a case where SIDO and UFI had been asked to assist a particular group of smiths to market a stock of 2,000 axes. But since it wasn't possible to fix 2,000 different prices, it was argued, no price could be fixed. I certainly agree that fixing 2,000 different prices would be impracticable. But I had just arrived back from Masasi district where there were no axes whatsoever to be bought. The smiths had pleaded for a supply of steel scrap so that they could meet some of the high demand for axes. This demand was due to the recent villagization which had made a lot of bush clearing and tree felling necessary. When I reported this and suggested that some of the 2,000 axes could easily be sold in the Masasi area, it was said that the axes in question, apart from being different, were of low quality in any case. They were neither sharpened nor painted, I was told. However, I am convinced that the peasant in desperate need of an ax will find ways of sharpening and painting (if necessary) the ax and that *he will be indifferent as to whether his ax is of exactly the same shape as his neighbour's ax.* To him the quality of an ax mainly relates to its function or use–value as a piece of steel. To him the question of standardization is of secondary importance and has little to do with his perception of quality. The functional properties of the products, including durability, count most for the peasants. The preoccupation with the structural properties of the products, including similarity, is derived from the spheres of mass production.

The same attitude to standardization was time and again expressed by retail shopkeepers. Perhaps the most persistent of all were the attendants of the small co–operative shops. They insisted to sell only »modern« products. In a sense this surprised me, since many of the

attendants were part–time peasants as well. But as soon as they get behind the shop– counter they apparently change minds. On the other hand, this fact can partly be explained by the accounting system they have to follow which requires that all buying and selling be minutely recorded. The private shop–keeper is only obliged to himself for detailed book–keeping, and is relatively freer to enter into bargaining and to operate a more flexible pricing policy. We know what this flexibility often means to the customers in terms of high prices, and in that respect the fixed pricing of the co–operative shops is a plus. But seen from the point of view of distribution of village craft production, the official policy to favour co–operative shops is a minus, at least for a long time to come; in particular if this policy is pursued, not only through discouragement of private shop–keeping but also through measures to limit the local markets, e.g., as illustrated by the case of banning the weekly rotating markets within districts mentioned in section 3.5.

But the conditions of production of the village smiths are not only set by the distribution facilities for their output. The provision of their input is also important to consider. Here again we should look at the retail and wholesale facilities. Because even though a system of distribution exists, it is at present of little use for the smiths, because only an extremely little part of their input requirements can be obtained through this system. I have already quoted an example of difficulties in getting hammers. To this can be added difficulties in getting hacksaws and hacksaw blades, files, drills, rivets, bolts and nuts, etc. In sum, tool procurement is a tremendous problem. To some extent the problem is overcome because the smiths are used to make many of these things themselves or to do without.

What they can't do without, however, are raw materials. Some of this question has been touched upon, i.e., in connection with the Mufindi smelter–smiths and their motivation to work as smelter–smiths: lack of scrap iron. In fact, the difficulties of getting scrap iron was the single most frequent complaint raised by the smiths interviewed. They simply »vacuum–clean« all the districts they live in, and if possible the neighbouring districts as well. But they are not able to reach everywhere in the districht. Thus, they can't get hold of the substantial amounts of scrap lying in the Ministry of Works' district yards. Procedures to get rid of this scrap are so cumbersome for the district engineers that they rarely bother to go into it.

Seemingly the government has been aware of the value of the scrap iron in the country. A ban on scrap iron export was effected in 1971. But it has probably not been the village smiths whom this ban was designed to help in the first place. In any case, a scrap melting furnace has now been set up in Dar es Salaam. The capacity of this furnace is so big that an *import* of scrap seems to be required by 1980. Until then the company will also be »vacuum–cleaning« as many sources of scrap as possible to feed the furnace. Scrap will be sent to Dar es Salaam from the towns along the railway lines. In other words, the village smiths are competing with the large enterprises, not only for the sales of output, but also for their most needed inputs.

Apart from these very direct infrastructural and other requirements of the village blacksmiths it should be mentioned that their production is also hampered by lack of other common facilities in the rural areas. Should they want to order tools and materials from other parts of the country, postal and transport service would be required. Banking and credit facilities would be relevant at some point of time, if expansion is aimed at. Surveyed sites in rural centres would be another thing, not to mention electricity supply. Of less importance for them at the moment are trade training and testing institutions. The need for such facilities will of course eventually be felt.

Another general observation of the survey is that the most remote regions have the most active blacksmith groups. However, within the regions it seems that the more distant a smith lives from the regional centres the less active he is; unless he lives in an area where iron for excavation and smelting and fire–wood for charcoal burning are available. This is indicative of two things. On one hand, the most remote regions are hardest hit by undersupply of implements. On the other hand, once we move into a remote area of a remote region, the common conditions of production are so limited that the smiths can't keep up their activities. A blacksmith in Karagwe district of West Lake region who some years ago had migrated from Bukoba district (where the regional centre is located), told me that »agriculture is more interesting (than smithing)«. We were sitting in his workshed to which he had brought all his tools. It was evident that he hadn't been at smithing work for a long time. He further said that he was only doing repair work now, and that he required his customers to bring even the charcoal before he would do the work. »My bag for collecting charcoal has gone to pieces« he said, »and these days you can't even get another one«. And he added, »This is Karagwe, *Bwana* (mister),

not Bukoba«. The village headman said that the smith used to be very »famous« back where he came from, and that the village had now agreed to help him to start smithing again.

Chapter 6

The UTUNDU programme for village blacksmith promotion

One of the reasons for the decline of production of the Karagwe blacksmith just reported on was obviously that he had migrated to a more remote district than he came from. He had also got more land in the new place where he had settled, so this fact may be another reason. But why didn't he stay in Bukoba district and keep up smithing where his access to scrap iron and even sacks for charcoal was better? It could be because the demand for his products in Bukoba district had stagnated, e.g., that the competition from the mass–produced implements had been too hard to beat. My experience as a queuer in Bukoba, which I mentioned in the introduction, points to the contrary. And much other evidence in the course of my survey points in the same direction. Not in a single case in the interviews with the smiths was lack of demand put forward as a serious problem. In all cases the lack of raw materials and tools was stated as the major problems, which, by the way, is indicative of a demand.

Unfortunately my questions to the smiths about their previous volumen of production were vaguely answered. I therefore can't say for sure whether it has tended to decline in general or not, e.g., whether the Karagwe smith was an exceptional case. Only hints to the effect that »before« there used to be more smithing in an area than today, or that »before«, some of the groups told me, they used to be at work up to three days a week, and now only once a week at most. My impression was one of stagnation, if not decline, of the trade. be that as it may, if it is wanted that the activities of the smiths should *increase* and their technology *develop*, some change must be brought about in their general conditions of production, notably a change away from the conditions they appear to experience today.

And it is really not the smiths that matter. Although they are many, they only make up a fraction of the rural population. What matters is their present and potential future contribution to the agricultural production, its maintenance and urgently needed increase, in

particular of the production of food crops. Not so much in the case that tractorization is going to be the big thing, as in the case that oxenization is going to be pushed. Incidentally, I have hardly seen any mention of the need for assembling, maintenance and repair facilities in connection with the policy for oxenization. Such facilities are only planned for in the context of tractorization. Certainly, tractors need more taking care of than ox–equipment. But ox–equipment does break down, gets bend and needs replacement with spare–parts as well. *This fact is the longer term justification for supporting the village blacksmiths.*

Anyway it was part of my agreement with SIDO to assist in designing a promotion programme for the village blacksmiths. And since it was claimed in the introduction that this programme was the »best« under the given circumstances, I am obliged to present at least a summary of its contents. It is done in this chapter. But first I shall report on some previous proposals, and why these were rejected and not adopted or elaborated. Then the main premises of the UTUNDU programme are presented, before I go into the details of the programme itself.

6.1 Previous approaches to the promotion of rural craftsmen

Not that there has been very many attempts to promote the village blacksmiths in Tanzania. I only know of about five project proposals. Common to them all is that they seemingly are only based on a *partial* analysis of the rural conditions of production and the general situation of the economy of Tanzania. At least very little reference is made to a comprehensive analysis, and this may explain their narrow and inappropriate scope. In writing this I am aware of the postulating character of my statement. But since hardly any of these proposals have been implemented so far, there is nothing concrete to evaluate. And my critique is not intended to ridicule any particular author of the proposals. On the contrary, they all contain useful information and were thus instrumental in our design of the UTUNDU programme. They were also instructive for an understanding of what not to do, if we wanted to make a proposal which had chances of being implemented. All of these proposals seem to represent different approaches to the promotion of rural crafts. Moreover, they seem to be quite typical of the various approaches put forward by foreign aid agencies since rural industrial development became fashionable some ten years ago. The proposals and the approaches they represent, are

thus instructive in this way as well.

I refer to the proposal reports as the Rao(15), the Kienbaum(16), and the SIDA report(17), respectively. The fourth one is a publication by G. A. Macpherson(18). Let me for convenience refer to it as a report as well, the Macpherson report. Reference is made to a few more reports, but I concentrate on the first four.

Generally speaking, the reports all contain narrowly defined analyses. Yet, practically all are trimmed with remarks about the »urgent need« for an »integrated approach«. This would have been all right if the various analyses supplemented each other and made up a whole. But this is not the case. There rather tend to be substantial overlappings. Some of the explanation for this could be that they all, except the Macpherson report, have been made by an aid agency, expressly for the purpose of designing some aid project. Invariably they all end with a project design. Reading the reports, one gets an inkling of competition between donors, a competition which seemingly sometimes results in paralyzing the implementing authorities of the country.

One of the concrete things which makes the analyses partial is that they more or less ignore the substantial amount of production from existing »local« craftsmen, viz. the manufacturing activities of the village blacksmiths described in chapter 5. This production is probably ignored because of lack of information. At least the village blacksmiths, if at all mentioned, are typically brushed aside with remarks such as the following:

> »At present there is no worthwhile village/small scale industry which can undertake manufacture of hand tools and manually operated machinery in appreciable numbers. Due to the conspicuous absense of the traditional artisans and basic workshop tools, with the existing skills and resources, only very limited quantities of crude hand tools of poor quality can be manufactured«. (The Rao report, pg. 19)

The report moreover repeatedly stresses the need for »modernity« and, although it is not said directly, one is left with the impression that the indigenous craftsmen are disregarded because their technology does not fit into the modernity conception of the writer. We could call the viewpoint of the report, the *»start–from–scratch«* approach. In

general the proposals contained in the report lead towards establishment of government managed farm implement workshops similar to the Rural Craft Workshops of TAMTU. I have already voiced my critique of this approach in section 4.2. Incidentally, the ministerial report which proposes the setting up of more RCWs characterizes the production of the village blacksmiths as »negligible«.

The Kienbaum report does recognize that »in some villages there are blacksmiths producing axes and jembes (crude but improveable)«. It goes on arguing that

> »the idea has to be accepted that each of the 6000 villages in Tanzania eventually will need a metal workshop (blacksmith, mechanic) and a woodworking workshop (carpenter) if agricultural mechanization and better animal husbandry is to find a secure and broad base« .
> (The Kienbaum report, pg. 36)

However, although the report recommends that these workshops should employ existing craftsmen, it also estimates that *each* pair of workshops should be provided with tools, equipment and working capital worth 120,000 T.shs (15,000 US Dollars), i.e., 72,000 T.shs for the blacksmith workshop and 48,000 T.shs for the carpenter workshop, and each should receive extension service and advice costing a similar amount of money.

These sums of money are extraordinarily high. In case this implied standard of workshops should be accepted and introduced as the general conception of a village workshop for all the 6000 villages mentioned, it would be detrimental to the whole idea: It would cost about 14 mill. T.shs (or almost 1 % of the current total development budget for the whole country) to establish just 60 such pairs of workshops *per year*, and it would take 100 years to »cover« the country (assuming that the number of villages remains constant). We are thus faced with a typical case of – in itself – a good idea being spoiled so to speak by blowing it up into near impossible financial and administrative dimensions. The idea is consequently easily abandoned, once more in the implicit name of »modernity«, partly because of a peculiar eagerness to spend money on imported equipment and advisers. The approach could be called the *»over–boosting«* approach.

Two other comments: In many regions there is evidently no need for more carpentry workshops. Carpenters are abundant, and although most of them have had their training in trade schools, e.g., of missionaries, and are thus not so deep rooted in the rural crafts tradition as are the blacksmiths, I think that we could find at least as many skilled carpenters as blacksmiths. What they need are not expensive workshops. The production of the village carpenters would be even more rapidly increased and improved than the production of the blacksmiths if the rural conditions of production were improved. The carpenters are not so dependent on outside raw materials as are the blacksmiths. Still, of course, they need improved supplies of nails, screws and tools. The second comment is that the suggestion for the heavy extension service component of the Kienbaum report implies »close supervision«, something which the experience from the agricultural settlement schemes should warn us against trying. See the argument in section 3.2 and its elaboration in section 3.3 in connection with past small industries promotion experience.

The SIDA report includes a proposal for support of production of »means of production« through village craft development. The report states that the lack of knowledge of existing local skills is an obstacle towards support with respect to (i) upgrading of skills, (ii) introduction of new skills, (iii) choice of products and product design (pg. 15 of the report). In other words, without knowing what skills exist, it assumes that upgrading and renewal are needed. It then goes on to propose the establishment of a village workshop cluster, a so–called »UTUNDU Industrial Development Village«. It is proposed that the village should have equipment (including an electric generator) and vehicles worth about 1.6 mill. T.shs and expatriate personel service corresponding to 11 man–years over a period of 2 years. The whole project would cost 6.4 mill. T.shs (0.8 mill. US Dollars). I suggest that the approach which it represents is called the *»thorough–direct«* support approach.

The project wasn't approved by SIDO, but it needs to be mentioned that SIDA agreed to make the money avaliable to SIDO for a redesigned project or programme in support of village craft development. This programme is the UTUNDU programme. Only the name was carried over in the redesign. For reasons not known to me, SIDA however withdrew from it altogether, but UNIDO later agreed to support it.

Common for the three approaches is that they, by and large, build

upon development inputs not only from above, but also from abroad. Although adapted to some extent to the local conditions, the knowledge, organization, techniques and products, i.e., the technology, transferred to the rural scene are essentially »modern«. As such transfers tend to be prohibitively costly for *repetition* all over the country, their effects are limited to relatively few locations. And it is not only the transfers themselves which are costly. The required adaptations of the local conditions to the technology are also costly. By this I mean that the relatively high and essential infrastructural service demands of the technololy are expensive to establish and to maintain. Thus, to run a generator requires diesel supplies, the electrically driven machines require spare–parts, the presumably large production output needs constant supply of raw materials and marketing arrangements. The district authority which is benefited with such a transfer of technology to one of its villages soon finds itself directing comparatively more of its financial and administrative resources towards that village than to the other villages.

But there would be a spread or demonstration effect, goes one commonly cited argument. Neighbouring villagers will come and admire the new technology, start wanting the same thing, start learning by looking, and then go back and try to do the same thing. Experiencing how difficult it is to do »the same things« with nothing, frustrations and passivity are very likely to be the result after some time. But even if the neighbours in a miraculous way could raise the funds to buy the same technology, they might not – at least not all of them – be able to convince the district authorities to provide them with the same infrastructural services as the original village. Perhaps one of the new applicants for such services succeeds through political pressure to direct the services from the original village to themselves. In all probability this will then result in the collapse of the technology of the original recipients. In other words I hypothesize that the demonstration effect may be negative, whatever happens. Possibly the direct effects of the new technology *might* be higher in economic terms than the negative effects. I only want to point out the pitfalls of the demonstration effect conception.

The last approach to quote is the Macpherson approach. It is heavily influenced and backed by the Intermediate Technology Development Group (ITDG) in London and even acknowledged to its founder E. F. Schumacher, the author of the celebrated book, titled »Small is Beautiful« (19). And the Macpherson approach really is »small«. Its

ideas start nearly below scratch, »with virtually nothing«, to quote from the introduction of Macpherson's book. So with all respect I shall refer to it as the *»start–below–scratch«* approach. But I don't think the proposals that come out of it are particularly beautiful. Even the title of the book in which they are contained makes me wonder. It is called, »First Steps in Village Mechanization«, as if to imply that such steps were never taken before!

However, as shown earlier *these steps were taken hundreds of years ago.* And people trot along in these steps even today. The 10,000 village blacksmiths do, and their carpenter colleagues have learnt quite well also. Granted, some craftsmen have stopped trotting and even stepping, and that is perhaps the case in the areas where Macpherson worked. In the book's first chapter Macpherson mentions that village blacksmiths have been at work before, but that they were discouraged to continue because »brightly painted tools and metal goods from foreign lands appeared«. But as documented this doesn't represent the whole truth, nor the whole reason. The smiths didn't stop altogether, and they didn't suddenly unlearn their skills just because of the competition from outside. Their trade declined in importance, and some did stop or migrated, mainly because their conditions of production deteriorated. It is this situation which Macpherson misconceives. But isn't there a need for the persons who remained under the poorer conditions to learn how to make a pair of bellows, how to make a hammer, how to make adzes, etc., and to be taught to use these tools? That is what Macpherson sets out to help to do, and fair enough. But so what? My argument goes: The reason why we don't find bellows, hammers and adzes in some places is that the work for these tools disappeared. The local conditions deteriorated to such a point that the tools and the craftsmen disappeared. This is generally speaking; again I concede to Macpherson that he may have experienced places where there virtually were no craftsmen ever. But then my argument goes further: Wouldn't the learning of how to make tools in such places be a waste of time? By and large, I think so. Only when and if the local conditions improve will it be worth while. But then I suggest we start with the existing craftsmen, those who already know how to make tools and things with these tools. This skill base should be recognized, and I suggest we don't regard it as »scratch«.

A more generalized discussion of the ideas which Macpherson and ITDG stand for, the appropriate and/or intermediate technology ideas

will be taken up later. In particular I shall try to specify the political and other social conditions for these ideas to materialize. I just want to end this critique of the concrete case at hand by querying to whom the publication of Macpherson is addressed: Village development workers. These are also referred to as teachers, incidentally English reading teachers, as the book is in English. Where will this teacher come from? Which agency sends him? I assume he is not a foreigner, except in negligibly few cases. So he is an African. Is he an enlightened peasant who has pity for his fellow villagers? Only in exceptionally few cases. It is apparently somebody who doesn't know how to do the things about which the book instructs. So he is not a craftsman. Then I can only imagine that he is a village manager (of a new planned village), an ordinary school teacher, a community development officer or an agricultural extension officer. In other words, a low graded civil servant. Somebody with a little bit of rank, e.g., *entitled* to small living quarters. But then he probably most often aspires to a little bit higher rank and to some larger living quarters. He also has some notion of the ideology of modernity. Now, he must still be devoted to drag some peasant, who has virtually nothing except achievement motivation, along through an instruction of 225 pages? It only takes four to five years, we are assured. I honestly don't have the imagination to believe that we find very many persons of the type I have tried to describe. Most civil servants are likely to fall into the trap of starting to be impatient, starting to instruct, direct and give orders. Remember, we are in a place where there is nothing, no blacksmith, no carpenter, nobody else besides »ignorant« peasants. However, what these peasants know, through generations of accumulated experience, is that as soon as a civil servant gets impatient and starts to behave accordingly, the best thing to do is to ignore him. But the unhappy state of the matter is that most civil servants see this ignoring as ignorance or backwardness, laziness and perhaps even crazyness. He then gets more impatient, and that is the end of the start–below–scratch approach.

And a whole host of other project proposals for rural industrial development of the appropriate technology type could be cited. Most of them are very sensible within their frame of analysis. But this frame is too narrow! I end this section of critical reviews by citing just one more proposal. This was designed by a very experienced expert team composed of a physical planner, an industrial designer and an economist, and it was to be funded by UNEP(20). It represents what I

would call the *»cart–before–the–ox«* approach. It was designed to set up a village technology exhibition where a prototype design of a village workshop would be demonstrated in full scale. There would be prototype village workshop products to look at, and a complete standard programme of production would be explained. A fixed and ready from–A–to–Z–thing.

> »The idea is that villagers and craftsmen from the areas can study village technology and return with full information on how to start and run village industries themselves«. (Quotation from the proposal)

My objection to this approach is that the craftsmen already know how to build and run a workshop, and know what products are most needed by their fellow peasants. Demonstration of another type of workshop and other products would only be required *when their own workshops and products become obsolete,* i.e., when the demand for the products they already know how to make is satisfied, and when their conditions of production have begun to improve or at least have stopped deteriorating. To me the approach is premature, it is perhaps the thing we can discuss implementing *after* the first phase of the UTUNDU programme (See section 6.3). Until then the exhibition would be functioning more as a museum than as an exhibition. A museum of well intended, but misled efforts. It wouldn't do any harm as such. It should sometimes be permitted to make a cart in advance of knowing when it can be pulled. But the particular cart we make today may never be pulled. For either of two reasons, (a) the conditions of production may not improve, at least not in the required direction, i.e., in a way which matches the technology of the craftspeople, (b) if the conditions of production improve, the craftsmen may very well be capable of making their own carts, i.e., develop their own preferred types of workshops and products.

By and large, today's craftsmen, and certainly the smiths, do not make use of shabby worksheds, and do not make insufficient types of products *because* they don't know what better worksheds and better products look like.

6.2 Towards an alternative approach

The approach which will be outlined in this section is an alternative to the start–from–scratch, over–boosting, thorough–direct, start–

below–scratch and cart–before–the–ox approaches mentioned above. It is an alternative and different at various crucial points. These points concern as much the assumptions on which the approaches build their recommandations as the proposals themselves. Throughout the review of the other approaches I have made references to where their assumptions go wrong. It is time now that I structure this critique schematically and specify which assumptions I suggest we must apply instead. It is of course too easy to constantly claim that this or that thing is wrong without indicating which is correct.

Knowing well that the world is full of exceptions and contradictions I nevertheless state the propositions which follow in quite categorial terms. Then I discuss them and try to point out some of the nuances which reality, as said, is full of. This I do mainly in order to satisfy the protesting readers who have experienced some events which contradict my propositions. But my first categorial proposition here would be that these events were exceptions. They may have been encouraging exceptions, but I think a society like the Tanzanian is better served if we stop basing our proposals on exceptions. Instead we should base our proposals on strategic considerations which grasp the general trends of the matter.

(a) *The potential for crafts and small industries production is already fully exploited, given the policies towards large–scale industries and imports, given the effective demand, and given the extent and development of the industrial service infrastructure in the rural areas.*

The lack of reference to large–scale industrial policies and the incomplete picture of the demand structure in the approaches mentioned in the previous section have been pointed out. These drawbacks could of course be elaborated much more. However, I choose to concentrate on the infrastructural question in the propositions that follow. To me this question seems to be both the most neglected, yet in a way the most palpable and obvious problem to perceive. It does require of course that my broad definition of infrastructure given in section 2.2 is accepted.

(b) *It is a false assumption that further crafts and small industries development can be implanted without a simultaneous development of the infrastructure, particularly directed towards the requirements of the crafts and small industries.* The existing infrastructure is directed towards the needs of the export–import oriented economy – even at the regional level – and it is only by coincidence that an overlapping exists between this infrastructure and that necessary for crafts and small industries.

This proposition is based on the analysis in section 3.5 and it, more or less, follows from the first proposition. I have formulated it in order to ensure that I am understood.

It is sometimes argued that, *because* the infrastructure is poorly developed, crafts and rural industries have a comparative advantage in relation to the larger industries. Thus, small industries can be dispersed and placed closer to the masses of consumers whereby the high costs of transportation are avoided which normally burden the products of the large–scale, centrally located industries. There should thus exist »niches« which can be exploited by the small industries. To my experience such niches are negligible. The moment it comes to the matter of increased production or establishment of new crafts and small industries, is the moment we invariably experience that it is precisely the poorly developed infrastructure which is also a hindrance. Any noteworthy increase of production or new establishments require in one way or another that the poor services are improved. *This requirement then contradicts the argument which we started out with.* Maybe brickmaking or limeburning could be cited as exceptions. There may be some scope for such kind of local exploitation of resources over and above what is done already. But the scope is limited. And when it comes to the blacksmiths, the poor infrastructure is an absolute disadvantage which by far outweighs a possible, temporary, comparative advantage.

Another thing is that dispersed small production units have other advantages. Being close to the customers, the products can be better adapted to the specific needs of the customers. This is the case of the blacksmiths, but this advantage is not one related to good or poor infrastructure.

The last and perhaps most controversial propostition I make is the following.

(c) *The development of infrastructure aimed at the requirements of crafts and small industries is in itslef,*

under certain conditions, sufficient for the expansion and development of crafts and small industries. The conditions just referred to, mainly relate to demand and to policies towards large–scale industrial development.

All these propositions argue that *indirect* support to rural crafts and industrial production is not only necessary but is also sufficient, given a demand, and given some degree of control with what products the large industries put on the market. *Direct* support in the form of special arrangements for supply of inputs, credit, industrial extension service, and for marketing assistance to selected production units is comparable with artificial respiration. Such support is only justified in a kind of emergency situation. It often turns out to become a veritable pampering of the fortunate few, resembling a Father X–mas situation. This is extremely costly per unit, and will invariably only reach a small fraction of potential units. It seems to be the sure way of securing that the *number* of small–scale units is preserved and remains small. The proposals reviewed in the last section were all examples of direct support approaches. All the success stories I have come across so far about rural industries belong to the direct support category. They belong to the exceptions I talked about before. Not that indirect support isn't also costly. It would turn out to be prohibitively costly to improve the rural infrastructure, if this would benefit rural crafts and small industries only. So either ways appear to be utterly unrealistic to think about.

However, and this is really the crucial point of my reasoning, rural infrastructural development aimed at the requirements of rural crafts or industries will *simultaneously* be an indirect support to peasant small–holder production. Improved roads, improved transportation, improved distribution, improved credit facilities, improved rural marketing would benefit *both* small non–agricultural *and* small agricultural production units. And since the agricultural production is by far the most important, *the real argument and justification for improved rural infrastructure hinges on the need for agriculture to have better conditions of production.* Only secondly, and as an additional argument, comes the need of rural crafts and industries for better conditions. Moreover, the establishment of better conditions of production for agriculture may also lead to increased rural incomes, and possibly to increased demand for crafts and small industries products.

All that has been said in this section has been based on yet another fundamental assumption, namely that the rural craftsmen, and the peasants for that matter, are *not* inherently either backward, nor lazy, nor crazy. They are extremely skilled in terms of their technology. Another thing is that they have been so often, and for generations, labelled »unskilled«, that many believe and are *convinced* that they are unskilled and »backward«. So, together with improvements of the rural conditions of production, some political education and »deconvincing« will be helpful, if not necessary.

I hope that the formulation of the above assumption has been sufficiently provocative to have caused some readers to think that I am the crazy one. Nowhere do we find any project proposal based *explicitly* on a backward–lazy–crazy assumption. Why then make all that fuss about it? Because I insist that it seems to be implicit in many of the previously mentioned approaches, except perhaps the Macpherson one. In all probability it is an unconsciously made assumption. Nevertheless, I maintain it is there. It is in the ideology of »modernization«. I tried to trace its origin in chapter 3. I made reference to it in the review of agricultural policies, and in my attempt to compare agricultural policies with previous policies towards small–scale industries promotion. Realizing that I am not able to prove my contention I leave it as it is. I am content to state that the programme for village blacksmith promotion described in the next section is explicitly based on the following assumption: *The existing village blacksmiths are skilled, industrious and sane.* And the programme is representative of an *alternative* approach, mainly because of this explicit assumption.

The alternative approach has less pampering and paternal characteristics. It doesn't attempt to run ahead – at least not very much – of infrastructural developments and should therefore integrate better with other rural development efforts. But first and foremost, it is believed to be more in accordance with the *stated* rural industries policy of Tanzania in general and the *declared* objectives of SIDO in particular. As this policy and these objectives are congruent I can merge them and briefly quote the features which are most relevant for an appreciation of the alternative approach presented here.

> A small industry is defined by the Party as »any unit whose control is within the capabilities of our people

individually or co–operatively, in terms of capital required and know–how«.

Some of SIDO's policy objectives are:

»to utilize existing or traditional skills and resources in order to achieve increased production and the national objectives of socialims and self–reliance«.

»... to eliminate step–by–step the disparities in living conditions existing between urban and rural areas«.

Here at least existing skills are officially mentioned and presumably thus recognized.

6.3 Details of the UTUNDU programme

Perhaps by calling the activity of supporting the village blacksmiths »a programme« SIDO has made a mistake. It wouldn't have made any difference though, had it been called »a project« or »a scheme«. Whether a programme, project or scheme, these notions invariably imply restrictions on the course of actions which can be taken. These notions carry the risk of strangling the actions into bureaucratic rigidity, e.g., of insisting on implementing the »model« of the programme in full scale.

Another risk is, that once a programme has been launched, it is sometimes difficult to stop, if it turns out to be more harmful than helpful. Because, once government officers have been assigned to a programme, and money allocated, they tend to continue following the programme and spending the money, regardless of events. Stopping a programme would put suspicion on the officers for not being good enough at their work, both in their own eyes and in the opinion of their superiors. To avoid such suspicion, the programme is continued and all suspicion is put on the people which the programme is aimed at, if it goes wrong. Its failure may even be seen as a confirmation of some implicit assumption of people's backwardness, and another programme may be devised of a more commanding nature which directs people to do as they are told. It seldom occurs to the executing officers that it is sometimes neither themselves nor the people which should be blamed for a programme failure, i.e., that the reason could lie outside the scope of the programme or any other possible programmed action of the executing institution. And it hardly ever

occurs to them that perhaps it is the very existence of the executing agency which contributes to the programme failure.

Another matter is that SIDO seemingly has little choice other than defining its activities in terms of programmes or projects. There are limits to how much SIDO can de–bureaucratize what it does. Being a parastatal institution, it has to comply with things like accounting procedures, with annual reporting and planning, and with the need to dramatize to some extent its actions.

These warning remarks are not just sour burps against bureaucrazy in general. They are specifically aimed at the UTUNDU programme and its implementation, and at the presentation of it which follows. They are made as a general introduction to the smaller notes of warning which I put into this section.

»Utundu« is the Swahili word for »stubborn« in its positive sense of insisting, inventing, revolting and trying again. It was, as said, coined in the SIDA report which proposed a »thorough–direct« approach to rural implement manufacture. However, SIDO preferred a less thorough and less direct support programme, and the following alternative programme, which is about to be implemented now with assistance from UNIDO, was designed.

Aim:

The aim of the UTUNDU programme is to promote rural, small–scale manufacturing and repair of iron and metal items, namely 1. farm implements, 2. tools for other craftsmen and small industries, and 3. household utensils. The farm implement aim is the most important. In fact, the ultimate aim of the programme is not the promotion of the metal trade. *It is to contribute towards maintaining and even increasing agricultural production.*

Basic Assumption:

The UTUNDU programme is based on the assumption that a substantial number of rural blacksmiths exists, and that these blacksmiths are highly skilled in terms of the technology of their trade.

Structure and Phasing:

The programme has two main components, and each component falls within two phases as follows:

I. Product and Process Development

This activity is mainly a SIDO headquarter concern. Phase 1 consists of compilation of documentation and information about new product prototypes and improved iron works techniques.

Close and constant collaboration with the research, development and testing activities of institutions like TAMTU is indispensable. Experiments with improved techniques will be coordinated and subcontracted to local workshops, e.g., to SIDO sponsored industrial estates' general engineering workshops. Phase 1 is *preparatory* to phase 2 which is the active *dissemination of the results* of phase 1. How this dissemination will take place is not specified. It might be in the form of demonstration, similar to the »cart–before–the–ox« proposal mentioned in section 6.1. The timing of the start of phase 2 will *entirely* depend on when and if phase 1 of the *next* programme component has been successfully completed. If this phase does not show any noteworthy results, the whole UTUNDU programme should be stopped and the sooner the village blacksmiths can be forgotten the better. Thus, it would be a waste of time and money to try to disseminate anything.

II. Regional Implementation

As indicated above, the UTUNDU programme hinges on phase 1 of this programme component. It goes almost without saying that if this phase fails, then there is no need to think of a phase 2 of Regional Implementation either. *It is thus of utmost importance that the principles of phase 1 of the Regional Implementation is understood and adhered to.* I therefore summarily detail the principles of this phase. I do so rather reluctantly, aware of the risk of principles being misconceived as actual contents. On the other hand, if the details of it were not specified, the risk of the programme being derailed very soon is high. Apart from that, readers would be mystified. After all, I have announced the UTUNDU programme as the »best« conceivable, and I thus owe an explanation of the contents.

The main responsibility for the Regional Implementation, phase 1, rests with the regional offices of the small industries promotion officers (the SIPOs). The sole purpose of the phase is to consolidate, repeat *consolidate*, the existing technology of the present village blacksmiths. So, *the meaning of promotion will initially be »to stop the ongoing demotion«*. In broader terms: *This phase is an attempt to counteract the process of the liquidation which most of the smiths are dragged into by the deterioration of their conditions of production.*

This phase can be viewed as an emergency activity. It is a temporary effort to preserve the existing know–how and skills through »artificial respiration« by means of some modest direct support. Initially the period of this support is set at a maximum of five years. After that period the direct support must be substituted by indirect means, i.e., by ordinary infrastructural facilities. If this substitution is at all possible, phase 2 can start and will contain some kind of modest trade upgrading training and technical extension assistance, mainly by the dissemination of new products and processes.

In other words, the UTUNDU programme envisages in principle two steps. *The first step is not a move »forward«, but a move to prevent stepping backwards!* Only when this has been achieved the steps forward are warranted. The reason for this modesty is that it has to be seen whether the rural infrastructural conditions will in fact improve as foreseen in the rural development policies of the government or not. It will be a complete waste of SIDO's resources, and of the expectations of the village blacksmiths involved, to pace the UTUNDU programme very much ahead of rural infrastructural developments.

Identification of Groups

The first item of the Regional Implementation component is a continuation and intensification of the surveys done by the SIPOs and their assistants in all the regions of the country. The surveys will aim at identifying most, if not all, active smithing groups in the districts. Whenever an active group is spotted it will be visited and interviewed. As a minimum the following information will be obtained and reported:

a) Location of the group (distance to the nearest district centre, type of road etc.). Name of the group. b) Brief description of the most important features of the location (size of the village, available social

and economic infrastructure). c) Composition and size of the group and description of how it is organized. d) Brief account of the products made; prices. e) Count and description of tools in use. f) Source and price of raw materials. g) Marketing questions.

In the interviewing of the groups, care must be taken not to create optimistic expectations in respect of forthcoming UTUNDU support. Encouragement to organize into groups of a minimum of three master smiths may possibly be given, nothing more. Just the act of formation and registration into co–operative producer groups or partnerships is a large step to be taken by many of the smiths. Just the act of doing so is by some regarded as a sacrifice which then sparks off demands for something in exchange. That the sacrifice is a real one for many should not be underestimated, because being registered requires payment of various fees, tax obligations and sometimes minimum wage demands. And if these costs are not compensated for, the whole economic basis for the enterprise might disappear.

In fact the pressure to join into groups, however indirectly and carefully it is exercised, is the only demand which the UTUNDU programme puts on the blacksmiths. It is a pressure to change the organizational component of their technology. In other words, the demand is to change the technology in order to prepare the way for a later potential, voluntary introduction of some technical division of labour in the work processes. We can regret that the craftsmen in a way will be lured into this change. But such regret is most often based on some nostalgia about the »beauty« of a single, »small« man mastering his entire work process. However, the blacksmiths and thus Tanzanian agriculture is ill served if we transfer any nostalgia to the social scene of the rural areas. Whether we like it or not, the socialization of the work processes is a process nobody seems able to escape. It will inevitably emerge and penetrate in some form of capitalist or socialist socialization.

To choose to stay outside this process is to choose to disappear. But the blacksmiths did survive and escape the colonial attempts to exterminate their trade. Can't they still do the same thing today? Can't they just encapsulate themselves, avoid registration and stay in hiding as they did before? In all probability not. The reason is that the colonial attacks, although more direct than today, were mainly done by administrative means, whereas the present threat to the trade of the blacksmiths, although indirect, is mainly of an economic nature. It is a

threat to their supplies of inputs and to their marketing system. Moreover, their production is getting close to a situation of competition with state owned and directed production.

In other words, there seems to be no alternative to registration in the longer run. Apart from that, SIDO can't give direct support to unidentified groups, and will not be able physically to manage to reach individual master smiths. Hence there is the requirement that master smiths group together as a condition for receiving UTUNDU support.

Selection of Groups

Following the identification survey, those blacksmiths who have volunteered to form and register as groups are then roughly, and in principle, categorized into types of workshops. The chart in *fig. 18* provides some guidelines for this categorization. It can be seen that the UTUNDU programme makes provision for reaching other blacksmith groups than village groups. This is done in order not to exclude the few groups who have managed to diversify and develop their production. These groups, the type A and B workshops, have not been surveyed systematically and therefore I can't say how many they are. I briefly mentioned them at the end of section 5.3, and I see them as potential suppliers of tools for the type C workshops, which in any case will be the main type of UTUNDU supported workshops in the first phase of the programme.

The categorization of the registered groups is the first move towards deciding what kind of support the UTUNDU programme could possibly give the respective groups. In each case the actual support will be decided upon in consultation with the H.Q. officer in charge of the UTUNDU programme. This condition is made because this officer will have the overall country–wide picture and the experience necessary to determine what support is available and best suited in each case.

As a rule of thumb and planning indicator, the following figures will be used for initial selection and spacing of prospective UTUNDU workshops, mainly based on market size considerations:
Type C Workshops: At least a market base of 9,000 families required
Type B Workshops: At least a market base of 18,000 families required
Type A Workshops: Needs to be determined in each case.

This means, for example, that if a district has 18,000 families (or a

FIG. 18.

GUIDELINES FOR CATEGORIZING PROSPEKTIVE UTUNDU WORKSHOPS

Characteristics	Type A	Type B	Type C
Location	Regional or district centre	District or rural centre	Rural centre or village
Physical set-up	Permanent workshop building with electricity from mains. Comprehensive set of hand tools, some power tools and machinery	Semi-permanent workshed. Hand tools only - mix of traditional and modern. Some hand-operated machines, partly selfmade.	Simple workshed. Manily traditional hand tools, partly selfmade
Training and skills	One or more formally trained in medium level technical and managerial skill, semi- and unskilled workers and apprentices	One or more informally trained in low level technical skill. Semi- and unskilled workers and apprentices.	One master assisted by 1 - 3 relatives, skill inherited mainly
Organizational set-up	Partnership or co-op.	Co-op. or individual	Individual
Products	Simple machinery and tools for agriculture and other small industry units. Ancillary items.	Agricultural implements and household utensils. Repair of same	Agricultural and other implements. A fair amount of repair and adaptions. Traditional weapon
Material supply and marketing	Material supply through formal trade channels (RTC), marketing through RTC or to order. Local and regional market	Mainly scrap material. Sales to local market and to order	Only scrap material. Sales to local market, mainly to order

population of about 80,000) either two type C workshops or one type B workshop could initially be supported through the programme. Roughly speaking, it also means that on a nation wide basis a maximum of little more than 300 type C workshops can be supported, or something like 15 per region. As the UTUNDU programme gradually becomes successful, and particularly as the raw material supply and the marketing problem become solved, the 9,000 families per C workshop planning figure can be decreased. But not before. Another thing to note is that if we assume an average size of a blackmith group to be about 12 people (e.g., 4 master smiths and 8 assistants), the number of people involved in the UTUNDU programme will be approximately 3,600. This is only about one third of the total estimated blacksmith population. In other words, quite a number of smiths will be left out and may be pushed out of business by the others. Some may think this to be a sad prospect. However, I don't think that more than one third of the existing smiths will voluntarily register and join together with others. Secondly, I would regard it as a happy event if 300 groups can in fact be consolidated and thus survive. The alternative of letting them *all* be liquidated is not very attractive .

Products

Just as the UTUNDU programme builds upon existing skills it also – at least initially – builds upon production of the type of implements which are already being made. The aim is to consolidate the working processes and the product quality. First after a group has been consolidated suggestions can be made as to what other items could be produced and what other smithing techniques could be introduced.

It is therefore to begin with *not* necessary to specify the type of products the workshops should make. *The smiths know that already.* Moreover it would at present be an impossible task to specify all the possible products, and what is useful to make in Karagwe District is not necessarily useful in Tunduru District.

However, some *examples* of products are listed below and grouped according to the category of workshop which could possibly make them. Besides this listing, some of the examples are shown in *fig. 19, 20 and 21.* Neither the list nor the figures are intended for the smiths. It would be an insult. They are only intended for the reader as a means of conceptualization of what the UTUNDU programme is about. I

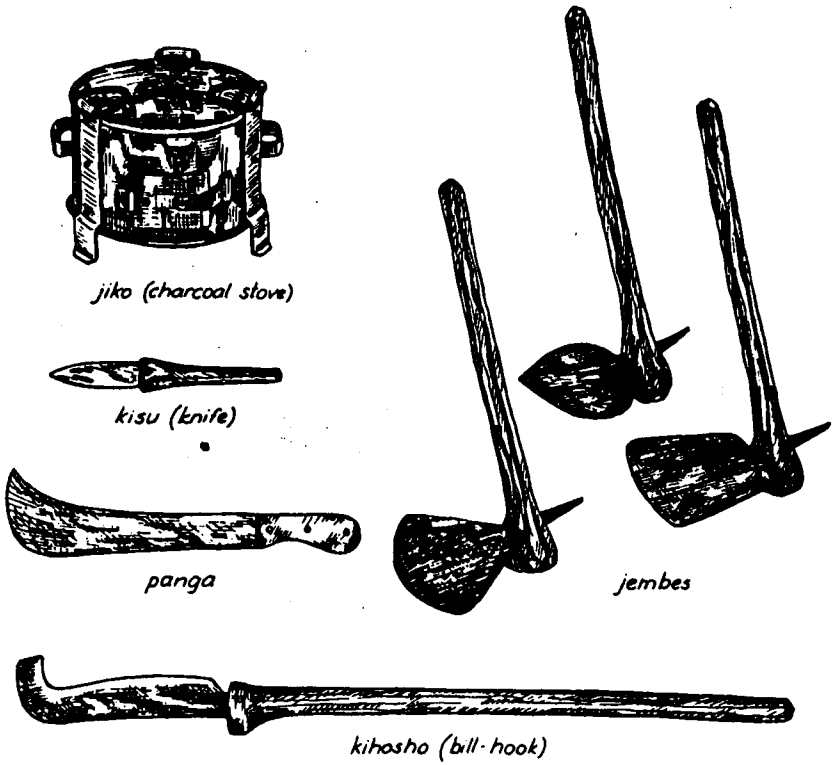


Fig. 19: Examples of possible products of a type C workshop

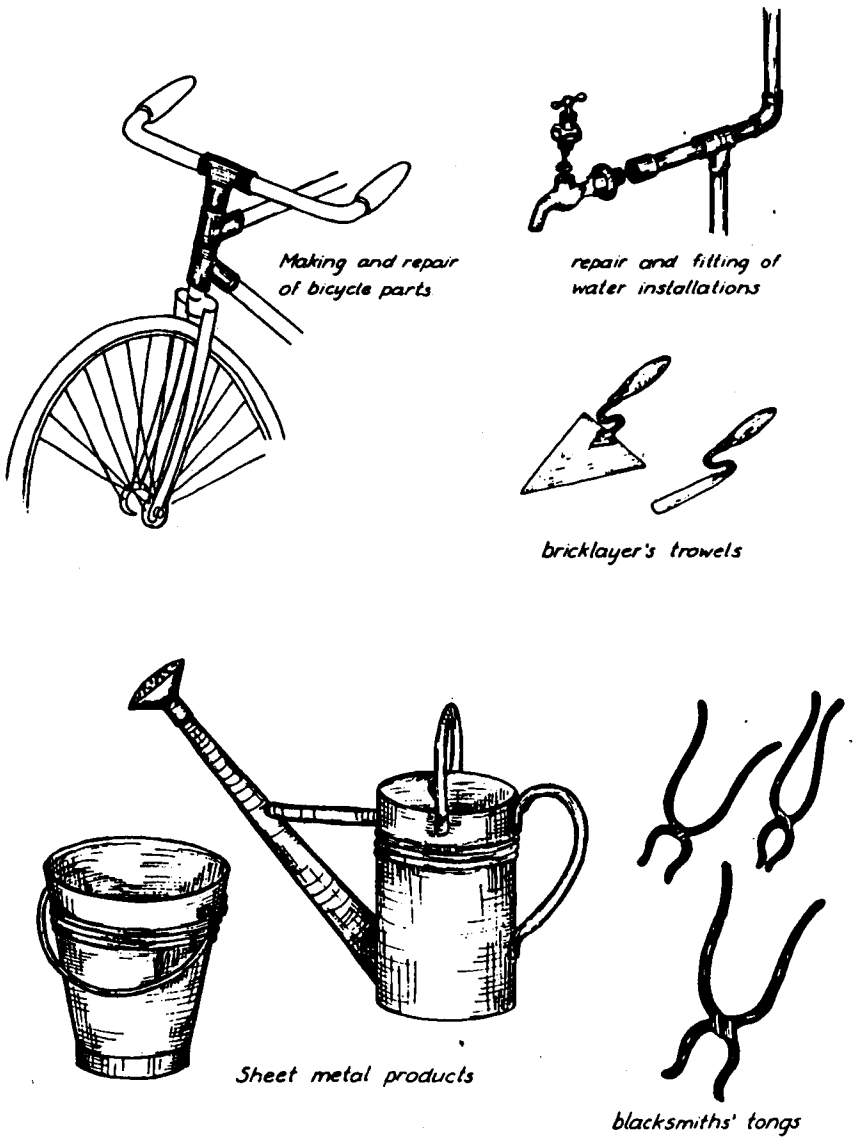


Fig. 20: Examples of possible products of a type B workshop

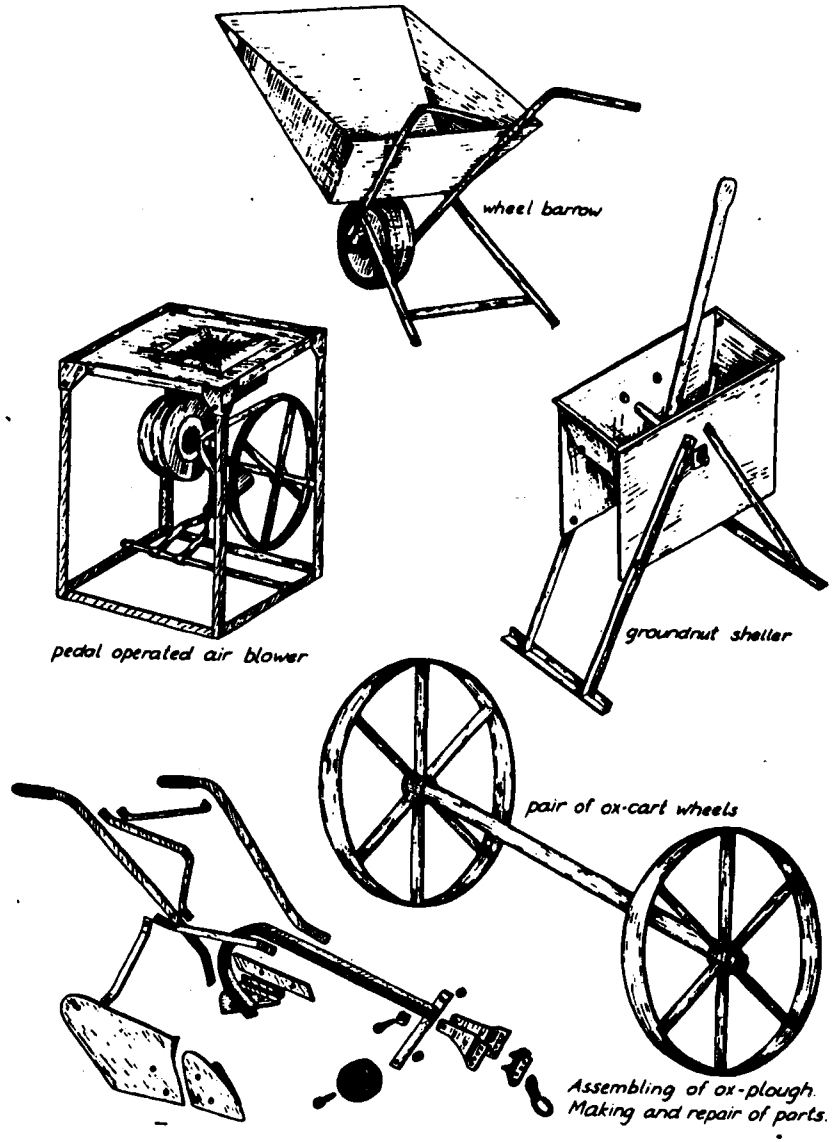


Fig. 21: Examples of possible products of a type A workshop

hope that the rather low and modest ambitions of the programme will become clear. The figures are also there to remind the UTUNDU management of the level of ambitions, so as to avoid any dreaming of higher levels than reality allows. The observant reader will note that fig. 19 is identical with fig. 17. This looks like a provocation. And it is. It is to symbolize the initial consolidation outlook of the UTUNDU programme, and to indicate that the implements shown in the figures in all probability will disappear if something isn't done about it.

The list of examples of products which possibly could be and are being made in the different types of workshops reads as follows:

Type C Workshops: (see fig. 19)

Farm implements: Jembes of all types, kinds and shapes; axes and choppers; bill hooks of various designs; adzes; long, short, light, heavy cutting knives; sickles and slashers. REPAIR OF SAME.

Household utensils: Knives; scissors; frying pans; charcoal stoves and kerosene lamps. REPAIR OF SAME

Type B Workshops: (see fig. 20)

All the above mentioned products plus
Metal sheet products: Buckets and watering cans; dust bins; chicken feeders. REPAIR OF SAME.

Simple craftsmen's tools: Holding tongs and chisels; bricklayers' hammers and trowels; carpenters' hammers, pincers and nippers; potters' handtools. REPAIR OF SAME

Parts for and repairs of bicycles and water installations .

Type A Workshops (See fig. 21)

Farm implements: Groundnut and maize shellers; groundnut lifters; hand–operated planters and sprayers; wheel barrows; handcarts and ox–carts; assembling of ploughs; spareparts for ploughs; REPAIR OF SAME.

Craftsmen's tools: Forging hammers; pedal operated air blowers; planer blades; sheet metal swagging and cutting equipment. REPAIR OF SAME.

Tools and Equipment for the Groups

This is one of the crucial points where the UTUNDU programme can be of direct assistance. Two things are seriously preventing the smiths in keeping up and improving their production:

(a) Lack of tools in the regions.
(b) Lack of funds to buy the tools if available.

The former point is perhaps the most serious drawback, because even if the smiths have the money they can't buy the necessary tools anywhere. So simply by arranging that the tools are available for sale at the respective RTCs, can SIDO bring these smiths considerable support.

The latter point is also a general problem and hire purchase arrangements will be made through SIDO. The UTUNDU programme does *not* in principle provide for free gift tools. This principle applies for working sheds as well. Only such tools which the groups themselves feel the need for will be provided. Thus the tools which are listed below and illustrated in *fig. 22, 23, and 24* are *examples* only. The modesty of the tools should be noted once more.

Type C Workshops: (see fig. 22 and compare with fig. 16)

Various sizes of forging hammers, holding tongs, files, chisels; anvil, e.g., 100 kg; foot–operated air blower; medium size vice; hacksaw with blades. Approx. investment 3,000 T.shs.

Type B Workshops: (see fig. 23)

Hand–operated grinding stone and drill with set of drills; water pipe die set; soldering tools; fastening tools; sheet metal swagging and cutting equipment. All tools mentioned for type C workshops. Approx. investment 6,000 T.shs.

Type A Workshops: (See fig. 24)
Basic blacksmith and machine shop tools including those mentioned for type C and B workshops. Arc welding set; gas welding set; table drilling machine and table grinding machine; die and tap set. Approx. investment 20–30,000 T.shs.

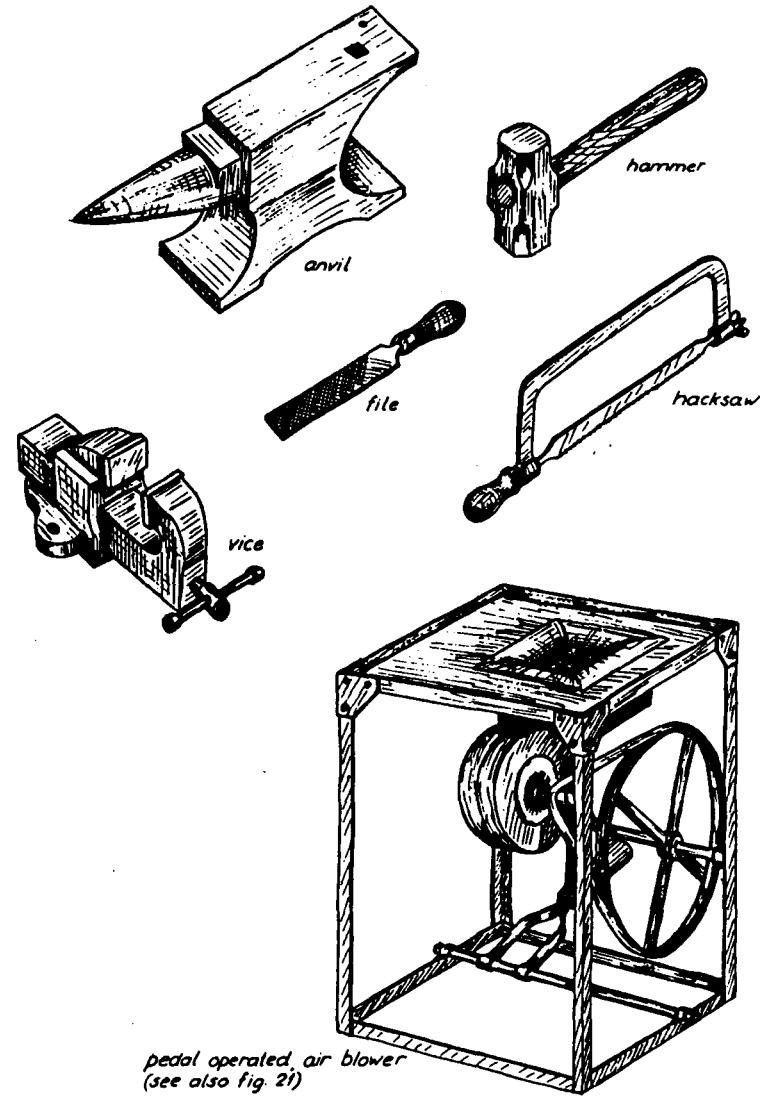


Fig. 22: Examples of tools proposed for type C workshops

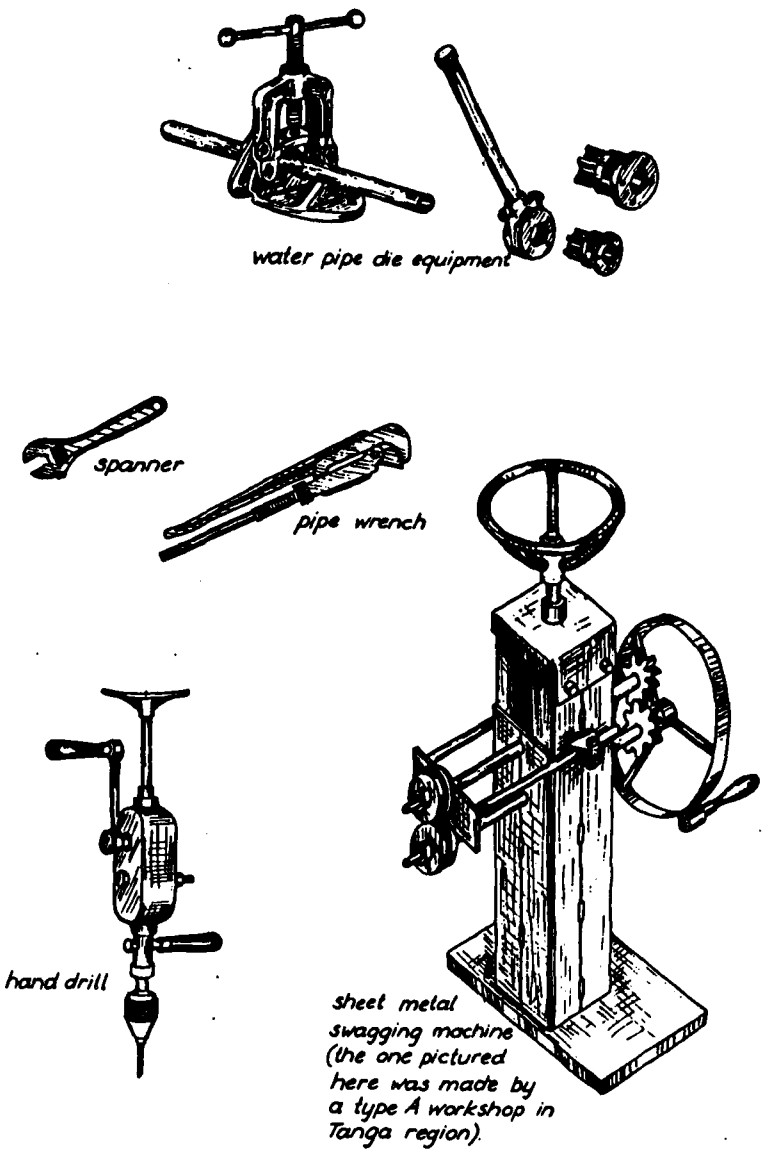


Fig. 23: Examples of tools proposed for type B workshops

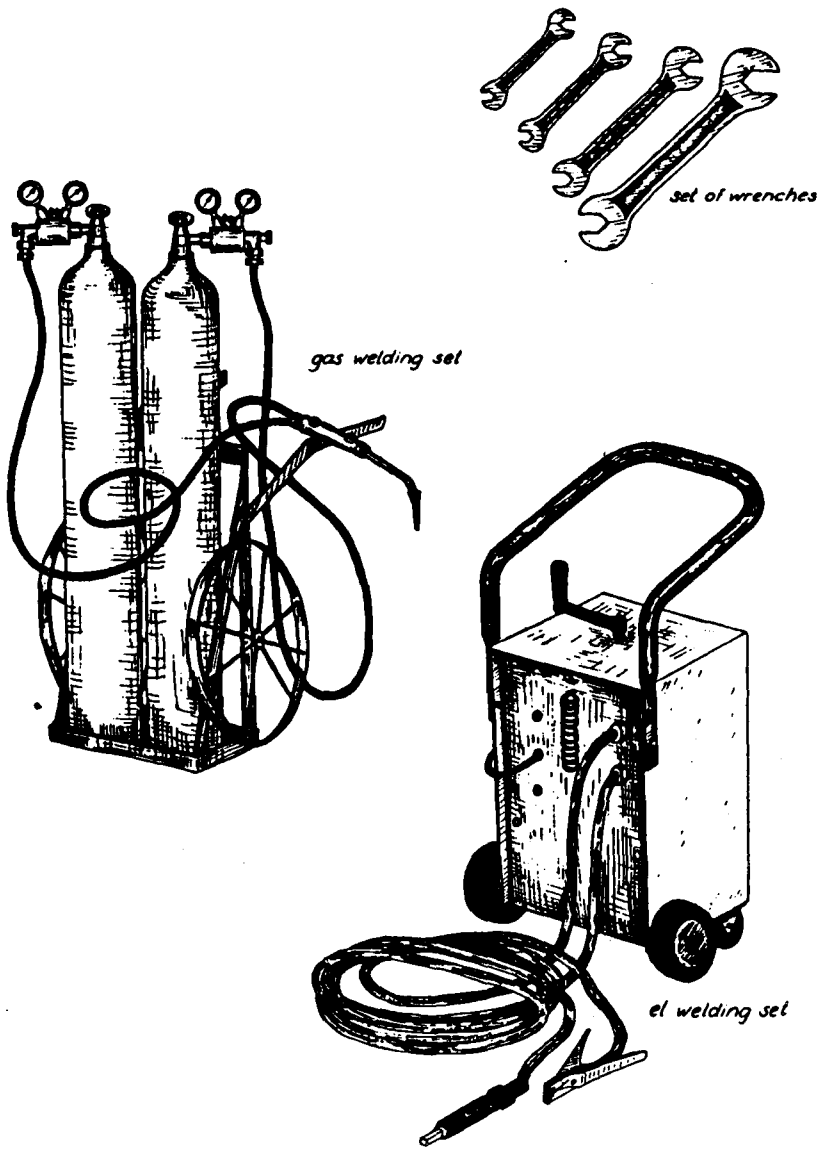


Fig. 24: Examples of tools proposed for type A workshops

Raw Material Supply:

In many regions the supply of raw materials is absolutety the most serious problem for the maintenance, let alone the expansion of the smiths' production. Thus, this problem must be the first thing to tackle, i.e., *before* the supply of tools. At present most smiths rely on collecting whatever scrap material they can get hold of, often buying it at something like 2–3 T.shs/kg excluding their bus fares and other travelling expences.

A first step of assistance will be to arrange for a systematic search in the regions for scrap, e.g., in the garage yards of the various ministries. SIDO is investigating the possibility of making a general arrangement with all Regional Engineers which can make smooth the handing over procedures of scrap to the UTUNDU workshops. As it is now, a lot of scrap is rusting away because of almost insurmountable bureaucratic obstacles to sell or give away ministerial scrap. Secondly, SIDO has negotiated with UFI for the purchase of scrap of various qualities.

Thirdly, it is being considered that UFI could sell semifinished blanks of various specified steel qualities, shapes and sizes. These should be distributed through RTC or directly through the regional SIDO officers. This possible collaboration between the large industries will be further discussed in the next chapter.

Particularly the third point might prove to take a long time to implement. Regions should therefore be prepared to exploit the first and second possibility fully first. As a rule SIDO cannot commit itself to carry out the actual material deliveries. Assistance for transportation could be given from the regional or district authorities. It can be expected that not all kinds of scrap will suit the blacksmiths. One group member should therefore be present at the loading site to avoid transport of useless scrap.

Marketing:

This point is of course of utmost importance. In the initial stage of consolidation the existing groups' reliance on the existing local market is necessary and believed to be sufficient, e.g., where smiths are claiming that the raw materials supply is their main problem, this has been found to be a sign of excess demand for their products.

It is when improved tools are introduced that care must be taken that some market survey is made. To give a group a hire purchase loan means perhaps encouraging a too optimistic volumen of production. This must absolutely be avoided. Whenever a group aims at producing for a market outside the district, consultations with RTC need to be made in advance. RTC generally makes it a condition for handling products that these are highly standardized.

Technical Extension Service and Training:

No technical advice and training are needed or provided for in phase 1 of the Regional Implementation of the UTUNDU programme.

Chapter 7

Appraisal of the UTUNDU Programme

The actual contents of the UTUNDU programme as outlined in section 6.3 may not present itself as a qualitatively different alternative to the proposals criticized in section 6.1. If the programme was stripped of its explanatory comments and torn out of the analytical and historical context of this book, it could easily be perceived as only quantitatively different from the others. Thus, it might be taken as a cheap or »under–boosting« variant of the expensive or »over–boosting« proposal of the Kienbaum report. A reader who is used to view all promotional programmes as »development« programmes could miss the crucial point, that the UTUNDU programme hasn't anything to do with development – at least not initially and certainly not if development is thought of with its usual connotation of »new establishment« or »creation« of something which hardly exists.

The reason for these reflections comes from observations of how the UTUNDU programme was actually started by SIDO. As said in the introduction, SIDO was anxious to get the programme going; fair enough. But it was initiated on the basis of a preliminary paper which mainly contained a descriptive presentation of my survey, i.e., on the more factual contents of chapters 4, 5 and 6 of this book. A separate paper outlining the bare programme contents was also produced, more or less providing the same prescriptions as made in section 6.3. These two papers were also the background for the involvement of UNIDO in the programme. The basic premise of consolidation, as distinct from development, was carefully written into these papers though. But possibly not sufficiently carefully, because various violations, however minor, were done to the programme principles right from the start, i.e., some of the prescriptions were not adhered to.

The present chapter reflects on possible explanations for these deviations from the programme design and evaluates the likely consequences. It will be suggested that the reasons for not adhering to the original course of the programme have to do with difficulties of accomodating an alternative approach within the two executing institutions, i.e., SIDO and UNIDO. I refer to these difficulties as

internal programme problems.

These problems give reason to continue the appraisal by connecting it to external programme problems. The underlying assumptions of the programme about the planned direction of change in the Tanzanian society will be reviewed together with an evaluation of the more direct external conditions which must be fulfilled for the programme to become successful. This review and evaluation make up an appraisal of the *the socio–political feasibility* of the UTUNDU programme. This appraisal is finally related to a discussion of the strategy options which the government seems to have for an adequate provision of farm implements to the peasants in case the UTUNDU programme fails.

But before the socio–political feasibility of the programme is appraised two sections are inserted. The first is a discussion of the technical and economic feasibility of the programme, the second tries to outline some quantitative, and a few qualitative, criteria on the basis of which the successful achievement of the aims of the programme could be measured, in particular the consolidation aim of the decisive first phase of the Regional Implementation programme component.

7.1 Appraisal of the technical and economic feasibility

This section is relatively brief, i.e., it does not present a complete feasibility account in the conventional sense of benefit–cost analysis or the like. Such studies belong to »development« projects and are often of dubious value anyway. I shall indicate why, a little later. However, I need of course to make it probable that the technology of the village blacksmiths is not grossly technically inefficient, i.e., that it doesn't use more of both material and human resources than its alternatives. We need also to be satisfied that a village blacksmith group is an economically viable unit in micro economic terms.

For these purposes the new farm implement factory in Mbeya (see section 4.1) and the proposed smaller enterprise in Tabora (see section 4.2) are compared with a type C workshop of the UTUNDU programme. It must be stressed at once though, that such a comparison is a rather risky business. Firstly, because the data are not very reliable. They all come from pre–project feasibility studies, the reliability of which is impossible to control. Secondly, because the comparison is between two conventional projects and a

non–conventional one. This means that the usual method for comparing techniques by quantitative indicators is highly questionable, even if the data were reliable. Nevertheless, an estimate of some of these indicators is presented in *table 10.*

Apart from the reservations made above, the following remarks must be considered. The product mix of the three firms are not identical. Of the total output of the Mbeya factory 70 % will be hand tools, 17 % animal implements and 13 % tractor equipment (measured in tons). The Tabora enterprise is planned to make animal implements, and the UTUNDU workshops will make hand implements only. In other words, we can assume that the »production cost per kg.« would be lower than quoted for the Mbeya and Tabora plants in case these made hand implements only. How much lower though, is impossible to estimate from the given data. On the other hand, the production costs for Mbeya and Tabora are estimated for full capacity utilization. Mbeya is even assumed to work in two shifts, 300 days annually. Such capacity utilization assumptions are not realistic. This means that the »production cost per kg.« will come out higher than quoted. Again the data do not allow to say how much higher.

These two sets of considerations taken together seem however to permit us to guess that the quoted figures of 10.2 T.shs/kg for Mbeya and 10.6 for Tabora could be quite realistic *order of magnitude* estimates of the »production cost per kg.« in case these plants were to produce hand tools only. The figures can thus be used for comparison with the cost of the hand tool production of the village blacksmiths.

The »production cost per kg.« of a UTUNDU workshop is also difficult to estimate. The likely effect upon the productivity of the smiths of better tools is unknown. To be on the safe side, *and true to the consolidation concept,* I therefore assume that *no* productivity increase will take place initially. I assume though that the time spent to search for raw materials and charcoal provision is reduced considerably. If reduced to zero we could use twice the productivity figure of 1.6 kg. output per man–day quoted in section 5.3. But then the question comes how many days per year a group will be working. In case of unlimited supply of raw materials we may find groups working 300 days, assuming a demand, and considering the fact that non–agricultural activities are often preferred, as indicated in section 3.4. However, it would be too much to expect *both* full–time production and a reduction to zero of the time spent to provide raw

TABLE 10

COMPARISON OF FARM IMPLEMENT MANUFACTURING TECHNIQUES

	UTUNDU type C unit	Tabora enterprise	Mbeya factory
TOTAL INITIAL INVESTMENT, T.shs	1o,ooo	2.7 mill.	39 mill.
TOTAL EMPLOYMENT	12	7o	3oo
INVESTMENT PER JOB T.shs	83o	38,5oo	13o,ooo
ANNUAL OUTPUT, tons	6	26o	4,11o
ANNUAL OUTPUT PER JOB, tons	o.5	3.7	13.7
TOTAL ANNUAL COST OF PRODUCTION, T.shs	81,ooo	3.2 mill.	42 mill.
WAGES IN PROPORTION TO TOTAL PRODUCTION COSTS, %	75	18	7
PRODUCTION COST PER KG., T.shs	13,5	1o.6	1o.2
CALCULATED PRICE PER KG, FROM ENTERPRISE STORE, T.shs	15.o	12.3	13.3
INVESTIBLE SURPLUS PER KG., T.shs	1.5	1.7	3.1

material . Rather we may assume a »bit of both« and be content to estimate an output of 1.6 kg. per man per day for about 300 days annually. It would thus be safe to expect an output of 6 tons per year per unit of 12 men (4 master smiths and 8 assistants).

Then comes a series of cost considerations. The first one is a wage estimate, which is hard to make for crafts people who don't work for a wage. But for argument's sake we could »give« them the minimum wage for industrial workers which is about 16 T.shs/day. This makes 10 T.shs per kg. of finished tool. Then we could assume an expenditure of, say, 3 T.shs for raw materials and 0.5 for depreciation of equipment per kg. The total »production cost per kg.« would then be 13.5 T.shs. At most, that is.

Following some profit additions we get »calculated price per kg. from enterprise store«. Think then of where these stores are located. We would find that the distribution from Mbeya is the most expensive (national level production), from Tabora less expensive (regional level), and practically without cost from the UTUNDU worskhop (village level). All in all, the production costs *plus* distribution costs of hand implements would probably be very much alike regardless of the choice of technology. *This points to the conclusion that the UTUNDU workshops are both technically feasible and economically viable units.* Moreover, they compare well in order of magnitude cost calculations with the other firms seen from the point of view of the consumers.

But which ones of the technologies should be chosen, seen from a macro economic and overall social point of view, is another matter. If employment creation enters into such considerations, the UTUNDU programme might be chosen. If investible surplus to the state is more important, Mbeya will be the choice. And we could go on interpreting the table in this way. I hope that most readers agree that further interpretations are of rather limited value as long as the many »if's« concerning social objectives are not specified.

Thus, the comparison omits a lot of very essential questions. We can't »see« the importance of the UTUNDU workshops as repair–infrastructure for an expansion in agricultural productivity by means of draught animals. We don't know where the higher investible surplus from the larger factory goes to. *It is certain though, that a lot of the surplus would have to be invested in repair facilities for draught animal implements in case the village blacksmiths are not consolidated, and in case draught animal agriculture is wanted.* I

would personally not be surprised if the establishment of such new repair–infrastructure would cost much more that the surplus which the factory could generate. Not even considering the cost of training of blacksmiths to run such a state established infrastructure.

But before entering into the broader socio–economic discussions, which often leads to wild speculations, I want to complete the programme specific feasibility considerations. These considerations will be indicative of which direction the discussions should take. Suffice it here to suggest that simple farm implements apparently belong to the category of products which according to the new Basic Industries Strategy, mentioned in section 3.3, could be reserved for small–scale production. They compete »reasonably well« in price and quality with large–scale produced products. They can certainly be characterized as »simple goods for village consumption«, i.e., the type of products which expressly are said to be assigned for village level production, according to the strategy.

7.2 Successful achievements of the programme measured

The ultimate aim of the UTUNDU programme is to contribute towards maintaining and increasing agricultural production (see section 6.3), but since many other efforts are made to do the same thing it would be difficult to use this aim as a yardstick for successful achievements of the programme. It is also difficult to measure the output from the UTUNDU workshops in terms of the numbers or tons of implements produced, or in terms of the amount of repairwork performed.

The only quantities we can go by, if we want a real yardstick, are the planning figures quoted under the heading »Selection of groups« in section 6.3. Here a figure of 300 type C workshops, or 15 per region, is mentioned as a tentative target for the first phase of the programme. Incidentally, this target should in fact ideally be converted into, say, 10 type C workshops, 2 type B workshops and 1 type A workshop per region. Note: Regions vary tremendously in many respects, so the target figures must not be regarded rigidly as something that *must* be implemented for each and every region. The density of existing village blacksmiths vary from region to region, so it may be justified to aim at a number of workshops equivalent to between 10 and 20 type C workshops per region. Another consideration would be the concentration of cattle and the number of draught animals already in use. In some regions there is hardly any cattle population and

practically no animal drawn implements are seen. In such regions the argument for animal implement repair facilities is of course not pressing for a long time to come. But the need for repair of hand tools is certainly there.

Another measurable target figure written into the programme is the five year time limit put on phase 1 of the Regional Implementation programme component. In other words, *the first phase of the UTUNDU programme can be assessed as successful in case an equivalent of 300 type C workshops are consolidated within five years from its start.*

But how do we know whether a group of smiths has been consolidated or not? What should an evaluation mission from, say, UNIDO look for, or what should SIDO put in the annual reports other than an account of programme expenditure and a count of numbers of groups and of years?

They would have to include some qualitative assessment. This should be centered around the following criteria, which could be regarded as a kind of operational definition of »consolidation«. Needless to say that the first criterion would be that there should be groups to count (otherwise there would be nothing to assess). But when is a group a group? I suggest that a group is considered as a group when 3 or more master blacksmiths have joined under the same roof or around a common yard. As said before, 4 master smiths and 8 assistants may be an average size for a group. The group should also have been registered as a co–operative producer unit either independently or as part of the new planned village set–up. Moreover, and here comes the more qualitative criteria, I suggest that a smithing group has been consolidated fully where, (a) it is organized internally in a way which potentially seems conducive for the introduction of some interchangeable division of labour between the group members; (b) the primary occupation of the group members is smithing (e.g., as opposed to farming); (c) it is capable of earning a surplus large enough for some reinvestment in improved tools to take place; and (d) its range of products and repairs has shown a diversified tendency.

The reader will by now understand that the concept of consolidation is a rather vague thing to handle. There is wide room for thinking in terms of »degree« of consolidation, but this can't be helped.

Should I, however hesitantly, dare to guess and put on paper a little

bit about likely benefits and costs it would be by way of reference to the jembe production once again. After all, the jembes are the only products which we have some details of magnitudes about. (See fig. 15 section 4.4 and the last part of section 5.4). It was estimated that 18 % of all jembes or a total of 450,000 per year are at present produced by the existing blacksmiths. The smiths who are envisaged entering the 300 UTUNDU groups are likely to be among the most productive today. There is thus reason to believe that these smiths make, say, half of the present jembes, i.e., 225,000 jembes annually. This would be something like 2.5 jembes per day per group, or less than one jembe per day per master smith in the group. If we then assume that each master smith of a group of 4 masters makes 2 jembes a day as a result of the UTUNDU programme consolidation for 300 days a year, (each could easily make 5 if they made nothing else), we could get a total annual production of about 0.7 mill. And if we assume that the smiths which are not joining a UTUNDU group give up their trade completely, we would experience an increase in village jembe production from 0.45 to 0.7 mill. Finally, in case the large factories achieve and keep up to 80 % of their rated jembe capacity by 1983 we would end up having about half a million *surplus* production of jembes that year, i.e. 2,6 mill. (large–scale) plus 0.7 mill. (village scale) minus 2.8 mill. (demand).

Although I have no firm cost calculations, I foresee that the UTUNDU inputs as described in section 6.3 will amount to something like 10,000 T.shs per workshop equivalent, or 3 mill. T.shs in total direct costs over the next 5 years. To this should be added another 3 mill. T.shs to administration, etc. In other words, 6 mill. T.shs are the maximum amount estimated to be involved for the regional implementation component, phase 1. How much the product and process development component will cost is equally difficult to say. Perhaps 3 mill., perhaps 6 mill. T.shs. We all know that R and D is an expensive business, so let us be generous and say that 6 mill. T.shs might be a fair budget limit for five years, provided we believe that the targeted 300 UTUNDU workshops will in fact be consolidated (otherwise the money would be wasted).

The grand total for the entire UTUNDU programme would be 12 mill. T.shs then, or 2.4 mill. T.shs per year for five years. Compared to the previous approaches mentioned and costed in section 6.1, the 12 mill. T.shs for the UTUNDU programme could alternatively have bought 50 of the Kienbaum »over–boosting« approach type of workshops or 2 of

the SIDA »through–direct« approach industrial development village workshop clusters.

Or we could buy 4 Tabora type plants for the same money. However, the comparison between the UTUNDU workshops and the Tabora plant is not relevant. The animal implements of the Tabora plant are needed in any case. What we could reasonably compare is perhaps the cost of the 300 UTUNDU workshops plus the cost of say, 4 Tabora type of plants with the cost of the Mbeya factory. Such a UTUNDU–Tabora combination would add up to an investment of about 24 mill. T.shs and it could produce about 1,800 tons of hand tools plus 1,000 tons of animal implements annually. This crude cost–output combination seems to compare fairly well with the cost–output combination of the Mbeya factory which, as mentioned in section 4.1, is planned to make 2,800 tons of hand tools, 730 tons of animal implements and 565 tons of tractor equipment for an investment of 39 mill. T.shs.

In sum, there seems to be little, if any, large–scale advantages to be gained in farm implement manufacturing.

7.3 The socio–political feasibility of the programme

Conventional development project appraisals are usually confined to prove or disprove whether an activity is technically and economically sound. In the affirmative, it is left to a supposedly rationally behaving decision making body to confirm the project. It is expected that the decision will be a »go ahead« in case other technically and economically feasible projects don't compare more favourably with the project in question. Rarely, if ever, is the *socio–political feasibility* assessed. It is probably not necessary either. This is so, precisely because the projects are conventional, i.e., correspond to the development ideology and to the institutional norms of the decision making body who is usually also involved in requesting *both* the design of the project as well as its appraisal. In fact, the function of project appraisals is often to justify or legitimize decisions already made about activities which would have been initiated in any case.

But it is another matter when it comes to a non–conventional project like the UTUNDU programme which is based on a different conception of development and on alternative assumptions about the past and present state of affairs of the society. Chapter 3 and 6

contain such alternative interpretations of events and alternative assumptions in relation to the UTUNDU programme. The socio–political feasibility of such non–conventional projects has to be scrutinized. This involves, for example, questioning the acceptance by the executing agencies and the collaborating institutions of the alternative assumptions, as well as questioning the capability of these agencies to adhere to other project executing norms than are usually applied. An assessment of the credibility of declared policies needs also to be included.

Rather than trying to define any further what I mean by the socio–political feasibility of a project, it is demonstrated in the following what kind of questions need to be asked and answered in connection with a socio–political feasibility scrutiny. In fact, it is only in the last chapter (section 8.2) that I define the socio–political feasibility concept in an formal sense.

(1): Is it possible for »development« agencies to execute a programme not based on a conventional development approach?

Both executing agencies, SIDO and UNIDO, have the word »development« in their names, i.e., the »DO« stands for *Development* Organization. In that respect at least, they can be regarded as »development« agencies. I note this because it might give us a hint as to why the following violations of the UTUNDU programme prescriptions were made right from its start.

UNIDO insisted that an expert was assigned to the programme. Moreover, it had to be a UNIDO appointed expert in industrial engineering who could give technical advice to the blacksmiths »on how to use their tools«. But this is totally contrary to the principle of the programme, which is that the smiths know very well how to use their own tools and those simple additional ones envisaged in the first phase of the programme. The risk that the expert will not be able not to perform as an expert is very high! Only in rare cases do experts keep their hands in their pockets and shut up. Unless the expert is carefully told *not* to behave as an instructor, he is very likely to do so. He may then not be aware that the smiths will regard him as an instructor in the commanding sense and not in the teaching sense of the word. He will in all probability be viewed as being similar to the average agricultural extension officer who for half a century has instructed the peasants what to do. And since the smiths are peasants as well as smiths, they will be suspicious. They might say »yes, sir, yes, sir« but

not listen. Experience has told them that the »yes, sir« attitude is the best defence against extension advice which according to their experience hardly ever leads to anything to their advantage. (See section 3.2). And the suspicion against the expert may easily be converted into suspicion against the rest of the UTUNDU programme. To me the UNIDO demand that an expert has to be assigned to the programme is a sign that the »backward–lazy–crazy« ideology is deeply rooted in this institution. If UNIDO wanted to control how their money was spent then any other type of person than an expert in blacksmithing could have been assigned to the programme *administration*. Also SIDO would have been better helped that way.

But SIDO violated the programme principles as well. First, a technical assistant was told to make a feasibility study of a »model« group of smiths. This might look innocent. I just produced one myself in the two previous sections. However, what was produced was a conventional feasibility study, which included »types and quantities of products to be made«, »rate of return on investment«, etc. I was told that SIDO of course had »to know *exactly* what the smiths *must* make«. This »exactly« and »must« worries me because of the latent temptation for somebody to start instructing or commanding the smiths to do »exactly« as written into the model. The notion of »close supervision« as described in section 3.2 and 3.3 may be implied in all this.

Another somehow alarming matter was that tools were purchased and shipped to the first four blacksmith groups before the problem of raw material supply had been considered, let alone solved. The tools were also given away freely because it was deemed to take too long time to set up a hire purchase arrangement. And cash money for the workshop buildings was also handed out. In other words, the UTUNDU programme got off to a hurried start which resulted in disregard of many of its principles. This again means that the programme was born with many of the characteristics of a »development« programme, e.g., with an implied notion of modernity.

It is too early to say something conclusive about what will happen to the programme when it grows up. But there is reason to be somewhat pessimistic about the capability of SIDO and UNIDO to solve the internal programme problems mentioned above.

Thus, the answer to question (1) might very well be that it is not

possible – at least not easy – for »development« agencies to execute other than conventional development programmes.

(2): Are other institutions than the executing agencies able or willing to render the necessary direct or indirect support to the programme?

The UTUNDU programme depends mainly on collaborative support from NDC and RTC. NDC, because this institution embodies the large–scale farm implement factories and steel manufacturers; RTC, because of its central role in the distribution of essenntial inputs to the programme, in particular raw materials.

More concretely, NDC is required to assist the UTUNDU programme in providing raw materials to the blacksmiths. As mentioned in section 6.3, it is proposed that UFI sells semi–finished blanks of steel to the smiths. The idea is that the smiths would buy these and make the final finishing of them in the shape suitable to the requirements of the peasants in their respective areas. UFI could gain some profit from this arrangement, but not as much as in the case of the sales of full–finished products. In fact, the proposal is due to the realization that it could be even more difficult to convince UFI to sell just ordinary pieces of steel which would give practically no profit at all. This seems less attractive because UFI has also had problems with raw material supplies.

So far, however, UFI has only expressed a willingness to sell some of its scrap. This may be arranged. But first, it would only be a temporary solution and secondly, the scrap might, as mentioned in section 5.5, be required by another subsidiary company of NDC which recently has started a steel scrap melting furnace in Dar es Salaam. This furnace is reported to be so big (50 tons per day) that it will soon become necessary to import scrap to keep it going. And as world scrap prices are known for their fluctuations and as the supply is unreliable, it requires little imagination to predict that whatever scrap is available locally will be in high demand. As mentioned before, scrap will be shipped to the furnace from the towns along the railroads, in which case the present scarce supply to the village blacksmiths will be even more scarce.

In other words, NDC may in few years time be competing with the UTUNDU programme for scrap. And, as indicated in the previous section, when the Mbeya factory starts sending jembes and other implements on the market and when UFI has completed the expansion

of its capacity, the competition may be for the market as well. Then RTC will be under pressure to distribute as many farm implements of NDC origin as possible and may be even more reluctant than today to buy and sell the products of the village smiths. We may even see the administrative harassment of the local markets increased.

I hope by now to have stated a case for very close contacts and direct agreements between NDC and SIDO. Such contacts are not at present in operation and it is hard to say whether they can be established in the future. From discussions with various NDC people about details in connection with the UTUNDU programme, I was left with the impression of little interest in closer NDC–SIDO collaboration. Thus, the proposal of UFI selling semi–finished blanks to the village smiths was received with a remark about this being contrary to usual practice and wisdom. This practice and wisdom, I was told, suggest that it is the small–scale industries which should sell semi–finished things to the large–scale factory. Not the other way round. The example of small firms being subcontractors to a bicycle manufacturing and assembling company was mentioned. A NDC publication, »Bicycle Ancillary Industries«(21), was even put into my hands followed by the advice to go home and study how »right« such an arrangement is, implying that the other idea is »wrong«.

Other remarks at the same occatioh and general observations indicate that the common attitude within NDC has little concern for the small end of the manufacturing scale. NDC is not institutionally obliged to consider that end of the scale. That obligation is the business of SIDOI In a way, the very existence of SIDO legitimizes that NDC goes ahead with the investment planning without regard to small–scale alternatives. So, if the farm implement example, indicating little NDC–SIDO collaboration, is not an exceptional case, it becomes tempting to suggest that SIDO might as well close down and hand over its small–scale industries development obligation to NDC. Obviously I am not the one to suggest this kind of thing. I only observe that there has to be put political pressure on both NDC and SIDO to institutionalize closer contacts and co–planning than is the case today, that is if the declared objective of small industries promotion is an aim which the government really wants to pursue.

Should no change in this state of affairs happen, the only real role left for SIDO would be the role of a social aid organization. Then the UTUNDU programme would not become a genuine part of an

industrial policy. Then the tools and money distributed would have the effect of distribution of social benefits. I have nothing against the distribution of social benefits. But firstly, it may not be the blacksmiths who need such help most. After all, they are among the better off peasants. Secondly, the demoralizing effect of calling the UTUNDU programme an industrial promotional effort, when in effect it would be a social help programme, is potent. Granted, it would be a social help which would not only make the directly concerned smiths happy, but also many of their neighbours. They would perhaps sit quietly down for some time and wait for similar help to come to them. The UTUNDU programme would then have a function similar to many »development« projects, the real effect of which seems to be »to control social unrest«.

In sum, and in answer to question (2), we find that the other most important institutions, besides those which execute the UTUNDU programme, may either not be able or might not be interested to render the necessary direct or indirect support to the programme.

(3): Is the general level of infrastructural services in the rural areas likely to improve as assumed?

Let us suppose that the 300 UTUNDU workshops really are consolidated during the first phase of the programme. A condition for their *continued* activity is then, as said in section 6.2 and 6.3, that the general level of infrastructural services in their respective areas of location has improved over and above what it is today. It would be an absolute and necessary condition for an expansion, and certainly for a possible development of the technology of the workshops, that such improvements take place.

At a first look, we may most probably find that rural infrastructural conditions are in fact improving year by year. Each financial year we can see in the development budget that so and so much is spent on this, that and the other type of new public installation. At a second and closer look at the situation we might however find that the rural craftsmen for the following reasons are not much better served than before.

(a) There is a tendency to establish new installations without sufficient regard to the recurrent budget for maintaining these and existing installations, e.g., new roads are made, but sometimes not properly maintained. It also happens that the

budgets for keeping the installations in operation are insufficient, e.g., a water scheme is constructed, but funds for diesel to the pump or for salary to the pump attendant are only available for six months' operation per financial year.

(b) Even if the improved facilities in an area are in fact maintained and in operation, we find that the improvements are not always of such a type which benefits everybody. We may, for example, see that most road improvements happen to take place in directions towards large–scale factories or estates. In other words, it is not enough to note that improvements take place in general. We must assure that the improvements do benefit those we have in mind.

(c) It certainly happens though that both condition (a) and (b) are satisfied, i.e., that some improvements take place in absolute terms. Our investigation would however then have to include an assessment of the improvements in relative terms. We would have to know something about possible infrastructural developments in other areas than the one under review. Thus, while some absolute improvements may have taken place in an area which was of help for some small industries, much more improvement may perhaps have taken place elsewhere for the benefit of large industries within the same branch of trade as the small ones. A bus–route might have started passing near by the small industries once a week. But at the same time the large industries might have been provided with a rail link, a high–voltage transmission line and a separate water supply. In such a case we can talk about a *relative deterioration* of the conditions of production for the small industries, something which affects their relative economic feasibility adversely.

All in all, quite a number of conditions have to be satisfied in respect of infrastructural improvements if the UTUNDU programme is to have a chance to expand beyond its first phase of consolidation. As far as I see it, mainly based on the considerations expressed in section 3.5, we can't be sure that these conditions will be fulfilled. It would require a change in the present infrastructural development policy. This may or may not be effected; probably not. And let it be repeated: The argument is *not* to make such a policy change for the sake of the UTUNDU programme, but to facilitate an increase in agricultural output based on the small peasant holdings in the villages. Such an

increase requires more or less the same kind of infrastrucutral inprovements as does the continuation of production by rural craftsmen, e.g., the blacksmiths.

So the answer to question (3) would be that the general level of infrastructural services in the rural area is rather unlikely to improve as assumed, at least not in relative terms.

To conclude, the answers to all three questions turned out to be rather negative. Neither the internal nor the external problems of or preconditions for the UTUNDU programme appeared likely to be solved or satisfied. The reader will notice that I am cautious not to give final, definite answers to the questions. It is not *totally* unlikely that the said problems will be solved. The intriguing thing is however, that *all* three problems have to be solved. It is not enough that the internal programme difficulties are solved if the external problems are not. In case the external problems are solved there may be more hope for the fate of the village craftsmen. They could then possibly survive even if the programme didn't. In particular those craftsmen who were not involved with the programme would have a chance.

But it is at least beyond doubt, that changes in ideology and politics are required. The development ideology of the programme's executing agencies needs to be changed, the policies of those institutions upon which the programme depends externally need to be changed, and the development policy of the state has to change in respect to infrastructure. So the thing we are discussing is whether or not such shifts in ideology and policy – however minor they are – are likely to take place. Ideologies do not usually change rapidly. Policies are more flexible, they may change from one day to another, and sometimes do. Such changes are often directly related to international matters. So even if the state wanted to change policy in one direction, say, in the direction necessary for the UTUNDU programme, it is sometimes not possible for it to do so, due to external dependencies.

All that has been discussed in this section belongs to the socio–political feasibility of the programme. As it stands it is not yet a very well defined concept. In the brief theoretical dicussion in the concluding next chapter I shall define it. Here it is just concluded that *the UTUNDU programme may very well turn out not to be socio–politically feasible.* The programme has however been started. Events might show that the pessimistic conclusion was wrong. I hope they will.

7.4 Strategy options for the provision of farm implements

In this section I take a broader view at the core matter, i.e., the provision of farm implements or, say, the avoidance in the future of long queues of people waiting for jembes.

As illustrated in fig. 15 section 4.4, there is certainly hope that the problem of the supply of jembes will be solved. The market will be floating with jembes if things go as planned.

But the jembes just represent one item of the range of farm implements which are needed. And because the analysis was focussed on the jembes some important points were perhaps missed. One obvious line of argument would be to consider a diversification of products, either by the village smiths or by the large factories. Such diversification could result in lessening the competition on the jembe marked. In the discussion that follows I shall also make some reference to a medium–scale manufacturing option, i.e., to the Tabora type of plant and the Rural Craft Workshop (RCW) type of solution. To be a bit brief I put up three strategy options only, although there of course are many kinds of combinations available. The options for avoiding competition are:

(a) The large–scale manufactured products can be exported, presupposing only that they are competitive on the world market in terms of quality and price.

(b) The large–scale factories diversify and take up other product lines. This may not be the most profitable thing to do, but the sooner the large factories of means of production start diverting from simple import subsitutution, the sooner, for one thing, the national technological capacity will be strengthened.

(c) The small–scale enterprises try to diversify, simply because their conditions of production may be too poor to compete. Their choice of alternative products being limited, they may have to be content with repair work, sub–contracts or ancillary production.

The chances that the medium–scale industries will clash on the market with the small industries are less. The medium–scale ones don't make simple implements, like the jembes. They may rather come into conflict with the large–scale factories in the plough category of products. If this should happen, the same options as outlined above

would apply in principle.

Option (c) appears to be the less attrative one. Given the marketing difficulties *it is important for the viability of the small–scale and medium–scale enterprises that they produce as large a variety of products as possible.* It would be a hard economic blow to the smiths to »take away« their jembe production! So in order to secure their repair–capacity they should be »allowed« to produce jembes. A regional division of labour between more specialized enterprises might be preferred for efficiency and cost reduction reasons; but such a division presupposes intra–regional and inter–regional integration of trade links which are not yet at all sufficiently developed. This argument is also the reason for proposing that the smithing groups make craftsmen's tools and household utensils, as well as farm implements.

Option (b) is probably the best choice, seen from all but the strictly economic points of view of NDC. It requires that the large–scale factories renounce some of their supposed scale advantages, i.e., the very argument and basis for their size in the first place. Thus, it would require that UFI changes its layout once more, *back* to what it originally was when the Chinese made the factory. On the other hand, it may be argued that the medium–scale enterprises of the Tabora type of plant are better suited to undertake the various implement adaptions and innovations which are part of a product diversification strategy.

One particular type of large–scale product diversification would be very important, and has already been mentioned in the previous section, namely the production of semi–finished blanks. This could cater both to the desperate need of the small–scale units for raw materials and to the need of the users for adapted shapes of implements. Doing so will however leave the large–scale unit with less value added per ton of iron which goes through their hands.

The last option, option (a), may after all be the most inviting provided, as said, the large factories are competitive on the world market. Perhaps neighbouring countries like Mozambique, Zambia or Zimbabwe would be interested to buy.

To stress these points even more, reference is made to *fig. 25, 26, 27, and 28.* Here I have tried to visualize what may happen. Fig. 25 shows the present situation. The next two figures conceptualize what the

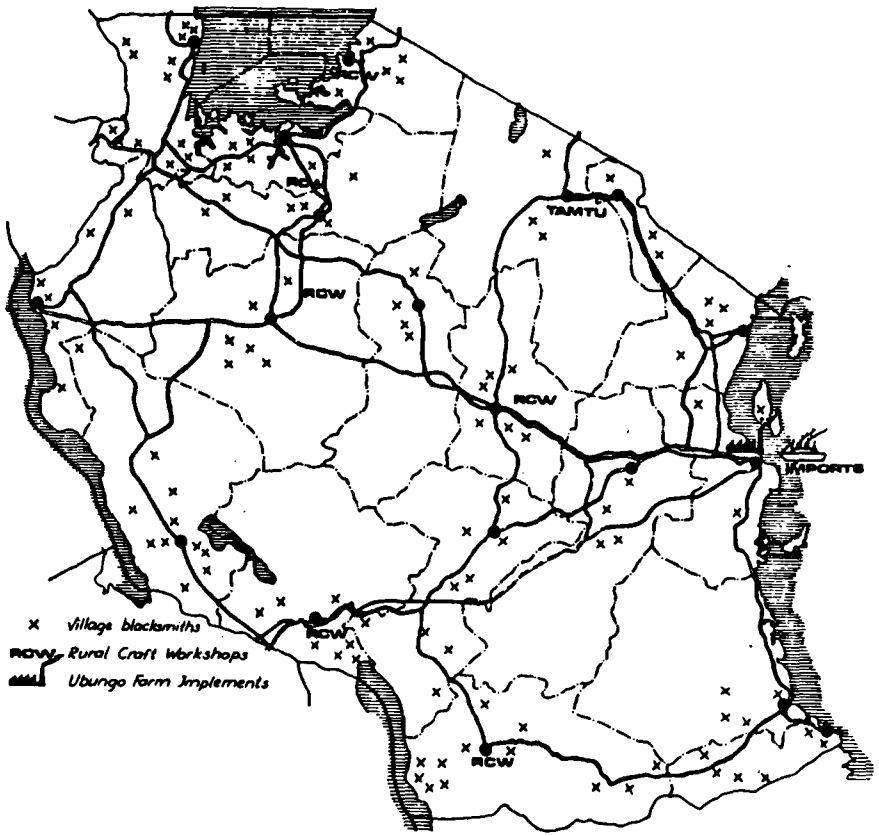


Fig. 25: Conceptual illustration of the present farm implement manufacturing situation

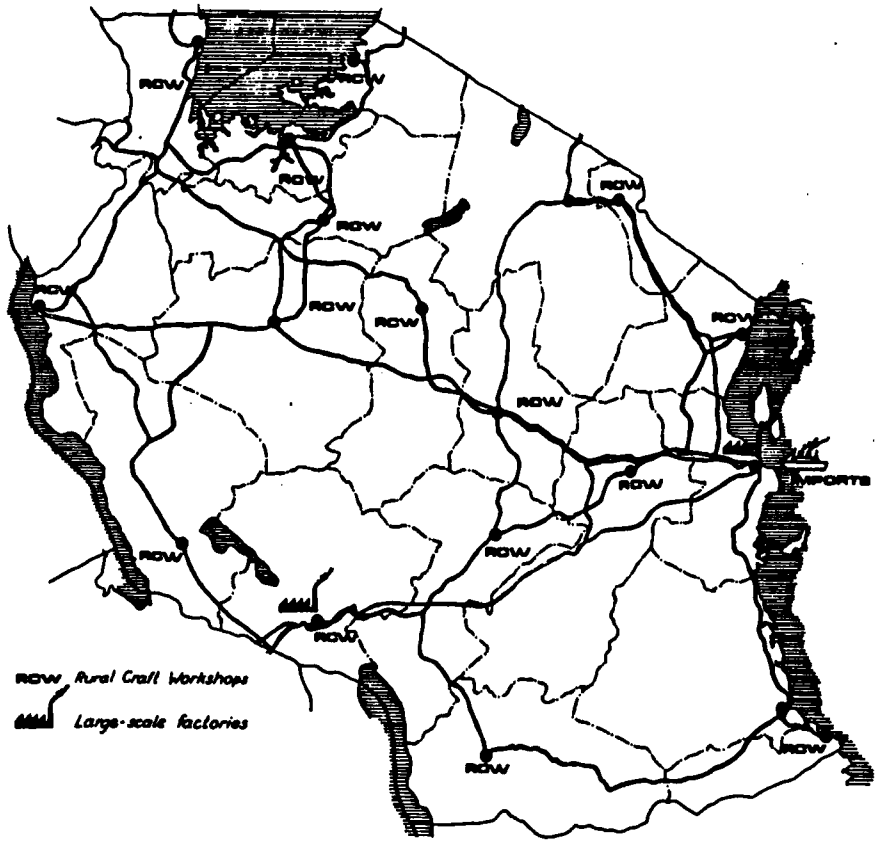


Fig. 26: Conceptual illustration of the future farm implement manufacturing situation without the UTUNDU programme and without change of rural infrastructural policy

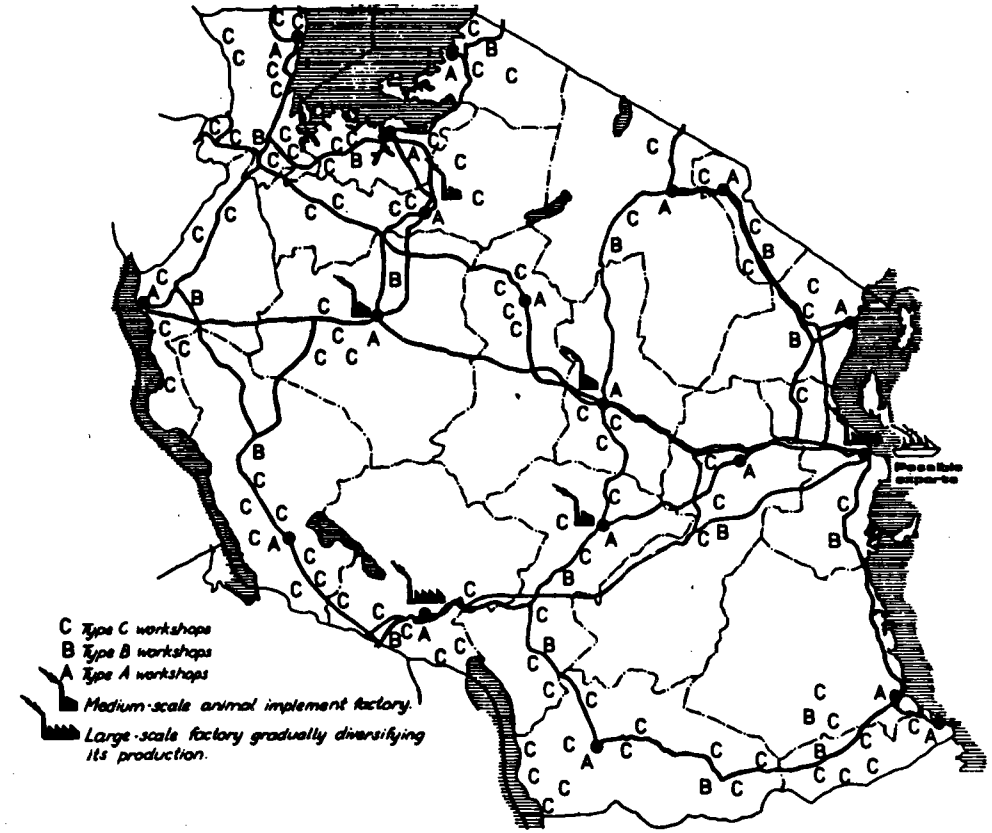


Fig. 27: Conceptual illustration of possible future farm implement manufacturing situation with the UTUNDU programme and with change of rural infrastructural policy etc.

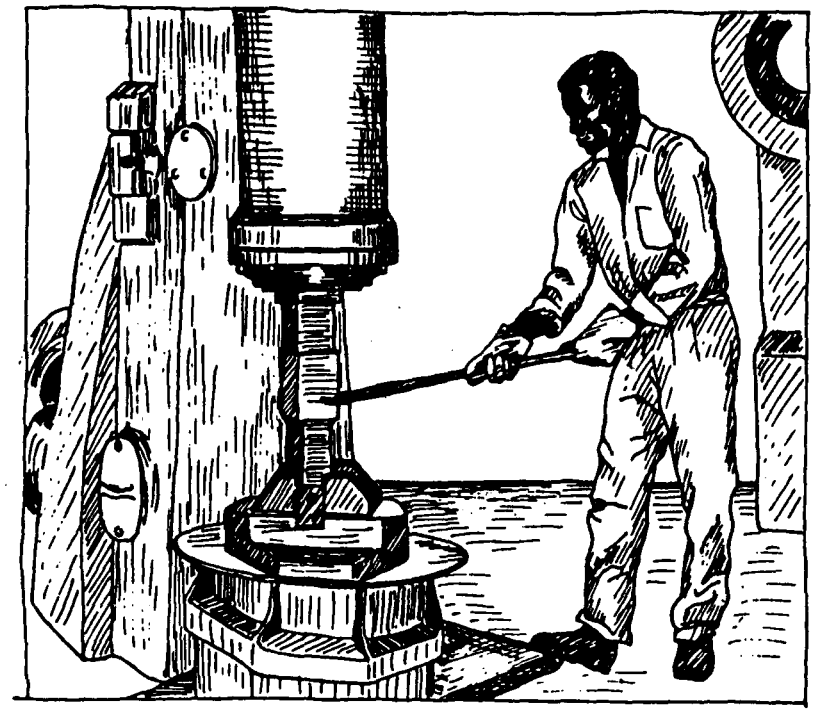


Fig. 28: Illustration of different work situations at UFI

Photo no. 6: Work situation from a village blacksmith's workshop in Mara Region *(by Aage Højbak)*

»picture« would be both without and with the UTUNDU programme, say, five years from now. A completely different aspect of the whole matter is indicated in fig. 28. I invite all to take a look and decide for themselves which picture looks most »inviting«. In particular I invite the policy decision makers of Tanzania to choose. And remember, the choice concerns *agricultural* development as mush as industrial development. Since I am not to decide anything, let me just say for myself: On the one hand, the UTUNDU programme seems to be the fastest way to increase the supply of rural means of production. It builds upon under–utilized skills and capacities. On the other hand the programme expansion depends on integration with infrastructural development, etc., which seems slow. Its likely contribution to increased supply of implements is thus limited.

The medium–scale units have the advantage of finding much of the infrastructural requirements for their production already existing in many regional and some district centres. Some initial import of skills from outside the country seems however required. Also the necessary machinery will count heavily on the import bill of the country. But this then is an area where aid agencies could be encouraged to invest, e.g., »thorough–directly« as outlined in section 6.1 or through some kind of »sister industry« arrangements.

Whatever cannot be supplied in this way could be »topped up« by expansion of the existing large–scale units. This topping up needs improved distribution in any case.

Chapter 8

Conclusion

This concluding chapter is divided into three sections. The first section concerns Tanzania only. It contains a brief summary of the appraisal of the UTUNDU programme and a few general propositions about rural industrial development. In the second section the empirically derived conclusions and propositions of the first section are supplemented with some theoretical considerations. These considerations seem to support the empirical observations and vice versa. The third and final section is a critique of the concept of »appropriate technology« and suggests a rejection of its application in underdeveloped countries which are dominated by a capitalist mode of production. In other words, I try to extend the conclusions and propositions of the first section to other countries than Tanzania.

The infeasibility of rural industries in Tanzania

As far as the possible consolidation of the village blacksmiths in Tanzania and their subsequent chances of making a noteworthy contribution to increased agricultural productivity are concerned, there is at present not much more to be said. The appraisal of the UTUNDU programme presented in chapter 7 constitutes a *tentative* conclusion which reads summarily as follows:

Although technically and economically feasible, the UTUNDU programme seems not to be socio–politically feasible. The present process of liquidation of the village blacksmiths is thus likely to continue.

This concluding statement is of course also based on the number of partial conclusions made in most of the other chapters of this book. In particular it should be emphasized that the statement implies that no other approach to the promotion of village blacksmiths formulated so far is feasible either. I think of those projects or programmes referred to in section 6.1. Some of these might very well be socio–politically feasible, e.g., they may correspond to the development ideology of the state class and of the development aid agencies which made them, but none of the proposals are economically feasible. The

projects could of course be established and kept in operation for some time. (The Rural Craft Workshops mentioned in section 4.2 are examples of such projects in actual operation). But the projects would remain isolated activities with no *mobilizing* effects worth mentioning. They would rather have a number of repressing effects. The projects would not liberate the indigenous productive forces, they would arrest them, and they would cement precisely that part of the development ideology on which they are based, viz. the idea that the peasants and rural craftsmen are inherently backward, lazy and crazy.

It must be said at once, however, that SIDO didn't accept these project proposals because of their lack of economic feasibility. This observation then leads to the following more general concluding propositions or hypothesis in respect of Tanzania:

The projects for promotion of rural industrialization which are economically feasible seem not to be socio–politically feasible, whereas the projects for promotion of rural industrialization which seem socio–politically feasible are not economically feasible.

The case of the UTUNDU programme is of course not sufficient to prove this statement. It might be that projects for promotion of other rural based crafts than the blacksmith trade could be *both* economically and socio–politically feasible. It is doubtful however, that such projects can be designed. In particular the requirement for a change in infrastructural development policy seems to be universal. And I could add that I have not yet come across any such projects myself. The only case of an exception I can think of concerns brick–burning. But this is a case where increased demand alone did spark off increased production. In other words, no extraordinary direct government support was necessary.

Another reason for SIDO not to have accepted the project proposals mentioned in section 6.1 was also that they were too obviously out of line with at least one of the *stated* objectives of SIDO, i.e., that of utilizing »existing or traditional skills and resources in order to achieve increased production and the national objectives of socialism and self–reliance« (see section 6.2). The UTUNDU programme on the other hand complied with this objective, and it was expressly accepted for this reason as well as for its economic feasibility.

The contradictory matter of fact appears thus to be that if and when SIDO wants to comply with the objective of utilizing indigenous

technologies, it will in all probability lead to projects which are socio–politically infeasible. In other words, SIDO's task of contributing to a »technological revolution« in the rural areas might probably turn out to be impossible.

The reader who has eyed an implicit »attack« on SIDO from the previous critical remarks about the handling of the UTUNDU programme will by now understand that the critique is aimed as much at exposing some of the contradictions within the Tanzanian social formation as at SIDO as such. In fact, I hope that the present analysis will *help* SIDO understand better what immense social obstacles are opposing rural industrialization. I also hope that my conclusions and propositions have been sufficiently provoking to become a concern for other institutions than SIDO, e.g., NDC, the Government of Tanzania and the many development aid agencies which operate in Tanzania.

With this explicit address yet another concluding proposition could be formulated based on this study of the conditions of production of the village blacksmiths in Tanzania:

The attempts of the Colonial Government of Tanganyika to liquidate the village blacksmiths mainly by administrative means didn't succeed. However, a consequence of the development policies of the present Government of Tanzania may mean the liquidation of the village blacksmiths, in spite of the stated emphasis on rural development and the declared intention of trying to rely on existing resources, including indigenous skills.

In short: *What the colonial state couldn't achieve by direct administrative means, viz. the liquidation of the smiths, the present independent state is on the point of accomplishing by indirect economic means.*

This proposition raises the question which was already put forward in section 3.5: To what extent is the Tanzania state independent of external relations in its concrete actions? Is the state free to decide to stop the ongoing process of liquidation of the smiths? We know, for example, that the state is under pressure to maintain its credit–worthiness vis á vis institutions like the World Bank and the International Monetary Fund. One aspect of this pressure is for an infrastructural development policy which favours existing and potential foreign investments and continued, if not expanding, exports. And as demonstrated, such a policy is not congruent with an

infrastructural development policy favouring small–holder farming or rural industries. On the other hand, there is also a pressure on the state that it has to control social unrest, both in the short run and the long run. This demand is expressed rather explicitly by the World Bank (22), and it is materialized in demands for, among other things, rural development programmes. However, these programmes end up being of the »start–from–scratch« or »thorough–direct« types for the many reasons explained already.

We need also to question the credibility of declared aims. Such aims may be in accordance with the real intentions of one *fraction* of the state class, but contradictory to the interests of another fraction, and if the latter is the more powerful, little might be achieved. Whatever the explanation is, it doesn't alter the contents of the proposition.

As already discussed in section 6.3, a final question could be raised against the proposition: Why are the blacksmiths not able to withstand their present liquidation? They »survived« the colonial harassment. Can't they once again hide in the swamps or forests? The answer is no. The economy seems by now penetrated by the state to such an extent that there is no hiding anymore. Hiding means dying. Although subsistence farming prevails, it hasn't got the same »autonomous« properties and conditions of production as before. The socialization of the production processes seems to have passed the point of no return. Apart from this general observation, it should also be noted that after the villagization campaigns which grouped the peasants together physically it is much more difficult to hide outside the villages.

All in all, the underlying general hypothesis presented in section 1.1 of the introduction to this book, that the smiths constitute a productive force which can be revived, increased and employed to contribute towards the self–reliance objectives of the country, turned out to be largely fallacious under the present socio–political circumstances. *Even the »best« programme for reviving, increasing and employing the technological capacity of the village blacksmiths appears not to be good enough.*

8.2 Is technology something we can choose deliberately?

The conclusions and propositions of the previous section were mainly derived from empirical observations. They report on how the issue of

rural industrialization looks at the »surface« of the Tanzanian society. However, the conclusions and propositions offer little *explanation* of why the state of affairs is as described. They only present a notion of social contradictions, but give no indications of the nature and causes of these contradictions. Thus the proposition which in a way compares the colonial state with the present independent state could leave us with the impression of the latter being more »evil« than the former, at least as far as the fate of the blacksmiths is concerned. So if we were »in love« with the smiths we could end up »wishing« the colonial state restored.

In this case it is obvious to anybody that there is no choice whatsoever. But in other cases it is much less clear how much of a real choice exists. In such cases we often need to look behind the surface of the society in order to be able to understand what the *real* options are and what is and will remain wishful thinking. It is sometimes not clear either who, i.e., which social groups, can decide between different options and who have to content themselves with wishful thinking. To accomplish such behind–the–surface explorations we have to resort to some theoretical tool. In order to judge which of the strategy options put forward in section 7.4 are real options we need a theory of how technological development is interconnected with the social, economic, and political development of a given society. Unfortunately current development theories don't provide us with any clear–cut understanding of this connection. In the following I try to expose this apparent theoretical impotency by asking a number of questions and by discussing some answers to these questions.

Is technology something we can choose deliberately? Are the policy decision makers referred to in section 7.4 confronted with a *real* choice of technology? Is it at all a »fair« proposition to put up a set of alternative »pictures« of future technological developments as in fig. 25 – 28, and to ask anybody to pick the one he or she prefers?

The answer seems to be both yes and no.

According to the predominant bourgeois conception of how technological development happens, the answer is yes. It is built into most – at least neo–classic – planning models for developing countries that there exists a technology »shelf« from which we can choose the technology we like best. If there is a demand for a particular technology it can be applied. It is the economic capacity of the society in question which determines the pace of technological

progress. This point of view is sometimes called economic determinism (of technology). It follows that any project which is economically feasible can and should be implemented.

According to the predominant marxist conception of how technological development happens the answer is no – at least in respect of capitalist societies. To think of planning the economy in capitalist countries is in itself a contradiction. The determinant factors for technological developments are the competition amongst the producers as it is mediated through the so–called market mechanism. Behind these factors lie class struggle and ownership structure. All these social forces belong to or are closely related to the relations of production (see section 2.3). These determine the type of technological development which a society experiences. This point of view could be termed socio–political determinism (of technology). It follows that any project which is not socio–politically feasible will not be implemented. Such projects are not even generated or designed.

However, and now I am back to my own point of view, neither the bourgeois »yes« nor the marxist »no« to the questions appear to be absolute answers. Had the answers really been »yes« or »no« there would have been little justification for the writing of this book apart from the record of the blacksmith survey and the description of the UTUNDU programme. The intriguing matter of fact is that the answer is something like »may be« or »it depends«. Let me list the most important conditions on which the answer seems to depend.

The bourgeois »yes« holds true if we look upon technology as just being technique, i.e., only *one* of the components of technology according to the definition in chapter 2. In that case we find many instances of choice of technique taking place. Decisions are taken every day about purchase of machines for all kinds of projects; of course only in so far as it has been proved that it is economically profitable in one way or another to do so.

But such kinds of dicisions are mostly only representing a choice in the *quantitative* sense of the word, e.g., a choice between the purchase of a 45 hp. or a 70 hp. diesel engine. Or it is a choice between a Ford or a Ferguson tractor. This type of decision should not be regarded as a genuine choice. Genuine choice decisions must be regarded as involving *qualitative* differences between the techniques in question. But as indicated in chapter 2, qualitative changes in technique invariably imply qualitative changes in the knowledge, organization

and product components which correspond to the technique. The choice of the hammer–and–anvil technique of the UTUNDU programme instead of the choice of the friction–drop–stamp–hammer technique of the Mbeya factory implies a correspondingly different choice of organizational set up, a different kind of knowledge, and differently structured products come out of it.

Now, to effect qualitative changes in the knowledge, organization and product components involves a whole series of integrated decisions, many of which are beyond the reach of the ordinary planning decision maker. Changes in organizational aspects of the work processes are particularly complicated to bring about, because the organization of the work processes is deeply rooted in the social organization of production which again is an aspect of the relations of production. And changes in the relations of production are more often than not implying some kind of revolution. This is also to say that a »technological revolution«, as the one SIDO is charged to bring about in the rural areas, implies a social organizational revolution of some kind. If the latter is not forthcoming, the former isn't either. Finally, to change technology, in my broadly conceived sence, also requires infrastructural adjustments if not major changes. In short, the productive forces of society are interlinked to such an extent that there is little room for qualitative changes of one part without some change in the other parts. But it could be argued that productive forces do change qualitatively in all societies from time to time. How are such change brought about? Very briefly: The development of the productive forces is a gradual *process* of change which progresses or regresses stepwise, but rarely as a result of deliberate planning. It is rather a result of socially conditioned contradictions, e.g., a result of the class struggle.

Therefore we must by and large reject the bourgeois »yes«, if we talk about changes other than just quantitative choice of technique. I shall elaborate this rejection a bit further in the next and final section.

The marxist »no« depends on whether or not we look upon a society which is dominated by a capitalist mode of production. If we are not, e.g., if we are looking at a socialist *planned* economy, the answer may be that there exists a real choice of technology. So an answer requires an analysis of the nature of the relations of production of the society in question. This then puts the question of the choice of technology squarely within the framework of an analysis of the political economy.

Such an analysis thus has to precede the analysis of choice of technology.

However, many developing countries are characterized by the co–existence of various relations of production. Thus, a large segment of the population are so–called petty commodity producers, the main result of whose activities is just the reproduction of their means of subsistence. The blacksmiths described in this book are such producers, as are most small–holder agriculturalists. These producers react differently to, say, the market forces than capitalist producers do. The capitalist relations of production can be and are often dominant though. Nevertheless, a straightforward marxist analysis is very difficult to apply.

Another difficulty comes from the fact that most theories about technological development operate with a conception of a nation state as being a more or less independent entity with a government which is able to protect the national wealth, including the accumulated technology, by various means, e.g., by the so–called foreign exchange mechanism. But the truth appears to be that developing countries are not independent and are not capable of protecting the national wealth. This is the reason for the persistent underdeveloped state of affairs. It is also a reason why conventional theory about technological development can't be applied unadjusted.

I shall not discuss these issues any further. The point I wanted to make about the theoretical wants should be sufficiently stated. On the other hand, I hope that some clarification came out of the discussion.

Turning now to Tanzania again, we note that we are dealing with a country which claims to plan its economy and to move towards socialism. Yet, it is deeply penetrated by capitalist relations of production and strongly dependent upon the capitalist dominated world market. It is therefore questionable whether the Tanzanian policy makers at all have a real choice of, say, farm implement production technology. As stated several times, I can't say for certain. I can only observe that the choice of the UTUNDU type of technology for farm implement manufacture doesn't appear to be a very realistic one. Incidentally, the fact that the UTUNDU programme was generated and that an attempt to implement it was made supports my claim about the *undecided* situation in Tanzania.

Furthermore, I am now finally able to define the socio–political

feasibility conception more precisely than before. A technology, a programme or a project will be socio–politically feasible if it is compatible with the current social organization of production which again is a reflection of the dominant relations of production. *This compatibility criterion is generally more imperative than technical or economic criteria.*

In sum, the empirical observations support the marxist answer to the question of this section: No, technology isn't something which can be chosen deliberately, at least not in the case of Tanzania. And in spite of the incomplete theoretical explanations of why this is so, the theoretical discussion did complement the empirical observations.

8.3 The fallacy of »appropriate technology«

As indicated in section 1.2 of the introduction to this book, the question of the choice of technology and of small–scale or large–scale industries is increasingly associated with the so–called *appropriate technology* concept. This kind of technology, it is claimed, is what developing countries should opt for. In what follows I discuss the general validity of this prescription in the light of the conclusions of the previous two sections.

Appropriate technology has been defined in various ways during the last decade. It has also had many different names according to what particular characteristic was felt most important by the various adherents, e.g., »intermediate«, »labour–intensive«, »low–cost« or »progressive«. It has also been advocated as a technology for basic needs. The most recent definition I have come across was adopted at a large International Forum on Appropriate Technology which was held in New Delhi in November 1978, which was arranged by UNIDO in co–operation with the Government of India. The definition adopted reads as follows:

> »The concept of appropriate technology was viewed as being the technology mix contributing most to economic, social and environmental objectives, in relation to resource endowments and conditions of application in each country. Appropriate technology was stressed as being a dynamic and flexible concept, which must be responsive to varying conditions and changing situations in different countries .... An important overall

objective of appropriate technological choice would be the achievement of greater technological self–reliance and increased domestic technological capability, together with fulfilment of other development goals«. (23)

The first thing to note is that the concept is flexible and covers more a particular way of thinking than a specific set of technologies, certainly if we move from country to country and perhaps even if we move from one region to another within the same country. In other words, we may find that the most appropriate technology would be sophisticated or »modern« and embodied in large–scale enterprises in some places, while it would be a more simple technology of the small–scale industrial type in other places. This seems reasonable enough. But I disagree when it comes to the claim that the way of thinking is dynamic. On the contrary. My point of view, as already hinted at in the introduction, is that the demand that the technology mix should be chosen »in relation to ... conditions of application«, implies stagnation and preservation of status quo. I hold that the conditions of application have to change *simultaneously* with the technological change, certainly if these conditions include, as I assume, the infrastructural conditions. This was repeatedly demonstrated in the case of the village blacksmiths in Tanzania and claimed to be a universal precondition for technological development.

The next thing to note is that the definition assumes that technologies are chosen according to development goals. This assumption was rejected in the last section as far as countries which are dominated by capitalist relations of production are concerned. And since these relations of production are by far the most common in the underdeveloped world, the talk about appropriate technology only makes sense for a fraction of developing countries. Interestingly enough, until recently most governments of developing countries were opposed to the appropriate technology ideas. They demanded stubbornly to have »high«, capital–intensive, large–scale technologies from the industrialized countries. This opposition was explained by advocates of appropriate technology as being expressions of prestigeous aspirations. Attempts were then made to make appropriate technologies look smart. The founder of the appropriate technology thinking, E. F. Schumacher, gave, as already mentioned, the title, »Small is Beautiful«, to the book in which he expressed his thoughts. Gradually most development aid agencies,

the UN–agencies and the World Bank, also began to advocate appropriate technology.

There now seems to have occurred a change of attitude amongst the governments of developing countries. This was for example manifested at the UNIDO conference mentioned before. The pressure from the development aid community is probably part of the explanation. Another pressure has probably also helped, viz. the pressure from the poor masses of the population for satisfaction of their basic needs. Whatever the reason may be, we now find reference to appropriate technology in all kinds of development projects and even in national development plans. India is an example where the government has declared its support to the appropriate technology conception. Tanzania is another example. This could thus be indicative of a change in the technology policy of the countries in question, and it seems to disprove the thesis that technologies are generally not chosen according to social development goals in countries dominated by capitalist relations of production.

However, the appropriate technology way of thinking seems only to be *formally* accepted so far. Granted, projects are initiated which, it is claimed, are appropriate technology projects. In fact, almost all projects which are initiated by now, and which differ from the conventional »modern« technology package of more or less directly copying the technologies of the industrialized countries, are given the label »appropriate«. It has become fashionable and a matter of prestige to belong to the appropriate technology movement. *But by a closer look we find that practically none of the thus labelled »appropriate« projects are feasible projects.* Either they are of the »start–from–scratch/thorough–direct« type of projects mentioned in section 6.1, or they are of the UTUNDU type of projects. The former type was shown to be too costly to be economically feasible, not only because of the high direct investment costs, but also because of their demands for special infrastructural support, i.e., for the establishment of special »conditions for application«. The latter type, of which I only know of the UTUNDU programme (but the same approach has undoubtedly been attempted elsewhere), was shown not to be socio–politically feasible and also to require improved »conditions of application« in order to succeed and to have any longer term effect.

This leads me to suggest that the acceptance of the appropriate technology conception has nothing to do with a real change of the

technology policy of the countries in question. It remains a formal and apparent acceptance only, as long as it is not accompanied with changes in the said »conditions of application«. These conditions are by and large *already* fully exploited by the present producers. Given these conditions only marginal technological development can take place.

For the state class to agree to an improvement of the general conditions of production as being largely sufficient for a technological development carried by the people themselves, would be to admit that the people are not backward, lazy, or crazy. But admitting that would take away the basic ideological premise for the continued control of the people. To lift this control could be disastrous to the state class, though. It might result in the release of productive forces which could be turned against their class interests. I am not suggesting that the state class is very consciously aware of this fact. I nevertheless hold that their class consciousness includes an inkling of what it would imply to loosen the control of the productive forces. Thus, a programme for distribution of wind–power to the people imply distribution of power to the people. The blacksmiths could make guns in the colonial times, and they still can.

On the other hand, the state class has an interest in some development of the productive forces. The peasants have to produce an increasing surplus which the state class can expropriate in order to exist. This explains partly the interest in the appropriate technology ideas which has emerged. But the technology is only allowed to develop to a point where it still can be controlled.

By the way, the book, »Small is Beautiful«, now mentioned a couple of times, has the subtitle: »A study in economics as if people mattered«. In other words, we could rephrase the title to something like: »*If* people mattered, then small is beautiful«. I am not sure that I would agree to this either, but the *hypothetical* »if« should be noted. What if people don't matter? Do people matter? These questions need to be analysed before we can *realisticly* prescribe *technical* solutions to the problems of the people. It appears that people ought to matter in the populist ideology of the author, hence the book and the movement it has sparked off. However, the truth of the matter is that people don't matter in capitalist societies, at least only as producers and consumers.

If all these considerations are correct, the conception of appropriate

technology at best becomes an empty, useless way of thinking and we can rewrite the definition of it as follows: *Appropriate technology is the technology which is appropriate.* But what is worse, the conception then becomes potentially deceptive. It can be used to provide the poor masses of the population with the impression that the state takes care of their needs. The small–scale agriculturalists and the small–scale craftsmen may be made to believe that some day somebody will come and give them some appropriate device and that, after all, being small is beautiful.

I therefore finally suggest that we abandon the appropriate technology way of thinking and replace it with a way of thinking which grasps the dialectics of technological and socio–political development, which views technology as more than just technique, and which recognizes that a technology and the conditions of application of it have to match in the process of change. Let us talk about, analyse, change, and develop *technology,* pure and simple, and forget all mystifying and deceiving labels.

Notes of reference

These notes contain reference to particular publications from which detailed data and information have been used. Many of the publications are research reports, project reports, etc. which are not very widely distributed and thus rather difficult to obtain outside Tanzania.

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Integrated Regional Five Year Development Plan (1975–80) West Lake region, West Lake Planning Project. February 1975

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Jørgen Rald, *Land Use in a Buhaya Village. A Case Study from Bukoba District,* Bureau of Resource Assessment and Land Use Planning (BRALUP), University of Dar es Salaam 1969.

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Jeroen van der Hulst and Frans Steffens, *Small industries in West Lake Region, Tanzania. Problems, Potentials, and Planning,* Eindhoven University of Technology 1975 (Master Thesis)

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Jens Müller, *Decentralized Industries and Inadequate Infrastructure,* Centre for Development Research (CDR), Copenhagen 1976. (A.76.5)

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Jens Müller, *Experiences in the Preparation of a Development Plan for a Region i Tanzania,* CDR, Copenhagen 1976. (A.76.4)

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National Agricultural Development Program, United Republic of Tanzania, January 1977.

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S. M. Mbilinyi and W. L. Luttrel, *Farm Implements Marketing Survey, Tanzania,* Economic Research Bureau (E.R.B.) 75.10, University of Dar es Salaam 1975.

M. L. Taneja, *Market Survey of Agricultural Machinery and Implements in Tanzania,* Industrial Studies and Development Centre, Das es Salaam 1972.

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Ian Livingstone, *Results of a Rural Survey: The Ownership of Durable Goods in Tanzanian Households and some Implications for Rural Industry,* ERB (70.1), University of Dar es Salaam 1970.

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Peter Smith and Donald H. Avery, *Complex Iron Smelting and Prehistoric Culture in Tanzania,* Science, vol. 201, no. 4361, 1978.

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Tanga Regional Development Plan, Volumen 3, 1975.

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Frances C. Perkins, *Small Scale Industry in Rukwa Region: Survey, Analysis and Recommandations,* BRALUP, research report no. 28, University of Dar es Salaam 1978.

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J. A. R. Wembah–Rashid, *Iron Working in Ufipa,* National Museum of Tanzania, Dar es Salaam 1973.

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Koka Kesava Rao, *Report on Agricultural Implements and Machinery Production and Maintennance,* FAO/UNIDO project URT/74/006/A/OL/12, Dar es salaam 1975.

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Keinbaum Beratungen, *Demonstration Manufacturing Plant Report,* UNIDO project TF/RAF/74/009, 1976.

17.
Development of Small Industries in Tanzania, report and programme proposal by a Swedish consultancy team, Stockholm 1976.

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George A. Macpherson, *First steps in Village Mechanization,* Tanzania Publishing House, Dar es Salaam 1975.

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E. F. Schumacher, *Small is Beautiful. A Study of Economics as if People Mattered,* Blond and Briggs, London 1973.

20.
Krisno Nimpuno, *Village Workshop Demonstration,* Project Description for UNEP funding, Nairobi 1976.

21.
Bicycle Ancillary Industries, National Bicycle Company ltd, Dar es Salaam 1975

22.
Robert S. McNamara, *Address to the United Nations Conference on Trade*

and Development, World Bank, Santiago Chile, April 14, 1972 (pg. 6).

23.
International Forum on Appropriate Industrial Technology, *Report of the Ministerial Level Meeting,* UNIDO, ID/WG. 282/123, Anand, 30 November 1978 (pg. 7).

Annotated list of literature

Besides the publications listed in the notes of reference, the following literature have been used for this book, either directly as a source of general information or indirectly as a source of inspiration. The items are listed according to the chapters for which they have mainly been used.

Chapter 2

W. Paul Strassmann, *Technological Change and Economic Development. The Manufacturing Experience of Mexico and Puerto Rico,* Cornell University Press, New York 1968.

The introduction to this book contains an excellent review of »early views and recent opinions« of technology and development, however mainly of bourgeois views and opinions.

Jürgen Mendner, *Technologische Entwicklung und Arbeitsprozess,* Fischer Taschenbuch Verlag GmbH, Frankfurt am Main 1975. (Translated into Swedish under the title, *Teknologisk udvikling i den kapitalistiske arbejdsproces,* Kurasje 1977).

A strictly marxist, even neo–marxist, analysis of technological development under purely capitalist relations of production, and thus of limited applicability in developing countries.

David Dickson, *Alternative Technology and the Politics of Technical Change,* Fontana/Collins 1974. (Translated into danish under the title, *Alternativ teknologi,* Nyt Nordisk Forlag 1976).

Although the concept of technology is defined more narrowly than I do, the book opens for an understanding of the social relations of technology which points far further than my section 2.3.

Charles Edquist, *Teknik, Samhälle och Energi,* Zenithserien 20, Malmö 1977. (In swedish).

The conceptual framework which Edquist establishes gets close to the one I use, and it grasps the dialectic nature of technology and society in a fruitful way.

Reimut Jochimsen, *Theorie der Infrastructur,* Tübingen 1976.

Jochimsen defines infrastructure even more broadly than I do. His understanding of the social relations of infrastructure remains however within the limits of a bourgeois conception.

Dieter Läpple, *Staat und Allgemine Produktionsbedingungen, Grundlagen zur Kritik der Infrastrukturtheorien,* VSA, Westberlin 1973. (Translated into danish under the title, *Staten og de almene produktionsbetingelser, kurasje 1973).*

My definitional discussion of infrastructure takes Läpple's analysis as a starting point.

James O'Connor, *The Fiscal Crisis of the State,* St. Martin's Press, New York 1973.

The functional division of state expenditure expressed in section 2.2 of my study is mainly inspired by O'Connor's analysis and by an elaboration of it presented in:

Geoffrey Kay, *Development and Underdevelopment, A Marxist Analysis,* the Macmillan Press, London 1975.

Although Kay's technology conception is rather vaguely expressed and plays an implicit role in his main analysis, he presents some interesting theoretical considerations on the choice of technique question. He furthermore provides an exellent framework for an understanding of the social relations of technology and infrastructure.

Chapter 3

Helge Kjekshus, *Ecology Control and Economic Development in East African History,* Heinemann, London 1977.

Much of the information presented in my section 3.1, 3.2, 3.3 as well as 5.1 on the pre–colonial and early colonial periods is taken from this highly recommendable book, the reading of which appears to me to be an important key to an understanding of the social scene of Tanzania today.

John Iliffe, *Tanganyika Under German Rule 1905–1912,* East African Publishing House, Nairobi 1969.

This thorough account of the early colonial period provides material for comprehending even some of the policy approaches which the post–colonial government adopted, e.g., the »approvement« approach.

Tamás Szentes, *The Structure of Society and its Change in the African Countries,* Institute for World Economics of the Hungarian Academy of Science, Budapest 1975.

Highly relevant as a basis for analysing the Tanzanian class formation.

Issa G. Shivji, *Class Struggles in Tanzania,* Tanzania Publishing house, Dar es Salaam 1975.

An important key to understanding the specific Tanzanian socio–political scene. I have regretably not been capable to include explicitly much of Shivji's analysis in my study.

Philip L. Raikes, *State and Agriculture in Tanzania,* Harvester Press, Hassocks 1980.

Most of my section 3.2 builds upon Raikes' analysis.

Andrew Coulson, *Agricultural Policies in Mainland Tanzania,* Review of African Political Economy, number 10, 1977.

Coulson is very much in line with Raikes' arguments

Justinian Rweyemamu, *Underdevelopment and Industrialization in Tanzania. A Study of Perverse Capitalist Industrial Development,* Oxford University Press, Nairobi 1973.

A detailed analysis of colonial and early post–colonial industrial policies. Used as background for section 3.3.

David Phillips, *Industrialization in Tanzania, Small Scale Production, Decentralisation and Multi–technology Programmeme for Industrial Development,* E.R.B. paper 76.5, University of Dar es Salaam 1976

A highly informative study and account of recent industrial development trends, Used as background for section 3.3.

Jannik Boesen, Birgit Storgård Madsen, Tony Moody, *Ujamaa – Socialism from above,* Scandinavian Institute of African Studies, Uppsala 1977.

An analysis of the socio–economic conditions in West Lake Region, Tanzania. Provides an analysis of important aspects of the rural conditions of production, agricultural as well as non–agricultural. Parts of my section 3.4 are based on this study.

Rolf Hoffmeier, *Transport and Economic Development in Tanzania,* Institut für Wirtschaftsforschung München, Afrika–Studien Nr. 78, Weltforum Verlag, München 1973.

Gives a broad historical record of the developments of transports and communications. My section 3.5 supplements Hoffmeier's national analysis at a regional level.

Chapter 5

Joel S. Kahn, *Minangkabau Social Formations: Indonesian Peasant Society and the World System,* University College London, August 1977.

Kahn's study has a very thorough anthropological account of village blacksmiths in Indonesia which is similar to my analysis in chapter 5 on many points, and which can be recommended for its attempt to relate the conditions of production of craftsmen to the development trends in world expanding capitalism.

Chapter 8

Frances Stewart, *Technology and Underdevelopment,* The Macmillan Press, London 1977.

Essentially this book is based on the bourgeois theory of technology as something which can be chosen. On the other hand Stewart uses a relatively broadly conceived conception of technology and, partly therefore, ends by hinting at the existence of socio–political restrictions on the choice of technology.

A. K. Sen, *Employment, Technology and Development,* Clarendon Press, Oxford 1975.

This study is also a relatively enligthened analysis in spite of its basically bourgeois theoretical outlook. Social, institutional and political factors are seen as barriers to a free choice of technology, i.e., in an indirect sense these factors are thus viewed as determinants fór the technological choice.

Olivier LeBrun and Chris Gerry, *Petty Producers and Capitalism,* in Review of African Political Economy, Number 3, 1975.

The various forms of petty commodity production are presented in a very fruitful theoretical framework which support my empirically derived conclusions in respect of the village blacksmiths in Tanzania.

Nicolas Jéquier (ed.), *Appropriate Technology, Problems and Promises,* OECD, Paris 1976.

Jéquier refers to and subscribes to what he calls the appropriate technology *movement*. The book is just one of very many similar advocates of this movement.

Hans Singer, *Technologies for Basic Needs,* ILO, Geneva 1977.

One of the best balanced arguments for the introduction of or adaption of technologies of which the UTUNDU programme is an example. Singer appears to be very aware of the possible socio–political infeasibility of alternative technological developments, but points to very concrete ways of doing something about it.

List of Abbreviations

IDA	International Development Association
ITDG	Intermediate Technology Development Group
NADP	National Agricultural Development Programme
NDC	National Development Corporation
NSIC	National Small Industries Corporation
RCW	Rural Craft Workshop
RTC	Regional Trading Company
SIDA	Swedish International Development Agency
SIDO	Small Industries Development Organisation
TAMTU	Tanzanian Agricultural Machinery Testing Unit
TANU	Tanganyika African National Union
UFI	Ubungo Farm Implement Factory
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Programme
UTUNDU	This is not an abbreviation, but the name of a programme for village blacksmith consolidation and promotion

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From Action CIDA, 1976

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bâtiments ou une hausse des revenus. Les travailleurs communautaires formés ont pour principale tâche d'aider les localités à s'organiser de façon à atteindre l'autosuffisance dans le respect des traditions du pays.

La formation de ces travailleurs communautaires constitue l'essentiel du programme. Jusqu'à présent, 28 personnes ont suivi le cours d'un an donné dans la capitale, Port Moresby, et plusieurs autres sont en formation en ce moment. Elles apprennent à voir les besoins de la population et du pays, et à y répondre. Les salaires des stagiaires proviennent des fonds fournis par l'Église anglicane.

Outre les 12 travailleurs relevant du Groupe de développement communautaire de Port Moresby même, le mouvement compte 6 autres personnes à Mount Hagen, ville sise dans les montagnes. Sur place depuis trois ans, ils sont maintenant en mesure de travailler indépendamment de l'organisation mère.

Dans de nombreux cas, les travailleurs communautaires font fonction de médiateurs ou de personnes ressources.

A Mount Hagen, la construction d'une école était remise depuis onze ans parce que deux tribus se disputaient l'emplacement où elle devait être bâtie. Après de long mois de pourparlers avec les deux parties, le travailleur du Groupe de développement communautaire réussit à les persuader qu'une école serait avantageuse pour les deux groupes. Cette dernière est maintenant terminée et elle abrite 80 étudiants et deux professeurs. Un conseil formé d'un nombre égal de représentants de chacune des tribus l'administre; le travailleur communautaire a d'ailleurs décliné l'invitation qui lui a été faite d'y participer, alléguant que les habitants de l'endroit ne devaient pas s'en remettre à un étranger.

Dans une région voisine de Port Moresby, un travailleur communautaire a aidé à mettre sur pied un comité local ayant pour tâche d'améliorer les conditions de vie. Une fois établi, ce comité s'est occupé de donner du travail aux résidents sans emploi en leur confiant le soin d'aménager des sentiers.

Dans d'autres endroits, les travailleurs du groupe de développement de Port Moresby ont aidé les localités à améliorer le ramassage des déchets, à installer des réseaux d'adduction d'eau et des services sanitaires et à construire des centres communautaires. Ils ont également formé des associations et aidé les gens à se trouver du travail.

Le groupe de développement de Port Moresby entend lui aussi, tout comme les communautés auxquelles il apporte son aide, parvenir à l'autonomie financière. Le pays reste cependant très dépendant de l'aide étrangère pour le financement de ses programmes et il faudra attendre encore un certain temps avant que les richesses énergétiques et minérales dont regorge la Papouasie-Nouvelle-Guinée soient suffisamment mises en valeur pour répondre à tous les besoins du pays.

Pour de plus amples renseignements au sujet du Groupe de développement communautaire de Port Moresby, communiquer avec l'Église anglicane du Canada, 600, rue Jarvis, Toronto (Ontario) M4Y 2J6.

SOLVING THE SOAP SITUATION IN GHANA

MOD 6

by Philip Cooper

An experimental project has boosted soap production in Ghana and may soon put an end to soap shortages there. By adapting technology to local conditions, it also promises to make the country less dependent on large multinational soap manufacturers.

The pilot project began three years ago at Kumasi's University of Science and Technology in response to inquiries from small producers who used traditional methods. First, the university built a small prototype soap plant on campus. Completed in 1973, it operated until last September, then closed after a full-scale pilot plant opened at nearby Kwamo in June. As a spin-off from the project, four similar plants were built for soap-makers at Ho, Sekondi, Akin Oda and Sunyani.

Initial financing was provided in May 1973 through a grant of approximately $20,400 from Ghana's Ministry of Industries. This was supplemented a year later with a $21,500 loan from the Technology Consultancy Centre of the university. In January of 1975, Oxfam-Quebec responded to an appeal for more money with a grant of $21,500, half of which was contributed by CIDA.

The pilot plant at Kwamo is now owned by the Technology Consultancy Centre, but will be turned over to a cooperative, in which the university will be the major shareholder. When the business is well established, the university hopes to withdraw and leave local soap makers and villagers in control.

The plants at Ho, Sekondi, Akim Oda and Sunyani are owned and operated by local entrepreneurs who ordered them from the Consultancy Centre. The operators were all trained at the university or at the Kwamo plant.

The project was born in 1972 when many small soap-makers brought their products to the newly-established consultancy centre to find out if their soap would be acceptable to Ghana's National Standards Board. Others wanted advice on removing unpleasant odors or colors which remained from the vegetable oils used as a raw material. The result was a feasibility study leading in October 1972 to government approval of a pilot project based on appropriate technology that relied on methods and equipment easily handled and maintained by local soap makers.

The new product — Anchor Pale Soap — was developed at the home of one of the soap makers under the direction of Dr. D. O. Gyane of the university's faculty of pharmacy. Chemical analysis has proved Anchor Pale superior to the best soap produced locally from traditional formulas, which had failed to meet the National Standards Board's maximum fat content limit.

With its ready foaming quality and pleasant lemon fragrance, the new soap quickly won acceptance in local markets. For two straight months in early 1974, during one of Ghana's recurrent soap shortages, the initial plant on the university campus worked flat-out in an attempt to meet the demand.

The plant had a production capacity of 500 bars a day — about half the designed capacity of the pilot plant at Kwamo. After the prototype plant shut down last September, production continued to grow.

Last October, working at half capacity, the Kwamo plant alone produced 10,219 bars.

Production of Anchor Pale Soap has been limited by a scarcity of palm oil but this problem may shortly be solved by the substitution of nim oil, an inedible substance extracted from the fruits of the nim tree. Often used in West Africa as firewood, the nim tree is plentiful in Ghana.

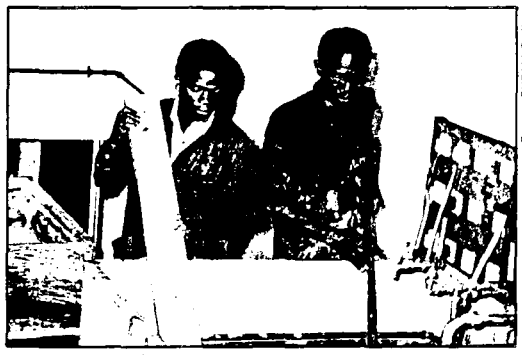
The switch to nim oil was suggested by an Indian soap-making expert, G. Prakash, a consultant obtained through the Commonwealth Fund for Technical Cooperation. His role in the project is an example of how one developing country can borrow expertise from another.

Local expertise also resolved some serious problems. One major accomplishment was designing a practical and efficient electrical system to heat oil in the saponification tanks. Elements from electric kettles were readily available and easily repaired at low cost and were used successfully.

Another problem, a shortage of caustic soda, was solved by building a small plant which manufactures the soda by the reaction of slaked lime with soda ash. Waste from an acetylene plant in Tema provides slaked lime at no cost, and soda ash (sodium bicarbonate) is plentiful and much cheaper than caustic soda.

The attractive and functional building that houses the Kwamo pilot factory was designed by S.O. Larbi of the Kumasi university's school of architecture.

Further information is available from Oxfam-Quebec, 169 St. Paul Street East, Montreal, Quebec H2Y 1Z5.



Photos: OXFAM Québec

An employee at the Kwamo soap factory and Mr. Oppong, Assistant-Manager of the plant, stir the soap.

Un employé et l'administrateur adjoint de la savonnerie de Kwamo, M. Oppong, procèdent au brassage du savon.

Dr. Ben Ntim, Deputy-Director of the Technology Consultancy Centre at Kumasi's University of Science and Technology, adjusts the caustic-soda making drum.

Le Dr Ben Ntim, Directeur adjoint du Centre de consultation technologique de l'Université des sciences et de la technologie de Kumasi, inspecte le tonneau de fabrication de soude caustique.

LE SAVON N'EST PLUS UN PROBLÈME AU GHANA

par Philip Cooper

Un projet expérimental, qui a fait grimper la production de savon au Ghana, est en passe de mettre un terme aux pénuries de ce produit au pays. Le projet, par lequel on a su adapter la technologie aux conditions locales, offre également au Ghana la possibilité de réduire sa dépendance vis-à-vis les grandes sociétés multinationales de fabrication du savon.

Ce projet pilote a pris naissance il y a trois ans à l'Université des sciences et de la technologie de Kumasi, en réponse aux requêtes de petits producteurs qui travaillaient d'après les procédés traditionnels. L'Université a d'abord construit, sur le campus, un prototype réduit d'une savonnerie. Achevée en 1973, l'usine a fonctionné jusqu'en septembre dernier, après quoi elle a fermé ses portes au profit d'une savonnerie pilote entièrement équipée qui était entrée en activité au mois de juin à Kwamo, à quelque distance de Kumasi. A la suite du projet, quatre usines similaires ont vu le jour à Ho, Sekondi, Akim Oda et Sunyani.

Le financement initial a été assuré en mai 1973 par une subvention d'environ $20 400 du ministère ghanéen des Industries. L'année suivante est venu s'ajouter un prêt de $21 500 du Centre d'experts-conseils en technologie de l'Université. En janvier 1975, Oxfam-Québec a répondu à une campagne de souscription pour ce projet en octroyant une subvention de $21 500, la moitié de cette somme étant fournie par l'ACDI.

L'usine pilote de Kwamo appartient maintenant au Centre d'experts-conseils en technologie, mais elle sera bientôt confiée à une entreprise coopérative dans laquelle l'université détiendra la majorité des parts. Une fois l'entreprise bien établie, l'université espère pouvoir s'en retirer et la laisser entre les mains des savonniers et des villageois.

Les entrepreneurs locaux qui possèdent et exploitent les savonneries situées à Ho, Sekondi, Akim Oda et Sunyani ont eux-mêmes demandé au Centre d'experts-conseils de mettre sur pied leur entreprise. Tous les opérateurs ont été formés à l'Université ou à l'usine de Kwamo.

Le projet a pris naissance en 1972, après que de nombreux petits fabricants de savon se furent présentés au Centre d'experts-conseils, qui venait alors d'être créé, pour savoir si leur produit rencontrait les exigences du Conseil national des normes du Ghana. D'autres étaient également venus se renseigner sur les moyens d'éliminer les odeurs désagréables ou les couleurs que les huiles végétales utilisées comme matière

formation. Il est assisté de quatre animateurs techniques canadiens, dirigeant respectivement les travaux d'agronomie, de génie rural, d'implantation de la culture attelée et d'animation féminine.

L'action coopérative est l'une des pierres de touche d'un tel programme. On s'y est donc engagé très tôt, ménageant sa mise en place progressivement, car il s'agit pour ces communautés d'habitudes tout à fait nouvelles exigeant une longue période d'adaptation. Vingt-trois coopératives ont été créées depuis le début; quinze autres le seront d'ici un an.

La participation grandit au rythme désiré par les paysans. Chacun peut prendre part aux décisions lors des réunions de villages et des assemblées des "groupements villageois". Dans un premier temps s'établit une organisation provisoire de crédit agricole et de vente d'équipement ou de produits agricoles. Des caisses d'épargne et de crédit viennent compléter les structures initiales.

Les besoins et les possibilités déterminent le moment de mise en place des coopératives légales, qui doivent faciliter la commercialisation des céréales et d'autres produits vivriers. Un des résultats les plus notables pour les populations locales est d'échapper à la spéculation interne des commerçants. Le coopératisme, en mettant fin à l'isolement, donne à ces paysans des instruments de mise en valeur des ressources existantes et leur fait prendre conscience de leur capacité d'autofinancement, donc de maîtrise au moins partielle de leur économie et de leur environnement.

La production agricole, orientée vers la diversification des cultures et l'exploitation des bas-fonds grâce à l'irrigation, a déjà fait d'énormes progrès. Le mil, le sorgho, le maïs, l'arachide, le coton, le soja et le riz sont actuellement cultivés intensivement. La culture maraîchère dans les bas-fonds offre dès maintenant des possibilités considérables de commercialisation, activité à laquelle l'ORD accorde son appui total. Au cours de l'année 1974-1975, la superficie des semis en ligne est passée de 1 363 hectares à 2 110 hectares. Les prévisions quant à la quantité et à la qualité ont été largement dépassées. La production est de plus stimulée par l'utilisation des engrais, que les spécialistes introduisent peu à peu, et est complétée par l'apprentissage des méthodes de stockage.

La mise en pratique de la culture attelée a été une des étapes importantes du projet. L'entreprise de l'élevage comprend aujourd'hui au-delà de deux cents têtes de bétail et une trentaine d'ânes. On a fait l'achat de près de trois cents charrues, de deux cents multiculteurs et d'autres accessoires divers, dont le maniement a été enseigné aux paysans qui le maîtrisent sans difficulté. La culture attelée engendre l'amélioration du rendement et de la qualité et stimule l'industrie artisanale (fabrication d'outils et d'accessoires). De même elle contribue grandement à libérer la femme des lourds travaux de ferme, lui permettant ainsi de s'occuper davantage des enfants et d'autres tâches domestiques.

L'animation féminine en bénéficie d'autant. Huit monitrices voltaïques de l'ORD travaillent auprès des femmes en vue de les intégrer à l'action collective, en les préparant à la pratique de la culture maraîchère et à la commercialisation de ses produits, source d'augmentation du revenu familial. Une activité connexe, menée par des assistantes sociales, les initie à la médecine préventive et vise la mise sur pied de centres de prévention et d'éducation sanitaires.

Cet immense projet comporte également la construction de certains aménagements, tels des puits, des hangars, des magasins de brousse. Par souci de respecter le type traditionnel d'habitations, on a construit des cases de terre argileuse à laquelle on a toutefois mélangé 10 p. 100 de ciment, les rendant plus fraîches sans en augmenter sensiblement le prix. L'ORD a,

pour sa part, mis à la disposition des habitants certains véhicules (tracteur, camion).

Le souci de respecter le rythme d'absorption des populations locales et de ne pas chambarder du jour au lendemain leurs coutumes a suscité une participation remarquable, particulièrement chez les jeunes.

En ce sens, la section Jeunesse rurale de l'ORD du Centre-Est a accompli un travail exemplaire en aidant à former ces jeunes gens dans les domaines de la production et de la vente, en leur faisant prendre conscience du rôle qu'ils peuvent jouer au niveau de l'organisation et de la participation des plus vieux. On croit ainsi avoir enrayé en bonne partie leur exode saisonnier, et parfois permanent, vers les pays côtiers, en quête de travail dans des villes où le chômage est déjà élevé. On trouve aujourd'hui ces jeunes au centre des organisations communautaires de leur milieu, où leurs efforts semblent porter fruit.

Les Rallyes Tiers-Monde, par leur contribution au financement d'Opération Haute-Volta, associent les Québecois à une entreprise qui est en voie de servir de modèle à d'autres régions voltaïques et à d'autres pays africains, qui ont déjà manifesté un intérêt marqué pour ses réalisations.

Pour de plus amples informations, prière de s'adresser à Opération Haute-Volta, 615, Calixa-Lavallée, Québec 6, G1S 3G7.

PAPUA NEW GUINEA

New nation preserves tribal mosaic

by Jack Redden

Just because a country is romanticized as a last stone age doesn't mean it has escaped the problems of other developing nations.

The newly-independent nation of Papua New Guinea has problems of malnutrition, rural-urban migration and shortages of trained personnel, to go with its fascinating mosaic of 700 tribal groups.

As the Australian administrators of this South Pacific nation departed in the last few years in anticipation of independence last September 16, a large number of Canadians and Canadian-sponsored projects have attempted to provide the assistance the new nation will need.

The 89 CUSO volunteers in the country last year represented that organization's second largest country program. A project of the Canadian Council of Churches provided an experienced physician-administrator for a year during which he helped integrate the church-related medical program (roughly 40 per cent of the total facilities) with a new national health plan.

A project of the Canadian Catholic Organization for Development and Peace ($35,300 came from CIDA; overall cost was $101,400) established a locally initiated, owned and managed fishing industry whose profits are turned back into community projects providing training for young people, clean water or medical services. The project, which was completed last year, has contributed considerably to the income and nutrition of the residents and to the general development of the Fly River region.

The Port Moresby Community Development Group has been working to involve residents of Papua New Guinea's settlements in development since 1968. Since 1972 the Anglican Church of Canada and CIDA have provided $42,000 worth of assistance.

The work is not the type which produces easily recognized results like buildings or higher incomes. The role of the community workers trained by the group is mainly to help organize self-reliant settlements based on the traditions of the country.

The training of these community workers is the core of the community development program. So far, 28 people have completed the one-year course given in the capital, Port Moresby, and more are studying now. They are taught the needs of the people and their nation; and how to meet them. The cost of the salaries to the trainees has come from the Anglican Church's assistance.

In addition to the 12 field workers in the Port Moresby Community Development Group itself, another six staff members are in the highland town of Mount Hagen. Three years after starting they are now at the point of operating independently of the parent organization.

In many cases the community workers act as mediators or resource persons.

At Mount Hagen, a land dispute between two tribes had prevented construction of a school on the site for 11 years. After patient months of talking to both sides, the community development worker persuaded the tribes a school would be good for both groups. The school has now been completed and has 80 students and two teachers. It is administered by a board composed of equal numbers from each tribe, but not including the development worker who declined an invitation to join on the grounds the local people should not be dependent on an outsider.

In an area outside Port Moresby, the community worker helped found a settlement committee to improve their living conditions. Once established, the committee set to work organizing unemployed residents to work on building footpaths.

In other areas the Port Moresby Development people have been helping settlements improve garbage collection, install water and sanitary facilities and build community centres. They have formed clubs and helped people to get work.

The goal of the Port Moresby Development Group is the same for itself as for the communities it is helping — self-sufficiency. However, Papua New-Guinea is still quite dependent on foreign assistance to finance programs and it will be some time before its' considerable mineral and power resources of Papua New Guinea are sufficiently developed to satisfy all the needs of the new nation.

PAPOUASIE-NOUVELLE-GUINÉE

Fusion de peuplades séculaires en un peuple jeune

par Jack Redden

Qu'un pays soit considéré comme l'un des derniers paradis perdus ne signifie pas pour autant qu'il ait échappé aux problèmes des autres pays en voie de développement.

La Papouasie-Nouvelle-Guinée, mosaïque fascinante de 700 tribus, fait face à des problèmes de malnutrition, de migration des ruraux vers les villes et de pénurie de main-d'oeuvre qualifiée.

Au fur et à mesure que les administrateurs australiens quittaient cette nation du sud du Pacifique au cours des dernières années, en prévision de son accession à l'indépendance le 16 septembre dernier, un grand nombre de Canadiens ont cherché, directement ou par l'entremise de différents projets, à fournir l'aide dont ce nouveau pays allait avoir besoin.

Les 89 volontaires du SUCO qui s'y trouvaient l'an dernier représentaient le deuxième plus gros contingent de cette organisation dans le monde. Différentes confessions religieuses y jouent également un rôle actif. Le Conseil canadien des Églises a fourni pendant une année les services d'un spécialiste expérimenté, à la fois médecin et administrateur, pour aider à intégrer au nouveau plan de santé national les programmes de soins médicaux des Églises (à peu près 40 p. 100 de l'ensemble des services dans ce secteur).

Développement et Paix a parrainé un projet de $101 400 (dont $35 300 ont été fournis par l'ACDI) qui a permis d'établir une industrie de pêche dans la région du fleuve Fly; ce sont les habitants de l'endroit qui l'ont mise sur pied, qui en sont propriétaires et qui la gèrent. Les profits sont réinvestis dans des projets communautaires ayant pour but de dispenser une formation aux jeunes et de fournir de l'eau potable et des services médicaux. Ce projet, qui a pris fin l'an dernier, a beaucoup amélioré le revenu et l'alimentation des habitants et a aidé considérablement au développement général de la région.

Le Groupe de développement communautaire de Port Moresby s'efforce depuis 1968 d'amener les résidents des différentes localités de la Papouasie-Nouvelle-Guinée à participer au développement de leur pays. Depuis 1972, l'Église anglicane du Canada et l'ACDI ont apporté à ce projet une aide évaluée à $42 000.

Le travail de ce groupe produit inévitablement des résultats moins perceptibles que la construction de

(suite à la page 10)

IFO-INSTITUT FÜR WIRTSCHAFTSFORSCHUNG MÜNCHEN
ABTEILUNG ENTWICKLUNGSLÄNDER

MOD
6

Ghanaian Businessmen

From artisan to capitalist entrepreneur in a dependent economy

by

PAUL T. KENNEDY

WELTFORUM VERLAG · MÜNCHEN · LONDON

CIP-Kurztitelaufnahme der Deutschen Bibliothek

KENNEDY, Paul T.:
Ghanaian businessmen: from artisan to capitalist entrepreneur in a dependent economy / Paul T. Kennedy.
— München, London: Weltforum-Verlag, 1980.
(Afrika-Studien; Nr. 106)
ISBN 3-8039-0182-0

Weltforum Verlag, London
c/o Hurst & Co. (Publishers) Ltd.
1-2 Henrietta St., London WC2E8PS
Library of Congress Catalog Card Number
ISBN 3-8039-0182-0
Druck: Lang Offsetdruck GmbH, München
Printed in Germany

ACKNOWLEDGEMENTS

As is always the case with research in the social sciences, this study could not have been carried out without the generous help received from numerous individuals and from various institutuions. In conducting the survey work which forms the basis for this book, between 1967 and 1970, I was fortunate in being offered a teaching post at the University of Ghana as well as the opportunity to spend some of my time working in the field. This, in turn, was made possible as a result of the help and encouragement I received from the staff at the Centre of West African Studies, at Birmingham University, and the administrative and financial support provided by the, then, Ministry of Overseas Development in London. I was able to return to Ghana in 1977 as a lecturer at the University of Cape Coast.

Many individuals have provided advice and intellectual stimulation during the time I have spent working on the various stages of this research. Among these are Peter LLOYD, Ron DORE, Bob PRICE and Keith HART. Very special thanks are also due to Margaret PEIL whose warm encouragement, excellent teaching and practical advice were offered unstintingly over a long period of time. Finally, there is the actual process of data collection. Here, I am heavily indebted both to my former research assistant, the late Andrew ESHUN of Cape Coast, Ghana, whose hard work, dedication and shrewd perceptions were invaluable, and to all those busy Ghanaian businessmen who, almost without exception, responded so courteously and frankly to my requests for information despite the many pressing demands on their time.

Paul Kennedy

Manchester, January 1980.

CONTENTS

LIST OF TABLES

I. PERSPECTIVES ON AFRICAN BUSINESSMEN

The subject of African businessmen and their contribution to the process of economic development is one that has provoked a great deal of controversy and not a little confusion. Both the controversy and the confusion concern three main issues each of which has an analytical or theoretical aspect in addition to an ideological and a practical one. Firstly, there is the question of definition; what are the nature and properties of the subject to be studied. Then, there is the problem of what exercises causal predominance in the process of economic development. Is qualitative and quantitative change in economic life only possible if and when certain institutional, cultural and psychological characteristics present in society and personality prove capable of generating a dynamic entrepreneurial drive or is entrepreneurship itself a response to changes in the climate of economic opportunity? Thirdly, there is the question of what role, if any, indigenous entrepreneurs may play in the process of economic development in Africa today (and in the Third World as a whole) and, linked to this, what is the nature of their strengths and weaknesses.

Each of these issues could usefully provide the subject for an entire book in their own right. The literature on each is considerable. Clearly, it is not possible in this study to treat these as fully as they deserve. Nevertheless, it is necessary to state briefly what kind of position has been adopted here in relation to each of these questions. This will provide a context within which to discuss the main substantive themes that are dealt with in the chapters that follow.

1. Defining Business Behaviour

Many attempts have been made to delineate the crucial attributes of entrepreneurial or business behaviour and to identify the key function which such behaviour has for economic life in general.[1] SCHUMPETER's (1934) emphasis on the importance of innovation - as the making of new combinations in the sphere of production and commerce - for economic development is perhaps the best known. For him, the individuals who introduce new combinations evince the very special quality of entrepreneurship, a quality that is and should be distinguished from other

1 One of the best sources on the subject is the journal, Explorations in Entrepreneurial History, Series I and II. See also, the readings in H.G.J. AITKIN (ed.), Explorations in Enterprise, (Cambridge, Massachusetts: Harvard University Press, 1965).

aspects of the business role such as risk-taking and management. As we shall see in Chapter V, however, there is considerable doubt as to whether this singling out of the function of innovation serves any useful purpose, particularly in the context of Third World countries. What is probably more important in the latter from the point of view of economic development is the ability of people in business, and those in other occupational spheres as well, to engage in organization-building activity thereby providing a framework that makes it possible to co-ordinate and mobilize people and resources more efficiently than before.[1] In general, however, as HOSELITZ (1960, p. 140) has argued:

> there does not exist full agreement as to what particular kind of behaviour is typical of the entrepreneur ... Some writers have identified entrepreneurship with the function of uncertainty-bearing, others with the introduction of innovations, and still others with the provision of capital.

In the absence of any general agreement concerning the nature of entrepreneurship the present study has leaned heavily upon the definitions provided by two writers in particular: F. BARTH (1967) and C. BELSHAW (1965). BARTH argues that entrepreneurship is best understood as the attempt to engage in bridging activity such that ways are found to take advantage of the discrepancies in value that exist between different economic spheres within the same socio-economic unit or between different units. The entrepreneur is the person who takes advantage of these discrepancies by exploiting the previously unused or under-valued resources available in one sphere and converting them into a form that renders them saleable in another sphere. These linking operations will be easier for certain individuals to perform than others; for example, they will be easier for outsiders who have connections with external markets and credit or for people in the community who are relatively socially isolated. BELSHAW's definition is also useful particularly in the study of small businessmen who are still mainly in the owner-proprietor stage. He defines entrepreneurship as activity concerned with expansion and which also requires organizing ability. This expansionary, organizing activity may or may not also involve innovation.

Finding a useful definition of entrepreneurship, however, is insufficient by itself since business activity does not take place in a vacuum but is set within a socio-economic system. Thus, the number of fields avail-

1 The importance of organization-building in the process of economic development has been emphasized by, for example: F. HARBISON, "Entrepreneurial Organization as a Factor in Economic Development", Quarterly Journal of Economics, Vol. 70, 1956.

able for entrepreneurial endeavour, the forms which such endeavour may take and the scope for profitable activity through market exchange may vary considerably depending on whether the society in question is pre-capitalist, early or late capitalist, socialist or whatever. The organization of the kinds of trade typical of West Africa before the era of nineteenth century cash-crop production, for example, their extent and impact on society, require a different social and economic analysis from that which is relevant to a discussion of commerce and production in contemporary Ghana.

The important point to remember here is that over the last 200 years or so Ghana, like many other African countries, has become part of the world capitalist economy. This being so, economic activity within Ghana has become increasingly market-oriented; the great majority of urban and rural dwellers gain their livelihood partly, if not wholly, by selling goods and services in an exchange economy. For MARX, the dissolution of pre-capitalist systems of production and exchange, based on self-sufficient village communities and governed by principles of social reciprocity between ascriptive groups, was one of the essential pre-requisites for the emergence of modern capitalism.[1] Without the opportunity for large scale profitable investment provided by a market economy industrialization could not proceed. Both the availability of capital and its partial or total "freedom" from monopolization by social classes or groups who had no incentive to invest in the sphere of production were also essential. Finally, what was also crucial to the rise of industrial capitalism was the existence of a pool of available labourers legally free to sell their labour power for wages and economically compelled to do so through their lack of alternative sources of livelihood caused by their separation from the means of production. In much of Africa such a reserve of labour certainly exists although so far it has been the inducements of urban living rather than the lack of land and opportunities for self employment that have encouraged people to offer themselves for hire, South Africa and Southern Rhodesia being the most outstanding exceptions to this. It is clear that in Ghana all of these conditions have largely been met.

MARX also distinguished between petty commodity production, where people sell goods and services (C) in order to obtain the cash (M) to purchase commodities (C) whose consumption has a use-value or personal utility to them (giving the circuit C-M-C), and capitalism *per se*.

1 See, especially, K. MARX, Pre-Capitalist Economic Formations (London: Lawrence and Wishart, 1964), pp. 92 - 120 and K. MARX, Capital, Vol. 1 (Harmondsworth: Penguin Books, 1976), Part II and Part III, chapter 26.

In the latter, the capitalist uses money (M) to buy or hire the factors of production, especially labour, tools, machinery and materials (C), so that the goods which are produced thereby can be sold for more cash (M_1) than he began with (giving the circuit M-C-M_1). The increase in value from M to M_1 stems from the use to which the factors of production are put during the production process and the ability of the capitalist to generate and extract surplus value from the labour he employs.[1] The goods which he sells at the end of the cycle of production are valuable to him not because of their intrinsic worth as commodities but because of their exchange value; the money profit they enable him to realize through market sales. Moreover, unlike the petty producer who is concerned primarily with satisfying subsistence needs the capitalist wishes to reinvest his money profits in a new and expanded production cycle so that he can achieve capital accumulation.

This distinction between petty commodity production and capitalist production is crucial in Ghana and other Third World countries. This is because the proportion of the urban and rural population who participate in the petty commodity sector, or the 'informal economy' as it has also been called, as self-employed buyers and sellers of goods and services, is very high indeed and is probably growing.[2] It is upon this sector that the majority of urban inhabitants depend for their livelihood since the modern or 'formal economy', characterized by permanent and contractual relations between labour and foreign or local capital, has grown only very slowly in Ghana and other countries and therefore cannot absorb many of those who might otherwise wish to be employees rather than small proprietors.

This discussion can be summarized in the following way. Any analysis of business activity in Ghana requires a consideration of two things: the extent to which people are capitalists as well as entrepreneurs and the degree to which they have avoided or are in the process of escaping from the limitations of petty production and are becoming capitalists instead. We shall see that these distinctions and the questions they raise are relevant at several points in this book, particularly in chapter III.

1 See K. MARX, 1976, op. cit., especially Part II, chapters 4, 5 and 6.

2 For a discussion of the characteristics of the 'informal economy' and some estimates of its extent in Ghana see: K. HART, 'Informal Income Opportunities and Urban Employment in Ghana', Journal of Modern African Studies, Vol. 11, No. I., 1973. The article by O. LEBRUN and G. GERRY, 'Petty producers and Capitalism' in Review of African Political Economy, No. 3, 1975, is also useful.

2. Entrepreneurship versus Economic Opportunity

The debate concerning the role of entrepreneurship in the process of economic development as either a "push" or a "pull" factor originates in WEBER's analysis of the relationship between capitalism and protestantism in Western Europe (1930). Both Marxists and neo-classical or Keynesian economists have tended to see entrepreneurship as a dependent rather than an independent variable. For the economists this was particularly the case in the era of "perfect competition", before the rise of the multinational corporation, when numerous small businessmen supposedly competed for the favour of consumers and none were able to effect price significantly. The neo-classical view of the small entrepreneur has been summarized by HYMAN (1970) in the following terms: businessmen were driven "independently of their will and knowledge" to behave in certain ways "determined by fundamental factors, just as water runs down a hill on certain predictable paths" (p. xviii).

However, during the last twenty-five years, with its upsurge of interest in the problems of Third World economic change, some economists like HAGEN and HOSELITZ have joined certain sociologists and psychologists who form the 'Sociology of Development School'. They have stressed the capacity of social structure, culture and psychological orientation to inhibit or release productive potential in a given society and to provide the prime agent of economic transformation, the dynamic entrepreneur. T. PARSONS (1951 and 1966) has exercised a considerable influence in this area. His structural-functionalist view of society emphasizes both the mutual complementarity and inter-dependence of social institutions, such that change in one area must lead to compensating changes elsewhere, and the role of ultimate values (or culture) in structuring patterns of role behaviour through socialization and day-to-day reinforcement in interaction. His ideas have influenced the contemporary evolutionary theories of social change as well as the American 'Sociology of Development School'.[1]

A detailed analysis and critique of some of the theories that have been offered to show how entrepreneurs act as the major 'push' factor in economic development will be reserved for chapter VI. What needs to be said here is that this whole debate has been distorted by the failure of the participants to recognize that there is not one but several phenomena involved. Each of these deserves attention although it is possible to argue as to which should be given priority.

1 For an excellent analysis and critique of PARSONS and of the Sociology of Development School see: A.G. FRANK, The Sociology of Development and the Underdevelopment of Sociology (London: Pluto Press, 1970) and A.M.M. HOOGVELT, The Sociology of Developing Societies, (London: Macmillan Press, 1976), chapters 1, 2 and 3.

Firstly, there is the question of how far a given social formation with its different interest groups, legal and political institutions, social structures and belief systems is capable of providing or evolving the conditions for modern capitalism; namely, a "labour reserve army", an accumulation of freely disposable capital and a market for large-scale production. Here, there is a good deal of common ground between MARX on the one hand and WEBER on the other since the latter not only stressed the need for a cultural orientation conducive to the emergence of rational, calculating economic behaviour but, like MARX, WEBER also had a good deal to say about the importance of certain institutional pre-requisites for modern capitalism (WEBER, 1930, p. 26 and 1961, p. 208). Among the institutions mentioned by WEBER were the following; a free market for labour, a market economy such that all goods and services, including land and money itself, could be bought and sold without restraint, and a system of calculable law. Moreover, in emphasizing the ways in which the institutions found in different pre-capitalist societies (for example, slavery, communal land ownership, the medieval guild system of Feudal Europe and so on), especially those which enable the dominant class to appropriate surplus product, exercise a varying capacity to inhibit the release of productive potential in general and to permit the emergence of capitalism in particular, MARX's analysis (1964) is not totally in conflict with some of the thinking shown by writers in the Sociology of Development Group. The difference is mainly that the latter tend to stress the role of values, beliefs and personality in obstructing economic change rather than the social institutions that regulate property relations, power and production.[1] The emphasis on "social" factors however, is the same for both.

When the question of entrepreneurship as a "push" or "pull" factor is examined in the light of this discussion it seems clear that no business group, however dynamic, has ever, by itself and within one generation, played the only or even the dominant role in bringing about the fundamental changes in social structure without which modern capitalism is not possible. Even in the case of England, the first industrial nation, where certain favourable conditions obtained for the "spontaneous" rise of industrialization which have been rather less in evidence elsewhere, the transition to industrial capitalism resulted from the struggles of not one but several class interests and from a variety of entrepreneurial

1 R.A. LEVINE's book, Dreams and Deeds: Achievement Motivation in Nigeria, (Chicago: University of Chicago Press, 1966) represents an interesting attempt to combine an analysis of the organization of production, power and social mobility with an emphasis on status criteria, societal values and personality in explaining economic development.

groups. The government also played a crucial role particularly in the formulation of policies that enabled commercial groups to exploit international trade and colonial monopolies more fully than other European powers. These changes unfolded over many centuries and had deep roots in history.

A second question is, what are the origins of the "culture of capitalism"; that is, of the rational, calculating, disciplined orientation towards the pursuit of economic gain and occupational activity. That an orientation such as this, in one form or another, has been relevant in all those societies that have successfully achieved a high level of economic development is not in dispute. What is problematic, however, is whether it is only private entrepreneurs who historically have provided the initial impetus in this direction and whether it is only private entrepreneurs who need to exhibit this orientation. It seems much more likely that economically rational behaviour combined with dedication to duty is something that has to be demonstrated by state entrepreneurs as well as by private ones, by managers, professionals, technicians and administrators in the wider society in addition to the "captains of industry" and which needs to flourish at lower as well as at higher levels of the occupational system, including among the employees of local government and on the workshop floor.

There is also the problem of how this new orientation emerges. Although there are said to be a number of instances in history where particular groups succeeded in generating economic rationality out of their own pre-modern group culture, and who were therefore able to play an outstanding role as modernizing entrepreneurs, the ideological or religious underpinnings for the "culture of capitalism" has also come from modernizing elites or from revolutionary insurgents with an ideology apparently opposed to capitalism.[1] Alternatively, it has been imported from external sources and adapted to meet indigenous conditions. Again, it seems quite likely that cultural resources "given" in the social circumstances of a particular group or society have often been less relevant in producing economically rational behaviour than the gradual accumulation of experiences learned through day-to-day decision-making and through interaction with the problems and opportunities thrown up by a reasonably favourable environment. Such experiences may crystallize into a con-

1 See the articles by J. GRAY on the importance of Maoist ideology in inculcating new values and disciplines in China; 'The economics of Maoism' in H. BERNSTEIN (ed.) Underdevelopment and Development (Harmondsworth: Penguin, 1973) and 'Mao-Tse-Tung's strategy for the collectivization of Chinese Agriculture' in E. de KADT and G. WILLIAMS (eds.) Sociology and Development (London: Tavistock Publications, 1974).

ventional wisdom and come to be represented in terms of principles, precepts and role models which are passed down from one generation to the next. It will be suggested in chapter VI that this process has indeed been at work among the businessmen who were studied in Ghana.

Finally, there is the analytically separate but empirically related question of how, if at all, the social backgrounds and class origins of a given group of businessmen have affected their willingsness and ability to enter, survive and succeed in commercial life. Clearly, this is a much less ambitious and confusing subject than the other two. Also, while it deserves some attention, consideration of this topic does not have to result in the researcher losing himself and his readers in complex and fruitless debates about the role of "social" versus "economic" factors or of "human" and "non-human" resources in development. It is around this final and fairly straightforward question that the discussion in chapter VI will be focussed.

3. Constraints and Weaknesses

On the whole, the majority of people who have written or spoken on this subject whether they are African or Western academics or members of the informed public in African societies have tended to emphasize the weaknesses of indigenous businessmen rather than their strengths. It has also been argued that local business groups cannot act as a "true" industrializing bourgeoisie in the same way that their counterparts did at a comparable stage of development in the West. Among scholars in the social sciences, and perhaps others too, this view is shared equally both by those who apply a Marxist or neo-Marxist theoretical perspective to development problems and by those who do not.

The weaknesses or inadequacies which, it is alleged, are commonplace among businessmen in Ghana and indeed among local entrepreneurs in Africa generally can be seen as falling into two broad groups. On the one hand, there is a more "conservative" economist's line of argument which emphasizes the failure of African businessmen to conform to the conventional canons of Western-type business behaviour. Secondly, there are the views held by neo-Marxist writers who emphasize the basic vulnerability of African businessmen in the face of dominant foreign capital. This places them in a fundamentally dependent position vis à vis expatriate firms and the government.

A fuller discussion of the "conservative" criticisms will be found under the relevant chapter headings but a brief survey will be useful at this point. Ghanaian businessmen stand accused of poor technical, administrative and financial management. Their firms are said to be inefficient from the point of view of labour productivity, the full utilization of capacity and the securing of market outlets. Profits, it is argued, are wasted both in extravagant consumption on cars, mistresses and the pursuit of leisure activities and through the inability of businessmen to resist or control the excessive demands of kinsmen on time and capital. The establishment of viable and expanding firms is supposedly held back by the unwillingness of private entrepreneurs to trust either potential partners and shareholders - thereby securing a larger pool of capital and skill - or able subordinates to whom responsibility might otherwise be delegated. Both the need to conceal capital from dependents and kinsmen, by "freezing"it through the purchase of non-liquid assets, and the obstacles to firm expansion set by the limitations on how many people one man can personally and directly supervise are said to encourage early and profuse diversification of business activities. Time, resources and energies are dissipated through involvement in too many small endeavours while investment in houses offers a safe and profitable haven for capital at the cost of expansion in productive investment. Moreover, it is claimed that when success is achieved in business it is more often the result of dubious transactions than of sound business practice. The former involve such things as the use of political or social connections to secure loans or import licenses, attempts to obtain quasi-monopolistic market privileges, embezzlement, corruption and illegal foreign exchange deals.

The neo-Marxist writers criticize, as we have seen, from a rather different point of view. Thus, writers like ARRIGHI (1973) and AMIN (1973) have argued that the activities of African businessmen are necessarily confined to agriculture or trade. In the latter case, businessmen act mainly as "intermediaries" or as members of an "import-export" bourgeoisie whose profits stem from serving the interests of overseas manufacturers. What local industry exists is controlled either by the government or by the subsidiaries of multinational corporations. Writers like LEYS (1975) have argued that in this situation local entrepreneurs can only make profits by "collaborating" with foreign firms through acting as partners or "front-men", who provide respectable "cover" where legislation has supposedly restricted certain fields of enterprise entirely to indigenous people, or by providing essentially ancillary services as sub-contractors, transporters or "experts" in public relations or advertising. LEYS' analysis is based on the Kenyan experience. In addition, given the monopolization of the most lucrative industrial and other opportunities by well-established and privileged foreign companies local entrepreneurs can only hope to carve out a niche for themselves by turning to the government for legislative protection and other help or by utilizing political patronage to obtain government contracts (LEYS 1975; First

1970). In effect, therefore, they became what WILLIAMS (1970) has called "bureaucratic capitalists" whose ability to profit in business depends on the provision of monopolistic privileges by the bureaucracy.

It is undeniable that some of these criticisms do have a degree of validity. However, one of the aims of this study is to examine some of the "faults" shown by African businessmen, particularly the more conventional ones, in the light of empirical evidence gained from fieldwork in Ghana. In the meantime three points need to be made. One is that the weaknesses displayed by local entrepreneurs in Ghana and probably elsewhere in Africa, too, have almost certainly been exaggerated. Undue emphasis given to a few extreme cases and a lack of real evidence have contributed to this state of affairs. Secondly, it needs to be asked whether the traits allegedly shown are really so inimical to business success as most observers suppose. At the very least, this is a question that ought to be asked. Thirdly, and most important, it is meaningless to note the weaknesses, imagined or real, of indigenous entrepreneurs without at the same time providing a careful analysis of all the various constraints under which they are compelled to operate. These may make it difficult if not impossible for them to "fit" the requirements of economists and others who bring a Western-based analysis and set of assumptions to the African situation.

The main difficulties experienced by businessmen in Ghana (and to a greater or lesser extent their counterparts elsewhere in Africa) can be summarized under four headings: the problem of underdevelopment and economic dependency at the national level; the subordinate position of local in relation to foreign capital; the absence of a political climate conducive to indigenous enterprise up to 1970; and the problems created by an inefficient economic and administrative infrastructure alongside an incompletely differentiated social and cultural environment which produces an uncertain juxtaposition of imported Western relationships, values and institutions and pre-modern ones. All of these constraining factors tend to mutually reinforce one another.

a. Underdevelopment and Economic Dependency

In recent years a number of writers have tried to explain the relative poverty and slow economic progress typical of many Third World countries in terms of the twin notions of "underdevelopment" and "economic

dependency"[1]. AMIN (1972 and 1974), for example, argues in the African context that in order to develop their own economies the now advanced industrial nations imposed policies on Africa that have had the effect of stunting and distorting the latter's advance. He contrasts (1974) the pattern of 'self centred' development typical of the rich countries - where growth became self-generating and endemic due to the links established between the production of goods for a mass consumer market and a capital - goods sector, each sustaining the other - and the 'peripheral' development characteristic of Africa. Here, it is the link between the export oriented production of cash crops and minerals, on the one hand, and the demand for luxury goods by a small class of wealthy farmers, traders and civil servants, on the other, that has served as the main source of economic expansion. But the reliance on primary exports, especially cash crops like cocoa, palm oil and groundnuts, did not require a radical change in traditional agriculture or the disappearance of subsistence cultivation. Thus, the African peasant has usually been underpaid for his efforts since foreign buyers did not have to pay a price sufficient to cover the costs of reproducing the labour-power of cultivators and their families. This would have been the case had the farming of subsistence crops proved incompatible with the new ones and had large scale farming converted the majority of peasants into wage labourers.

A similar argument is developed by KAY (1975). The pattern of export oriented cash-crop agriculture, he claims, and the importation of manufactured goods became established quite early in Africa's relationship with the West because at that time European merchant capital was still dominant. For the latter, Africa and the rest of the world existed as a vast arena for the extraction of monopoly trading profits. Merchant capital had no interest in transplanting the kind of social and political structures in Africa which would have supported an industrial society. In any case, this would have demanded a degree of control over indigenous societies and a cost in terms of resources that was beyond the capabilities of merchant capital at that time. When the new industrial class, which first in England and then elsewhere, finally won supremacy over the old trading companies in the mid-nineteenth century its main requirements

1 For a general discussion on the development of underdevelopment and its consequences see, particularly, the following:
P. BARAN, The Political Economy of Growth (New York: Monthly Review Press, 1957); A.G. FRANK, Capitalism and Underdevelopment in Latin America, (New York: Monthly Review Press, 1969); A.G. FRANK, Latin America Underdevelopment or Revolution (New York: Monthly Review Press, 1970); H. BERNSTEIN (ed.) 1973 op. cit. and the useful chapter in the book by LEYS, 1975, op. cit.

were a ready supply of cheap industrial raw materials and access to markets for its manufactured goods. Thus, it made no attempt to alter what had become the established pattern of exchange between much of Africa and the West. The political control provided by the colonial take-over made it possible to impose and hasten certain changes which were beneficial to capitalist interests. These included such things as ensuring a supply of labour for mining companies and public works and removing the obstacles to orderly and widespread trade previously maintained by states like the Asante that were hostile to European commercial and political intrusion (for example, customs barriers, indigenous trading monopolies of local goods, border tolls and so on). On the whole, however, and particularly in the West African case, the pre-capitalist socio-economic structures that prevailed were left more or less intact. Their dissolution under the combined impact of an increasingly cash-oriented system of exchange and the introduction of new institutions and values, through the spread of Western education and Christianity, was relatively slow as well as uneven.

What Africa lost through unequal exchange both in terms of an outward drain of potencially investable surplus and the resulting loss of buying power, which might otherwise have stimulated the development of a home market, the Western nations gained in the form of cheap raw materials to feed their growing industries.[1] They also benefitted in other ways. Home wages could be lower as a result of the importation of foodstuffs and basic materials from the colonies and America at what were, effectively, "subsidized" prices. In addition, metropolitan industry was able to sell manufactured exports to those in the primary producing countries who had the cash to purchase luxury and semi-luxury goods.

Once the condition of underdevelopment is established and the peripheral society and economy have become geared primarily to satisfying overseas demand it is difficult for the country to escape the condition of economic dependency even in the post-colonial era. T. DOS SANTOS (1973) defines economic dependency in the following way:

> dependence is a conditioning situation in which the economies of one group of countries are conditioned by the development and expansion of others. A relationship of inter-dependence between two or more economies or between such economies and the world trading system becomes a dependent relationship when some countries

1 S. AMIN, 1973 op. cit., has attempted to calculate the loss of capital through unequal exchange in the case of Senegal; see chapter 1, especially pp. 9-11.

> can expand through self-impulsion while others, being in a dependent position, can only expand as a reflection of the expansion of the dominant countries (p. 76).

Thus, if the more technologically advanced nations are experiencing a period of relative stagnation, or if their long-term demand for primary exports is declining, due to technical improvements in the processing of raw materials or the development of synthetic substitutes, then the stimulus to expansion in the dependent countries is held in check.

One major consequence of the development of underdevelopment has been that in much of Africa the emergence of a mass market sufficient to support a local manufacturing sector (as opposed to an 'enclave' mining one), producing on a large enough scale to keep prices competitive with imports, was delayed until the 1950s. An interesting analysis of this phenomenon which complements that provided by AMIN, KAY and others, even though the writer is not a Marxist or a dependency theorist, is provided by HOPKINS (1973). As an economic historian he, too, argues that pre-capitalist African societies could not support an indigenous industrial revolution without substantial charge. Thus, the low population characteristic of West and other parts of Africa favoured a method of agriculture that produced the highest possible output per man rather than per acre. The various forms of extensive cultivation that tended to be practised, as a result, led to a pattern of dispersed settlement and local self-sufficiency. High transport costs and low incomes further reduced the possibility of a mass market in manufactured goods. The beginnings of such a market were only established when West African economies became more closely integrated into the world capitalist system, particularly after the decline of the 'enclave' economy produced by the trade in slaves. This integration provided an opportunity for export-crop production and for the introduction of Western education, consumer goods, production techniques and so on. These, in turn, produced a flow of migrant workers to the farms, mines and cities in search of the cash to buy consumer goods. However, it was not until the 1950s that the expansion of world demand for export-crops and increased public investment by colonial governments reached a point where effective demand for manufactured goods could support local industrial investment.[1] Moreover, this delay in the onset of certain kinds of profitable investment affected foreign capital as well as local private and state capital. Thus, the consequences of economic dependency strike at all kinds of interest groups.

1 A.G. HOPKINS, An Economic History of West Africa, (London: Longmans Press, 1973), pp. 32 - 35 and pp. 267 - 279.

In the case of Ghana, KILLICK (1966) has shown how even in the most "advanced" country in Black Africa industrial manufacturing and contracting activity did not become established until after the Second World War. Using official government publications he compiled a table (pp. 274 - 275) based on the ages of establishments in manufacturing and contracting that were recorded in 1959 by the Central bureau of Statistics. These mainly consisted of expatriate firms but they provide an indication of how recent most development in the two sectors has been. Before 1909 there were only fourteen manufacturing and twenty contracting firms in Ghana. Until 1939 the increase in the number of manufacturing and contracting establishments recorded in government statistics was very gradual. By 1959, however, the number of manufacturing establishments which had been recorded was more than four times the number that had existed in 1939 and there were more than five times as many establishments in the contracting sector. More than half of this rapid growth took place in the decade from 1950 to 1959 and about 80 % of the establishments in both sectors commenced operations after 1939. In the sample of businessmen obtained for this study only 9 % of the manufacturers and 4 % of the contractors began in business before 1945 and some of these early-starters began in trade rather than industry. Among the traders 27 per cent began before 1945.

In the last thirty years or so a new and powerful variable has been added to the equation of Third World underdevelopment in the form of the multinational corporations. A useful analysis of the structure of these organizations and of the effect they have on the poor countries can be found in BARAN and SWEEZY (1968), FRANK (1970), KINDLEBERGER (1970), PENROSE (1968) and BARRATT BROWN (1974), among many others. For the African situation the writings of ARRIGHI (1973), AMIN (1973), LEYS (1975) and the readings and editor's contribution to the Review of African Political Economy, No. 2, 1975, are particularly useful. Only a very brief account of how these organizations operate can be given here. Thus, most writers argue that the pattern of indirect portfolio investment undertaken by numerous small shareholders - as in the case of British interests in nineteenth century America - and the small concerns typical of the colonial era in Africa have given way to direct investment by the subsidiaries of gigantic, impersonal corporations. It is very difficult for Third World countries to avoid dealing with these given their desire and their need to attract foreign capital, technology and expertise. This dependence, however, tends to make countries vulnerable to exploitation since even where the country itself provides most of the capital for a venture from its own banking system, by raising international loans or running a budget deficit the multi-national corporations can usually obtain an undue proportion of the surplus earned. They can do this through claims for patent

rights, royalties, management fees and so on and by repatriating profits and salaries. Since the "rewards" earned by the companies have to be provided in scarce foreign exchange these arrangements represent a serious drain on the balance of payments of most Third World countries. At the same time, the vertically and horizontally integrated structure of the multinationals, their numerous interrelated economic activities[1] and their international field of operations makes it relatively easy for them to earn illicit profits through engaging in hidden "transfers" of capital and foreign exchange across national boundaries from one subsidiary to another.

The official international monetary and lending institutions, particularly the World Bank, the International Monetary Fund and so on, as well as the governments and capital markets of the rich nations have been criticized for aiding and abetting this exploitation by the giant corporations.[2] This has occurred because in the past these agencies have often set conditions for the provision of loans that not only imposed harsh burdens of debt and interest repayment but which also involved a demand that particular corporations should be included in the arrangement. One example, very close to hand, is that shown by the financing of the Akosombo dam project and the desire to relate this to the establishment of an aluminium smelting industry in Ghana. This has been discussed by FITCH and OPPENHEIMER (1966).

The net result of the operations of the multinationals in Africa and elsewhere, it is claimed, has been to worsen the problem of the outward drain of capital and foreign exchange caused by economic dependency thereby reducing still further the opportunities for expansion. Ghana under NKRUMAH represents one of the earliest and most serious attempts by a Black African government to escape from the limitations of underdevelopment. NKRUMAH tried to achieve this "break-through" by moving the economy away from its dependence on export-oriented primary production through diversification in the direction of establishing a strong industrial base that could produce both for the home market and for export. In pursuing this course the Ghana government found itself constrained by the kinds of factors that have been discussed; the need to borrow large amounts of capital from abroad often at unfavourable terms; the problem of inflation caused both by government indebtedness at home and abroad and by a shortage of essential foodstuffs as

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1 See for example BECKFORD's account of the diverse interests of Tate and Lyle Ltd and Booker Brothers, Mc Connel and Co Ltd. and their involvement in the plantation economies of the Caribbean in BERNSTEIN (ed.), 1973, op. cit.

2 T. HAYTER, Aid as Imperialism, (Harmondsworth: Penguin, 1971).

people moved into urban areas in search of job opportunities; the need to rely on the technology and expertise provided by the capitalist and the communist powers; and a severe fall in the price of Ghana's main foreign exchanger earner, cocoa, in the early and mid 1960's. In addition, much of the industry that was established merely provided substitutes for imported consumer goods. As such, it did not ultimately reduce Ghana's dependence on materials, equipment and manpower from overseas.

b. The Subordinate Position of Local Capital

For African businessmen the general problem of limited opportunities for profitable expansion in the home market as a result of underdevelopment and economic dependency has been compounded by their weak position in relation to foreign capital. The subordinate position of local businessmen in West Africa has a long history which is worth mentioning briefly.

HOPKINS (1973) has argued that the export-oriented basically 'enclave' development involved in the Atlantic slave trade required capital. It therefore encouraged the growth of a few large entrepreneurs, many of whom had close attachments to the rulers of the great states of Western Sudan and the forest zone. The period of 'legitimate' commerce in palm oil and groundnuts which followed the decline of the slave trade, on the other hand, did not require capital so that small farmers and traders could and did play an important part. The opportunity structure, therefore, no longer worked in favour of large traders. The situation changed yet again at the end of the nineteenth century when many of the independent African wholesalers, retailers and import specialists, who had established themselves along the Coast during the period when conditions favoured the small firm, began to be threatened by the fall in the terms of trade for African goods. Traders' profit margins fell because lower export-crop prices meant a decline in the farmers' purchasing power. Many of these African merchants had owned firms as large as those run by some of the Europeans. In the squeeze that followed most of the African firms went out of business because, like many of the smaller European companies, they lacked the resources to combat lower profit margins by establishing a much more extensive distribution network, thereby increasing sales volume. In Ghana the demise of the African merchant, during the years at the end of the last and the beginning of the present century, was followed by a long period when the vast majority of indigenous traders could only operate as commission agents for overseas firms, as small cocoa brokers or in petty trade (pp. 122 - 125 and 153 - 154).

Another reason for the relative decline of the nineteenth century African merchants was the rise in freight rates which occurred when the leading shippers formed the West African Shipping Ring in 1893 (KIMBLE, 1963). This, in addition to the increasing scale of trading operations, affected African merchants adversely.

> It was mainly European firms who grew and prospered under the new system, at the expense of many of the small traders, who were unaccustomed to partnerships outside the family, or to the impersonal mechanisms of the Joint Stock Company. Lacking reserves of capital, many were driven out of business. (pp. 14 - 15).

KIMBLE also shows how this commercial decline was paralleled by the final demise of the period of African participation in higher posts of the civil service which had been on the wane since the 1860s.

As we shall see in the chapters that follow, a number of Ghanaian businessmen have been successful in carving a niche for themselves in the industrial as well as the commercial sphere during the period of "industrialization" since the Second World War. Up to 1970, however, they continued to operate in a subordinate position since they faced a number of severe disadvantages which were not experienced to the same extent, if at all, by overseas firms.

The first and most important of these was the very presence of entrenched foreign interests per se and the fact that the latter having established themselves first, controlled many of the most profitable avenues to market success. Thus, the withdrawal of the large European firms from the import and export trade in the early 1950s under political pressure from Africans and from "official sources" did not mean their exit from Ghana altogether. Instead, they transferred their considerable resources into manufacturing on a scale and at a level of technological sophistication which Ghanaians could not hope to match. New investments in industry by the subsidiaries of multinationals added to this formidable array of foreign competition.

For many would-be local entrepreneurs, by contrast, the main access points to the business world were very much more humble and inauspicious. Many Kwahus, for example, obtained entry through a long process, often inter-generational, of building up capital from tailoring and shoemaking activities then investing in trade and perhaps, eventually, in industry (GARLICK 1962). Other Ghanaians began in the 1940s and 50s as manufacturers' representatives for overseas firms with sole rights to import their goods. Some of these were sufficiently lucky and

capable in managing to accumulate a certain amount of capital, contacts and expertise to be in a position to "sound out" the market and find a point of entry into the industrial or commercial sphere where modest resources did not completely preclude the possibility of success. Another group found a way into the modern sector by attaching themselves to small expatriate firms with strong local rather than international connections. Through this association they served a business "apprenticeship" and secured a number of resources that eventually equipped them to break free and start on their own; technical and commercial knowledge, business contacts and so on. Then there were the businessmen who fought their way up from the petty commodity sector by learning how to overcome the organizational restraints to expansion presented by the need to engage in large scale marketing and production.

In Ghana in the 1950s and 60s, and still today to some extent, there was a strong second-front to the competition provided by established European and American companies. This came from the Lebanese and Indian firms. While most of these had less capital and other resources at their disposal than the big foreign corporations they nevertheless provided considerable difficulties for local businessmen. One reason for this was that Lebanese and Indian businessmen were often already established and experienced in just those industrial and commercial spheres, requiring relatively small amounts of capital and easily acquired technical skills, where Ghanaians might otherwise have hoped to do quite well. Another reason for the competitive advantage experienced by Lebanese and Indian firms compared to their Ghanaian rivals was the former's ability to utilize their greater financial resources in order to secure favourable terms in the allocation of government contracts and import licences and also in the acquisition of bank loans. The whole question of the disposal of government patronage as between state and private and between local and foreign interests raises issues concerning the role of power and ideology. This is dealt with below in a separate section.

A second major disadvantage, one that helps to perpetuate the problem of competition from superior and established overseas interests, is that of social isolation. MARRIS (1968, p. 33) has argued that there are "abrupt discontinuities between the African businessman's social world and the economic world in which he has to succeed". The African businessman can only manipulate the social world and environment with which he is familiar and the range of this social world and its relationships is severely limited. Moreover, in African society "impersonal institutionalized ways of gaining knowledge, recruiting skill, borrowing money, are less highly developed".

Thus, the businessman is unfamiliar with the language, the values, the techniques and the behaviour patterns which occur in the spheres of government, finance and international commerce. Also, he does not belong to the informal social network and clubs which "facilitate and reinforce business relationships" (p. 33). These two problems - the African businessman's unfamiliarity with the techniques of modern commerce and his social isolation from those who participate in it - are mutually reinforcing and create a vicious circle from which it is difficult for the businessman to escape. Yet because the economy in which he is compelled to operate is not "bounded" in the same way as his social world, his business opportunities and likelihood of success are severely hampered.

The most damaging consequence of the African businessman's social isolation is that he cannot obtain the contracts, information, commercial experience and capital he needs in order to overcome his unfamiliarity with the larger national and international markets currently beyond his reach. So long as he can only engage in transactions which are based on the social relationships he is familiar with, the market for his products can only be a small local one. This cramps his initiative and reduces his opportunities for profit. In fact, in chapter V it will be seen how some of the most successful businessmen in the present study were often those who, among other things, had managed to overcome the problem of social isolation and build up widespread local and international connections.

Thirdly, it is probably still true today that more goods and services are provided for the mass of urban and rural dwellers by the petty commodity sector than by the modern large-scale capitalist one although the balance is slowly changing in certain spheres of production.[1] Because of their lack of resources, and therefore the relative simplicity of their arrangements for production and organization, Ghanaian businessmen have so far mostly been compelled to operate in the "border" areas between the vast numbers of petty producers, working at low profit margins with little or no capital, and the large, well-endowed foreign firms with access to modern technology. Thus, until the late 1960s many local entrepreneurs were struggling not only to make a place for themselves

1 In Accra, it seems that shoe and bag making, except in the very cheapest range of commodities and in the case of some production for export to Nigeria, is passing quite rapidly out of the hands of independent artisans and is being carried out by factories. With the important exception of Kantamanto market in central Accra small producers of these goods (as opposed to repairers) are becoming very hard to find (1977).

in competition with the latter but were simultaneously trying to disengage themselves from the petty commodity sector and/or cope with the severe competition offered from this quarter.

Many of those who were included in the survey had indeed managed to make the transition from one sector to the other and were dealing quite successfully with one or both kinds of competition. In addition, the situation may have been changing in the 1970s as more and more Ghanaian entrepreneurs have entered business from a professional, managerial or civil service background with sufficient capital, contacts and experience to launch themselves in at the "modern" end of the business spectrum. Nevertheless, the problem that has been outlined here remains a substantial one for the majority of local businessmen who are considerably less fortunate in their social and class origins.

c. The Political Environment: Government Policy and Business

The first election ever held in Ghana in 1951 brought Kwame NKRUMAH and his party, the Convention Peoples Party (C.P.P.), to power. It also confirmed that a large proportion of people wanted the British to grant political independence to Ghana as soon as possible since this had been a major part of the C.P.P. election programme. Independence was finally achieved in 1957 after various struggles had occurred between the C.P.P. and other groups in Ghana - particularly some members of the wealthy cocoa-growing areas of Ashanti - concerning the terms on which independence should be granted and the degree of autonomy that the different regions would possess. The opposition to the C.P.P. eventually focussed around the National Liberation Movement formed in 1954. Some of the important members of this Party eventually formed the nucleus of the Progress Party, led by Dr. Kofi BUSIA, that was elected to govern the country in 1969 at the inauguration of the Second Republic. These major and continuing political divisions have had some bearing on the fortunes of quite a few businessmen in this study - as will be seen in chapter V - since political allegience has often been a basic factor determining the amount of government help or hindrance that businessmen have experienced.

Between 1951 and 1960 NKRUMAH and the C.P.P. continued to need the support of as many groups as possible in their conflicts with political rivals and this included businessmen who could provide election funds and public support. Also, a number of prominent C.P.P. politicians, such as K.A. GBEDEMAH and P.K.K. QUAIDOO, were either interested in private enterprise or had already established their own firms. Thus, according to ESSEKS (1967 and 1971) the C.P.P. government

often reiterated the need to provide indigenous businessmen with government help during these years.

The actual help that was provided, however, was very small indeed. A few examples will suffice to illustrate this. The banks continued to pursue a conservative lending policy towards small businessmen and government attempts to provide loans on easier terms than the banks were neither extensive nor of long duration. Two of such schemes, both started in 1954, were the Small Loans Scheme to provide machinery on credit and the Guarantee Corporation which offered short-term loan facilities to merchants who lacked adequate security. But the terms offered were fairly stiff and included high rates of interest repayment (ESSEKS, 1967).

After 1957 attempts were made by interested M.P.s and businessmen to persuade the government to restrict the rate of immigration into Ghana and to reserve certain areas of trading to Ghanaians through such measures as import licencing to ensure that at least a minimum volume of import trade passed into Ghanaian hands. But these demands fell on deaf ears. No systematic attempt was made to channel sections of business towards the indigenous groups. Moreover, the rate of overall Levantine immigration actually increased between 1957 and 1962. During the same period that the C.P.P. Government resisted the demands of most indigenous business groups for help, it took a number of steps to create a climate of tax concessions and investment grants that would encourage foreign investors to settle in Ghana.

The only group that received any real help from the government were building contractors. This was mainly done by reserving some of the smaller government contracts for Ghanaian firms. But even here the help was fairly meagre. Also, the main motivation for doing this was to collect commissions for the party and its leaders and those who received government building contracts were often friends or relatives of high-up officials and politicians.

In October 1960 an open declaration was made by NKRUMAH to the effect that henceforth there would be no more government assistance to the indigenous private sector. ESSEKS (1967) has argued that NKRUMAH never had any intention of seriously encouraging, or even allowing, a strong group to emerge that could rival his own party in power and wealth. But it was not until late 1960 that he felt sufficiently strong to openly repudiate his former avowed policies and risk losing the support of earlier helpers. By 1960 the opposition groups had been effectively crushed and his socialist lieutenants were in control of most of the major organizations and sources of power in Ghana: the press, the trade unions, the cooperative movement and so on.

After 1960 the major resources at the command of the government were channelled towards the construction of a powerful public sector. Numerour state factories were set up through credit agreements with overseas governments and firms and government corporations were established in the fields of insurance, shipping, construction, trade and many others. The Ghana National Construction Corporation and the Ghana National Trading Corporation, once their operations were underway, created enormous difficulties for private indigenous businessmen. This was because the years from 1963 to 1966 in Ghana were years of falling cocoa prices and of mounting external debts due to the vast programmes of government expansion. These problems created a crisis for Ghana's economy and the government responded by imposing a system of import restrictions based on the need to obtain licences in order to import goods from abroad. But in introducing these measures the government issued very generous foreign exchange quotas to the state sector, particularly the National Trading Corporation, and this was mainly at the expense of the small Ghanaian traders. The National Construction Corporation also enjoyed favoured treatment since a great deal of government building work was allocated to it, again, mainly at the expense of small indigenous firms.

Thus, the years from 1961 to the coup in 1966 presented increasing difficulties for Ghanaian businessmen. Not only did the government refuse to provide help - two of the earlier aid programmes were liquidated in 1960 and the National Investment Bank, founded in 1963 directed over 90 % of its funds towards the state sector during this period - but it positively discriminated against the private local sector and in favour of other sectors. Moreover, this occurred at a time when private consumer demand was falling, due to declining cocoa prices and the rising price of imports.

The coup led by the military in February 1966 brought NKRUMAH's regime to an end. During the three and a half years of rule by the National Liberation Council (N.L.C.), that followed, the tide began to turn slightly in favour of Ghanaian businessmen. They allowed an increase in the volume of lending to indigenous businessmen by the National Investment Bank and a scaling-down of the activities of the state construction and trading corporations (the import licence allocation of the latter dropped from 30 to 21 per cent of the total amount available between 1965 and 1967) as part of a general reduction in the volume of public business, bank credit and import licences available to the state concerns (ESSEKS 1971). However, as we have seen, the area in which indigenous businessmen needed most help was the whole question of preserving special business sectors for them by eliminating foreign rivals through direct government legislation. The businessmen interviewed for this

study during the time of the N.L.C. obviously felt that definite help in this direction was far more crucial to the well-being than the other steps taken on their behalf.

Some Ghanaian businessmen became much better organized at this time. Several leaders emerged like B.A. MENSAH and Mrs. E. OCLOO. Widely publicized meetings were held and statements were made to the press. The first six months of 1968 were particularly busy ones, in this respect. The N.L.C. responded to this pressure by issuing a decree in July 1968 concerned with the "Promotion of Ghanaian Business Enterprises". This stated that no new foreign enterprises would be licensed to begin operations in certain stipulated fields of business and that henceforth these would be reserved for Ghanaians. Retail and wholesale trading businesses with an annual sales volume of less than ₵500,000 and one million cedis respectively were included in these restricted fields along with taxi services and the representation of overseas manufacturing in Ghana. Also included in the decree were manufacturing or any other kind of business where less than thirty people were employed or where the fixed capital investment was less than ₵100,000. Those foreign businessmen who were already operating firms in these areas were supposed to gradually phase out their operations over a period of five years.

The attitude of many of those interviewed towards this decree was that it did not go nearly far enough in providing protection, that there was little hope that the measures would be fully implemented and every prospect that the aliens involved would find some way to circumvent the restrictions within the five years period. However, in 1969, businessmen, like other people, began to turn their attention increasingly to the nascent political groupings that were forming in readiness for the return to civilian rule that was assumed to be forthcoming. Their main prospect for substantial government action lay in providing support for a political party that could win an election. In fact, the support given by the respondents in the sample to the winning party led by Dr. BUSIA, the Progress Party, was not overwhelming. But the majority of the respondents were certainly very keenly interested in the policies put forward by the contenders for power and there was a great deal of sympathy among many businessmen for politicians with a history of being anti-NKRUMAH.

The Progress Party pledged itself to provide extensive aid to the private Ghanaian sector during the election campaign of summer 1969. It did not default on its promises and within the first year of taking office the new government had introduced a whole series of measures to help small businessmen. In the autumn of 1969, just after taking office, the "Aliens Compliance Order" was implemented which resulted in the exit

of a large number of aliens within the space of a few months. One estimate put the figure at over 100,000 people (PEIL 1971). These were Africans, mainly Nigerians, engaged as petty traders and self employed artisans who lacked valid resident permits to remain in Ghana. The exodus of these people undoubtedly helped the business activities of some of the smaller Ghanaian ventures although, by general consent, it also hurt the rural economy, particularly cocoa production.

Much more significant, however, was the "Ghana Business Promotion Act" introduced in 1970. This strengthened and extended the 1968 decree. In connection with trading, taxi services and overseas business representation the Act reduced the time period, stated in the 1968 decree, by which all aliens were to quit these fields from 1973 to August 1st 1970. It also stated that within one year only Ghanaians would be allowed to operate in the fields of baking, printing, produce brokerage, advertising and publicity, commercial transportation by land, beauty culture and the manufacture of cement blocks for sale. Both of these provisions were directed mainly against Lebanese and Indian firms. A further stipulation of the act, however, prohibiting aliens from selling in Ghana's markets or engaging in petty trading, hawking or selling from a kiosk, was designed to limit competition from Africans of non-Ghanaian origin.

The importance of this act lies not so much in its implementation but in the complementary measures that were also adopted to back it up. It was these measures that demonstrated the genuine interest of the new government in the need to assist indigenous businessmen. Both the Bank of Ghana and the government introduced schemes to provide the commercial banks with credit guarantees to cover the advances they made to Ghanaians so that the latter might obtain the resources to purchase firms left by departing aliens. The government also offered direct finance for Ghanaians to purchase enterprises of this kind. If steps had not been taken to provide finance or to encourage the banks to do so the Act would have remained a fairly meaningless gesture. The Budget of 1970 also made provisions for the introduction of a small "business credit" scheme. One and half million new cedis were provided by the government in that year to help Ghanaian manufacturing firms that normally found it very difficult to obtain bank loans. Similar provisions were made to foster exporting by indigenous firms.

There seems no doubt that although many aliens, whose firms came within the province defined by the Act, were able to survive by regrouping their business assets with those of other aliens to form larger units a substantial number of foreign firms were run-down or sold to Ghanaians. Various prominent government spokesmen reiterated the government's determination to implement the 1970 Act in full, in the months

that followed its introduction.[1] Also the government took over a number of companies owned by aliens that had not been sold to Ghanaians within the stipulated period.[2]

Not everything, of course, worked in favour of indigenous businessmen after the election of 1969. The government policy of liberalizing the imports of most goods created a corresponding need to impose temporary import surcharges in order to safeguard the balance of payments. Many businessmen feared that the increased prices for raw materials and machinery, that would follow these moves, would put up the prices of their products and leave importers of finished goods, who now had more freedom of manoeuvre, with an unfair advantage in relation to Ghanaian consumers. Thus, having increased their protection from foreign businessmen in Ghana, the government then worsened their position vis-a vis competition from overseas. In addition, during the year that followed the Budget of 1970 cocoa prices fell on the world market and the government was compelled to introduce a number of severe austerity measures.

On the whole it would seem that the second military government under General ACHEAMPONG, which dislodged BUSIA and the P.P. early in 1972, has pursued policies which have not been altogether unfavourable to local business interests. Import licensing was reintroduced while the importation of many kinds of consumer goods has been increasingly reduced or stopped altogether through deliberate policies of discrimination. This has manifestly encouraged an increase in the production of made-in-Ghana goods. In addition, the process of Ghanaianization in industry and commerce, helped by legislation and the distribution of government patronage, has continued to gather pace. By 1977 discontent among local businessmen seemed to be caused not by a feeling that foreign firms received too many unfair advantages but that some Ghanaians with "good" social and political connection were obtaining an undue advantage over others because of their favoured access to essential imported raw materials or in their control over the distribution of essential scarce commodities in foods.

The political environment in Ghana since 1971 is rather less relevant to the discussion in this book since the data was collected between 1968

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1 See reports in West Africa on the speeches of SAFU-ADU, Minister of Agriculture (November 7th 1970, p. 1323), Kwesi LAMPTEY, Minister of Defence, (Janaury 5th, 1971, p. 54) and J.H. MENSAH, Finance Minister (July 2nd 1971, p. 763).

2 See the report in West Africa, September 3rd 1971, p. 1031.

and 1970. It is therefore the earlier period, when the politics in Ghana were relatively harsh towards local businessmen, and when the people who provided the material for the chapters that follow were struggling to build up their firms, that is most important for our purposes.

d. The Economic, Social and Administrative Environment

Many writers argue that the whole syndrome of frustrations and obstructions created for African businessmen by that fact that they must operate in an under-developed and often precarious economic environment is a much more serious impediment to their business success than the shortage of capital. It will be useful to consider briefly the list of services and institutional structures that form the economic environment of businessmen, and which, according to writers like SCHATZ (1963), are either absent or inadequate in the African situation.

Obtaining suitable equipment is fraught with risks. It is difficult for small businessmen to order machinery when information on technical matters is lacking, foreign exchange is difficult to procure and the order has to be placed over vast distances through procedures that are unfamiliar to the businessman. Any one of a number of delays may occur to hold up production: the order may arrive far too late to enable the businessman to exploit the market opportunities; the machinery may arrive broken and obtaining spare parts for worn-out or broken down machinery may be difficult or impossible. To obtain the services of specialised expatriate engineers and technicians for training machine operators or repairing and maintaining equipment will probably be beyond the means of most small indigenous businessmen. In addition, equipment in African firms will probably be more expensive to buy and to use than in developed countries and it will have a shorter life expectancy.

It will be difficult for African businessmen to hire competent and reliable personnel who can provide specialist advice and services with respect to financial, technical, marketing and organizational problems. Such expertise is in short supply in African countries and is consequently very expensive to obtain. It may also be impossible for African businessmen to evaluate the quality of the work provided and they may, therefore, be unable to exert any satisfactory control over the value they receive in return for their expenditure. Where less skilled employees are concerned, there are numerous difficulties that can arise created by illiteracy, language barriers, inter-tribal rivalry and the debilitating effects of disease.

Raw materials for production are subject to sudden fluctuations in price and supply which are difficult to anticipate and subject to slow and irregular delivery schedules. Thus, interruptions in the supply of stocks occur quite frequently and make it necessary for businessmen to freeze valuable liquid capital in holding more stocks of raw materials than would otherwise be advisable. The energy supply and the transport and communication systems available in African countries are subject to frequent breakdowns for one reason or another. These cause delays and wastage.

Then there is the need, referred to by HOSELITZ (1965, p. 90), which businessmen have for information concerning trading and production opportunities, changing technology and market conditions. African businessmen also need to be provided with help in the keeping of accounts and regular records and they would benefit from the operation of a fiscal system which provided incentives for investment. A further need is for "the development of suitable credit institutions and credit services for new industrialists" which operate on two levels since "new entrepreneurs need financial support for their more permanent investment as well as for their inventories and other short term needs" (p. 94).

The social and administrative environment is, perhaps, as crucial as the economic one. Thus, some writers on the problems of entrepreneurship (COLE 1959, HOSELITZ 1960 and 1965) have pointed out that the emergence of successful business enterprises in a society depends substantially on the existence of certain "political conditions". A government and civil service must exist which is willing to and capable of maintaining law and order and providing an administrative framework for the conducting of orderly transactions, both on a national and international level. More specifically, this means that businessmen require the certainty that their contracts, arrangements and property will be recognized, supported and protected by the state through the legal system provided that the relevant legal procedures are followed by the businessmen themselves. In practice, this degree of certainty depends not only on the establishment of a reasonably efficient system of law and national administration but also on the willingness of officials and politicians to act in an equitable and non-arbitrary fashion within the rule of law.

In this respect the manner and the speed with which countries like Ghana have been subjected to Western influences have created numerous complications. Thus, the social structures of less developed societies tend to be incompletely differentiated. A superstructure of formal, Western, market-oriented institutions are superimposed on top of and coexist uneasily with the underlying pre-colonial structures and traditions of an undifferentiated society. RIGGS (1964) uses the analogue of fused white light passing through a prism in order to delineate the characteristics of

many Third-World societies. Thus, when light passes through a prism the different colours in the rainbow spectrum begin to be diffracted but the diffraction process remains incomplete.

In a "prismatic" society which is only partially diffracted the different structures - the economy, the family, the polity, religion, ethnic groups - do not function autonomously but continually influence one another. Politics and administration, for example, are formally and constitutionally separate in less developed societies yet in practice questions of policy and administration are far from being distinct from one another and they are subject to strong particularistic influences from wider social groupings. In fact it is the political elite, as "the initiators" of change and the controllers of centralized government resources, who dominate the system. Power is the "base value" and can be turned into wealth more readily than wealth can be turned into power. While the politicians and the bureaucrats can subvert the system to serve their own interests other groups and institutions are too weak to establish their independence and resist the influence of politics and government. Businessmen are particularly prone to suffer as a result of this state of affairs.

The combined effects of bureaucratic unpredictability, the threat of interference by the elite and the need to use the wealth earned from business to placate the elite and buy protection substantially limit the alternatives that are open to businessmen. As we have seen, small local businessmen often possess less leverage in the bid to counteract these uncertainties than foreign firms. Thus, according to RIGGS, the whole scope of business operations employed by businessmen in less developed countries is distorted and subverted by the nature of the political, social and administrative environment.

> This means they must concentrate on activities which bring quick profits .... They cannot indulge in long-term investments which are highly vulnerable to political and administrative harassment. (RIGGS 1964, p. 116)

Finally, something needs to be said about the effects of the surviving patterns of pre-capitalist social structure and culture, and of those that are more recent in origin, on the operations of local entrepreneurs. This is an area which is much more difficult to evaluate and quantify than the problems presented by foreign competition, poor infrastructure or unfavourable government policy. There are several reasons for this. One is that the preferences and orientations people bring to their occupational and business life and the socially structured situations which narrow and define their range of choices are all-pervasive, implicit and unconsciously at work in everyday life. The social element is present as

a 'given' in every kind of situation; its form and content are taken for granted and rarely articulated, analyzed or understood.

Secondly, social and cultural constraints define and set limits to behaviour alongside and in interaction with formal institutional, political, economic and ecological ones. It is very difficult to separate out these different factors. Moreover, it seems clear that in a country like Ghana, social and cultural elements, on the one hand, and the insecurities and uncertainties that stem from the problems created by underdevelopment, on the other, are mutually reinforcing. Thus, several writers (PEIL, 1972; PEACE, 1974; LLOYD, 1974) have noted the strong cultural emphasis in Ghana and Nigeria on "being your own boss". The majority of artisans, it is argued, and many of those in secure bureaucratic employment, too, see employment mainly as a means of accumulating savings prior to going into self-employment. The prevalence of this feeling and the force with which it is held may well create difficulties for businessmen who often find it difficult to retain skilled labour. But the survival of this cultural preference probably owes a good deal to the relatively poor wages paid in large state and foreign companies, while the apparent inability of the 'modern' sector to generate employment opportunities for all those who need them, due to the problems of underdevelopment, makes it essential for people to seek alternative livelihoods. The continuing strength of rural connections and family and ethnic loyalties - all of which can slow down the pace of capital accumulation for small businessmen - can be understood in similar terms as due partly to the economic insecurities endemic in modern African city life.[1]

Thirdly, the social and cultural context of behaviour changes all the time, both gradually and imperceptively over the long-term (what MITCHELL (1966) has called 'processive' or 'historical' change) and in the short-term as the actor moves from one role situation into another ('situational' change). This is obviously of great importance in understanding Third World societies particularly as social change has been rapid and yet uneven in its impact and given that the influences on change stemmed mainly from contact with an alien culture so that both indigenous and Western structures and values are involved in the process. The complex social situations with which people have to deal is perhaps most striking in the case of indigenous business life. Thus, would-be successful entrepreneurs in Ghana must learn how to interact with Europeans in situations defined primarily by Western norms and customs as well as in an African business context. They also have to deal with the "formal" world of edu-

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1 I have discussed these issues in more detail in 'Cultural factors affecting entrepreneurship and development in the informal economy in Ghana'. Institute of Development Studies Bulletin, Vo. 8, No. 2, September 1976.

cated officials in government agencies and banks, where particularistic practices may or may not be in evidence, and with the very different social environment of the market trader, village storekeeper, illiterate northern labour, mammy-lorry driver and skilled artisan. In addition, they must articulate the demands from kinsmen and dependents and from co-members of their home town and ethnic groups with the requirements of day-to-day firm organization and the pressure of the market. None of this is easy, particularly when small businessmen lack the resources to hire specially trained personnel to handle some of these matters, as European firms do.

Local businessmen in Ghana and elsewhere, therefore, may be forgiven, perhaps, if they do not always quite manage to act in accordance with the text-book practices found to be acceptable in Western business colleges.

4. The Aims and Methodology of this Study

Given the theoretical and historical background outlined in the previous sections we are now in a position to specify the main aims of this book while seeing how they relate to wider issues. Four main interrelated objectives or themes are examined in the chapters that follow.

Firstly, the book attempts to provide an empirical "testing ground" in the Ghanaian context for some of the criticisms that have been made against African businessmen and to place these alleged weaknesses into some kind of perspective. A good deal has been said about this already. A second and major aim is to examine the factors that seem to have been important in determining the different degrees of business success shown by those who were included in the survey. These factors include the "resources" of capital, skills, behavioural orientations and social, political and international connections that the entrepreneurs brought to their business endeavours by virtue of their ethnic and/or class origins as well as their previous occupational and educational experiences and those abilities that were learned during the process of engaging in entrepreneurial activity. Among the questions examined in the text are the following: how important is the amount of starting capital and later access to loanable funds in explaining business expansion; how crucial is managerial ability to the process of firm survival and growth and are some aspects of this more important than others; what factors impede capital accumulation, for example, the tendency to engage in business diversification; how important is the ability to innovate; what kinds of social skills are most useful in the process of building up a large organization; and what role do political and social connections play, whether inherited or "earned" in explaining business success.

Thirdly, an attempt will be made not only to compare the more and less successful businessmen in terms of their various attributes but also to point out some of the different patterns of capital accumulation, marketing strategy, innovation and so on. Lastly, at various points an attempt is made to emphasize the wider changes that seem to be occurring over time in the prospects and practices of local entrepreneurs as Ghana's economy and society continue to evolve.

In pursuing these themes a number of decisions had to be made about methodology. One such decision concerned which businessmen were to be included in the research. The "firm" was the basic unit of analysis used in this study; those businessmen who were included all possessed some kind of firm organization. Many of the respondents only employed a few workers in their enterprises. Nevertheless, it is maintained that the distinction between the self-employed craftsman - mainly working by himself in his back yard - and the proprietor with rented premises and one or more full-time employees is a very real one. This is because the person who decides to take on one or more apprentices or workers, even if they are members of his own family, is immediately involved in several complex relationships and must fulfill extensive obligations.

It was originally intended to concentrate on manufacturing firms since this seemed to be a field of business activity central to the process of economic growth and one which might contain a wide variety of types of business organization. To make the survey manageable some industries in the manufacturing sector were excluded from the study. The ones that were included were those that were most likely to attract indigenous businessmen. Later, it was decided that the inclusion of samples of building contractors and traders would add interest to the study and would enable useful comparisons to be made between businessmen in the different fields of endeavour.

Secondly, most of the information was obtained from the survey which involved interviewing a large number of respondents. Other sources of information were also useful such as newspapers, government publications and the opinions and impressions of leading members of organizations which interact with Ghanaian businessmen, particularly bankers, government officials, and members of advisory and technical agencies. But most of the information derived from these sources was unsystematic and anecdotal and its main function was to supplement the central core of information from the questionnaire survey.

The survey approach was used because Ghanaian businessmen are a statistical group rather than a community. This means that the informal, anthropological approach used in the study of small groups or societies

could not be used in a study of this kind. Accordingly, it was not possible to obtain a general picture of the role behaviour and problems of Ghanaian businessmen by concentrating attention on a few, well-informed individuals in one locality.

Thirdly most of the interviewing was confined to the Accra-Tema area both for practical reasons[1] and because this area contains a very large proportion of the indigenous firms. Thus, the information obtained from the Industrial Directory[2] published by the government in 1969 revealed that 51 % of the total number of indigenous manufacturing firms in Ghana in 1969 were located in the Accra Capital District. However, some manufacturing firms in Kumasi were also included. The 1969 Industrial Directory showed that Kumasi, Ghana's second city, contained another 18 % of the indigenously owned factories. In the case of building contractors, the official list of approximately 270 indigenous contractors, registered with the Public Works Department (P.W.D.), provided by the Commercial and Industrial Bulletin for March 1970, indicated that 35 % of them were based in Accra. Similarly, of the 220 private Ghanaian trading stores with an annual sales turnover of N¢20,000[3] or more, listed in the Directory of Distributive Trade Establishments published in May 1968, 41 % were located in Accra.

The question of the sample to be included in the survey proved to be a very difficult one. There were two main problems. One was that an adequate list of Ghanaian manufacturing firms, from which a representative sample could be drawn, was not available. The Industrial Directories often provided incomplete information on location and no information at all on the smallest firms. Enterprises with less than six paid employees or with less than ten persons engaged were excluded from the Directories. Attempts to find some of the listed firms often proved fruitless. In the

1 The author was teaching at the University of Ghana when the fieldwork was being carried out.

2 The full title is "The Directory of Industrial Enterprises and Establishments". It was published by the Central Bureau of Statistics in October 1963 and again in 1969.

3 "N¢" was the notation for Ghana's currency at this time and stood for "New Cedis". At the time of the survey one pound sterling was approximately equal to N¢2.45. But many people in Ghana still referred to one cedi as "ten shillings" and two cedis as "a pound" because of the lingering influence of British colonial rule and the involvement of Ghana in the sterling area. Since the "N¢" notation is no longer in use all future reference to money will simply omit the "N".

absence of a reliable sampling frame and given the lack of resources to conduct a full-scale census of the Accra region for the purposes of the study there was no alternative but to adopt a policy of obtaining interviews wherever it was possible to do so while attempting to include firms from all industries and size groups. The second problem was that even where reasonably reliable lists of proprietors did exist, as in the case of building contractors and traders, it often proved impossible either to find the firm or to contact the proprietors since many were frequently absent from their businesses.

Thus, the final sample of businessmen that was obtained was not a random one except in the case of the Kumasi manufacturers.[1] Because the sample is not a random one, extreme caution is necessary in extrapolating the findings of this survey to the population of indigenous businessmen in Ghana as a whole. This is particularly the case where such variables as the ethnicity of the respondents are concerned and basic information on the distribution of firms by industry, size, investment and age. Nevertheless, there is no reason to suppose that any particular bias was introduced into the sample resulting from the fact that those who were included had tended to locate their establishments in more conspicuous, populous areas and were slightly easier, in some cases, to pin-down for an interview. So much variation was found between them in every respect that it seems highly unlikely that they possessed other characteristics in common stemming directly from those just mentioned.

The businessmen who owned large firms, particularly in manufacturing, were deliberately oversampled because many had expanded their firms from scratch and, as such, they were intrinsically more interesting. Experience indicated that approximately two-thirds of all the manufacturers present in Accra at the time of the survey, employing thirty or more people and working in the industries included in the study, were interviewed. In Kumasi, too, a high proportion of the large manufacturing firms were included. Given the concentration of industrial activity in Accra and Kumasi this means that large firms in Ghana, generally, were well represented in the sample and the proprietors of half of such firms were probably interviewed.

The medium-sized manufacturing firms (employing between eleven and thirty workers) were also fairly well represented. Accra and Kumasi together contain more than half of the manufacturing establishments of

1 In the case of Kumasi, a later addition to research funds in 1970 made it possible to conduct a census of full-time manufacturing "firms" located in the main central and suburban parts of the city. This was used to provide a sample stratified by size and type of industry.

this size in Ghana. Therefore, it is probable that approximately one quarter of the total number of such firms in the country as a whole were represented in the study. Where the very small firms were concerned, employing less than ten people, it was impossible to know how many existed in the whole of Ghana and therefore how well they had been represented in the sample. All that can be said is that they were definitely under-represented.

Among the building contractors about 10 per cent of the indigenous firms registered with the government were included in the sample. For the indigenous traders with stores the extent of representation was approximately 16 per cent. Although their coverage was fairly modest the entire range of contracting and trading firms, by size, was included. Contracting and trading firms in general tend to be small rather than large and 43 per cent of the contractors in the sample had investments in machinery of less than ₵10,000 while the annual sales turnover of 62 per cent of the trading firms was less than ₵60,000.

Thus, all groups were fairly well represented except the small manufacturers. This means that differences that emerge when making comparisons between large and small manufacturers must be treated with circumspection since the considerable heterogeneity of business behaviour and social characteristics present in the population of small manufacturers received less than adequate coverage. On the other hand, the information that was obtained from the survey was sufficiently adequte in its coverage to reveal that an immense amount of variation occurs between firms in terms of the way in which they are organized, even when they are in the same industry. Frequently, these differences have nothing to do with the variable of size. At the same time, basic similarities are often found between firms employing four or five people and others with forty or even a hundred workers. These patterns are discussed in chapter III. Thus, while the representation of small manufacturing firms is less than adequate this has by no means obscured the extreme heterogeneity present in the population.

It should be noted that one of the main interests in conducting the present enquiry lay in making comparisons between businessmen who were operating in different fields of endeavour. Obtaining an accurate picture of the degree to which any particular variable was present in the total population was of less interest. Thus, the problem of obtaining a random and representative sample was less important than it might otherwise have been.

Altogether, information was obtained on 186 businessmen. Among the 126 manufacturers five were in sawmilling, fourteen were printers,

there were thirty seven furniture producers and forty people were manufacturing garments and textiles. In addition, fourteen respondents were in food and minerals and sixteen people were engaged in producing a miscellaneous range of goods using rubber, leather, plastics or certain chemicals as raw materials.[1]

Table 1 Employees by Type of Firm (Percentages)

Number of Employees[a)]	Manufacturing	Contracting[b)]	Trading
1 - 5	18	8	49
6 - 10	28	20	31
11 - 20	19	12	14
21 - 30	6	4	6
31 - 100	19	24	0
100+	10	32	0
Total	100	100	100
N.	126	25	35

a) Numbers relate to actual employees in the firm being studied - not to the total number of people employed by those businessmen who had several firms.

b) Based on the usual number of employees taken-on, in the year preceding the interview, at times of maximum work load.

Table 1 shows the percentage of firms falling in different size groups. The traders, of course, tended to employ far fewer people than manufacturers or contractors. Nearly half of the manufacturers employed less than eleven workers. Clearly, manufacturing firms vary enormously in terms of size. But, since the survey concentrated on gaining interviews with the larger firms the results shown here cannot be taken as an indication of the actual distribution of firms by size in the population. Small as many of these manufacturing firms may seem, when contrasted with those at the other extreme, they are still much more elaborate in terms

1 This group included seven firms making shoes, four producing perfumes, cosmetics and ointments, one firm making rubber stamps, a factory turning out records, another producing plastic goods and two making foam rubber mattresses.

of organization and far less frequent in occurrence than the many thousands of enterprises run by part-time, self-employed artisans.

Table 2. Investment in Machinery by Type of Firm (Percentages)

Value of Investment ¢	Manufacturing	Contracting
None	32	5
1,000 or less	18	0
1,001 - 4,000	15	14
4,001 - 10,000	11	24
10,001 - 40,000	15	19
40,001 - 100,000	3	14
100,001 - 400,000	5	14
400,001+	1	10
Total	100	100
N.[a]	119	21

[a] No information available on seven manufacturing and 4 contracting firms.

The size of the firms in the sample can also be considered in terms of the value of investment in machinery. This is done in table 2. Again, the same wide variation between firms can be seen. In some industries there is considerable room for varying the factor proportions of capital and labour, substituting one for the other. This is particularly the case in industries like furniture, garments and baking.

Table 3 Sales Turnover ¢ among Trading Firms (Percentages)[a]

20,000 or less	20,001 - 60,000	60,001 - 150,000	150,001+	Total	N.[a]
9	53	25	13	100	32

[a] Based on returns for 1967. Three firms had no information for that year.

Table 3 summarizes the information relating to the size of trading firms. The number of employees does not necessarily serve as a useful indication of the volume of sales handled by the firm since some traders employ more family workers than others, many of whom may work on a part-time basis. Most of the firms had a sales turnover of between ¢20,000 and ¢60,000, but approximately one third of them had a sales turnover well above this amount.

Finally, there was the problem of how to measure the performance of the businessmen who were studied in order to discover what factors were related to business success. Most of the procedures normally adopted for measuring performance - such as estimating labour productivity or profitability as indications of managerial ability, looking at the increase in total business assets over time or the rate of growth in sales - could not be used in the present study. This was because the owners of the smaller firms rarely kept accounts or records of their financial transactions except in a haphazard way, with scraps of paper and odd lists and bills. It was often clear that proprietors were far from certain in their own minds as to the state of their day-to-day finances and their current position. Even in the case of larger firms it was difficult to obtain figures which would be useful in measuring success. Moreover, many businessmen were reluctant to divulge the state of their accounts since there was always the possibility, in their minds, that the research might be conducted on behalf of the government or that the information obtained might inadvertently be seen, at some time, by a government official.

Although firm size is not a particularly good index of success it was possible to divide the firms in each field of business and each industry into two categories of "large" and "small" and use this as a basis of comparison. In manufacturing, the firms were ranked according to two criteria of size; the number of people employed and the value of investments in equipment (if any). Two measures were used because firms varied enormously in the degree of capital and labour-intensity used in production. Taking one measure by itself, say investment in machinery, would have placed some businessmen - those who preferred to produce with a large labour force but little equipment - in an unfair position even though their firms had undergone a great deal of expansion. The building contractors were ranked according to the value of their investments in machinery because the number of employees varied too much over time to be a useful index. The traders were placed into groups by the value of their sales turnover in a previous year (1967).

When the firms had been ranked two different criteria of size were used. One involved dividing the firms into two equal size groups - a top and bottom half - and the other involved the firms being divided into the top

third and bottom two-thirds of the rank ordering so as to place the very large firms in a group by themselves and sharpen the contrast. Unless the text or the tables specifically mention that the categories "large/successful" and "small/unsuccessful" refer to the latter division it can be assumed that the first division is the one under discussion. It should be stressed that when the terms "large", "unsuccessful" and so on are used to describe businessmen and their firms the meanings implied are only relative or comparative.

II. ECONOMIC CONSTRAINTS AND OPPORTUNITIES

There are various kinds of economic factors that seem likely to exert a considerable effect upon the success or failure of business ventures. The availability of capital, for example, both for initial investment and for later business expansion seems prima facie to be one of the most obvious problems for businessmen in less developed countries. The analysis in this chapter looks at the question of capital as well as the role of other kinds of economic "resources" with respect to two related questions. One concerns the extent to which businessmen who now have large firms have enjoyed greater economic advantages than their less successful rivals. Access to capital for investment and the supply of foreign exchange are two such advantages. Also important is the period in which businessmen first started in business since this is related to the climate for investment opportunities that prevailed during the time that they were establishing and building up their firms. The second question depends on the answer to the first. If the relatively successful respondents did, indeed, enjoy more advantages then what were the circumstances in which this occurred? Some businessmen may receive more bank loans or larger import licences than others as a result of luck or the help of influential friends. On the other hand, these results might be related to the amount of effort businessmen are prepared to expend on pestering and bargaining with officials. Alternatively, most businessmen may only obtain bank loans or other advantages once they have already proved their ability through many years of sound business practice and expansion.

1. The Amount of Starting Capital and the Length of Time in Business

It is certainly the case that when asked about the difficulties they faced the majority of businessmen claimed that a shortage of funds was their most serious problem. Altogether 92 per cent of the businessmen in the study said that they did in fact have problems of one kind or another. Over two-thirds claimed that lack of funds was their main, or one of their main problems in running their firms. A shortage of capital, they argued often created more difficulties than such things as obtaining a foreign exchange quota to import raw materials, procuring a reliable labour force of suitably qualified workers, surviving in a period of economic crisis or competing with numerous foreign and indigenous firms. Also, not surprisingly, businessmen with small firms were more likely than the others to say that a shortage of capital was their main problem.

The major business interest of most of the respondents had grown out of the enterprise they had founded at the beginning of their business careers.

The amount of capital available to them when they established their original enterprises had varied considerably as between different types of business activity and between individual firms engaged in similar business pursuits.

Table 4 Amount of Starting Capital by Size of Firm for Different Fields of Business (Percentages)

Business Activity and Firm Size	Starting Capital of ¢ 200 or less	201-1,000	1,001-4,000	4,001+	Total	N
Manufacturers						
large	57	22	9	12	100	58
small	62	22	13	3	100	60
Contractors						
large	0	42	8	50	100	12
small	25	42	25	8	100	12
Traders						
large	27	20	20	33	100	15
small	28	39	22	11	100	18
All Businessmen						
large	44	25	10	21	100	85
small	50	27	17	6	100	90[a]

[a] No information available on 11 firms.

In terms of the sample as a whole the amount of capital available for starting in business did exercise some influence over eventual business success. Thus, table 4 shows that successful businessmen were three times more likely to have started with sizeable assets (for example, more than ¢4,000) than less successful businessmen. However, this finding needs to be qualified in two ways. Firstly, only a very small proportion of the total sample - about one-eighth - started in business with more than ¢4,000 and more than two-thirds of both the large and small businessmen began with less than ¢1,000. There were only seventeen in the sample who began with ¢10,000 or more. Secondly, the importance of starting capital varied according to the type of business activity. The important factor here was the degree to which the nature of the business activity involved, allowed businessmen a certain amount of

scope to vary the factor proportions of labour and capital. Thus, capital shortage was less of a problem in those business fields where it was possible to produce goods with a relatively labour-intensive system of production and yet still manage to compete successfully against firms which were producing with a higher level of technology.

The possibility of substituting labour-intensive production techniques for capital-intensive ones is not very high in the building industry and thirty-six per cent of the contractors in the sample began in business with ¢4,000 or more. The reason for this lies in the central role of expensive equipment in much of the work done by contractors. The skill and effort of labour can only be substituted for machinery in certain kinds of contracts and then only up to a point. The traders stood in an intermediate position between the contractors and manufacturers. Although approximately one quarter of the traders started their business with ¢4,000 or more, (sometimes as a result of inheriting part of a trading business or a cocoa farm from an uncle or father), for the majority, starting capital had not been of overwhelming importance to their business success. Nearly half of the large traders (47 per cent), for example, began with less than ¢1,000.

In manufacturing as a whole, the volume of initial assets was much less important; well over half of both the large and small manufacturers began in business with less than ¢200. However, the possibility of substituting labour for equipment, and consequently the need to have a fairly substantial supply of initial assets, varied quite considerably according to the industry. Thus, the figures shown in Table 5 indicate that the range of possible production techniques that can be employed is quite high in certain industries, particularly furniture, food, garments and shoe-manufacturing (the latter, is included in the "miscellaneous" category) and is low in other industries. In those industries where businessmen have a choice between relatively labour or capital-intensive production techniques, it is possible for businessmen to start their businesses with small amounts of capital and to gradually expand. Eventually it may be possible for manufacturers to reach a more sheltered and profitable market by using their profits to install more elaborate machinery which enables them to increase the sophistication and the range of their products or to mass-produce cheap, standardized goods. On the other hand, some businessmen prefer not to do this and continue using predominantly labour-intensive production techniques. Still others enter the industry with substantial capital and plunge immediately into the production of predominantly machine-made goods. Among firms in the printing industry, sawmilling and some firms grouped under the "miscellaneous" heading it is less possible to substitute labour for machinery or to start off with minimum capital and build up slowly. Those businessmen in the sample

Table 5 The Degree of Capital-Intensity in Different Industries

Industry	Average ¢ per firm: Starting Capital[a]	Average ¢ per firm: Investment in Machinery
Sawmilling	62,206	212,360
Miscellaneous	8,128	36,933
Printing	4,360	26,332[b]
Garments[d]	3,680	7,414
Food and Minerals	3,728	4,902
Furniture	398	2,000[c]

[a] This refers to the capital used to start the firm that was studied. Some manufacturers began with much less capital in another field and moved into manufacturing later.

[b] One very large firm with an exceptionally large investment in machinery (approximately ¢ 1 million) was excluded. The figure would have been ¢96,251 if this firm had been included.

[c] One large furniture firm was omitted with investments in equipment of ¢500,000. The inclusion of this firm would have raised the industry average to ¢18,180 which would conceal the basically labour-intensive nature of the indigenous furniture industry.

[d] Several firms with hand-sewing machines rather than power-driven equipment were counted as having machinery. Although hand-driven these were expensive to buy and cannot be equated with tools.

who had done this often began as traders, timber merchants or transporters and then spent five or ten years accumulating enough capital to start with well equipped factories.

The question of how important is the initial supply of capital to the success of business ventures needs to be considered side by side with the question of how long a businessman has been actively engaged in profit-making activities since each of these can be substituted for the other to some extent. The analysis that follows tries to clarify the relationship between these two variables.

Table 6 Time of Starting in Business by Size of Firm (Percentages)

Business Activity and Firm Size	1959 or before	since 1960	Total	N
Manufacturers				
large	65	35	100	63
small	40	60	100	63
Contractors				
large	58	42	100	12
small	67	33	100	12
Traders				
large	76	24	100	17
small	67	33	100	18
All Businessmen				
large	66	34	100	92
small	48	52	100	93

It can be seen from Table 6 that for the sample as a whole there was a fairly strong relationship between the length of time in business and the size of firms. However, this tendency was most marked among the manufacturers. This was so in spite of the fact that a large proportion of the manufacturers (48 per cent) had founded their first businesses during the last ten years whereas the comparable figures for contractors and traders were 38 per cent and 29 per cent respectively.

If the stronger relationship between size of firm and length of time in business among manufacturers is considered in conjunction with the fact that the majority of large manufacturers began in business with quite small amounts of capital, it appears that businessmen entering the field of manufacturing had some opportunity to substitute time for capital and thereby compensate for a lack of resources. This tendency was particularly noticeable in the case of the most successful manufacturers - those whose firms were placed in the top third of the rank ordering by size. Of the total number of manufacturers who began in business before 1951 with a small starting capital, 46 per cent now have firms in the top category. For those starting in business between 1952 and 1956 the proportion whose firms are now in the top third of the rank ordering by size is 31 per cent and for those who began between 1957 and 1962 it is 20 per cent. From this it is clear that the longer the period of time spent in

business the more likely manufacturers were to expand their firms in spite of their earlier disadvantages - or go out of business altogether.

Thus, very few manufacturers began in business with substantial assets, but many of the successful ones had been in business for a long time. The general lack of capital meant that wherever possible they relied mainly on labour-intensive production techniques and yet they were apparently able to survive in competition with larger, more complex, capital-intensive firms. In many cases they did more than survive; they prospered and grew and gradually transformed their production system partially or wholly into a more modern, more technologically advanced one. The mechanism of growth at work in the case of manufacturers was the gradual accumulation of resources by re-investing profits over a long period of time. This will be discussed below. However, the size of manufacturing firms was only partly explained by the number of years spent in business because for every manufacturer who started in business many years ago with a small amount of capital and eventually owned a large business there was at least one other manufacturer still in business who had not been successful.

This analysis is complicated by the inclusion in the tables of those businessmen, particularly manufacturers, who started in business very recently. Many of these began with quite small amounts of capital and were invariably classified as unsuccessful since they had not sufficient time to grow. But being both small and lacking in resources their inclusion in the group of small firms tends to exaggerate the relationship between initial capital supply and size, over-emphasizing the importance of capital in explaining success. In addition, a number of businessmen started recently with quite large amounts of capital and therefore have a fairly substantial investment in machinery. Such firms tend to be classified as "large" which, again over-emphasizes the relationship between initial assets and size while the importance of the number of years spent in business in contributing to success is obscured since these firms are recent in origin but have been classified as "large". It is difficult to compare both these groups meaningfully with the firms that have been in business over a much longer period of time.

Therefore, the data was re-arranged so that a comparison could be made between large and small businessmen when the two variables of time and initial assets were held constant. All the firms that had started in business since 1963 were classified as "recent". This year was selected as a fairly reasonable dividing line because a large number of businessmen started in business between 1957 and 1962, in the years when the government pursued a considerable programme of investment and expansion and strict foreign exchange controls had not yet been implemented. Those

firms that began in business with ₵3,000 or less were regarded as having started with relatively small capital assets. This is the point at which a fairly obvious break occurs between the large number of firms starting with a small capital supply and those starting with much larger amounts.

Table 7 Amount of Starting Capital by Size of Firm Among Businessmen Who Started Before 1963

Time of Starting and Capital	Manufacturers		Contractors		Traders	
	large	small	large	small	large	small
Less than ₵3,000						
1951 or before	19	16	1	3	7	9
1952-1956	7	6	3	2	3	3
1957-1962	18	12	2	2	1	1
N	44	34	6	7	11	13
More than ₵3,000 before 1963	9	3	3	2	4	0

Table 7 summarizes the information that was obtained after making these adjustments. The results show that although many firms enjoyed essentially the same economic advantages and disadvantages some are now large and successful and others are still comparatively small in size. The proportion of firms with these characteristics which fall into either the large or small groups is roughly equal. This tendency is just as strongly pronounced in those cases where businessmen began with very small amounts of capital indeed.

These findings underline the conclusions that were reached earlier; namely that a substantial supply of capital when starting in business had not necessarily been a very important ingredient of business success among the respondents in the present study. The disadvantages imposed by a lack of capital have often been surmounted without too much difficulty although this has been easier for manufacturers than for traders and contractors. On the other hand, the number of years spent in business does provide an explanation of success in the case of some manufacturers. Other writers in this field have reached similar conclusions. Thus, in a study of small firms in Eastern Nigeria, KILBY (1963) found that only 7 per cent of those firms he included in his survey had been started with more than £500 whilst 61 per cent began with an initial capital of less than

£50. Similarly, the median value of the initial assets for starting a business among the manufacturers studied by HARRIS (1966) in Nigeria, was less than £1,000. The following comment by MARRIS and SOMERSET (1971, p. 203), in relation to Kenyan businessmen, can be regarded as applicable to other African countries.

> To an African entrepreneur with only a few years education, and a few shillings in post office savings, with no security to offer .... nothing achieved to convince his acquaintances to trust him with their money, capital must seem the crucial obstacle. Yet most of the businesses made a start with very few initial resources.

Discussing the success rate of businessmen who borrowed from the Nigerian Federal Loans Board between 1956 and 1962 SCHATZ (1965) writes of the "capital shortage illusion". Eighty-two per cent of the loan applications submitted by Nigerian businessmen during this period failed to interest the Federal Loans Board because the projects involved were considered to be unviable. Only forty-four loans were made during the first five years of the existence of the Board and 64 per cent of the firms receiving these loans did not ultimately prove to be successful ventures. SCHATZ (1965) concludes that the problem faced by African businessmen is one of finding viable, profitable projects rather than the shortage of capital to finance them.

Another aspect of the "capital shortage illusion" is the relation between the volume of financial resources businessmen obtain and the success of their enterprise. Two of the Nigerian studies (HARRIS 1966, HARRIS and ROWE 1966) show quite clearly that when business success is measured in terms of the profitability and the rate of growth of the firm the very successful businessmen did not enjoy advantages over the others in terms of the size of their initial assets when commencing business. The authors of these studies found that in most firms machinery was not being fully utilized. In the sawmilling industry, for example, HARRIS and ROWE (1966) reported that only three out of fifty-nine mills in their study were operating at more than 50 % of their full capacity and almost half of the mills were producing less than 25 % of the lumber that the installed machinery was capable of producing. They concluded that the shortage pf capital could not be regarded as a particularly serious problem among Nigerian businessmen since a genuine capital shortage would presumably result in machinery being used intensively and no surplus capacity would be allowed to exist.

At the same time, however, this analysis should not be allowed to obscure the fact that the supply of capital available to businessmen remains an

important factor in determining their likelihood of growth or success and the speed with which this can be achieved. The bottom row of Table 7, for example, shows that the respondents who started in business before 1963 with more than ₵3,000 have tended to do rather well in comparison with those who started with less capital. Seventy-six per cent of the former now have firms classified as "large" and 57 per cent have firms which are placed in the top third when firms are ranked by size. The comparable figures for the businessmen starting with rather less initial capital were 53 per cent and 33 per cent. Also the proportion of businessmen starting in business since 1963 with a small amount of capital who now have large firms is only 17 per cent compared to 56 per cent of those starting since 1963 with a larger supply of capital. It is true that in the case of the latter their greater initial assets enabled them to purchase machinery and this meant that they were more likely to have been classified as "large". Nevertheless, the dearth of large firms amongst those starting with few assets in the middle and late 1960's illustrates the advantages of starting with considerable resources, in terms of the greater and earlier opportunities this provides for exploiting the market and making large profits. It also illustrates the necessity for those who start business without the advantage of a sizeable capital fund to continue in business over a number of years before they can hope to make up for this initial lack of resources and transfer their business onto a higher level of technology and organization. Only a very small number of businessmen with slender resources can expect to make an early and rapid breakthrough by, for example, perceiving and exploiting an unsatisfied demand which no one else has seen.

It is noticeable that the proportion of businessmen who started with more than ₵3,000 grew in the decade of the 1960s. Only three businessmen in the sample started in business with more than ₵3,000 before 1951, whereas between 1952 and 1956 seven businessmen started with this amount. For the whole seventeen year period between 1940 and 1957 the proportion of firms in the sample starting with more than ₵3,000 was 11 per cent. On the other hand, for the eleven years between 1958 and 1969 the comparable figure is 28 per cent. Even allowing for inflation, these findings suggest that it may be increasingly difficult for those businessmen with few resources, who are now moving into the fields of business included in this study, particularly manufacturing, to build up a large and successful business. Many of the businessmen who started ten or twenty years ago have been able to overcome the limitations imposed by lack of capital through their own resourcefulness. They substituted the skill and effort involved in creating and operating an organization for capital. The early-starters also had the advantage of operating initially in a market where there was an unsatisfied and growing demand and few large firms with the technology and organization capable of exploiting it.

However, the very success of many small businessmen in fully exploiting the advantages of starting early has pre-empted the possibility that most of the small businessmen who are starting now can follow the same path. The established businessmen already dominate the national market. With their superior technology, greater resources and contacts they can undercut the products of smaller producers, if they so wish, and price them out of the market. Those who enter a well-established field of business enterprise today and who try to compete with the existing large firms can probably only hope to do well if they already possess the resources and experience necessary to produce and compete on a large scale. The majority of businessmen with few resources may be confined to operating in very limited areas of business activity where there are small, local and fluctuating markets for a few specialized goods not produced by the large firms.

The findings in this section can be summarized briefly. Until a few years ago it was quite possible for a businessman with few initial resources to create a large and successful business in trade, contracting or manufacturing. Growth was possible through a process of slowly accumulating and re-investing profits over many years. These opportunities are probably no longer available to the majority of businessmen working in the fields of business included in this study. Further, the fact that nearly half of the businesses founded before 1963 with small resources are now large and prosperous does not mean that a sizeable supply of starting capital is unimportant or unnecessary for business success. The businessmen who now own large firms have been successful in spite of the fact that they had few initial resources and not because of it; if they had been able to secure a more substantial supply of starting capital they might have expanded much faster.

2. The Sources of Capital for Business Expansion

It would be useful to know whether successful businessmen had greater access to outside sources of capital, both in obtaining their initial starting capital and in financing the later expansion of their businesses. Thus, it seems reasonable to assume that a businessman who acquires funds for expansion from banks, government agencies, through family inheritance or friends, in addition to the money he ploughs back into his firm by re-investing his profits or using up his personal savings, has a greater chance of achieving a high rate of growth than a businessman whose sole source of funds is from profit re-investment.

Table 8 Main Sources of Capital for Starting in Business and Obtaining Equipment among Manufacturers and Contractors by Size of Firm (Percentages)

Main Source of Capital	Large	Small	All firms
For starting in business			
Personal savings	63	47	55
Family	28	38	33
Commercial and other[a)]	9	15	12
Total	100	100	100
N	88	89	177
For obtaining equipment[b)]			
Reinvested profits	54	56	55
Commercial loans or hire purchase finance[c)]	31	14	24
Personal savings or family	15	30	21
Total	100	100	100
N	65	43	108

a) Of the 21 businessmen in this category, six got their starting capital from banks. "Other" includes gifts from previous employer, advances from customers and incomes from inherited cocoa farms. Help from friends was the most important source.

b) This section excludes those who had no investments in equipment.

c) Includes government lending agencies as well as banks.

Table 8 provides information on the sources of the capital obtained by businessmen in the sample. It can be seen that the businessmen as a whole tended to rely more on their own resources, in starting and building up their firm, than on outside sources. Less than half of the businessmen were able to draw upon funds other than their own savings when they first went into business and normally this meant obtaining gifts or loans from family or friends, particularly the former. Only six firms commenced their first business activities with a loan from a commercial bank or under the auspices of a government loan agency such as the Industrial Development Corporation or the National Investment Bank.

Again, these findings are not unique to Ghana. Several studies of indigenous businessmen in different parts of Nigeria (KILBY, 1963; HARRIS and ROWE, 1966; HARRIS, 1966) show that the majority of small businessmen relied on personal earnings to provide the capital for starting in business rather than a supply of loanable funds from commercial banks or government bodies. Personal savings were most commonly derived from income earned in previous employment, family gifts or loans and gratuities or pensions collected on terminating employment with a large firm or government department. MARRIS and SOMERSET (1971, p. 189) also found among Kenyan businessmen that personal savings were "by far the commonest source of capital to start in business". These same authors found that the major source of funds for building up a business was not usually external finance but the gradual reinvestment of profits over a long period of time. In Kenya most firms "grew as much from their own momentum as from outside help. And those which depended most on Government aid were the least successful" (MARRIS and SOMERSET 1971, p. 203).

Where later business expansion was concerned the single most important source of capital for acquiring equipment among the manufacturers and contractors was re-invested profits; approximately three-fifths of them relied either completely or partly on this method for financing the purchase of essential machinery.

Comparing the respondents with large and small firms it is clear that the former had depended rather more on their own savings when they launched their first business than the latter, whilst the small businessmen relied slightly more on their families and friends and other sources. These differences may indicate that those who are prepared to risk their own hard-won savings are more likely to succeed in business since they have more at stake than those who start with someone else's money. Moreover, their willingness to sink their assets into a long-term venture from the outset suggests a degree of confidence and a determination to succeed that can only be an advantage.

Re-invested profits were equally important to both the successful and the unsuccessful businessmen as the main means of financing the purchase of equipment. But manufacturers and contractors with large firms had been more fortunate, or more skilful, in obtaining loans or credit from banks, government agencies or hire purchase companies to finance their purchases of machinery. They were twice as likely as those with small firms to have obtained access to one or other of these sources, although some of them relied on re-invested profits, too, as a source of investment. On the other hand, small businessmen had greater access to loans and gifts from family and friends or personal savings in enlarging the scope

of their firms though, as in the case of personal savings, the sums obtained were probably quite small. This suggests that some of the less successful respondents may have been reluctant to become involved with impersonal agencies and officials and that their horizons were limited to the idea of a small, family firm rather than a modern corporation.

Table 9 The Availability of Outside Sources of Finance by Size of Firm (Percentages)

	Large	Small	All firms
Commercial loan applications[a)]			
None	30	54	42
Once	20	19	20
Twice +	50	27	38
Total	100	100	100
N	90	93	183
Commercial loans received[b)]			
None, but applied	19	33	24
One	37	42	39
Two or more	44	25	37
Total	100	100	100
N	63	43	106
Family Inheritance[c)]	32 (90)[e)]	19 (91)	25 (181)
Family loan or gift[d)]	36 (85)	47 (91)	42 (176)

a) Includes overdraft arrangements with banks which, in the case of traders, are more important than loans.

b) Only 57 per cent of the respondents tried to obtain a loan or overdraft.

c) "Inheritance" usually involved land and farms rather than houses.

d) This includes funds obtained from the family after the business had already started. Compare with Table 8.

e) Bases for percentages are given in parentheses.

Table 9 shows the frequency with which the businessmen attempted to obtain outside sources of capital while they were building up their firms and the extent to which they were successful in doing so. Where the inheritance of land and other property is concerned businessmen with large firms were slightly more likely to have benefitted from this potential source of funds for business expansion. Nevertheless, the difference is small and two-thirds of the businessmen who now have large firms did not inherit any property at all. Also this situation is reversed in the case of family gifts and loans since large businessmen were marginally less likely to have received a loan or gift at the time of founding their businesses or later on when the business was already established.

Much more important than various kinds of family help was the question of obtaining loans from impersonal agencies. Here, it is interesting to discover that businessmen with small firms were rather less likely than those with larger firms to attempt to apply for a loan or overdraft from a commercial bank or government body. Also, more than two-fifths of the small businessmen who did try to obtain funds in this way made only one attempt whereas the larger businessmen were more likely to try several times. It can be argued that those small businessmen who never tried to obtain a loan or overdraft were acting in a perfectly rational way since they knew it was unlikely they would be favourably received by bank officials. There is some evidence to support this argument in the table; one-third of the small businessmen who tried to negotiate a loan or overdraft failed to do so. However, the difference in the failure rate between large and small businessmen is not large. Also it is important to remember that a great many of the businessmen who now have large firms were once in a similar position and had very few resources.

These findings suggest that receiving commercial loans can make a considerable difference to the growth and success of a firm. On the other hand, in an important sense, repeated attempts to obtain a loan or overdraft are more crucial than actually succeeding. This is so not only because the ability to secure loans depends on the willingness to make applications - and a high proportion of the less successful respondents failed to try - but also because the numerous visits, possible humiliations, tedious arguments and the need to straighten firm accounts that are likely to be necessary before bank managers become sympathetic demand a high degree of determination. And determination shown in one major sphere may be symptomatic of a highly motivated personality that will persevere in other spheres too. The correlation between business success and receiving loans also needs to be qualified by noting that many of the businessmen in the sample were unable to secure funds until they had already built up substantial assets of their own through re-investing profits. Thus, in many cases, commercial loans served to accelerate firm expansion rather than to initiate it.

Before leaving the present discussion on the sources of capital for business expansion two points need to be borne in mind. Firstly, it is important to note that the category "personal savings" is a very general one. In many cases it no doubt covers a "multitude of sins". Thus, it has always been part of the ideology of capitalism that its participants and defenders have emphasized the frugality and diligence necessary before individual businessmen can accumulate sufficient capital to break into the market. In practice, however, "illegitimate" paths to the securing of starting capital have also been important in every country, although in the nature of things it is impossible to be certain how important. In Ghana some of the avenues for the "illegitimate" acquisition of funds may be the following: embezzlement from former employers; manipulation of family property; currying favour with certain kinsmen in order to obtain gifts or loans, thereby reducing the potential "inheritance" available to others; or through exploiting the labour of overworked and underpaid younger brothers, sisters, nephews, sons or wives or by offering poor treatment to apprentices and journeymen.

Secondly, and in a similar vein, when the role of profit reinvestment is emphasized as a means to business expansion it is important to remember that profits originate not only in the willingness and ability of entrepreneurs to risk their capital and skill in difficult ventures and to organize production efficiently but also in the unpaid and accumulated contribution of the work force they hire. Few who seek a livelihood in the sphere of production can accumulate capital on any scale through working by themselves. The businessmen who were interviewed for this study certainly understood this very well indeed even if some social scientists and informed laymen do not. Thus, whether we approach the question of labour by talking about the 'extraction of surplus value' or the need to calculate the 'marginal productivity' of different units of labour the fact remains that behind the surface reality of firm expansion through profit reinvestment lies the underlying reality of the employment of workers.

3. The Supply of Foreign Exchange

In Ghana the ability to secure import licences has often been just as crucial as a constraint or aid to business success as the ability to obtain capital. It is not only traders selling consumer goods produced abroad but manufacturers and, to a lesser extent, contractors, too, who prefer to import their own raw materials or goods for sale rather than satisfying their needs by purchasing from local suppliers. There are several obvious advantages in being able to buy directly from the overseas producer or supplier. This practice makes the businessman more independent and self-reliant; less dependent on the possibly unreliable skills,

contacts and abilities of others. More important, goods bought directly from overseas are cheaper when the profit margins of various intermediaries, particularly the importer and wholesaler, no longer have to be paid for. Also, any discounts that may be negotiable, resulting from bulk purchasing or regular trading associations with the same supplier, accrue to the manufacturer or retailer rather than the intermediary.

In order to purchase directly from overseas the businessman must have regular access to the requisite foreign exchange and because his cash resources are usually limited he must also be able to obtain a "letter of credit" from a reputable guarantor so that the overseas supplier will be prepared to advance some or all of the goods on credit. The period for which credit is normally given is 180 days. Both the foreign exchange and the "letter of credit" are sought from a bank which acts as a guarantor. Due to heavy government spending on development programmes, particularly during the NKRUMAH era, and the high demand for imported goods by Ghanaian consumers the balance of payment has been under severe strain for some years and it has been necessary for governments to impose restrictions. Thus, those wishing to import goods from overseas have had to obtain an import licence from the government giving the buyer the right to receive an allocation of foreign exchange from his bank in return for Ghanaian currency. From 1961 when the balance of payments problem worsened to 1970 when import licences were abolished by the BUSIA government (temporarily as it turned out) it was often difficult for businessmen to obtain an import licence and the licences that were issued were usually limited to the importation of specific commodities.

With an annual quota of foreign exchange tied to each kind of commodity, an overall limitation in the amount of foreign exchange available and the high prices created by resulting shortages there were many opportunities for corruption and sharp practices in the dealings and negotiations between businessmen and government officials. Many indigenous businessmen were either unable to secure licences at all during the years from 1962 to 1966 or the allocation they received was not nearly sufficient for their needs.

The differences that have occurred between large and small businessmen with regard to receiving import licences were similar to those occurring in the case of bank loans as can be seen in Table 10. Small businessmen were much less likely to have applied to receive an import licence at some time and of those who did apply, businessmen with small firms were rather less likely to find that their applications had been granted. In all, there were very few small businessmen who had received an import licence in the year that the interviewing for the study was conducted and the allocations that were made to small businessmen usually involved quite small amounts of foreign exchange.

Table 10 Access to Foreign Exchange by Size of Firm (Percentages)

	Large	Small	All firms
Applications for import licences	80 (93)	39 (93)	59 (186)
Receiving import licences[a]	84 (74)	58 (36)	75 (110)
Value ¢ of current licence[b]			
10,000 or less	9	64	20
10,001 - 50,000	36	29	35
50,001 +	55	7	45
Total	100	100	100
N	55	14	69

a) Based only on these respondents who applied for and received a licence at least once.

b) Based on the year 1968 to 1969 for the Accra informants and 1969 to 1970 for those from Kumasi.

It is difficult to know how to evaluate this apparent correlation between the allocation of foreign exchange and business success. On the one hand, it is clear from Table 10 that the businessmen with large firms who have struggled to establish a viable business over the last twenty years or more now have a built-in advantage in securing a regular supply of foreign exchange and in obtaining a large amount to cover their needs. But, a number of qualifications need to be made.

Firstly, in manufacturing firms with labour-intensive production methods, where there are only a few pieces of equipment in use and the amount of imported materials necessary for production is quite small, it is hardly worthwhile for a businessman to go through all the complex and time-consuming procedures appropriate to obtaining an import licence merely in order to save a few cedis a month. In firms such as these, therefore, a lack of foreign exchange cannot be regarded as a direct impediment to expansion. Secondly, although most businessmen tend to overstate the amount of foreign exchange they need when they apply for an import licence, to ensure that they secure a maximum amount, those businessmen with small firms obviously require an import licence of smaller value. Further, the advantage to the businessman of importing goods from

abroad more cheaply may not be used to lower the prices of his products, attract more custom and expand his business; the surplus may be spent, instead, on raising his living style. Alternatively, he may not use his quota of foreign exchange himself but sell it to someone else. In such circumstances the allocation of foreign exchange need not provide businessmen with any particular advantages in terms of firm growth.

In the case of traders the shortage of foreign exchange may be a more serious problem since most of the goods they sell are produced abroad and there is more profit if they import their own goods. Those traders who secured an import licence during the difficult years from 1962 to 1966, when the lack of foreign exchange created shortages for many goods, gained surplus profits from the resulting high prices. What is the relationship between obtaining an import licence and size of business among the traders in the sample?

Nearly two-thirds of the large traders in the sample and only one-third of the small traders received a licence for four or more of the years between 1961 and 1969, when a specific import licence was necessary. Moreover, only 7 per cent of the small traders received import licences both before and after the coup of 1966 whereas 56 per cent of the large traders obtained import licences during both regimes. This difference is largely a reflection of the fact that many small traders received only one or two licences over the whole period. Thus, among the traders, business success seems to be associated with receiving allocations of foreign exchange over a greater number of years. It is difficult to decide whether receiving more import licences during the 1960s was a major factor in the relative success of the traders who now have large businesses or whether the government officials responsible for issuing the licences had a fairly consistent policy of granting licences to those traders who already had large firms, more overseas contacts and who were engaged in wholesaling activity when the period of severe restraint began. On the whole the second explanation is probably more accurate since some firms were able to expand in spite of the fact that they did not receive an import licence for most of these years. Thus, of the sixteen respondents in the sample who fared very badly in terms of receiving quotas of foreign exchange, and yet who had been in business for some years before this period of restrictions began, six had relatively large businesses in 1970. Also, the smaller businessmen in this group had been in business longer; six of them started in business before 1950 compared to only one of the larger businessmen. Though it is probably true that these small traders would have benefitted from receiving import licences during the 1960s, as the large traders presumably did, it seems equally true that a lack of import licences is not the reason for their inability to expand since they had obviously failed to establish sizeable firms by 1961, when many of

them had already been in business for a number of years. The most obvious explanation, therefore, for the failure of these traders to obtain an import licence in the 1960s is that their firms were as small and unpromising then as they were much later in 1970 although their ability to survive at all, through this period, was no mean achievement.

4. The Period in which Business was First Started

In general, the businessmen starting at slightly different time-periods tended to be engaged in different field of business. The traders started rather earlier than those in the other two groups. Nearly half of the traders, some 46 per cent, began before 1950 and another 26 per cent started in the 1950s. The decade which saw the founding of the greatest number of building firms was the 1950s; 54 per cent of the contractors went into business then and hardly any started before 1950. Among the manufacturers the date of starting in business was more evenly distributed over the last three decades, though the greatest number of firms, 43 per cent, started in the 1960s. These differences are closely related to the process of economic change and development in Ghana over the last 40 years.

In the 1930s and 1940s there were few business opportunities in Ghana for indigenous businessmen outside trading. Also, a limited education, or no education at all, is less of a barrier to successful trading activity and few adults, in the pre-Second World War period, had received an education. By 1948, however, approximately half of the children of infant and junior school-going age in the Colony and Ashanti were at school and 20 per cent of those children who were of senior-primary age (Report of Education Department 1948)[1]. Thus, by the late 1950s, when trading was no longer the only field of business that offered opportunities to Ghanaians, there were a large number of young people in Ghana who had received a level of education and technical experience sufficient to enable them to run businesses in the fields of manufacturing and contracting. Twenty years before this had not been the case.

This increase in the number of potential businessmen in the 1950s coincided with the policy of NKRUMAH to institute a period of rapid economic development. The vast Government programmes that were started at this time involved a tremendous expansion in public building work in hospitals, schools and roads and also an industrialization programme.

1 The "Colony" refers to the thickly populated area of southern Ghana between Ashanti and the sea where the British first instituted direct rule. These figures are cited by D. AUSTIN, Politics in Ghana: 1946-60 (London: Oxford University Press, 1964), p. 15.

This expansion created an opportunity for contracting firms to win Government contracts. The demand for ancillary services to feed and supply Government projects also stimulated manufacturing firms. In addition to the opportunities created by Government expansion, the 1950s were also a period of high cocoa prices and the prosperity of many private citizens in Ghana produced a steady demand for both manufactured goods and private dwellings. It is not surprising, therefore, that the majority of building contractors emerged in the 1950s and that a number of manufacturers started production during this time.

The considerable number of manufacturing firms in the sample established since 1965 is probably related to the increasing number of educated, trained and experienced artisans, capable of starting their own businesses, who have found it very difficult to find a permanent job commensurate with their abilities owing to the high rate of unemployment, particularly since 1966 and the fall of NKRUMAH's expansionist government. Choosing self-employment, probably as an alternative to pursuing a career in a large organization, many of these artisans have been sufficiently skilled to stay in business over a period of several years. Some have even been able to take-on a few employees but in a period of limited opportunities few are likely to succeed in developing viable and substantial concerns.

The number of contracting firms founded in the 1960s has not followed the same pattern since skill alone is not normally enough to launch a contractor into business; unlike the craftsman he needs some capital too. Also, the fortunes of building contractors are closely linked to Government building projects and the level of national development in general. When the Government cuts-back on building programmes the opportunities for building contractors are severely limited because private consumption cannot sustain building contractors to the same extent that it can sustain manufacturers.

This discussion indicates that there is a fairly close relationship between the level and kind of economic opportunities emerging at any given period and the supply of businessmen who attempt to exploit them. Given the assumption that some years provide more propitious circumstances for business activity and growth than others did the more successful respondents in the sample show a stronger tendency to go into business during relatively favourable periods compared to their less successful rivals?

In the case of the manufacturers there seem to have been two periods over the last thirty-five years which offered particularly favourable opportunities for business expansion; from 1946 to 1949 and from 1957 to 1961. Thus, 25 per cent of the manufacturers who now have large firms began their business careers in the years between 1946 and 1949 compared to

only 5 per cent of the less successful. This difference does not result from the fact that the manufacturers with large firms had been in business for a longer period of time since eight of the twelve manufacturers who started before 1946 now have small firms. These years were ones of rising political and economic discontent in Ghana culminating in the riots of February 1949 in the cities, the increasing demand for the granting of immediate independence and the emergence of NKRUMAH and his party, the C.P.P., as the main vehicles of change. AUSTIN (1964, pp. 49 and 58) has argued that the causes of this discontent can be found in the "emergence of a new class of elementary school leavers" at this time whose frustrations and demands increasingly sought a political outlet, the existence of a considerable amount of economic discontent caused by "the plight of the cocoa farmers in the areas affected by the swollen shoot disease" and "the economic hardship of the urban population as the prices of imported goods rose and wages lagged behind". The prices of imported goods rose in the late 1940s because of the "world shortage of shipping as well as of consumer goods" for which the Gold Coast had to take its turn AUSTIN 1964; p. 56). The shortage of imported goods combined with an increase in the amount of money available to produce a rapid rise in prices. This increase in the amount of money available occurred because although the size of cocoa crops had fallen (owing to swollen shoot disease) the earnings of those cocoa farmers who had cocoa to sell increased when the price of cocoa on the world market rose dramatically in 1947. The value of the cocoa crop in 1946/47 was 9 1/2 million pounds, but in 1947/48 it rose to 41 million pounds.[1]

This situation produced great hardship for the urban worker whose real wage fell during this period, but at the same time, some groups, particularly cocoa farmers, were better off even though they had less opportunity to purchase imported consumer goods than previously. It seems likely, then, that in view of the shortages for consumer goods and high prices for local and imported goods considerable opportunities existed for those manufacturers who started in business during this time.

As far as the years from 1956 to 1961 are concerned, it has already been noted that this period was one of rapid growth in which the government played a dominant role. Thirty-six per cent of the large manufacturers started in business at this time compared to 18 per cent of the respondents with smaller firms. Another 14 per cent of the latter entered the field towards the end of this period of prosperity, in 1962 and 1963, whilst only 6 per cent of the large manufacturers started as late as this. This

1 Based on the findings of the Commission of Enquiry into Disturbances in the Gold Coast: the Watson Report, 1948, which are cited by AUSTIN (1964; p. 66), op. cit.

suggests that the successful respondents had a keener perception of what were the prevailing opportunities.

The association between the existence of a temporary but favourable climate for investment and business success may be explained in two ways. It may occur because the successful manufacturers were more skilled at perceiving opportunities when these emerged and were willing and able to respond with considerable alacrity. Another explanation may be that those businessmen who are fortunate enough to start in business when economic prospects are favourable can hardly avoid achieving some business expansion. This, in turn, reinforces their desire to remain in business and they then continue to build on the accumulated advantages they have already gained over those businessmen who come later. Probably both explanations have some validity.

5. Summary

The foregoing analysis shows that the economic advantages experienced by the more and less successful businessmen in the sample, in terms of the volume of starting capital, access to outside sources of funds - particularly bank loans - and foreign exchange, had favoured the former only marginally more than the latter. A meagre supply of capital at the onset of a buiness career was least likely to create problems for the manufacturers whereas in the case of contracting it could present more of an obstacle to growth. The fact that the successful respondents had received commercial loans and foreign exchange slightly more often than those with smaller firms could often be attributed to their greater persistence in attempting to obtain these benefits. Also important was the fact that government and other agencies responsible for allocating these resources will tend to give more serious consideration to the requests of businessmen who own large, fairly viable firms. Obtaining these benefits, therefore, is often only possible when businessmen have already proved their worth by expanding their firms considerably.

By far the most significant means for financing expansion, used by both the more and less successful respondents, was profit re-investment. For many businessmen, particularly the manufacturers, time spent in business had served as a substitute for starting capital, providing a means of gradually compensating for this initial disadvantage. However, the volume of assets available to businessmen when they first get established is probably becoming rather more important as a factor contributing to business success. This is because the increasing number of large firms already in operation present formidable problems of competition for newcomers who must work in a market where most of the easily exploitable opportunities have already been utilized.

One of the economic factors operating in the environment of the respondents - the period of starting in business and the climate of prevailing investment opportunities - had exercised a substantial influence over their decisions. The time at which businessmen in the three different fields of endeavour were most likely to start their careers was clearly related not only to the market situation at varying points in time but also to changes in the whole structure of career opportunities available to each generation. Among the manufacturers the time of starting was also important as an influence over later business success. The assumptions made by economists, therefore, that the supply of business endeavour is related to the demand factor of economic opportunity, (see HARRIS 1970), is partially borne out by the evidence of this study. At the same time, however, some businessmen were clearly more perceptive and responsive than others and this cannot be explained solely with reference to economic factors.[1]

Good fortune in jumping in at the right time was not the only reason why those who responded first to the chances of the moment were likely to be successful later on. Also important was the fact that their responsiveness tended to be a symptom of superior business skill which revealed itself in other areas too.

1 See the argument in Chapter VI.

III. THE ORGANIZATION OF PRODUCTION AND MARKETING; OBTAINING 'SURPLUS VALUE'

In Chapter I it was argued that we need to think of modern businessmen in Ghana as entrepreneurs who exercise certain key functions necessary for economic life (the view held by economists) and as capitalists who seek to make a profit and to accumulate capital within a system that both permits and compels them to do so on penalty of business extinction (the Marxian perspective). Both of these approaches share a common concern with the need for businessmen to create organization in the spheres of production and marketing so that they can provide goods and services and then procure purchasers for them. Production and marketing, in turn, make firm expansion and capital accumulation possible through the attainment of profits. In this chapter we shall look at how the businessmen in the sample solved the problem of organization, leaving the question of accumulation until Chapter IV.

Despite the similarity of interest shown by conventional economists and Marxists in the problems of production and marketing there are also important differences in their approaches which it would be beneficial to examine briefly.

Economists tend to concentrate their attention on the technical skills shown by entrepreneurs in achieving a reasonable level of labour productivity, a high degree of capital utilization, good accountancy practices, and so on. In examining these questions they are concerned with managerial performance. In the African context there have been a number of studies in this vein. They tend to emphasize that poor managerial ability on the part of African businessmen in the spheres of production and marketing is a major constraint on indigenous business expansion, one which is far more damaging than a lack of funds. According to these studies the poor quality of much of the organizational and managerial endeavour shown by many African businessmen does not take the form of a lack of enterprise or an unwillingness to respond to economic opportunity. In summarizing the findings of several studies on Nigerian industry KILBY (1969, p. 340) argued that there is wide agreement concerning the perceptiveness and responsiveness of Nigerian businessmen to economic opportunities.

> It is their extreme sensitivity to market signals and their willingness to enter industry ... that has produced intensive competition, excess capacity and low profits in many lines of production - circumstances which make further expansion for any individual entrepreneur very difficult.

The managerial weaknesses of African businessmen lie in their inability to command the technological and organizational skills necessary for responding efficiently. There is a wide measure of agreement among the writers on African businessmen concerning the nature of these weaknesses (HARRIS 1966; HARRIS and ROWE 1966; KILBY 1961, 1965 and 1969; MARRIS and SOMERSET 1971). In many firms output could be substantially raised without increasing the amount of equipment or the number of workers employed but simply by increasing the level of efficiency. It would only be necessary to rearrange the production flow and improve such things as the physical layout of the plant, the procedures for maintaining machinery, the degree of control exerted over the production and selling process and the quality of the supervision and training received by the employees. The general standard of financial management is also low and accounting systems are either absent or not properly used as tools of management. Given the fact that a high level of investment is not necessary in order to enter many industries, and accordingly large numbers of firms are in competition with one another, it is only possible for an individual businessman to expand faster than his rival if he can achieve a "quantum jump in the quality of his product or the efficiency of his production process" (KILBY 1969, p. 340).

Another way in which managerial performance is revealed is in the question of labour productivity. Thus, a low level of productivity, a high rate of turnover, frequent absenteeism and unpunctuality have long been regarded as commonplace among African workers. However, the evidence gathered by KILBY (1961 and 1965) and WELLS and WARMINGTON (1962) in their studies of mainly foreign-owned manufacturing establishments in the bread, timber, ground-nut crushing, and other industries in Nigeria, have shed a rather different light on the assumption that African workers have a low productivity that cannot be altered. The authors found a very wide range of variation between firms in the same industry as regards the level of labour productivity that was achieved. Much of this low productivity could be explained by such factors as the poor physical layout of factory buildings, the absence of suitable training schemes and the unsystematic organization and planning of the production process. These resulted in unnecessary handling of goods, delays and lack of quality control. It was also found that the turnover and absenteeism rate among workers varied from plant to plant though on the whole they compared favourably with levels in European factories. These rates were relatively low where conditions of work were good in terms of the provision of security, pensions, transport and training; when the level of wages was relatively high and promotion and bonus schemes existed to provide incentives for effort; and where the quality of the supervisors was high. These arguments concerning labour productivity and the conclusions to which they point could be applied equally to Ghanaian businessmen.

The Marxian approach, on the other hand, looks at the question of the organization of production and marketing from a rather different point of view. Where economists talk about the importance of good supervision of the work force and the need to install measures that will ensure a high productivity Marxists emphasize the need for capitalists to take steps to create 'surplus values' through the employment and rational allocation of labour in conjunction with the means of production (tools, equipment, materials and so on)[1] and to extract 'surplus value' by paying workers less than the value of what they produce. The extraction of surplus value is possible, according to Marx, for two reasons. Firstly, labour, like all other commodities, sells at a price (wages) determined by the labour-time necessary for its production and reproduction. This means that "the value of labour power is the value of the means of subsistence necessary for the maintenance of its owner" (MARX 1976, p. 274). For this reason, and because buyers and sellers are free to enter a contractual agreement or not as they wish, the exchange of wages for work is seen (at the level of money or exchange values) as a fair exchange of equivalents. However, secondly, whenever sellers part with their goods in exchange for a money price they transfer full ownership rights to the new buyer. The worker does the same when he sells his commodity (labour-power) to the capitalist but unlike all other commodities which have a fixed store of utility that cannot be replenished once used up the use-value or essential utility which the worker sells possesses the unique quality that it is "a source not only of value but of more value than it has itself" (p. 301). Thus in the following example MARX (p. 301) argues that:

> The owner of the money has paid the value of a day's labour-power; he therefore has the use of it for a day, a day's labour belongs to him. On the one hand the daily sustenance of labour-power costs only half a day's labour, while on the other hand the very same labour-power can remain effective, can work, during the whole day, and consequently the value which its use during one day creates is double what the capitalist pays for that use; this circumstance is a piece of good luck for

1 See Capital, Vol. I, 1976, op. cit., chapters 13 and 14 where MARX discusses in detail the source of the greater productivity that is possible when previously seperate units of labour are combined in cooperative endeavour. Wealth created in this way originates in social or collective rather than individual labour and therefore it may not always be very meaningful to talk of the marginal productivity of each person since no one can contribute to overall output except in so far as he is part of a combined operation.

> the buyer, but by no means an injustice towards the seller.

Moreover, the extraction of surplus value without challenge is possible for the capitalist by virtue of the fact that unlike the feudal peasant the worker neither owns the means of production with which he works nor does he exercise control over the production process. It is, in fact, for this very reason that the capitalist is free to organize a highly efficient system for the allocation and utilization of workers and machinery, should he possess the ability to do so. Since the worker exercises no control and contributes nothing but his own labour-power it does not occur to him to lay claim to ownership of the commodities that have been produced even though part of his own unpaid skill and energy are locked up in them.

Once he has gone through the process of creating and extracting surplus-value the capitalist faces a further problem in that the surplus labour time he has obtained from his workers is embodied in the finished commodities turned out during the production process. Until these are sold on the market for money the capitalist cannot 'realize' the surplus-value they contain and reinvestment in an expanded production cycle, thereby increasing his stock of capital, cannot take place. Accordingly, marketing and production are inextricably linked together as part of the same drive to make profits and accumulate capital.

It would seem that the Marxian approach is a necessary complement to that found in the writings of conventional economists which it is useful to bear in mind when considering the question of how entrepreneurs organize production and marketing. This is because MARX's analysis highlights the importance of various processes which are almost entirely overlooked in conventional economic analysis. Firstly, we see the entrepreneur not as an impersonal figure operating in isolation but as someone who is necessarily involved in a set of definite social relationships with his employees, ones based on a particular form of property rights supported by certain social institutions all of which are accepted as more or less legitimate by those concerned. Thus, if the "right" of the capitalist to dispose of the workers labour-power in an efficient manner and to claim the fruits of surplus labour were in doubt (as would be the case in a society still governed by ascriptive or paternalistic ties where most forms of property were owned or claimed by collectives rather than individuals and where labour had relatively few inducements to sell itself because its ample possession of the means of independent livelihood offered better rewards than could be obtained by wage employment)[1] it would be diffi-

1 In fact these circumstances partly obtain in small Ghanaian firms today where the owner cannot always afford to pay the kind of wages that would attract and retain skilled labour.

cult for the modern firm to operate successfully, if at all. Therefore in addition to the technical skills of the entrepreneur - his concern with calculating unit costs, factor proportions and marginal productivity, which is the realm of the economist - our attention is drawn to the social nature of production. Secondly, MARX's analysis enables us to situate the entrepreneur within an historical context, as well, since the institutional arrangements without which the capitalist cannot operate, including a free market for labour and other commodities backed up by a legal and political system which provides predictability and security, are the products of a long process of change. In Third World societies, these institutional or historical changes are far from being complete.

The analysis of the data on production and marketing among the Ghanaian businessmen, to which we now turn, should be viewed in the light of this introductory discussion. Accordingly, two related questions are considered. Firstly, how efficient were the businessmen as a group in introducing the kind of managerial practices that are widely assumed to be essential for business success. Alternatively, this can be couched in different terms by asking what kind of practices proved both essential and efficacious in enabling the businessmen to create, extract and realize surplus value. Secondly, we are interested in the extent to which business success, as measured in terms of firm size, was related to managerial performance such that those who owned large firms had evolved rather different and possibly more efficient techniques for producing and selling than those with relatively small firms.

In order to investigate these problems the businessmen were asked a number of detailed questions designed to find out what practices they used in their firms. The techniques they had evolved for supervising labour, providing incentives, finding market outlets and so on, varied a great deal even among businessmen who were producing goods or services in the same industry. Nevertheless, the responses they had made to the alternatives available were not entirely random. The same set of arrangements tended to occur together within firms; the choice made with regard to one particular aspect of business administration affected the selection of other alternatives. The overall patterns of firm organization are discussed briefly at the end of this chapter.

The three main groups - manufacturers, contractor and traders - are discussed separately since quite different organizational problems and criteria of business efficiency occur within each of these spheres of activity.

1. The Manufacturers

A major difficulty arises in attempting to see whether any connection exists between business success and managerial performance because many of the firms in the sample varied quite a lot in terms of their size. Since some business practices are presumably more appropriate at one level of operations than another it is difficult to distinguish between those aspects of managerial policy which are related to size per se and those which exercise a causal influence on growth.

Several strategies have been adopted in order to overcome this problem. The most important of these depends on two assumptions being made about the data. The first assumption is that some methods of organizing the production and selling of goods are prima facie more useful than others. The firms that implement them are likely to benefit from an increase in productivity, revenue and profitability. This seems a reasonable assumption to make since the raison d'etre behind most schools of business administration all over the world is based on this proposition. The second assumption is that most of the techniques of business organization that contribute towards the achievement of efficiency, profitability and expansion are also relatively inexpensive and administratively simple to introduce. If this were not so they would be inaccesible to businessmen whose firms are at an early stage of growth. Techniques that can only be effectively implemented with the aid of expert help, that presuppose a high level of education and that depend on the availability of substantial financial resources will be beyond the range of ambitious businessmen with small, struggling firms and meagre financial resources. Thus, in contrasting the business practices operating in large and small firms it is necessary to concentrate attention on those that create little, if any, costs and which demand common sense and practical effort rather than specialized knowledge. On the whole the data that was obtained from the respondents concerning firm organization meet this criterion. Here are some examples of relatively efficacious business practices that are nevertheless fairly uncomplicated and that demand few resources.

Incentive payments of various kinds and the existence of a system of wage scales and increments, through which employees can rise by seniority or productivity, cost money to implement. However, annual increments or bonus payments, received when output is high, need not impose a very great financial strain since they usually involve very small amounts of money at any one time. The incentive value derived from payments of this kind follows from the long-term security and prospects which they offer employees rather then the extra amount received in a given year. The shrewd businessman can also harness incentive payments directly to productivity and profits by making the former conditional upon the latter.

Providing employees with frequent and careful instructions and ensuring that they receive some on-the-job training can also be achieved at little, or no, cost and with a minimum of inconvenience. Introducing a degree of specialization into the firm's operations, where it is feasible and potencially useful to do so, requires a willingness to think out the logical relationships implicit in the production process in a systematic way; to plan ahead and to experiment. Again, the cost involved can be measured in terms of time and effort rather than economic resources and the skill required depends not on abstract theoretical analysis but familiarity with the industry and its skills. The same argument can be applied to the problems associated with implementing output norms related to the various tasks in the production cycle and finding some way to measure the extent to which they are adhered to; the difficulties, if any, are administrative rather than financial.

To some extent it is probably true that in the case of marketing certain advantages are available to firms with access to economic reserves. Regular advertising in newspapers and sales publicity programmes designed to promote sales obviously cost a good deal of money. Employing a team of permanent salesmen, equipped with vans and lorries, whose job involves scouring the towns and villages for contracts, also presupposes that businessmen have considerable resources. Nevertheless, there are other techniques for promoting sales which are reasonably successful and demand a minimum input. Advertising can be effective in reaching a large number of people if large, colourful billboards or signs are placed in strategic places. A surprisingly high proportion of businessmen whose market horizons were limited to the local community in which their firm was situated provided no means of informing the public of their existence, location or products other than an inconspicuous and shoddily designed board hung over the door of their factory. They relied entirely on the goodwill of earlier customers and the interest of passers-by. Although a businessman may not be able to afford a team of salesmen he can go out himself and take samples of his products to small trading firms, large department stores, schools, army supply depots, and so on, in an attempt to obtain contracts. The possession of an old van may enhance the speed and ease with which contacts can be established and maintained, in this way, particularly if businessmen wish to sell their products in the towns and villages of the surrounding region in addition to the city in which they are based. But a determined businessman who initially lacked the resources for a car could still accomplish a great deal in establishing contacts with local organizations by paying regular visits on foot, writing letters, and occasionally using hired transport. This is certainly how many of the successful businessmen in the sample began to build up their market. Estimating changes in consumer tastes can also be done, initially, in a simple practical manner which involves

no more than making widespread enquiries. Skill at his trade, imagination and an efficient production system may suffice, in the early stages, to allow a businessman to devise some means of giving his products a competitive edge over those of other small firms working in the locality. Later, when he has already established a local reputation - for selling cheap, reliable products, for novelty, for high quality, luxury goods, or whatever happens to be his medium - and he wishes to establish a foothold in the national market it may then be useful for him to use imported materials, special skills or expensive machinery. But by this time he may have gained the experience, contacts and resources that will enable him to accomplish this.

The second measure that has been adopted, in order that a clear distinction can be made between the factors that correlate with success and those that are related to size, involves making allowances for the fact that some techniques of business administration could hardly be relevant in the case of certain firms. Where this was the case these firms were excluded from the analysis so that in comparing large and small enterprises there would be no bias towards making the latter appear to be less efficient, as a group, than the others. Thus firms heavily reliant on apprenticed labour were excluded when considering the question of the provision of on-the-job training (since training is necessarily part of an apprenticeship course) and the provision of increments and promotion prospects. Similarly, very small firms employing less than five people or drawing on mainly unpaid family labour were omitted when looking at the provision of increments and promotion schemes and the introduction of specialized task performance during production. Bonus payments, on the other hand, might be useful even in the smallest firms so here the smallest firms were not excluded from the analysis.

Thirdly, the main method used for comparing the relatively more or less successful businessmen in terms of their techniques of business organization contains certain built-in controls against confusing the correlates of size and efficiency too much. The comparison was made by ranking the firms in each industry by size and then dividing them into two equal groups. Although this procedure provides an overall picture of all the firms in the sample and has the advantage of simplicity it also involves making a rather arbitrary distinction at a particular point in the rank ordering. Some of the firms falling in the middle range, often with essentially similar characteristics, were therefore placed in different groups. Also, within each industry there were wide variations in the degree to which firms were relatively labour or capital-intensive, traditional or modern in orientation, and so on. Some relatively labour-intensive firms with a large number of employees were classified as "large" and others, with relatively few employees and some fairly elab-

Table 11 Techniques of Business Efficiency by Size of Firm Among Manufacturers (Percentages)

	Large	Small	All firms
Incentives			
Regular bonus and/or related to work record	22 (63)[a]	10 (57)	17 (120)
Regular increments related to output	42 (59)	30 (40)	36 (99)
Promotion prospects	76 (54)	39 (36)	61 (90)
Production Control			
Frequent and/or written instructions	13 (62)	2 (59)	8 (121)
Work records kept and related to penalties	44 (63)	3 (62)	24 (126)
Clear output norms	43 (62)	4 (62)	24 (124)
Provision of on-the-job training	85 (60)	60 (47)	74 (107)
Considerable specialization	49 (61)	22 (55)	36 (116)
Marketing Strategy			
Regular advertising	46 (63)	5 (62)	25 (125)
Active sales promotion; visits, letters, salesmen etc.	67 (60)	32 (63)	49 (123)
Summary of consumer preferences	11 (56)	0 (59)	6 (115)
Definite policy for competing with rivals	56 (61)	33 (63)	44 (124)

a) Bases for percentages are given in parentheses.

orate, expensive machinery, were included in the category of "small" firms. Thus the net effect of dividing the sample into two equal groups in this way is to include firms with similar characteristics in each of the size groups and consequently to under-emphasize the overall differences between the two groups of firms. Given this situation it is possible, perhaps, to regard the differences that remain with greater credibility.

Turning now to these comparisons of firm organization, how far did the more and less successful manufacturers differ in the business practices which they had evolved? Table 11 summarizes the most important differences between the proprietors of large and small firms with regard to the various methods they had evolved for dealing with three main aspects of firm organization: the provision of incentives; attempts to regulate and control production; and marketing policies.

In the case of incentives the differences between the two groups were not particularly wide. Nevertheless, the overall trend was in the same direction; the relatively successful businessmen were more likely to provide regular incentives and to build these into the system of payments so that receiving them was conditional upon the output achieved by employees.

Where production control was concerned the differences between large and small firms were more marked. The owners of large firms had usually found it necessary to provide on the job training. A few of them provided written, rather than unreliable oral, instructions for their employees or issued instructions at frequent intervals between new jobs as well as at the beginning of each new job cycle. The more successful respondents tended to use fairly systematic procedures for regulating the amount of work that was done such as keeping written records of output and linking these to payments, paying by the piece or contract and setting specific work targets in conjunction with a system for monitering the extent to which they were attained. They were also more likely to have introduced a considerable degree of specialization into their firms so that the best use was made of different skills held by the employees, people became adept at their tasks and production was rationalized into a smooth sequence of linked processes. The less successful businessmen, on the other hand, tended to rely on looser, more haphazard techniques of production control such as occasionally checking what their employees were doing and then following this up with warnings and vague directives. They were more likely to let their employees work "at their own pace" and so say that their workers "did not need to be supervised".

Where marketing was concerned - the problem of making customers aware of their products, outwitting rivals and persuading people to buy - the successful owners were inclined to be more adventurous, to use a

wide variety of methods and to be more systematic in their approach. They were prepared to expend more energy and time on promoting sales both indirectly, through regular advertising in newspapers and on billboards, and through more direct means. Although they often used showrooms to attract passing customers this was less likely to be their sole or main method of selling their products. Thus, they tended to spend more time visiting small trading firms, government offices, the regional headquarters of various administrative agencies, hospitals, schools, and other organizations and often took samples of their products on these visits or arranged meetings for representatives of organizations to visit their showroom. In addition to obtaining contracts through making personal visits, or, as an alternative to this, some businessmen communicated with likely customers by writing letters or holding telephone conversations. Full-time salesmen were also employed more often by the owners of large firms.

In finding out what consumers wanted and estimating changes in tastes the successful manufacturers tended to visit large stores or send for brochures and catalogues from abroad. This helped them to keep up with the sophisticated Ghanaian consumer who quickly follows the fashions that become established in the rich countries. Some of the successful businessmen also kept careful records of their own sales or conducted surveys of market demand by taking samples of their products to all the firms and organizations who might reasonably be expected to buy from them at some time in the future. The current and future preference for products and styles were carefully noted and production could then be planned accordingly. Where a firm had several marketing centres distributed throughout the major towns of Ghana the managers or agents attached to these centres could conduct the survey on behalf of the main company.

The owners of large firms were more likely to have developed a definite policy of changing their designs and styles as fashions changed in order to compete effectively with their rivals. Alternatively, they specialized in catering for a particular group of consumers. They might, for example, concentrate on turning out very cheap goods of standard styles and size ranges to attract the less well-off consumers who were not looking for durability or elegance. On the other hand, some businessmen deliberately concentrated on producing expensive high quality luxury goods which could compete with imports and with the products turned out by large foreign firms in Ghana by appealing to wealthy consumers who were searching for something "unique" that suggested status and taste.

In contrast, fewer of the respondents who owned small firms had evolved dynamic marketing strategies. They often had no particular procedure for selling their goods. It was claimed by many of these owners that their products "sold themselves" through the "good name" that the firm had earned. It was not necessary, therefore, for anyone to go out searching for contacts; the customers "came of their own accord". Unlike many of the large manufacturers who regarded the showroom as a mere adjunct to their main advertising and sales campaigns the less successful respondents often relied on the showroom as their main way of attracting custom. The latter also tended to produce the same range and kind of products as all the other manufacturers in their field, hoping that some customers would be interested, and they waited for customers to come and place their orders and then produced goods according to each customer's specifications. With regard to competition they often argued that their products must be in line with what consumers wanted since, by and large, they were able to sell them. They did not think that it was particularly necessary to go out and actively promote the sale of their products or to give them some special appeal so as to rouse the customers' interest. Instead they tended to refer vaguely to the need to "improve the quality" of their goods from time to time.

Wide variations occurred, even among firms in the same industry, in the profit margins that were added on to costs and in the prices that were charged. Profit margins were not related to success; a quarter of both the large and small manufacturers had relatively high margins of 20 per cent. The industry where the least amount of variation occurred between individual firms in profit margins was the furniture industry. Here, they were also lower than in other branches of manufacturing. Less than one fifth of the firms in the furniture industry placed an average profit margin of 21 per cent or more on their product whereas approximately one third of the firms in each of the other industries did this.

Comparing marketing with the other aspects of business organization, it is important to note that the overall response of businessmen in general to the problems of marketing is a rather poor one. It is in this area that Ghanaian manufacturers show the greatest weakness and lack of initiative. Thus, only one quarter of all the respondents advertised regularly and more than half failed to make any attempt at sales promotion beyond maintaining a showroom. Further, two fifths of the businessmen had no method of estimating consumer tastes at all and over one half made no attempt to make their products competitive. More will be said about this later on.

An attempt was made to provide a more stringent and convincing test of the proposition that the adoption of more efficient methods of business

But this presupposes the availability of suitable equipment. Often, this, in turn, can only be obtained from reinvested profits earned through work done on previous tenders at a lower level of operations. Accordingly, success required the ability to achieve a breakthrough into this profitable chain of causes and effects; (contracts ⟶ profits ⟶ investment ⟶ machinery ⟶ bigger contracts, and so on).

Thirdly, there is less opportunity to substitute labour for capital in many kinds of building work. Certain aspects of building engineering, particularly in the case of large and complex buildings, necessarily depend upon the use of special materials and the undertaking of very precise and elaborate operations. These can only be performed with the aid of modern equipment, in addition to the usual manual labour and skills. Thus, the availability of financial resources for purchasing or hiring a wide range of equipment, when needed, is crucial. Without the necessary quantity, quality and variety of heavy machinery, or at least the means to gain access to it, the contractor is severly limited in the proportion of available jobs he can tender for. At the same time, this is one of the most important considerations taken into account by government and regional bodies, corporations or private individuals when they come to allocate a contract among a number of contenders. Fourthly, as in the advanced industrial countries, central and local government as well as all kinds of public corporations and agencies are a major source of work for building contractors. The need to establish a network of social and political contacts with all kinds of public officials is therefore rather more important for building contractors than for manufacturers - although it is by no means unimportant in the case of the latter. In making and using these social contacts, luck often plays a very important role in the form of chance meetings or the possession of a good supply of well-placed friends or kinsmen through the "accident" of birth or membership of certain social groups. Of course, useful social connections are frequently built up by "skilful" businessmen, as well.

Together, these constraints create several dilemmas or sets of competing alternatives for businessmen in the building industry. One is the conflict between the need to acquire more equipment, in order to become eligible for tendering at increasingly lucrative levels of operation, on the one hand, and the risks associated with maintaining an over-capitalized, under-employed firm, on the other. Another problem or, perhaps, temptation, faced by many contractors once they have become established, is to rely on their advantages over other competitors - by virtue of their supply of political/social connections and/or their possession of certain kinds of useful equipment - in order to secure regular contracts rather than to win tenders through maintaining a reputation for versatility, reliability and efficiency. But businessmen in this field cannot hope to survive

very long purely on the basis of past reputation or political influence if the standard of work produced by their firms falls severely, since vast sums of government or private money are involved in many projects. In addition to capital, luck and social connections, therefore, success depends on a willingness to plough back profits into the acquisition of more equipment and on the ability to carry out contracts with speed and skill. This means that while there is less scope for substituting sound techniques of business organization and technical proficiency for a lack of capital resources (and social contacts) than in the case of manufacturing, organizational efficiency remains very important; although it may prove difficult successful firms can be built up from small beginnings.

In building contracting the most important aspects of business organization on which the successful completion of work depends are the following: the problem of maintaining control over site operations; the central role played by foremen; the necessity to use the labour force to maximum effect; preventing mistakes, pilfering and wastage from occurring as far as possible; and obtaining profitable contracts to work on.

In comparing the more and less successful building contractors (and traders) the same assumptions have been made and the same procedures followed as in the case of the manufacturers. It is assumed that some techniques of business organization are more efficacious than others and yet do not require extreme skill or vast resources for their implementation. In addition, in analysing the data allowance was made for the fact that some of the small contractors were probably temporarily under-employed and had few permanent employees. Thus, the information obtained from them concerning their practices with regard to foremen, providing incentives for workers and so on, related to their usual procedure during those periods when they had regular work. Moreover, the organizational practices of the large and small contractors have been compared in two different ways; first all the firms in the sample are compared and then only those contractors who had experienced similar constraints.

The main differences with respect to organizational efficiency between the relatively large and small building firms in the sample are summarized in Table 12.

The way in which contractors utilize and reward their foremen is crucial because the everyday problems of co-ordinating several sites simultaneously and coping with crises (created by breakdowns, accidents, the need to negotiate with government officials on numerous issues, and so on) makes building contracting a particularly hazardous and demanding form of business enterprise. In these circumstances, success depends on the

organization is a cause of expansion rather than a reflection of size per se. This was done by revising the data so as to include only those businessmen who had faced roughly the same advantages and constraints; those who had been in business for a fairly long time and whose starting capital had been relatively small. More recent arrivals in business life and those who established their present firm with quite sizeable assets (who had moved, perhaps, into manufacturing from trade) were excluded. Since the former had enjoyed roughly the same advantages it seems reasonable to assume that differential rates of firm expansion were achieved partly, at least, as the result of variation in the procedures they adopted in running their firms. A simple scoring system was worked out in which no points, half points or full points were allocated according to the efficiency of each procedure. In the case of production control, for example, regular checking or supervision of workers scored half a point but a full point was given where some means had been devised for increasing output in terms of a standard unit possibly linked to a system of penalties for under-performance. The overall scores for each group of relatively successful (large firm) and unsuccessful (small firm) manufacturers were then calculated. Allowance was made for the fact that the raw group scores were not directly comparable since some techniques of business organization were judged not to be relevant in the case of certain firms and the numbers of firms in each group differed. This was done by expressing the relationship between the actual and the maximum possible scores for each size group as a score out of one hundred (or a percentage).

Two comparisons have been made between the groups of firms. In the first comparison the same procedure was used as before. The firms in each industry were placed in a rank order by size and then divided into two equal groups of "large" and "small" firms. Here, the overall group scores for incentives, production control and marketing were 59 % for the firms in the top half of the rank ordering by size (32 firms) and 35 % (36 firms) for the rest. When the overall scores achieved by the firms in the top third of the ranking by size (20 firms) was compared with the group score for those in the bottom third (19 firms) - excluding the middle group - the difference was even greater: 66 % compared to 31 %.

Several conclusions are indicated. Firstly, when the analysis is confined to firms that have grown from similar beginnings the tendency for large firms to use relatively more efficient methods of business organization is more pronounced than in the earlier analysis when all the firms were included. Secondly, the differences between large and small firms in the frequency with which they use more efficient methods widens when firms in the middle range of the rank ordering are excluded. The causal "influence" of efficient business methods on firm expansion shows up more clearly when firms at the two extremes are compared.

Thirdly, the most striking difference between large and small firms occurred in the area of marketing, particularly when the top and bottom thirds were compared by size. In the latter case group scores were 57 % compared to only 16 %. This underlines the point that was made earlier; namely, that competence in marketing is probably the most important organizational factor affecting business success. A high proportion of African businessmen "underachieve" in terms of firm expansion not only because the condition of economic dependency reduces overall business opportunities but because all too often their own marketing strategies and skills are unimaginative, poorly conceived and pursued with insufficient energy and determination. The provision of some kind of aid for African businessmen in this area might prove to be particularly beneficial for the progress of African economies over a period of time.

2. The Building Contractors

The problems and opportunities faced by businessmen in the building industry differ in several important respects from those that confront manufacturers. Firstly, building contracts often involve huge sums of money and - even in Ghana where people often spend many years gradually building a house - constructing a building or a bridge tends to be a once-and-for-all phenomenon. Thus, whereas people need to replenish their supplies of food, clothing, utensils and so on, continuously, so that the demand for many kinds of manufactured goods flows relatively smoothly and in small, evenly spaced increments, the demand for a school, bridge or private house is irregular and infrequent. Secondly, and as a result of this, employees and equipment may remain idle and unproductive for long periods in the building industry. This gives rise to the common practice among building contractors, especially those with small firms, of keeping only a small core of permanent employees, if any. They may prefer to hire equipment as and when it is required rather than run the risk of over-capitalizing their firms and losing liquidity. In making this choice contractors are almost certainly limiting themselves to the prospect of receiving only very small, irregular contracts. They are likely to find themselves confined to the role of sub-contractor for a large company which parcels out much of its work to small firms on a contract basis. The former benefits from the cheap labour provided by the latter since it avoids the necessity to employ a large permanent labour force to whom social security payments have to be made in addition to wages. In these circumstances a disproportionate amount of profit accures to the large company. Moreover, the decision to avoid the risks of over-capitalization and only maintain a small nucleus of workers has a further disadvantage in that it makes expansion very difficult if not impossible. This is because expansion involved the ability to win lucrative tenders.

But this presupposes the availability of suitable equipment. Often, this, in turn, can only be obtained from reinvested profits earned through work done on previous tenders at a lower level of operations. Accordingly, success required the ability to achieve a breakthrough into this profitable chain of causes and effects; (contracts ⟶ profits ⟶ investment ⟶ machinery ⟶ bigger contracts, and so on).

Thirdly, there is less opportunity to substitute labour for capital in many kinds of building work. Certain aspects of building engineering, particularly in the case of large and complex buildings, necessarily depend upon the use of special materials and the undertaking of very precise and elaborate operations. These can only be performed with the aid of modern equipment, in addition to the usual manual labour and skills. Thus, the availability of financial resources for purchasing or hiring a wide range of equipment, when needed, is crucial. Without the necessary quantity, quality and variety of heavy machinery, or at least the means to gain access to it, the contractor is severly limited in the proportion of available jobs he can tender for. At the same time, this is one of the most important considerations taken into account by government and regional bodies, corporations or private individuals when they come to allocate a contract among a number of contenders. Fourthly, as in the advanced industrial countries, central and local government as well as all kinds of public corporations and agencies are a major source of work for building contractors. The need to establish a network of social and political contacts with all kinds of public officials is therefore rather more important for building contractors than for manufacturers - although it is by no means unimportant in the case of the latter. In making and using these social contacts, luck often plays a very important role in the form of chance meetings or the possession of a good supply of well-placed friends or kinsmen through the "accident" of birth or membership of certain social groups. Of course, useful social connections are frequently built up by "skilful" businessmen, as well.

Together, these constraints create several dilemmas or sets of competing alternatives for businessmen in the building industry. One is the conflict between the need to acquire more equipment, in order to become eligible for tendering at increasingly lucrative levels of operation, on the one hand, and the risks associated with maintaining an over-capitalized, under-employed firm, on the other. Another problem or, perhaps, temptation, faced by many contractors once they have become established, is to rely on their advantages over other competitors - by virtue of their supply of political/social connections and/or their possession of certain kinds of useful equipment - in order to secure regular contracts rather than to win tenders through maintaining a reputation for versatility, reliability and efficiency. But businessmen in this field cannot hope to survive

very long purely on the basis of past reputation or political influence if the standard of work produced by their firms falls severely, since vast sums of government or private money are involved in many projects. In addition to capital, luck and social connections, therefore, success depends on a willingness to plough back profits into the acquisition of more equipment and on the ability to carry out contracts with speed and skill. This means that while there is less scope for substituting sound techniques of business organization and technical proficiency for a lack of capital resources (and social contacts) than in the case of manufacturing, organizational efficiency remains very important; although it may prove difficult successful firms can be built up from small beginnings.

In building contracting the most important aspects of business organization on which the successful completion of work depends are the following: the problem of maintaining control over site operations; the central role played by foremen; the necessity to use the labour force to maximum effect; preventing mistakes, pilfering and wastage from occurring as far as possible; and obtaining profitable contracts to work on.

In comparing the more and less successful building contractors (and traders) the same assumptions have been made and the same procedures followed as in the case of the manufacturers. It is assumed that some techniques of business organization are more efficacious than others and yet do not require extreme skill or vast resources for their implementation. In addition, in analysing the data allowance was made for the fact that some of the small contractors were probably temporarily under-employed and had few permanent employees. Thus, the information obtained from them concerning their practices with regard to foremen, providing incentives for workers and so on, related to their usual procedure during those periods when they had regular work. Moreover, the organizational practices of the large and small contractors have been compared in two different ways; first all the firms in the sample are compared and then only those contractors who had experienced similar constraints.

The main differences with respect to organizational efficiency between the relatively large and small building firms in the sample are summarized in Table 12.

The way in which contractors utilize and reward their foremen is crucial because the everyday problems of co-ordinating several sites simultaneously and coping with crises (created by breakdowns, accidents, the need to negotiate with government officials on numerous issues, and so on) makes building contracting a particularly hazardous and demanding form of business enterprise. In these circumstances, success depends on the

Table 12 Techniques of Business Efficiency by Size of Firm Among Contractors (Percentages)

	Large	Small	All firms
Policies towards Foremen			
Some delegation of management functions	54 (13)[a]	25 (12)	40 (25)
Ensuring hard work of foremen by incentives	50 (12)	9 (11)	30 (23)
Promotion schemes for all workers to foremen positions	42 (12)	8 (12)	25 (24
Regular bonus payments for foremen	85 (13)	67 (12)	76 (25)
Production Control			
Increments to all workers	73 (11)	64 (11)	68 (22)
Training workers	75 (12)	67 (12)	71 (24)
Output norms set and/or linked to incentives	34 (12)	17 (12)	25 (24)
Dismissal for poor work	67 (12)	36 (11)	52 (23)
Preventing Waste and Theft			
3 or more methods used	56 (9)	40 (10)	48 (19)
Obtaining Contracts			
Special policies for getting tenders	75 (12)	58 (12)	67 (24)
Advertised	27 (11)	50 (12)	39 (21)

a) Bases for percentages are given in parentheses.

degree to which contractors are prepared to grant considerable scope and authority to their supervisors or foremen working at each site and on their ability to devise procedures for retaining indirect control from a distance. The owners of large and small contracting firms differed quite a lot in their appreciation of the central role of foremen in building work. The more successful contractors tended to permit their foremen to act in a managerial capacity, to some extent, in addition to their role as providers of technical knowledge to the workers and general supervisors. In these firms the foremen helped in settling disputes, in implementing day-to-day decisions derived from the overall plan, in taking initiative when crises arose and sometimes they made decisions on fundamental issues.

In finding ways to secure hard work and loyalty from their foremen the successful contractors relied more on providing incentives such as additional payments if work was completed ahead of schedule. By contrast, most of the small contractors used personal supervision - with all its implications of interference, distrust and duplication of effort - as their main means of controlling foremen. Large contractors were also more likely to provide regular bonus payments for their supervisors. A final way in which the successful contractors scored over their smaller rivals in their dealings with foremen was in providing promotion schemes so that clever labourers could rise to become craftsmen, after receiving training, perhaps at the firm's expense, and in order that craftsmen who showed leadership ability could obtain supervisory posts.

The large contractors were more likely to have introduced fairly systematic procedures for ensuring production control. They were more willing to use the threat of dismissal as a sanction against careless or poor work. This was more efficacious in affecting employees than the possibility of being suspended from work, working overtime without pay or paying for damages out of wages. In the day-to-day implementation of the work programme the more successful contractors relied slightly more on the provision of incentives for workers linked to output targets and/or on the appointment of headmen who were entrusted with the responsibility of keeping work up to schedule in their gangs. There were also very slight tendencies for more of the large than small contractors to provide increments for all grades of workers and to provide training programmes for their employees.

Universal to all building firms are the problems of preventing pilfering, ensuring that equipment is properly maintained and keeping wastage to a minimum. In order to reduce these problems to manageable proportions a number of measures had to be taken simultaneously. The large contractors tended to operate a more comprehensive set of controls than the less

successful as can be seen in Table 12. Among the measures that were widely used were the following: the use of security officers; watchmen or spies planted among the workers; careful records kept by storemen or timekeepers of the quantities of materials used and by whom they were used; regular stocktaking; written specifications stating what quantities of materials were necessary for a given amount of work - or the quantity of perishable materials that could be used in a given day; careful storing of unused wood, cement, sand and so on to prevent destruction by damp and insects; and regular servicing of equipment by trained men.

The more successful contractors were slightly more likely to make some special attempt to increase their competitive ability over other firms in submitting tenders. Some of the measures that were tried involved finding out what were the preferences of the relevant central or regional government departments, or private customers, with regard to choosing tenders. Also important was the versatility and skill of the firm, keeping ahead of the schedule during the project, having a team of reputable surveyors and engineers - perhaps people from Europe - or tendering a lower price than anyone else. In the latter case, tendering too low might provoke the suspicion that the work would be done too hurriedly and with insufficient care.

It is interesting to note that the owners of small firms were more likely to advertise than their larger rivals. This is a reflection of the fact that small firms rely on the contracts of private individuals for much of their business whilst the owners of large firms are usually more interested in tendering for valuable government work where advertising in the normal sense (as opposed to maintaining close contact with government officials on a personal basis) is of little relevance.

The same problem arises in comparing contractors with large and small firms as occurred in the case of manufacturers; how to distinguish between the techniques of business organization that are conducive to growth and expansion and those that reflect a particular scale of operations. The respondents who started in business with a fairly substantial amount of capital or who began quite recently were excluded from the analysis and another comparison was made whereby only those contractors who had enjoyed roughly the same advantages were included.

Points were allocated to the remaining firms according to the degree of efficiency shown in the techniques being used and two sets of group scores were then calculated. The firms in the top and bottom half of the rank ordering by size were compared and also the firms in the top and bottom third of the rank ordering so as to eliminate the firms in the middle of the range and sharpen the contrast. Again, as in the case of the manufacturing firms, the relationship between the actual score and the maximum possible group score was expressed as a percentage in order to use a common basis of comparison. When the percentage group scores were calculated the contractors in the top half of the rank ordering by size obtained 59 % while those in the bottom half had a score of 44 %. The figures for the firms in the top third and bottom third of the rank ordering were 65 % and 46 % respectively.

Unfortunately, the number of firms used in making the comparisons is small; there were only twenty five building firms included in the study. Nevertheless, the differences that emerge are in the direction expected and they reinforce the conclusions reached earlier; namely that contractors who have built up large firms from small beginnings have, in general, relied on rather more efficient techniques of business organization during the time they were doing this.

3. The Traders

There are three crucial aspects of business organization which seem likely to affect the prospects of success or failure among businessmen with trading firms: the problem of motivating employees to perform their tasks diligently and honestly through the provision of incentives; finding some way to exercise control over the quality of the work done by salesmen and others; and the problem of attracting customers, increasing sales turnover and the share of the market held by the firm. The latter is particularly important in view of the strong competition that trading firms must face from numerous women and girls engaged in part-time, occasional and petty trading activities. Manufacturers also have the problem of competing with people working on a self-employed or part-time basis but not to the same extent as in trading.

The main differences between the large and small firms are summarized in Table 13.

The traders with large firms tended to provide more incentives for their paid employees than the smaller traders. They were more likely to pay their employees at least partly on some kind of commission basis, to provide bonus payments, increments and promotion prospects. Clearly, these inducements were less relevant in the case of very small firms and where most of the employees were members of the traders' families. Allowance was made for this.

At least some members of the owners' families were employed in more than three-quarters of the trading firms in the sample and in nearly one-

Table 13 Techniques of Business Efficiency by Size of Firm Among Traders (Percentages)

	Large[a)]	Small[a)]	All firms
Incentives			
Some payment by commission	40 (15)	25 (12)	33 (27)
Bonus payments	87 (15)	64 (11)	77 (26)
Increments given	87 (15)	64 (11)	77 (26)
Promotion prospects	77 (13)	40 (10)	61 (23)
All family workers paid	64 (14)	46 (13)	55 (27)
Control over Shopworkers			
Record salesmens' receipts and/or special incentives	20 (15)	0 (13)	10 (28)
Special qualifications required for salesmen	71 (17)	33 (18)	52 (35)
Sales Promotion			
Changing to different lines of goods or adding new ones	73 (11)	33 (24)	46 (35)
Finding out the prices charged by other traders	100 (10)	57 (23)	70 (33)
2+ methods used to attract customers	18 (11)	42 (24)	34 (35)
Recorded customer enquiries or did market research	64 (11)	17 (24)	31 (35)
Deliberate policy of price reductions	18 (11)	0 (24)	6 (35)

a) 'Large' and 'small' refer to the businessmen with firms in the top third and bottom two-thirds of the ranking by size.

third of these firms over half of the people employed were members of the owners' families. Given the obvious importance of kin as potential and actual employees in trading, it seemed useful to discover whether family workers were mainly paid or unpaid. However close the bond between the owner and his wife, son, nephew or cousin working in his shop it seems likely that the relative who receives some financial inducement for his or her work will feel better disposed towards making a contribution to the firm's success. The large traders were more likely to pay their family workers a regular wage.

The successful traders generally exercised more control over the selection of prospective employees. They tended to look for special qualifications or qualities of character when recruiting salesmen such as previous experience as a salesman, the ability to use several languages, written references from former employers attesting to the applicant's good work record, a certain level of educational attainment (the completion of middle school, for example) or an attractive and courteous personality.[1]

In obtaining good work from their employees there was a slight tendency for traders with large stores to rely on procedures that were more efficacious than merely checking and supervising what was going on; namely, the provision of financial inducements to encourage effort and keeping a careful record of the amount of goods sold and cash received by each individual salesman. On the other hand, the small traders tended to be more concerned with the problem of honesty among their salesmen. They carried out frequent checks on their stock or only allowed members of their families to sell or hoped that the presence of security men and watchmen would deter dishonest workers from pilfering. The greater obsession with checking the honesty of employees among the less successful traders was probably a reflection of the fact that they were less likely to have a rational policy for screening job applications (so as to minimize the risk of employing potentially unreliable or dishonest people) and to use specific and reliable techniques for measuring the "output" or sales made by employees.

The traders with successful firms tended to adopt more systematic and adventurous policies for promoting the sales of their goods and attracting custom. Many had changed over to new, more profitable goods and/or had gradually added new lines to their original one. The possession of a

1 The ten years or so normally required in order to complete middle-school, or senior primary school, has so far been accepted as a respectable level of educational attainment for most routine jobs in Ghana but this is changing as the spiral of educational expansion continues to work itself through the economy.

keen perception of where the best market opportunities lay, at any one time, presumably proved to be beneficial. The successful traders tended to keep records of the enquiries made by customers and of the goods they sold at different times of the year or they conducted a market survey to discover changes in consumer tastes. Large traders took steps to discover what prices were being charged by their rivals so that they could adjust their own prices if these proved to be out of step with what was happening elsewhere. Moreover, a few of them operated a deliberate policy of keeping their prices below those charged by other traders who sold the same kind of goods as opposed to only reducing prices in special circumstances for individual customers.

It is interesting to note that the traders with small firms were ostensibly more efficient than the large traders in using several methods simultaneously to attract customers. These included advertising in local newspapers, being courteous and persuasive in dealing with customers and offering "fair" prices, credit terms or an attractive sales display. However, drawing custom by courteous persuasion, an attractive sales display, advertising and so on, requires less effort and skill than systematically estimating changes in consumer changes or consumer demand, moving on to a new line of goods as the balance of competitive forces alters or finding out the prices charged by other traders and adjusting prices accordingly. Thus, for some of the small firms the former practices probably served as a substitute for the latter, more effective measures.

There was a slight tendency for traders with large firms to place high profit margins on the goods they sold. Forty-one per cent of them had profit margins that averaged 11 per cent or more compared to 24 per cent of the smaller traders. The problem is to explain why this occurs. In Ghana, people do not seem to be particularly price-conscious when it comes to buying manufactured goods such as hardware, clothing, furniture, perfumes and so on. The same may also be true in the case of some imported luxury tinned foods which are bought by relatively wealthy Ghanaians in stores providing general provisions. Did the higher profit obtained by some larger traders reflect the fact that they were more willing to exploit the lack of price consciousness shown by consumers, or did large traders incline more towards selling the kinds of commodities on which higher profit margins could be charged?

Table 14 shows what percentage profit margins were charged by the large and small firms trading in different goods. Several conclusions are indicated. Firstly, some commodities offer far greater opportunities for high profit margins than others; nine out of the eleven firms with margins of 11 per cent or more were selling a specialized range of goods such as

Table 14 Average Profit Margins Among Traders Selling Different Commodities by Size of Firm (Percentages)

Average profit margin	Provisions or textiles		Miscellaneous goods[a]		General goods[b]		
	large	small	large	small	large	small	all
10 % or less	1	3	0	5	9	5	23
11 - 20 %	0	0	2	1	1	1	5
21 % or more	0	0	4	2	0	0	6
Total	1	3	6	8	10	6	34

a) Firms in the "miscellaneous" group specialized in selling one of the following: hardware, cosmetics and perfumes, fishing gear, books and stationery, pharmaceutical products or shoes.

b) These firms sold a variety of goods and had gradually added new lines to their original one over the years.

hardware, drugs or books. On the other hand, provisions, textiles and clothing are much less profitable. Secondly, although there were more small firms operating in the relatively "miscellaneous" sector the large firms were more likely to take advantage of the prevailing opportunities and earn high profits. Thirdly, there was only one large firm trading in the less lucrative area of provisions, textiles and clothing whereas there were more large than small firms selling a variety of goods in "general" stores. The wide variety of goods sold in "general" stores reduced the risks attached to specialization and created a relatively secure business.

Thus, it seems that the traders with large firms were more likely to charge high prices where it was practicable to do so, to avoid dealing in less profitable lines and to minimize their risks and maximize the rate at which their stock turned over by moving into general trading.

As in the case of the manufacturers and contractors, a further analysis was undertaken. This involved comparing those traders who faced similar problems and excluding those who had started in business recently or who had begun with a fairly large supply of capital. In calculating the overall scores for each group allowance was made for the fact that some techniques of business organization were not applicable to many small firms

(for example, bonuses and demanding certain qualifications or characteristics from salesmen) where there were only a few employees or which relied almost entirely on family labour. The scoring was based on the answers given by the respondents to the questions that have already been analysed. It seems realistic to argue that few resources were needed in order to implement most, if not all, of these procedures for organizing trading firms; the owners of smaller firms were not at any great disadvantage arising out of a shortage of funds.

Group scores were obtained for the remaining firms in the top and bottom of the rank ordering so as to eliminate the firms in the middle of the range and sharpen the contrast. Again, the relationship between the actual score and the maximum group was expressed as a percentage. The percentage group scores were 57 % and 40 % for the traders in the top and bottom half of the rank ordering by size and 61 % compared to 44 % for those with firms in the top and bottom third by size.

It would seem, therefore, that the traders who had built up large firms from small beginnings were more likely to have adopted relatively efficient techniques of business organization during the time they were doing this.

4. The "Social" Aspects of Organization-Building and Firm Variation

We have seen that many of the businessmen in the sample, particularly the manufacturers, began originally with very little capital. At the start of their business careers, therefore, they were petty producers operating with a few helpers and a minimum of tools and equipment. We have also seen that in order to escape the state of petty production and achieve firm expansion these businessmen had to find ways of creating, extracting and realizing surplus value by building an organizational structure which provided a means for the systematic production and marketing of goods. More recently, there has been a tendency for a small but growing number of businessmen to start their first business, often after gaining administrative or professional experience as an employee in government service or a large company, with fairly substantial resources so that they did not have to pass through a long process of slowly building up a firm from small beginnings. Here too, organizational efficiency has been important.

Organization-building, however, involves more than simply thinking out and putting into operation certain logical and practical arrangements between worker and worker, between worker and machines or tools and between customers and producer; it is not just a matter of adopting purely rational, economic criteria and commitments in the pursuit of technical efficiency. The social interaction which takes place whenever people pur-

sue economic goals necessarily involves and generates loyalties, obligations, expectations and attachments in just the same way as any other kind of human activity. The social context of economic action is expressed in terms of and is derived from the shared meanings of culture in which societal members participate. Now, the problem here is that there may be a conflict, actually or potentially, between the need for a strictly economic calculation in business matters on the one hand and these social aspects of human interaction on the other.

Western scholars have almost certainly exaggerated the extent to which economic development both at the national and the firm level requires an approximation to impersonal, achievement-oriented, universalistic norms in interpersonal behaviour. (As we shall see in Chapter V, African businessmen cannot survive unless they can manipulate both "traditional" and "Western-type" relationships). Nevertheless, there is an important sense in which economic calculation does need to be given increasing precedence over social involvements and needs if capital accumulation and firm expansion are to occur. In WEBER's terms, 'formal rationality', Zweckrationalität, must increasingly govern the interpersonal relationships and behavioural orientations that occur between people engaged in economic action.[1] Formal rationality occurs in economic activity where, "the provision of needs, which is essential to every rational economy is capable of being expressed in numerical, calculable terms, and is so expressed" (p. 186). It involves the systematic calculation of opportunities, costs and benefits in terms of specific goals and in such a way that the results can be empirically quantified. This requires certain changes in the quality of social relationships, in particular an end to the double standard of ethics that prevailed under traditionalism. Thus:

> the course of development involves on the one hand the bringing in of calculation into the traditional brotherhood, displacing the old religious relationships. As soon as accountability is established within the family community, and economic relations are no longer strictly communistic, there is an end of the naive piety and its repression of the economic impulse.[2]

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1 M. WEBER, Theory of Social and Economic Organization. Edited and with an Introduction by T. Parsons (New York, The Free Press, 1964).

2 M. WEBER, General Economic History. (New York: Collier Books, 1961), pp. 261-262.

On the other hand, it involves a tempering of the unrestricted quest for gain with regard to external groups and therefore the possibility of trust in exchanges between a much wider circle of people than before.[1]

The question arises as to whether and to what extent businessmen are willing and able to resolve the potential conflict between economic calculation in the pursuit of profit and the culturally defined expectations of other economic actors (employees, customers, kinsmen, government officials, and so on) for certain kinds of social behaviour which, in the context of newly developing African nations, may not always be appropriate. Thus, in order to understand the process of organization-building in Ghana, and other African societies, it is necessary to consider the personal orientations or preferences, the motivations and skills which individual businessmen bring to their entrepreneurial roles - either as a result of their previous social and occupational backgrounds or which develop during their business careers as they go along, or both (see Chapter VI). These affect the choices businessmen make with regard to alternative business strategies and their ability to implant these strategies.

In addition to the need to make decisions about the kind of social relationships they prefer to maintain with customers, employees and others, businessmen also have to make decisions and evolve policies with regard to other very important matters which affect firm organization and growth. Perhaps the most important of these are the following: the degree to which businessmen are committed to the goal of firm expansion in the first place and (in the case of manufacturers and possibly contractors) the extent to which the exercise of their particular craft skill for its own sake takes precedence over the administrative and commercial aspects of business life. In the case of these, too, the personal orientations displayed by businessmen are likely to be crucial in influencing the alternatives they choose and the policies they adopt. Moreover, each of these three orientations depends on and affects the other two. It will be useful to examine each of these, in turn, in a little more detail.

The Commitment to Growth. - Despite the claim made by the great majority of businessmen that they intended to pursue the path of continuous firm growth it seemed very clear that some businessmen were much less commited to this goal than others. Once they had established a business capable of yielding a reasonably comfortable "living" a minority of businessmen became relatively unconcerned with finding new customers and developing new products and simply tried to retain the market outlets they already had. Those who chose this relatively easy option sometimes had other interests, for example, in religion or politics, which absorbed

1 Ibid. p. 262.

their energies and time. By contrast, those who were determined to achieve firm expansion were compelled, to a greater or lesser extent, not only to increase their market outlets as a whole but to seek orders which were both regular and fairly substantial. This involved moving away from dependence on a local, neighbourhood clientele who mostly placed individual, single orders and finding, instead, or in addition, market outlets with other firms and organizations often involving orders for large batches of goods. Dealing in bulk orders, in turn, made it necessary for businessmen to increase their control over their workforce, to introduce specialization and to concentrate increasingly on the production of standardized commodities.

Artisan versus Commercial Skills and Interests. - Quite a high proportion of the businessmen in the sample (see Chapter VI) had undergone an apprenticeship in one or more craft skills and/or had worked for a time as a highly skilled artisan or technician in a large government corporation or foreign firm. The businesses they had started often involved an application of the essentially vocational and practical training they had received. They tended to show a high degree of pride in their skill and specialized knowledge. In addition, some possessed a peculiar talent for improvising machinery. Alternatively, or additionally, some were very much absorbed in the process of creating new designs and products; in exhibiting a virtuoso creative flair that went far beyond the practice of sound craftmanship. For these businessmen there was often a strong temptation to remain concerned with the day-to-day technical and practical problems of producing products. Instead of evolving a system of production based increasingly on the use of carefully controlled semi-skilled workers operating in conjunction with machinery, arranged in a proper division of labour and engaged in turning out standardized goods, they tended to continue working at the bench themselves, relying on their own skills and those of their apprentices and a few unreliable skilled contract workers (who were often former workmates from a previous job) to provide the input of required labour.

Of course, by no means all of the businessmen in the sample whose backgrounds and talents were originally practical and technical failed to develop the administrative and financial orientations necessary for firm expansion and/or failed to find some way of utilizing the talents of others in order to fill this need. Some of the most successful entrepreneurs began in this way but still managed to build an organization capable of supporting continuous firm growth. All too often, however, the artisan-turned-businessman found it hard to expand and could not compete beyond a certain point with those whose background, experience and orientation were more commercial, clerical or administrative in nature.

Preferred Social Relationships with Employees and Customers. - The discussion under the previous two headings makes it clear that in order to pursue the path of expansion and to move beyond a purely artisanal, practical orientation businessmen had to evolve a system of organization and a considerable degree of commercial acumen. Up to a point businessmen could achieve an expansion in output and therefore in sales turnover by simply employing more apprentices, family workers, and part-time, skilled contract workers (who were probably friends) while continuing to produce for a mainly local clientele obtained through "good will" and personal contacts. Quite a few of the respondents in the sample expanded in this way. However, a time may arrive when further expansion presupposes the establishments of wider market outlets, perhaps on a national scale, and the construction of a more impersonal system of labour relations and production control (based on the employment of semi-skilled workers performing specialized tasks). Paternalism, close personal contact, the employment of kinsmen and friends, an emphasis on craft pride and all-round skills and the prevalence of ad hoc day-to-day decision making and control have to be replaced by systematic organizational arrangements in production and marketing. In so far as expansion beyond a certain point and away from petty production does depend on these things it seems clear that a qualitative change in the nature of the relationship between the employer and his workforce and between the businessman and his customers must take place. Not all those businessmen who begin with small firms (where close personal relationships and paternalistic supervision are perfectly adequate for a while) are willing and/or able to make this transition in their own orientation toward business life or to impose necessary changes in work experience and work relationships onto their employees.

Arguably, there are two possible phases involved in this transition. Firstly, there is what MARX called the 'manufacturing' stage where a complex division of labour and impersonal methods of production control are introduced but where fairly simple tools and equipment continue to be used.[1] Here, organizational efficiency may not only enable output and profits to be increased considerably but may provide a "substitute" for mechanization, at least in certain parts of the firm and in certain industries. Many of the businessmen in the sample who made this transition achieved considerable expansion in this way. Secondly, there is the stage of 'mechanization' or modern machine production where the workforce increasingly depends on power driven equipment in order to produce. Once this state of "mass production" is reached a greater and greater proportion of employees become semi-skilled machine operatives rather than skilled workers. This, as well as the size and complexity of the firm,

1 K. MARX, Capital, Vol. I, 1976, op.cit., chapters 14 and 15.

makes close personal relationships between management and workers and between more than a small number of employees working in adjacent areas, increasingly difficult, if not impossible - although, at the same time these circumstances do provide the conditions for the formation of trade unions or other kinds of workers' interest groups. (Of course, what is also important is that the spread of mechanization throughout more and more sectors of industry increasingly reduces the potential independence of those who might prefer to be self-employed but who lack the capital required for investment, thereby completing the process of proletarianization). A small but important minority of the businessmen in the sample had reached this second stage of mechanization in part or whole.

One of the most striking things about the firms in the sample when viewed as a whole was the very considerable degree of variation they displayed. Firms operating in the same field of enterprise often exhibited quite different organizational characteristics even when they were producing virtually the same kinds of goods and services. At the same time, what was also striking about the firms that were studied was the extent to which each particular characteristic of firm organization tended to be found in association with certain others. Thus, firms often approximated to one fairly definite "type" rather than another and it was possible to group individual firms with others which were similar. Hopefully, the discussion in this section has helped to highlight the most important sources and dimensions of variation in the patterns of firm organization which were found whilst showing that technical or economic "differences" between firms in terms of organization, technology, labour-intensity, size, and so on, can only be understood properly if we also examine the psychological and social context in which business enterprises operate.

By way of clarification and summary it may be useful to conclude this discussion by providing outline "models" showing some of the typical organizational and social characteristics of those firms that were most dissimilar in the sample. They can be regarded as falling at each end of some kind of continuum. There were a number of actual firms in the sample which did indeed resemble very strongly one or other of these extreme types. It will be appreciated, however, that the majority were ranged at various "intermediate" points between these extremes while still "approximating" more to one type than the other.

Table 15 The most likely Characteristics Displayed by Firms still Operating under 'Petty Commodity Production' Compared to 'Advanced' Capitalist ones

Petty Production	Advanced Capitalism
MANUFACTURING	
Normally less than 5 or 6 'employees' - but sometimes more.	Probably at least 30 employees.
No Power Driven Machinery (P.D.M.)	Heavy investment in P.D.M. giving considerable versatility to production.
Proprietor mainly has a technical or craft orientation.	Predominantly a commercial and administrative orientation.
Each worker tends to make all or most of products by himself.	High degree of specialization within and between department.
Few incentives for employees.	Bonus, increments and promotion prospects for employees.
Little production control.	Good control over and co-ordination of production processes.
Produces for small individual orders; "made-to order" goods.[a]	Produces mainly bulk orders for institutions and firms.
Local, neighbourhood market in vicinity of factory.	National, regional or city market
No import licence - buys materials locally.	Imports a high proportion of materials where necessary.
High proportion of apprentices.[b]	Some apprentices - usually less than 25 % of total No. of employees.
Apprentices usually board with the master and receive 'chop money' rather than pay.	Apprentices usually paid.
High proportion of family workers.[c]	Family workers constitute a low proportion of work force.
Paid workers (often former workmates of the proprietor) likely to be hired only when necessary and paid on a contract basis.	Full-time employees, most not previously known to the proprietor.

CONTRACTING	
Little or no P.D.M. Hires equipment when needs it.	Has own P.D.M.
All or most of employees on temporary basis - for duration of contract.	A core of permanent employees including architects and surveyors.
Mainly undertakes small, private contracts - and therefore more likely to advertise.	Bulk of work comes from government contracts. Rarely advertises.
Few incentives for workers or foremen.	System of incentives for most of staff.
Foremen play a limited role - owner runs business himself.	Crucial role of foremen as site controllers; delegation important.
High proportion of family workers.[d]	Low proportion of family in firm.
TRADING	
Retailer rather than a wholesaler.[e]	Wholesale activities more important to sales turnover.
No import licence or very small quota. Purchases stock in Ghana.	Imports own goods.
Less systematic selling policy.	Careful checking of customers' needs and watches trends in sales.
Likely to remain selling his original line of goods.	Willing to change line of goods or make additions to it.
Family workers less likely to be paid.	Family workers usually paid.
Unlikely to have a store selling "general" goods.	General Stores.

Notes

a) 67 % of the manufacturers with firms in the bottom half by size sold their products solely or mainly to individuals compared to 17 % of the large firms. Often these goods were made to the order of each customer. 83 % of the larger firms sold their goods wholly or partly in bulk to institutions or firms.

b) Reliance on apprenticed labour was much more marked in the small firms. Apprentices formed more than a quarter of the work force in 55 % of the latter compared to 27 % of the large firms. "Apprentice" was often a euphemism for cheap labour in the larger firms.

c) 27 % of the small firms in the sample drew one third of their employees, or more, from members of their family compared to only 2 % of the large firms.

d) 33 % of the large contracting firms had some family workers compared to 67 % of the small firms.

e) Among the small trading firms in the sample 72 % drew most of their sales revenue from retailing compared to 35 % of the large traders.

5. Summary

It seems clear from the discussion in this and the preceding chapter that businessmen do not all have the same choice with regard to the type of organization they adopt and the degree to which they can pursue growth. This is because they operate under certain constraints which do not affect them all equally. One such constraint is the degree of capital-intensity necessary in some industries and therefore the initial capital required before a businessman can seriously enter certain fields. The period of starting in business and the economic climate prevailing at that time are also important. Then there is the degree of competition that must be faced from established foreign or state corporations as well as from the numerous self-employed artisans who, in some industries, can survive by producing cheap goods mainly for the lower-paid consumers.

However, within the limits set by these constraints there is considerable breadth of choice available to most businessmen in terms of the possible ways of organizing their firms and the ways in which expansion can be pursued or not, as the case may be. Thus, the question of whether a firm grows or stagnates and whether those businessmen who begin in a very small way can escape from petty commodity production or not depends to some extent on the particular range of alternatives they choose for themselves. One of the most crucial choices that must be made is whether to expand at all. A lack of decision can be as inimical to growth as the wrong decisions. Among other things, the businessmen in the sample who were successful possessed a determination to become wealthy proprietors with a considerable number of employees and a position to maintain. Sometimes this determination seems to have been present from the beginning while in the case of others it grew under its own momentum. Modest success in the market gradually generated higher aspirations and widened the businessmens' horizons.

What was also important was an awareness of the alternatives open to them and an ability to introduce and implement relatively efficient strategies for organizing production and marketing.[1] The most useful of these were the following. Firstly, the establishment of fairly permanent market outlets with large or small trading firms and institutions enabled the businessmen to obtain certain economies through the production of standardized goods in batches and the introduction of specialized work procedures. Secondly, the willingness to offer incentives to the workforce and to relate these, thirdly, to a system for regulating and supervising labour output in a planned and coordinated manner provided the basis for the creation and extraction of surplus value. Some of the businessmen were able to retain highly personalized and semi-ascriptive relations with their customers and workers - selling their goods partly or mainly to an established clientele of local individuals and relying heavily on apprenticed labour and/or on former workmates or friends to provide skilled labour on a temporary, contract basis - and yet still managed to achieve a considerable degree of firm expansion. Nevertheless, fourthly, setting-up a co-ordinated and routinized production process increasingly presupposes a movement towards 'formal rationality' in relating to customers and workers. Regular contracts with firms becomes more important than sales to known individuals while semi-skilled machine operators carrying out specialized tasks partially replace apprentices and skilled artisans who, in the latter case, bring their own tools and claim a quasi-independence. Some businessmen were unable or unwilling to make this transition or to carry these changes beyond a certain point. This sometimes occurred where a proprietor possessed an exceptional pride in his artisanal skill or when he showed a high degree of artistic or technical inventiveness and was therefore reluctant to become involved in organizational matters. This is discussed in Chapter V.

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1 This was related partly to previous educational and occupational experience and therefore to social class and ethnic origins. This is discussed in Chapter VI.

Given the desire to improve their position and at least a certain degree of awareness concerning what was required in order to achieve this end many of the businessmen in the sample were both prepared to expend the effort involved in implementing efficacious techniques and able to do so, albeit, initially, in a rather rough and ready fashion. They were therefore more open to whatever opportunities, circumstances or "luck" might throw their way.

IV. THE SOCIAL CONSTRAINTS ON CAPITAL ACCUMULATION

African businessmen have been accused of displaying a variety of weaknesses in their approach to management. In Ghana the "failings" of indigenous businessmen operating in the modern sector have been widely discussed by politicians, influential expatriates, planners and United Nations officials. The remarks, reports and speeches made by such people are frequently reported in the newspapers. Even businessmen themselves have often come to believe, like the public in general, that their weaknesses far outweigh their virtues and usefulness.

There are four areas of business decision-making and managerial strategy where Ghanaian entrepreneurs are particularly likely to be criticised: their policies with regard to profit investment, especially the tendency to diversify their business interests; The time and money they spend on the extended family or kinship; their alleged unwillingness to enter agreements with outsiders in order to share capital and expertise; and their distrust of employees which makes them reluctant to delegate authority. In different ways all of these reduce the capacity of businessmen to accumulate capital and therefore to achieve firm expansion. Thus, it is claimed that diversification dissipates profits over a number of uneconomical ventures; kinship demands interfere with business efficiency and therefore profits and absorbs scarce capital in non-productive ways; the reluctance to form partnerships or companies denies businessmen access to potential funds and skills for expansion; and without a willingness to delegate authority firms cannot be expanded beyond a certain point because of the difficulties that one man faces in trying to coordinate an ever more complex set of operations.

In this chapter we will examine the evidence obtained for the present study in order to assess the validity of these criticisms. Do Ghanaian businessmen really display these weaknesses to the extent that has often been suggested? Moreover, is there any evidence to show that the relatively successful businessmen are less likely to display these weaknesses so that business success is positively related to the ability to develop a more "Western" style of management?

Throughout the discussion that follows and particularly at the end of the chapter, an attempt will also be made to place the findings into some sort of perspective by considering how far the supposed weaknesses of Ghanaian businessmen can be understood as perfectly rational adaptations to the problems created by a difficult environment and a certain cultural background and whether they are really as harmful to business enterprise as many have suggested.

1. The Diversification of Business Interests

It is widely assumed that small businessmen in Third World countries engage in multiple investments. Several commentators (GARLICK 1971; KILBY 1969; MARRIS and SOMERSET 1971) have argued that the tendency of African businessmen to diversify their interests has an adverse effect both on their ability to develop one continuously expanding large-scale firm and on the growth of their business assets as a whole, beyond a certain point. The following specific points have been made. Once businessmen begin to make substantial profits they divert a large proportion of these into buying farms or houses thereby reducing the growth potential of the original firm so that is remains relatively weak and under-developed. GARLICK (1971) claims that the businessmen he studied in Kumasi regarded their trading firms as a source of economic security for themselves and their families, as a provision for old age and as a means of accumulating cocoa farms and houses. The firm, as such, was regarded by the traders as being essentially ephemeral in the wider perspective of their long term interests. Both GARLICK and MARRIS and SOMERSET (1971) argue that traders in general show a greater tendency to diversify than people engaged in manufacturing and other kinds of business activity so that although a new type of businessman may emerge in the future - who is willing to concentrate his energies in one field - few such businessmen are likely to come from trade. Finally, MARRIS and SOMERSET (1971) suggest, on the basis of the evidence from their study of Kenyan businessmen, that a willingness to concentrate on one major business activity is an important factor relating to success. Implicit in these observations is the idea that since a proliferation of business interests reduces the likelihood that large efficient firms will emerge - able to enjoy the economies of large scale organization and hand these on to the consumers - diversification is a fundamentally harmful and irrational course for businessmen to pursue and they should somehow resist the temptation to do so.

Others, however, have taken a different view of diversification. Thus, it has been pointed out that although the consequences of diversification (in preventing the emergence of large firms) may be adverse in terms of economic growth in a country as a whole it may be beneficial and perfectly rational from the point of view of the individual businessman. This is because the return from investments in houses and farms often compares favourably with the income earned in manufacturing and trading and, in an unpredictable and hazardous environment, the former is much safer than the latter (AUBREY 1955; HART 1970). RIGGS' (1964) argument (see Chapter I.) is also worth remembering; namely that the haphazard environment for entrepreneurs, caused by the demands and obstructions imposed by bureaucrats and politicians, tends to discourage businessmen

from sinking their often meagre assets in vulnerable, long-term ventures. It is, perhaps, more rational for them to concentrate on enterprises that either offer security, like rentier activities, or the promise of quick profits (foreign exchange "deals", hoarding and speculation in scarce commodities, long distance trading and so on), or both.

Investment in real estate depreciates less rapidly than investment in machinery. Moreover, as MARRIS and SOMERSET (1971) have said, small firms are relatively easy to manage and do not require a change in the style of organization away from the manager-owner, who supervises everything himself. By diffusing their business activities over several small firms and minor investments it remains possible for them to retain direct, personal control. Lastly, it needs to be asked whether diversification is always as harmful both to the economy, from the point of view of the expansion of productive activity, and to the process whereby individual businessmen can build their overall business assets, as is normally supposed. For example, where diversification takes the form of investment in houses or farms it may, in the long term, even increase the possibility of expansion in the original firm because such investments can be used as collateral in securing loans. Again much depends on the fields of enterprise in which subsidiary or additional interests are established. If these are closely related to the activities already going on in existing enterprises this may enhance the overall prospects for profit and expansion. Economic growth is, after all, basically a process of establishing inter-sectoral linkages in the economy as Western economists have been at pains to point out.

From this brief summary it appears that there is no clear view as to whether the consequences of diversification are adverse or beneficial for businessmen themselves and for the society in which they operate. Bearing this in mind it seems relevant to examine the data obtained for the present study in order to ask the following questions. Firstly, what was the actual extent of diversification into other business activities, practised by the businessmen in the sample? Secondly, how harmful, if at all, had diversification proved to be from the point of view of achieving firm expansion and, in particular, was there any evidence to show that the relatively successful businessmen had been less prone to diversify (or did so in more positive ways) than those who owned smaller firms? Thirdly, what was the position of the traders; were they as disinclined to concentrate on building-up large firms, compared to other kinds of businessmen, as some writers have suggested?

The Timing of Diversification. - The average length of time that had elapsed before the businessmen in the sample as a whole had begun to buy or build houses was 8.7 years. The average time period involved in

the case of starting a second business was 9 years.[1] There was very little difference between the relatively successful and unsuccessful businessmen with respect to the number of years they waited before diverting funds from their firms into house purchase or starting a second firm. The average of 8.7 years before starting to build houses and 9 years before starting a second business are fairly respectable time periods. These figures suggest that a large number of businessmen waited many years before channelling their funds into a new enterprise in the search for long term economic security or an additional source of profits. The view that the majority of Ghanaian businessmen rush headlong into house building when they have barely had enough time to establish their first firms or that they move every few years from one business to another is not supported by these findings. Clearly, it is only a minority who act in this way.

The Number of Business Enterprises Owned. - Comparatively few businessmen had more than one business and those who did had retained their original firm - whether or not it remained the dominant one - in the majority of cases.[2] Thus, nearly two-thirds of the total sample were still running the same and only business with which they had first started. Moreover, more than half of the respondents with large firms belonged in this category (50 businessmen). Another 18 per cent of the respondents had more than one business but their original firms remained the dominant ones. Of the total sample, less than ten businessmen had entirely discarded the firm they established first and only 13 per cent of the respondents had three or more firms.

Again, these figures suggest that Ghanaian businessmen (and perhaps, also, African entrepreneurs in other countries) are much less likely to act recklessly, by spreading their limited resources over too many business areas, than many writers have suggested. Moreover, very often those who do establish a second business after a period of time manage to do so while still continuing to build up their first, main enterprise. Thus, the more successful respondents in the study had not only built up one sizeable firm but they were also more likely to have started at least one additional business (37 businessmen compared to 21 of those with relatively small firms). Clearly, overall diversification is not always

1 These figures do not include inherited houses or any houses built before the respondents started in business. In the case of second businesses the figures are based on respondents who had started a second business at some time whether or not the first, second or both of these were still in operation. Cocoa and other types of farming are included under this heading.

2 "Businesses" include cocoa and other kinds of farms but not houses.

incompatible with creating a thriving enterprise in one particular area as well.

The Extent of Real-Estate Ownership. - Nearly one fifth (19 %) of the sample owned houses and/or farms as a result of inheritance. The relatively successful businessmen were more likely to have inherited properties but the difference was small (24 per cent compared to 15 per cent) and inheritance cannot be regarded as a significant factor in producing business success. Most of the respondents who had inherited properties had also purchased one or more houses or farms at some time or another. Where inheritance occurred farms were much more likely to be transferred in this way than houses.

Much more important as a source of real estate ownership was the purchase of properties out of business earnings or savings from previous jobs. Altogether, two-thirds of the respondents in the sample had purchased properties. Not surprisingly, the businessmen with large firms were more likely to have obtained some kind of real estate (81 % compared to 51 %). Of those who had purchased properties 36 % had bought only one, 46 % had obtained two or three properties and the remaining 20 % had invested in 4 or more.

House buying was preferred to investment in farms; houses were bought in the ratio of 5:2 compared to farms. Thus, approximately 62 per cent of all the businessmen had built one or more houses at some time. The preference for investing in house purchase rather than farms seems surprising in view of the fact that, generally, the overall cost of building a house is considerably greater than the cost of establishing a farm. Most businessmen can obtain access to family or lineage land in their home area at little or no cost and by spending only a few hundred pounds, over a long period of time, sufficient labour can be hired to start a cocoa or food farm. A poultry farm or oil-palm plantation may cost rather more to establish. But in all of these cases the financial return after a few years may be greater for a given investment of capital than in the case of house building. In any case rather more money may have to be spent in order to purchase a house of reasonable size and comfort. This can be seen from the following facts, concerning the cost of building houses in the Accra area, obtained from officials at the Public Works Department in 1970.[1] According to P.W.D. officials the minimum cost of building a small, two-roomed house, with a lavatory and tiny back-yard was about ₵3,600 in 1970. An investment on a modest one-storey house of average size consisting of three bedrooms, a bathroom, living-room,

1 The costs of building were slightly higher in the other regions of Ghana because of transport costs.

kitchen, small verandah, backyard and servants' quarters, entailed an expenditure of about ₵17,000 in 1970. Such a house was far from being luxurious. Spacious two-storey houses with large gardens situated in attractive locations and built to individual designs cost anything between ₵25,000 and ₵100,000.

There are probably two main reasons why investment in houses is preferred. Firstly, obtaining a yield from farming - and the same is normally true in the case of other kinds of business activities - almost certainly demands a substantial input of managerial effort compared to house building. It is the relative ease of supervising tenants combined with the strong feeling of security and prestige conferred by house ownership that explains the predilection for house buying. Secondly, the fact that businessmen are more eager to build houses than invest in farms in the country may have as much to do with their values - in particular a strong preference for involvement with, and commitment to, an urban way of life - as with their desire for maximum security and profits and the need to balance potential gain against present costs.

In view of the heavy costs involved in building houses the high proportion of businessmen with small firms who had built one or more houses seems quite remarkable (47 %). There were fourteen manufacturers in the sample with small firms whose investments in machinery, in most cases, amounted to far less than ₵1,000. Yet they had spent between five and thirty times this amount on building a house and a few of them had bought more than one house. Another twelve small manufacturers and contractors, with investments in equipment of between ₵1,000 and ₵5,000, had also built one or more houses. The average number of houses bought by those respondents in all business groups who owned relatively small firms was 0.8. This compares with an average of 1.8 houses for the more successful businessmen and 1.3 houses for the sample as a whole.

Investment on Houses versus Machinery. - We have just seen that buying houses is a common practice among both more or less successful businessmen. It is important, however, to know whether this kind of diversification had an adverse effect on business achievement. One way of examining this problem is to see whether the less successful businessmen had invested proportionately more on house buying than machinery compared to those businessmen who owned larger firms. It is obvious that successful businessmen will have invested sums in machinery that are far in excess of the sums spent by small businessmen, since this was one of the criteria used in defining the success (or firm size) of manufacturers and contractors. It also seems likely - given their greater assets and profitability - that businessmen with large firms will have spent more money on building houses than their less successful rivals.

However, what is important is not the absolute levels of expenditure on machinery and houses but the ratio of expenditure on one compared to the other. If diversification has played a significant role in the relative failure of small businessmen it seems likely that they will have spent proportionately less on investment in machinery, as compared to house buying, than businessmen with large firms.

In order to examine this question calculations were made to discover the amount of money that businessmen with large and small firms had invested in machinery and then a comparison was made between the two groups in terms of the overall total and the average amount invested for each firm. Similar calculations were made for the total number of houses owned by businessmen in each group. These two sets of figures were then examined in order to see whether businessmen with large firms had invested proportionately greater sums in machinery, as opposed to housebuilding, compared to businessmen with small firms. In making these calculations traders were excluded from the analysis because their business activities did not involve investment in machinery. Only houses that had been built by businessmen themselves since they started their first firms were included in the analysis. Investments in farms, if any, were not considered here. Also, the analysis under-emphasizes the proportion of money invested in machinery compared to expenditure on houses. This is because only the investments in machinery that had been made in the dominant firm owned by the respondents were used to obtain the overall totals whereas all the houses owned by the respondents were used in obtaining an idea of the total investment in houses. Moreover, machinery depreciates in value but housing, if anything, tends to appreciate in value. Two different figures were used for house prices. In the first calculation it was assumed that businessmen with large firms and higher profits could afford to spend more money on buying houses and that, accordingly, the house prices used to compute the required figures should be weighted in favour of small businessmen. Thus, the figures of ₵25,000 and ₵5,000 per house were chosen for the large and small businessmen respectively. If the ratio of investment in houses compared to machinery is greater among small businessmen than among their larger competitors, even where a discrepancy of this magnitude is used in the calculations; then greater credibility can be attached to the findings. In the second calculation the same, intermediate price was used for both groups. Finally, only those manufacturers and contractors were included in the analysis who had started in business before 1963 and who began with quite small amounts of capital. Those who began with a fairly substantial amount of capital after 1962 were excluded. It was hoped that this procedure would produce an even fairer and more realistic comparison of the two groups since in this analysis both the successful and unsuccessful businessmen had experienced approximately the same opportunity to choose between

investing profits on diversification or building up their firms. The results are shown in Table 16.

Table 16 Relative Investments in Machinery and Houses (¢) Among Manufacturers and Contractors Who Started in Business Before 1963 with a Small Amount of Capital by Size of Firm

	Large	Small
Number of Businessmen	49	43
Total investment in machinery	2,529,500	119,400
Average investment in machinery per firm	51,622	2,777
Total number of houses bought	91	52
Average number of houses bought per firm	1.86	1.21
Total investment in houses where prices are calculated:		
At ¢25,000 for b'men with large firms and ¢5,000 for those with small firms	2,275,000	260,000
At ¢15,000 for b'men in both size groups	1,365,000	780,000
Average investment in houses per firm where prices are calculated:		
At ¢25,000 for large and ¢5,000 for small firms	46,500	6,050
At ¢15,000 for both groups	27,900	18,150

The figures in Table 16 show that however much the calculations were weighted in favour of the small firms and despite the similarity in the circumstances and problems of the respondents when they began their business careers the owners of small firms had invested a higher proportion of their profits in housing than in machinery. If, for example, we assume that both large and small businessmen spent an average of ¢15,000 on buying each house, then, for every ¢100 spent on housing, ¢186 was spent by the former on machinery compared to only ¢15 in the case of the less successful respondents. Taking the more stringent test where house prices are calculated at ¢25,000 and ¢5,000 for the businessmen with large and small firms respectively the former spent ¢110

on machinery for every ¢100 spent on housing compared to ¢46 spent by the less successful businessmen.

In comparing the various ways in which the two groups differed from the point of view of diversification we have established the following facts. (1) The respondents who had built up at least one large and thriving concern had not waited longer than their less successful rivals before diversifying, either into house buying or establishing additional enterprises. (2) The businessmen with large firms had invested proportionately more of their earnings on buying new machinery, as opposed to acquiring houses, while the respondents who owned small firms had adopted the reverse course of action. Yet (3), despite their proportionately greater investment in equipment more of the successful businessmen had managed to purchase houses and the average number of houses owned by them was higher than in the case of the less successful. (4) In addition, more of the former owned an additional business. What conclusions can be reached on the basis of these facts?

It seems likely that diversification - whether into house buying or the accumulation of enterprises - holds back business expansion. This is particularly likely to be the case when businessmen proceed to diversify very soon after they have established their first firms. The extent to which diversification acts as a brake on growth depends partly on the proportion of profits that is spent on investment in relation to that spent on house building. Many of the respondents with small firms, particularly those who had been in business for some years, had built one or more houses, and they had invested a greater proportion of their profits in this way than in buying equipment. This presumably reduced the rate at which their firms expanded. Here, the important distinction between the two groups was not that one set of businessmen diversified while the others did not, but that the members of one group were rather more interested in building up a large firm than in buying houses, while the other group chose the opposite course.

On the other hand the effects of diversification should not be exaggerated. What also seems to have happened is that those businessmen who were relatively inefficient and unenterprising had fewer resources available, compared to successful respondents, to allocate between either house building or the purchase of machinery. The fact that they frequently chose the former course of action in preference to the latter merely exacerbated their existing predicament. Had they opted for the other alternative, and invested rather more resources in obtaining equipment, it is possible that this would have made little or no difference to their ultimate achievement. On this reckoning, the really crucial factor at work in deciding how much wealth of all kinds businessmen will accumulate is not

the propensity to diversify per se but the overall level of business ability that they evince.

The Traders and Diversification. - There were several sets of findings which throw some light on the question of whether traders showed a greater predilection for diversification than manufacturers or contractors. Firstly, the traders in the sample were more likely (88 per cent) than manufacturers (77 per cent) and contractors (68 per cent) to have remained in the same field of business endeavour as the one in which they began. Like businessmen in the other two groups some traders had branched out into other activities but in most cases trading had remained the dominant business activity. Secondly, the businessmen who had shown the greatest inclination to establish a second or third subsidiary business were the building contractors. Less than one-third of the traders had more than one business whereas more than half of the building contractors and one quarter of the manufacturers were operating two or more firms. The tendency for building contractors to establish more than one business interest almost certainly had something to do with their need to find other source of income to tide them over slack periods.

Thirdly, 29 per cent of the traders owned very large successful firms with a sales turnover of ¢250,000 or more. This proportion compares favourably with the number of manufacturers and contractors in the sample who could be regarded as being in the top rank of their fields of business. Fourthly, five out of the eleven traders who had established more than one business had moved into manufacturing. Six of the twenty-five manufacturers in the sample with the largest and most successful firms began as traders and remained in this field of business for many years, gradually accumulating capital, before they branched out into manufacturing. Moreover, in a number of cases the diversification by traders involved the establishment of backward linkages whereby a factory was opened producing the kinds of goods in which the proprietor already tended to specialize. Purely random, ad hoc investments, completely unrelated to the first business activity began by the businessmen were the exception rather than the rule, particularly among the more successful entrepreneurs in the sample. Lastly, the interest shown by the traders in the purchase of houses was not excessive compared to that shown by the manufacturers and the building contractors. The average number of houses owned by the businessmen in each group was 1.6 for the traders and 1.1 and 1.8 for the manufacturers and contractors respectively.

Thus, the findings from the present study do not support GARLICK's claims (1971) that traders in Ghana regard trading as an essentially short-term, ephemeral activity, that they diversify to the detriment of

their trading business, that they tend to diversify more than businessmen in other fields and that the businessmen of the future - able to handle large, complex organization - will not come from trade. Traders seem to be no less capable than manufacturers of taking their business activities seriously and evolving a reasonably sophisticated firm organization.

2. The Extended Family and Business

Many spokesmen on public affairs in Ghana, and no doubt elsewhere in Africa, too, have commented on the difficulties which the extended family or kinship system creates from the point of view of modernization. Nowhere is this supposed to be more true than in the case of indigenous business life. Scholars, also, have pointed out that kinship in Africa is often a major obstacle to the achievement of organizational efficiency, and therefore profits, as well as a source of demand for scarce business revenues. In Ghana, according to GARLICK (1971), the extended family drains businessmen of their capital because of the cost of educating nephews, nieces and younger brothers, of caring for aged relatives and the need to make contributions towards elaborate funeral expenditures. Time is also a valuable resource which is squandered as a result of kinship obligations. In order to escape some of the demands made upon them businessmen are tempted to buy houses and transfer their assets into a non liquid form of capital. This distorts the direction of firm expansion. These problems are particularly difficult for the Akan people of Southern Ghana whose lineage system is matrilineal, since the pressures on comparatively wealthy Akan men to support their sisters' children and the competition between a man's own children and his matrilineal kin create tensions and quarrels which compound the problem. In the Kenyan context, MARRIS and SOMERSET (1971) have argued that not only is kinship an impediment to business life but the potential advantages of harnessing kinship loyalties and converging family interests in the pursuit of common goals - which might, in certain situations counteract the negative aspects - is also lost because in Kenya there is no tradition of families holding and working economic resources in common. People regarded themselves as independent of their own kinsmen and were reluctant to accept the authority of individual relatives.

The picture, therefore, is one of unrelieved gloom; kinship results in high costs but yields few, if any, compensatory benefits. Moreover, businessmen stand condemned because they remain weak and inept in dealing with these problems. What is the evidence from the present study concerning kinship and business in Ghana?

Firstly, although it was certainly the case that the great majority of those included in the sample did respond to kinship claims for money, for a variety of purposes, over the sample as a whole there was a fairly strong tendency for the amount of money spent by businessmen to be related to their wealth as measured by firm size. The average number of family dependents who received substantial and continuous help - as compared to those who only made occasional claims for quite small amounts - did not vary very much as between large and small firms. In most cases, dependents numbered between three and five/six people (usually parents, younger siblings or nephews). However, the overall amount of money spent in an average year on kinship demands of all kinds did vary considerably according to the amount of wealth businessmen possessed. In the furniture industry, for example, the average expenditure by those with firms in the top third of the ranking by size was ₵579 per year, compared to ₵123 and ₵83 for furniture firms in the middle third and bottom third of the size ranking respectively.

The correlation between firm size and average amount spent is similar in other industries, too; ₵983, ₵637 and ₵391 for firms engaged in building contracting, for example, and ₵284, ₵188 and ₵57 in the garments and textiles industry.[1] Variations in the amounts spent as between different industries were also related to the fact of wealth since it was possible to make higher profits in such industries as building contracting, the manufacture of shoes or plastics and in trade than it was in the very overcrowded garments industry or in bread baking (where there was a predominance of women who tend, in any case, to be less pressurized by kinship demands).

This evidence suggests that most businessmen behave in a rational way; they are aware of the dangers of excessive expenditure, they regulate the amount they spend and they have a fair idea of what proportion of their incomes their kinsmen can justifiably claim over a given period of time. Of course, there were undoubtedly exceptions to this as in the case of some of the traders with quite small stores who spent considerable sums on their kinsmen (an average amount of ₵721 was spent by firms in the bottom third of the rank ordering by size). Also, one or two of the highly successful respondents had spent sums of approximately ₵2,000 in the

1 The figures provided by the respondents probably understated the actual amount they spent. However, this bias was almost certainly consistently in the same direction so that the relationship between wealth and disbursement is not affected.

year before the interviews.[1] However, most businessmen did not permit the demands made by their kinsmen to overwhelm them; they exercised considerable control over the resources they allocated in this way.

Secondly there is the question of employment. Did the respondents employ a vast number of kinsmen in their enterprises, often to the detriment of efficiency, profits and good labour relations?

Altogether, nearly three-quarters of the businessmen in the sample (72 %) felt that they ought to provide jobs for at least some of their relatives if they were requested to do so and 73 % of the manufacturers and contractors actually did so compared to 81 % of the traders. (The relative smallness of trading firms and the problem of securing the trust of sales workers in money transactions with customers gives the use of family labour a more obvious relevance). Thus, it is true that a very large percentage of the businessmen in the sample did employ at least one relative in their firms and many employed several members of their families. Nevertheless, excluding the traders who have special reasons for involving their families in the day-to-day running of their establishments, and with a few notable exceptions, the proportion of relatives employed in the majority of firms was quite small. Only 13 per cent of the manufacturers and contractors employed what might be regarded as an excessive number of relatives (over thirty per cent) and most of these had small firms while in more than a third of the firms kinsmen accounted for less than 11 % of the total labour force.

These facts are all the more striking in view of the large number of kinship relationships that Ghanaian people are known to uphold, the widespread unemployment and poverty that exists and, therefore, the potential usefulness for poorer individuals of being related to a wealthy man with the power to grant employment. Where most firms are concerned it is the small number of people who find jobs in the firms run by their relatives that seems surprising and not the reverse as is usually argued. In part this is due to the restraint exercised by the businessmen themselves but it is also a reflection of their social backgrounds and therefore the relatively "favourable" opportunities available to them and to their kinsmen. This will be discussed in Chapter VI.

1 In one extremely exceptional case (so exceptional that he was omitted from the calculations of typical expenditure mentioned above) a highly successful manufacturer claimed that he had spent ₵16,000 on his sisters and their children during the previous year. But in doing this he had tried to provide them with the means of livelihood once and for all (setting up nephews in business, for example) so that they would then become totally independent of him.

The actual number of relatives that businessmen employ is much less likely to be inimical to the success of their firms than the policy they adopt in deciding which relatives to employ and how to utilize them. The strategies adopted by the businessmen varied quite a lot. One group avoided employing their kinsmen and did so rarely, if ever (28 %). Included here were two or three extremely exceptional individuals who had virtually ignored all obligations to their families for many years, including demands to provide jobs. They refused to go to family funerals, had repeatedly turned down requests for help and had never spent any money on educating nephews or nieces. Many years before they had told their families in no uncertain terms to leave them alone, and "not come bothering" them again. Another approach, taken by nearly one third of the businessmen (30 %), involved providing employment for relations only if there were vacancies in their firms at the time when the request was made or if they had the necessary qualifications for the post in question. Conditions of this kind seem perfectly reasonable and rational. Thus, in principle, there is no reason why businessmen should not fill all the posts in their firms with kinsmen providing the latter are experienced and/or trained and providing they can be induced to work as hard and efficiently as any other group of employees.

Then there were a large proportion of respondents (43 per cent) who felt that it was their duty to employ relatives if the latter needed work. Having accepted the obligation, however, some businessmen felt happier about it than others. A number of respondents expressed reservations. They said they were "undecided" about whether to continue helping their relatives in this way and complained about the difficulties that often arose. Different again were those (9 %) who claimed that they preferred to employ relatives. A few of these respondents found a use for their kinsmen as paid "informers" working alongside non-kinsmen in the firm. These relatives helped the businessmen to be aware of any pilfering or "misbehaviour" indulged in by their employees. Other reasons for preferring kinsmen as employees were the following: they were more trustworthy than other employees, greater reliance could be placed on their honesty and dedication to duty, and they were more prepared to understand the proprietor's problems, in particular the poor working conditions and the late payment of wages.

A third aspect of business and kinship which deserves to be mentioned briefly is the benefits which some businessmen gathered from their family connections. Although, in most cases, the "costs" almost certainly outweighed the advantages, the latter should not be ignored. There were three main sets of advantages that businessmen might gain from their kinsmen: those that were directly or indirectly of a financial nature; contributions of service and loyalty in organizing the firm's operations;

and the psychological satisfaction that stemmed from the prestige earned by being a leading member of a kinship network.

In the case of economic help, over two-fifths (42 per cent) of the businessmen had secured financial resources from one or more kinsmen at some time during their business careers either as a gift or loan for starting capital or later on for investment. Another kind of economic advantage arising out of family connections was property inheritance. In Chapter II it was shown that 25 per cent of the respondents had inherited land or other kinds of property at some time. In a number of cases property inheritance had been useful to businessmen by providing collateral security when attempting to secure bank loans, as a continuous flow of income and/or as a source of ready capital that could be transferred into liquid assets for the purpose of business investment. Also, there were five businessmen in the sample who inherited firms that were already well-established and in four of these the businesses they inherited were trading stores. Other kinds of economic benefits that were obtained as a result of kinship networks were help in negotiating bank loans, contracts or import licences, obtaining technical training and help in winning customers or suppliers. One third of the respondents (32 per cent) said that someone in their family had helped in one or more of these ways.

Various kinds of "managerial" help had also been beneficial to quite a number of businessmen. Members of the nuclear and extended family - particularly brothers - were sometimes useful in enabling businessmen to solve the problem of delegating authority and decision making so that firm expansion was not held back by too much reliance on one-man management. The businessmen with large firms were particularly likely to employ relatives in management positions but they also opted for alternative solutions that did not involve kinsmen; employing Europeans or Ghanaian employees with a long service record of loyalty and ability. Several respondents in the sample who had more than one business interest, or factories located at different places, or who employed a large number of workers had placed a son, wife or brother in charge of a whole department, branch or factory. Four of the very successful businessmen spoke glowingly of the immense help they had received from their wives who had taken over the entire responsibility for running large sections of their firms over long periods of time. Several other respondents eulogized brothers and sons in similar ways and said that they expected them to play an increasingly important part in managing the organization as their experience gradually increased. One businessman had sent his younger brother abroad and paid for him to obtain a degree in commerce some years before. On his return the brother was put in charge of the accounts and financial operations of the company and here he had remained for five or six years. At the time of the interview one of the largest trad-

ers in the sample was paying for his son to study at the Massachusetts Institute of Technology so that he could return to help the respondent to manage his firm. It seems likely that the ability to harness the potential loyalty of some members of the nuclear or extended family to business fortunes while paying for them to be specially trained to provide "modern" roles and skills will become increasingly important for successful business activity in the future.

The psychological satisfaction that quite a few businessmen obviously gained from their ability to dispense help and exercise leadership over quite a large number of kin and employees should also be taken into account. Despite the frustrations that many businessmen experienced because of the demands made upon them they nevertheless gained a certain enjoyment from playing the role of benefactor or "urban-chief". During the interview quite a number of businessmen spontaneously volunteered the information that they derived considerable satisfaction from the opportunity to be the means of support for so many employees and their families. Religious terms and ideas were frequently used to put over this idea. "It is my Christian duty to help others if I can", was a frequent comment. Of course, very few businessmen were in a position to be the total means of support for more than a few relatives, even if they had wanted to, but their feelings about helping relatives, although usually ambivalent, contained a similar element of self dramatization; the man who is father to many people.

Lastly, if we consider the question of extended family involvement in all its various aspects it is possible to see that there were three main patterns of response and the businessmen tended to approximate to one or other of these. Some businessmen (all of them small traders) ran what was virtually a "family firm". The starting capital originated, in part, from a gift or loan provided by an uncle or grandfather, most of the employees in these stores were wives, children or kinsmen and a disproportionate amount of profits, given the size of their sales turnover, were spent on family obligations. Then there was a large group of businessmen who shared in common the fact that they had never clearly distinguished their business interests from family affairs, nor evolved a consistent approach to their day to day involvement with kin. They sometimes felt disgruntled by the demands made upon them and often tried to partially discourage relatives by being non-cooperative, bad tempered or "too busy" to see anyone. But even when they attempted to control some of these demands they did so in an unsystematic, inconsistent way. Their decisions varied from one situation to another and were determined by whatever factors impinged on them at any particular moment; feelings about future prospects, the current state of their finances, how many other demands they had acceded to in recent weeks, their health, and so on.

They usually had several relatives working in their firms and even though one or more of them might prove to be unsatisfactory they would not take any firm steps to rectify this situation beyond temporarily resisting demands for employment from other relatives. At times they put family matters before those of business - going off to funerals, helping to settle family quarrels or handing out money in an emergency situation - in spite of the fact that they were very busy at the time or could no longer get an overdraft at the bank. They often regretted these occasions and said: "The family can be a big problem to a businessman like me". Nevertheless they accepted these obligations as a duty from which they could not escape.

Lastly, however, a minority of the respondents had moved some way towards developing a definite policy a propos their kin. They had attempted to limit potential excesses by harnessing certain useful aspects of kinship to the needs of the firm. For example, they were prepared to employ relatives but they would only provide jobs for those kin who possessed the relevant qualifications or experience or when there were vacancies to be filled. In return, they expected relatives employed in the firm to provide a greater degree of loyalty and service than other employees and possibly to be more tolerant of inconveniences. Alternatively, some respondents encouraged nephews and brothers to obtain a useful training and then employed them in positions of leadership and responsibility. They did this with the specific intention of solving the problem of obtaining managers, accountants and secretaries whose ties with the firm would be strong enough to counteract the possibility of dishonesty and inefficiency. In providing a well-paid post for a brother or nephew they could argue that they were making an ample contribution towards family welfare, thereby earning sufficient justification for resisting other family pressures, and at the same time, satisfying their own needs for reliable administrative or managerial staff. Some members of this group also tried to keep their extended family involvement quite separate from their business interests by using some of their profits in order to educate brothers or nephews or to set them up in business. Once the latter were established and could support themselves they received no further assistance. But this policy not only effectively insulated the respondents from future demands from siblings, nephews and nieces it also protected them from the latters' parents and children since these people became the primary responsibility of those, nearer kin, who had been helped.

We may conclude this section by noting that it was mainly the more successful businessmen in the sample who belonged in this last group; who were attempting to evolve some means of limiting or removing the deleterious effects of family involvement on business growth while utilizing, where possible, those kinship "resources" that could be beneficial.

3. The Willingness to Share Ownership

Beyond a certain point, expansion may be very difficult unless fresh ideas and experience and a greater volume of resources are injected into a business. Pooling capital and skills is therefore regarded as beneficial and necessary both from the point of view of the individual businessman who wishes to see his enterprise grow and that of the community which may hope to reap the advantages of large-scale production. In the African context many people have said that the inability or unwillingness of indigenous businessmen to form partnerships and companies represents a major obstacle to the emergence of a viable business community that can compete successfully with expatriate enterprise, provide a meaningful alternative to monolithic state corporations and help to satisfy the thirst for national economic progress.

In the case of those who were interviewed for the present study it was indeed the case that only a small proportion of the businessmen (25 %) had established an agreement involving genuine co-ownership, that is, a situation where at least one partner, director or shareholder had invested some of their own money in a common enterprise. There were quite a few additional cases where a firm was given the label "company" or "partnership" by those in control but which involved no actual co-ownership as such. In addition, 18 % of the businessmen had registered their firms with the Government Registrar as a limited liability company but, again, in some of these cases, no actual co-ownership was involved and the fellow directors were the wives, sons or brothers of the proprietor.

A number of those who were interviewed were asked to give the reasons why they had never tried co-ownership, or why their attempt to do so had ended in failure or why they thought such attempts often failed. The explanation which was given most frequently (53 %) by those who provided answers to this question was the problem of distrust and disloyalty in personal relationships both between kin and non-kin. It was felt that in any arrangement involving money, other people - partners, managers, clerks or accountants - would either "chop" the money that rightly belonged to you or would see that you never received your full share of the returns on the investment. Another cause of distrust was the expectation that partners or shareholders would interfere too much in the running of the business; they would demand to participate in making decision they did not understand or would show excessive caution. The businessmen were reluctant to burden their firms with niggling, argumentative and distrustful partners. A large number of respondents said "Once someone has invested money in your business, even if it is only one penny, they will expect to have more say in the running of the firm than you yourself and you will be unable to decide anything anymore".

Other reasons given for not forming partnerships or companies were the difficulty of finding "suitable" people, the lack of people with sufficient interest and the dearth of Ghanaians who had money to invest. These are serious problems, particularly the latter. Nevertheless, they are not insurmountable. In many cases what lay behind these "explanations" was the desire to retain personal control over all the operations of the firm even at the cost of sacrificing firm expansion or a basic unwillingness to risk the problems supposedly connected with co-ownership.

There are probably two main reasons for the general atmosphere of distrust that exists in Ghana, not only between partners but also between employers and employees and not only between non-kinsmen. Firstly, in much of West Africa there were no cultural precedents or "traditions" capable of providing a basis for contemporary business life. Thus, HILL (1962 and 1963) has shown that although clear distinctions between capital for investment and cash for day to day spending existed in the pre-modern subsistence economy, the traditional form of investment was in land, houses or social celebrations (which cemented economic and other ties and enhanced status). Also, there was no cultural precedent for non-kinsmen to pool capital and/or skills on a long term basis or for individuals to entrust their savings to others, leaving them to manage their capital on their behalf. The "companies" formed by migrant cocoa farmers in the late nineteenth century, and which involved pooling funds under the direction of a leader, were relatively short-lived affairs concerned basically with land purchase. Moreover, traditionally there was no equivalent in Ghana for the Western "employee" who lives by selling his labour. People who worked for others in Ghana tended to become employers themselves or they worked not for wages but for a share of the produce. In these circumstances the problems of trust and supervision were much less formidable, compared to a situation where people only receive a fixed sum for their labour and therefore have an incentive to "get away with" as little effort as possible.

Secondly, there is the problem that distrust and suspicion, wherever it exists and for whatever reason, tends to be self-fulfilling; that is, it often generates the very actions of dishonesty and deceit which it was supposed to prevent, thereby "proving" the justice of distrust and creating a vicious circle. Thus, where agreements did exist involving co-ownership the general fear of dishonesty made people intensely suspicious of one another. Often this climate of suspicion and dishonesty created quarrels and led to a further deterioration in the fabric of social relationships binding people together until there was nothing left to sustain the arrangement. Indeed, if employees or partners perceived that their actions were being misinterpreted and that they would probably be falsely accused and/or wrongly dismissed for dishonesty, sooner or later, anyway, then they

might well feel that they had nothing to lose by stealing funds and gaining some advantage before the inevitable accusations were made. It was not so much, therefore, the actual likelihood of, or evidence for, dishonesty that deterred businessmen from establishing partnerships (or delegating authority to supervisors) but the expectations and fear that this would occur.

One businessman in the sample provided his own version of the problem of trusting others in business which combined both these arguments. By tradition, he claimed, people in Ghana "eat" the money that they obtain; when people receive earnings from employment, farms or other investments they see these resources as money to be spent on consumption. They are not happy if their earnings are re-invested in the business and their immediate opportunity for consumption is postponed. Moreover, they may misunderstand the whole idea of re-investment. They may see the "disappearance" of some or all of their returns into a common fund (as opposed to an individual fund under their own direct control - see HILL, 1962) for the accumulation of fixed assets as evidence that the person in charge has squandered or stolen their initial assets, immediate earnings or both. In this situation quarrels are likely to occur; the dominant partner may feel irritated at the excessive caution of his fellow partners and their unwillingness to re-invest their profits and the latter may accuse the businessman of dishonesty and theft.

On the whole this analysis supports the findings of others on the problems of African businessmen; not many people are prepared to embark on the venture of co-ownership in business endeavours and there is a general pessimism concerning the likely experiences of anyone who moves in this direction. Nevertheless, there are some indications from the experiences of businessmen in the sample that the situation may have been improving in recent years and that it may continue to do so at an accelerating rate.

Firstly, seven per cent of the respondents in the sample had formed partnerships and companies which had collapsed, but, for every attempt at partnership that had failed - including those where no co-ownership was involved - there were five still in existence. Secondly, more than a third of the more successful businessmen had some kind of arrangement with partners or directors involving co-ownership. Thirdly, most of the firms - large or small - with co-ownership seemed to be flourishing. Eleven per cent of the respondents had family firms - where the agreement was exclusively with kin. A small number of businessmen (5 per cent) had established capital-pooling arrangements with both kin and friends while ten per cent had done this only with their friends or ex-colleagues.

Lastly, the prospects for the formation of an increasing number of entirely new firms based on co-ownership between friends or work-mates who have resources to pool seem fairly bright. There are several reasons for this: the increasing proportion of well-educated Ghanaians in the population with specialized professional or technical training who have more experience of modern organizational behaviour and ethics than their fathers and uncles did; the need to find large amounts of capital for starting new business as time goes by; and the fact that the government of Ghana, like the governments of many less developed countries (see WARREN 1973), is encouraging Ghanaians to participate in large expatriate and joint-state/private ventures as shareholders and directors. This process is likely to introduce more and more people to the experience of co-operation and authority-sharing, in business life.

4. The Willingness to Share Managerial Authority

As we have seen, distrust is endemic in many areas of contemporary business and organizational life in modern Ghana. This is no less true when it comes to the problem of delegating authority to supervisors and managers, and to dealing with employees generally, even though firm expansion cannot continue indefinitely unless businessmen are prepared to allow others to exercise some powers in their absence. Many of the businessmen in the sample claimed that unless they checked and spied on supervisors constantly the latter would cheat them in all kinds of ways; arrange private deals with customers, steal the wages meant for the workforce, embezzle day-to-day funds, over-invoice for supplies and pocket the difference, seek to learn the "secrets" of the proprietors' success and generally fail to carry out their duties properly.

Although these anxieties were widely expressed and disaster was continuously anticipated altogether 62 % of the businessmen did in fact employ foremen/supervisors or managers (in many cases the firms were too small to require the appointment of supervisory staff) and of this number 86 % were driven by necessity and convenience to overcome their fears and delegate powers, however small, to their supervisory staff. In some cases (28 %) they were only prepared to seek the advice of their supervisory staff and delegated very few actual decision-making or discretionary powers. Over half of those who employed one or more persons in a supervisory capacity, however, were willing to grant them some degree of discretion in the running of the firm (58 %). The kind of decisions that foremen or managers were allowed to take varied from firm to firm. Often they concerned problems connected with the organization of labour: the promotion, dismissal, appointment and discipline of workers. In some firms, supervisory staff also took decisions on matters relating to

ordering supplies, dealing with customers and altering production schedules when the owners were absent.

In coping with the possible misuse of power by supervisors or managers and the threat of being cheated most of the businessmen chose one of four solutions: (1) they brought a kinsman into the firm and trained him as a manager or paid for a relative to receive a commercial or technical training with a view to employing him later on; (2) they promoted able employees with a long-service record of loyalty to the firm from the ranks; (3) they appointed experienced Europeans to provide rare technical expertise, competent or trustworthy management or both; (4) friends or ex-colleagues had formed a partnership or company and the task of running the firm was distributed between them.

The first and second alternative - appointing kinsmen and/or promoting trusted, able employees to managerial positions - were adopted by businessmen with both large and small firms. Because of the expense involved, however, it was mainly the successful respondents who employed Europeans as managers or experts: 18 % of the large businessmen had done this compared to only 1 % of those with smaller firms. Of course, in addition to supplying reliable and honest management European employees could also benefit indigenous firms by providing technical expertise - as the firm expanded beyond the point where the proprietor's own technical experience was sufficient - by training other employees to use new equipment and in giving the firm a certain amount of prestige.

5. Summary

The discussion in the present chapter has shown that the businessmen who were studied did tend to invest their profits in houses as well as in machinery and plant and some established one or more second firms. In addition, they usually employed relatives and spent money on their kin. Only a minority were prepared to pool capital and skills in business ventures - whether with kin or non-kin - and there was a considerable fear of delegating authority to dishonest subordinates. At the same time, some qualifications need to be made concerning these findings.

Firstly, many of the criticisms levied against Ghanaian businessmen are exaggerated, to say the least, and appear to be based on very little concrete evidence. A few untypical cases have been given a disproportionate amount of attention. The amount of money spent on kinsmen and the propensity to provide jobs for needy relatives, are areas where commentators have been particularly prone to exaggerate the failings of indigenous businessmen. Much the same has been true in the case of establishing

second businesses; most of the businessmen who were studied had either concentrated on building up one firm or had started a second enterprise only after a fairly long period of time and this was often closely related to the needs of the first.

Secondly, many of the businessmen in the sample, particularly, the now successful ones, were in the process of overcoming the obstacles to firm efficiency and capital accumulation presented by kinship, and so on, and were trying to evolve new forms of social relationships and to make them work. For example, the more successful respondents took a firmer line with their extended families with respect to employment and some had made serious and consistent attempts to separate family and firm or to integrate the two in a way that minimized the extent of kinship interference and harnessed some of the latter's advantages to the needs of the firm. They were also more likely to have established agreements involving genuine co-ownership. In the case of diversification, too, the more successful businessmen had usually spent a greater proportion of their profits on investing in new equipment than on houses. In other words, they were certainly not averse to increasing their security and prestige by seeking house ownership but nor, in most cases, were they unaware of the dangers this could present from the point of view of firm expansion. Often they sought a balance that maximised their economic security, in a difficult environment, while ensuring that the process of continuous firm expansion was not held back.

Lastly, we need to place the apparent weaknesses of Ghanaian businessmen into some kind of perspective. Partly, this can be done by recalling some of the advantages of kinship connections (for example, the financial help that was sometimes provided, the aid in getting contracts or loans through influential uncles and brothers and the trustworthiness and responsibility that properly trained nephews or sons could provide in managerial or administrative positions) or the usefulness of house ownership as a form of collateral for securing loans and the inter-sectoral linkages within the economy resulting from the establishment of several interrelated enterprises. But it is also necessary to question whether the business practices assumed to be typical in very many African firms are always so inimical to business success as is often supposed. HIRSCHMAN (1965) has argued that social scientists are often mistaken when they equate the absence of certain western values and social structures in developing countries with "obstacles" to development. It is by no means certain that one major pre-requisite for economic change is the radical elimination of indigenous social arrangements and their replacement with western ones. Obstacles often turn out not to be obstacles at all or provide only limited problems that can gradually be solved. Moreover, social structures that provided obstacles to development in one country

may prove to be useful in another country. The extended family, for example, may inhibit economic incentive to some extent, but it may also provide a means of pooling capital, it may stimulate people to take up a business career (since it is easier to conceal business earnings from relatives than a fixed income derived from a civil service post) and it may spur businessmen on to greater achievement.

It could also be argued that the current emphasis on the disruptive effects of modern technology when it is exported to developing countries, the concern with the ecological dangers associated with high levels of economic growth and the revival of interest in small-scale organizations and intermediate, more labour-intensive technology indicate that the small family firm in developing countries may play a much larger role in the achievement of economic growth than was previously supposed. For such firms it may not matter too much if businessmen fail to evolve distinctively western type arrangements, are reluctant to delegate authority to others and distrustful of those they do not know personally. The important question to consider is whether or not businessmen can produce a creative response to their problems and use traditional structures to their advantage.

All too often Western-trained observers who comment on the cultural and social obstacles to Third World development apply a model of "appropriate" Western-type behaviour patterns which are based on an implicit and idealized version of actual behaviour in the advanced countries. They forget that only rarely does the former match the realities of the latter in everyday organizational life in Western countries. (See, for example, the work of such people as GOULDNER (1954), MERTON (1957) and CROZIER (1964)). They also neglect to take into account the detrimental effects of economic dependency, uneven development and foreign competition in creating an unpredictable social, economic and political environment in which corruption and profiteering of all kinds and the retention of ethnic, kinship and other nepotistic social connections present far easier, safer and more rational avenues for success than the hard, painstaking process of building up "modern" institutions. Nowhere are these "weaknesses" in the theories applied by Western observers and scholars more evident than in the analysis of African businessmen.

V. ENTREPRENEURIAL FLAIR

In the previous two chapters we have mainly looked at the Ghanaian businessmen who were studied from one or both of two points of view; either as capitalists in the process of trying to create surplus value and accumulate capital, or, alternatively, as managers who were attempting to build a workable organization capable of dealing with the day-to-day problems of production, marketing, finance and control. By contrast, the present chapter will focus on another aspect of the business role, one that is much more difficult to define or quantify but, nevertheless, one which people in everyday life as well as economists and other experts frequently regard as fundamental to business success. I refer, here, to what is loosely called "entrepreneurship"[1]; that often elusive and exotic combination of creativity, foresight and opportunism in the exploitation of different avenues for gain. Few people would dispute that "entrepreneurship" in this sense plays an important, if not always clearly definable, part in business life and that businessmen differ in their capacity to exhibit this quality.

Arguably, there are two particular areas in business life which seem likely to offer considerable scope for entrepreneurial flair. One is the opportunity to introduce different kinds and degrees of innovation in organization, product design and so on. The other concerns the importance of establishing and utilizing social relationships outside the firm. This may involve an ability and a willingness to manipulate and extend the field of social contacts and social networks available to a given businessman. (Social networks operate through informal connections established between two or more individuals on the basis of past or present bonds of friendship or other ties that have proved to be mutually beneficial). It also seems likely that the degree to which businessmen differ in their ability to demonstrate either innovation or skill with social contacts, or both, will be related to success in achieving firm expansion. What light does the evidence obtained for the Ghana study throw on these questions?

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1 Used in this sense entrepreneurship is a temporary condition or a passing phase. BARTH (1963, p. 6) has this to say:

> It is essential to realize that "the entrepreneur" is not a <u>person</u> in the strict sociological sense ... Nor does it seem appropriate to treat entrepreneurship as a status or even a role ... Rather, its strict use should be for an <u>aspect of a role</u> ... To the extent that persons take the initiative, and in the pursuit of profit in some discernable form manipulate other persons and resources, they are acting as entrepreneurs.

1. Innovation

Innovation has always been regarded as one of the possible and useful functions of the entrepreneur. SCHUMPETER, however, went much further and made innovation the central and very special function of the entrepreneur, one which was fundamental to the process of economic development. He (1934) argued that economic development involves "the carrying out of new combinations" (pp. 66) in the spheres of production, marketing, administration or distribution such that a new product is introduced, a new market is opened up, a better source of raw materials is developed, an improved method of organizing production is adopted or whatever. All of these are innovations and the person who carries them out is the entrepreneur. According to SCHUMPETER the function of innovation supplied by the entrepreneur should not be confused with other functions like risk-taking and uncertainty-bearing, invention and management. These are provided by people who are not entrepreneurs, as such; bankers, inventors, professional administrators, and so on.

SCHUMPETER's emphasis on original innovation as the basis of entrepreneurship is very illuminating but it does present certain difficulties. For one thing it is not easily applicable in less developed countries. In the second half of the twentieth century innovations in business organization and technology presuppose the availability of capital, skills and experience, (as well as the support of a well-developed educational, administrative and economic infrastructure), on a scale that seems unlikely and unobtainable in Third World societies. Only, perhaps, in the sphere of 'intermediate technology'[1] is innovation likely to be possible. If Third World societies were in a position to take the lead, as each of the now advanced western industrial nations did at different times in the recent past, and obtain high returns by exporting a new technology they would not be "less developed"[2]. Moreover, it has been argued (REDLICH, 1955 and COLE, 1956) that 'imitative' innovation, where a discovery is consciously transferred to a region or country different from the one where it originated, requires almost as much capacity for vision, problem-solving and risk taking as the original innovation. At the same time, the widespread diffusion of innovations is probably much more important for economic development than the original discovery.

1 Here, simpler processes and machinery are adopted to fit local requirements and help to make Third World countries less dependent on expensive, imported expertise and capital-intensive technology.

2 See the discussion by R.B. SUTCLIFFE, in Industry and Underdevelopment, (London: Addison-Wesley Publishing Co., 1971), chapters 7 and 9, where he argues that the capacity to introduce new technology must be regarded as one of the main characteristics of "independent" industrialization.

These qualifications to SCHUMPETER's theory suggest that while the scope for innovation in the sense he intended is rather limited there are ways in which businessmen in Third World countries can be said to act in an innovatory manner: where they carry out actions that are new to their society altogether or which were previously unknown to indigenous entrepreneurs even if foreign firms had practised them before and where they modify a process, machine or commodity, developed abroad, to fit the climatic needs, cultural tastes and financial resources prevailing in their society. Both kinds of innovation involve the necessity to overcome obstacles and face risks and the need to exercise skills, foresight and effort of a kind similar to those faced by the original metropolitan innovator.

In order to discover the extent of innovation among those interviewed for this study the respondents were asked whether they had ever been the first or one of the first local businessmen to do one or more of a variety of things: design and make, or produce from a plan or copy, a new product or a new type of product not previously made in Ghana by Ghanaians; start a new industry; introduce a new production process, type of machinery or method of organizing a factory or business; or sell a product in a region of the country not previously reached by this good. The traders, contractors and manufacturers were asked slightly different kinds of questions according to the nature of these three fields of business. The main findings can be briefly summarized.

Firstly, it was clear that the degree to which an entrepreneur could be said to have innovated varied very considerably. Thus a businessman may be an innovator in a very small way through simply being one of the first people in his industry to design, produce or sell a certain type of commodity and this may involve no more than a straight-forward extension of his existing capacity and organizational potential. On the other hand, he may have been the first Ghanaian to produce cosmetics on any scale, to adopt a large-scale production process or use a certain kind of very expensive and sophisticated machinery. Clearly, a far wider range of risks and abilities is involved in the case of the latter as compared to the former.

Secondly, it was found that there was more scope for innovation among manufacturers (37 % had engaged in some kind of innovatory behaviour at some time) than among contractors (24 %) or traders (18 %). This is probably related to the fact that manufacturing requires both the ability to establish a commercial structure, in marketing and distribution, and a production system involving the management of labour and machinery.

A third finding was that the capacity to innovate seemed to be related to business success particularly among the manufacturers and traders. In

these fields, the larger the firm, the greater was the likelihood that a businessman had innovated in some way during his entrepreneurial career. The comparable figures for manufacturers with large and small firms were 55 % and 19 % whilst in trading they were 29 % and 6 %. It appears that innovation is both a cause and a consequence of business expansion since many of the more successful respondents had innovated at a relatively early period and this had been a direct cause of their success. On the other hand, once businessmen have already established a widespread system of contacts which provides them with information and once they already have access to certain reserves of manpower, machinery and finance it becomes easier for them to remain aware of all the opportunities currently present in the economy and to be in a position to pursue these should they wish to do so. As in so many spheres, success tends to breed further success.

Fourthly, the capacity to innovate took many different forms. Despite this variation, however, it is possible to see that there were two main, underlying patterns or kinds of innovation and each offered rather different opportunities for the businessmen concerned. One kind of innovation, what could be suitably labelled as "creative craftsmanship", only occurred among manufacturers. The other type, "basic organizational innovation", was found in all the fields of business that were studied although mostly, perhaps, in manufacturing. Some respondents were innovators in both senses but more often their creative energies were revealed exclusively in one direction. The frequency with which these types occurred is shown in Table 17. The analysis is confined to the manufacturers.

Table 17 Type of Innovation among Manufacturers by Size of Firm (Percentages)

Innovation	Large	Small	All firms
None	45	81	63
Creative craftsmanship	13	8	10
Organizational Innovation	18	9	14
Both	24	2	13
Total	100	100	100
N	62	63	125

"Creative craftsmanship" occurred where businessmen exhibited technical and artistic inventiveness in product design to a greater or lesser degree in addition to considerable knowledge and experience in the skills of their trade. The possession of this talent had often proved very advantageous. The most limited expression of this quality arose among businessmen who added their own embellishments to a basic type of product in preference to copying standard designs widely used by other firms. Then there were those respondents who were able to alter existing designs completely and others who went even further and introduced new types of products altogether. The frequency with which businessmen exercised this creativity also varied widely and only a few had obtained most of the blueprints for their products "out of their own heads".

Some of the businessmen in the sample possessed the ability to implement fundamental organizational and technological changes. Over two fifths of the manufacturers with firms in the top half of the rank ordering by size (42 per cent) had carried out some kind of fundamental innovation in organization at one time or another. This usually consisted of one or more of the following: being one of the first Ghanaians to enter an industry new to the indigenous sector of the economy; to introduce an unfamiliar type of good; or a new method of organizing a factory or business.

It is clear from Table 17 that large manufacturers were more likely to have shown innovating ability at some time in the past than the owners of small firms. Moreover, although some of the businessmen with large firms had shown both kinds of innovating behaviour, few of them had been creative craftsmen exclusively and had not also innovated organizationally. Thus, in so far as basic innovation is important for business success (more than half of the successful manufacturers had not acted as innovators in this sense) it is more likely to be significant than creative craftsmanship. Unless they are combined with other qualities and resources neither kind of innovation can be particularly useful but this is even more true in the case of artistic and technical inventiveness with product design.

There were several reasons why the possession of artistic and technical inventiveness in product design often did not result in business success and in fact, in some cases, seems to have been a positive hindrance to the achievement of firm expansion. One problem was that precisely because of their talent some of the "creative craftsmen" in the sample were assured of a small but continuing income from day to day through the attentions of a special clientele. Thus, they had very little incentive to develop a more permanent and less haphazard system of making profit based on the development of a systematic production system. Their creative flair and the compulsion to express it tended to limit their business horizons. Another problem was that their unique skills sometimes blinded

them to the possibilities inherent in selling cheap goods to a mass market. Instead, many of the "creative craftsmen" concentrated on catering for the expensive tastes of the "luxury" market. In an era when many consumers were prepared to pay for standardized fashion rather than durability or uniqueness and when increasing numbers of people had some money to spend on mass-produced goods, such decisions often proved to be unwise from the point of view of business expansion. At the same time quite a few of the "creative craftsmen" were unable or unwilling to solve the problem of how to transfer some of their special skill to others while finding ways to produce standardized versions of their original "creations". Tempted by the urge to express their special talents at the cost of everything else and by the relative ease with which they could find customers for each individual product, they had neglected the problem of building a permanent production system capable of being worked by others less gifted than themselves.

In general, the creative craftsmen tended to have received less education than the businessmen whose innovations were in the sphere of basic organizational and technological change and their skills were usually confined to one particular craft. Their commercial, technical and occupational experience was consequently rather limited in scope. Furthermore, in Chapter III it was argued that a concern with technical prowess and craft skill was often accompanied by a corresponding lack of awareness of or ability to cope with matters of commerce and organization-building. We have now seen that some, though by no means all, of the creative craftsmen represent a variation on this theme or another way in which it is manifested. Thus, some of these men remained confined to the sphere of petty commodity production, unable to accumulate very much capital, if any. Their primary concern with giving full expression to their talent for artistic creativeness led them to undervalue the importance of large-scale, standardized production, labour efficiency and the need to secure bulk orders.

By contrast, the basic innovators did not usually take up an apprenticeship or learn a specific craft on leaving school. Instead, they had often worked at a variety of occupations. Thus, by the time they came to start up in business their experience and knowledge tended to be commercial rather than specifically technical and what skills they possessed were general and theoretical rather than practical and specialized. Their talent lay in perceiving new opportunities before other people, in keeping in touch with what was going on abroad, in being able to attract and mobilize people who possessed the specialized skills they lacked and in their capacity to create the organizations necessary to support the emergence of a new kind of technical or commercial enterprise. These men must be regarded as innovators not simply because they entered a new industry or introduced

unfamiliar machinery and production systems but because the successful performance of their business activities compelled them to become involved in organization-building and this is the "stuff" of economic development.

A final point that needs to be made about the ability to innovate is that by itself the creative impulse was insufficient to ensure business success. Basic innovations - introducing new forms of equipment or firm organization, for example, - require a good deal of technical and managerial efficiency if they are to result in business growth and success. Technical and organizational proficiency may exist without innovation, but it is hard to see how innovation can "stick" without these. Sound business and careful organization were necessary supports. Without them the benefits that occurred from innovation could easily be squandered: it tended to improve business prospects where firms were already being run in a relatively efficient manner but not otherwise. In addition, the ability to innovate cannot easily be distinguished from the capacity to perceive opportunities for making profit in advance of others. Each of these pre-supposes the other and both involve a willingness to bear risks.

2. The Management of Social Networks

In the introduction to this chapter it was argued that among other things business expansion depends on the extent to which entrepreneurs are willing and able to manage relationships between their firms and the outside world. This involves learning to use existing social contacts while establishing new ones as well. It was also suggested that businessmen will vary widely in their ability to construct links of this kind and that building or joining social networks will be an important part of the managerial process, providing considerable scope for entrepreneurship. In some ways it may be more necessary for business success than other kinds of managerial ability. In this section we will examine this aspect of the entrepreneurial role in detail. But before we do so it is important to make the point that the realities of economic dependency in a post colonial society like Ghana enormously complicate the whole question of how businessmen utilize social connections. They do this in several ways.

Firstly, given the uneven impact of economic development, the uncertainties of export crop production and the outward drain of potentially investable surplus (see the discussion in Chapter I) the state (in many Third World countries) has been called upon to play a major role in the economy. This in turn, has increased the importance of politicians and political affiliation in the process of business life since the award of state contracts, licences, loans and foreign exchange allocations have been funda-

mental in affecting business opportunities. Secondly, and by the same token, the expansion of government bureaucracy in the "independence" era and the importance of state regulation and resources in the economy has meant that the ability to win the favours and cooperation of government officials of all kinds, and at various levels, has been particularly crucial for business success. Once firms have reached a certain size some entanglements with government officials are unavoidable if growth is to continue. Many resources and opportunities will be unobtainable (for example, foreign exchange to import raw materials more cheaply) or only obtainable with great difficulty if businessmen are not prepared to seek government permission, advice or help. This dependence on officials is made worse by the twin problems of widespread bureaucratic incompetence - resulting in delay, unfairness and obstruction - and the preponderance of bribery. The ubiquity of both is related to the realities of economic insecurity in a dependent economy and the continuing desire to make most transactions between strangers and/or non-kinsmen resemble the particularistic, patron-client type relationships characteristic of village and lineage life. These are, of course, mutually reinforcing.

Lastly, one further manifestation of the state of economic dependency in countries like Ghana is their lack of freedom of manoeuvre to pursue growth strategies different from those already transplanted by the capitalist West. Thus, they remain heavily influenced by and dependent on the inflow of foreign capital, technology, expertise and Western-shaped consumer preferences. In Ghana and elsewhere what this tends to mean is that the majority of indigenous and foreign-owned enterprises can only become established with the support of imported resources. Because of this there are obvious advantages available to local businessmen if they can form connections with overseas firms and/or with individual Europeans based in Ghana. The latter can provide services which Ghanaians are not in a position to supply (such as assistance in establishing links with European firms in Ghana or abroad) or which would otherwise have to be imported directly by businessmen at much greater cost (technical skill and specialized knowledge).

Bearing these introductory considerations in mind we can now go on to consider the question of whether and in what ways business success (among the entrepreneurs who were studied) was related to the ability to utilize and establish social networks. Three aspects will be considered: contacts with Europeans; the extent to which political affiliation and other kinds of social connections were associated with the ability to obtain certain economic advantages; and the propensity of the businessmen to join all kinds of voluntary associations and to create widespread social connections.

Contacts with Europeans. - Altogether nearly one half of the businessmen had been abroad (47 %) at least once. Often, these trips outside Ghana had been of a short-term, occasional nature either for business reasons or for pleasure (25 % had been on short-term visits only). However, more than one fifth of the sample (22 %) had spent much longer periods abroad, often four or five years as students or employees or both. Some of the people in this group also paid much shorter trips at a later date. The relatively successful businessmen in the sample were rather more likely to have been abroad at some time, visiting industrial societies rather than nearby African countries, than those who were less successful (80 % of those with firms in the top third of the ranking by size compared to 31 % of those with firms in the bottom two thirds). Moreover, size of the firm was also related to the likelihood that the businessmen had received some kind of training abroad or had been employed for a fairly long time in a foreign country; 36 % of the respondents with firms in the top third of the size ranking had done this compared to 15 % among the rest. Given this correlation between a willingness to travel abroad, particularly the desire to secure overseas training and working experience, and size of firm it seems likely that travel is an important factor contributing to business success. Long term visits not only provided businessmen with the opportunity to obtain specialized skills but also the chance to establish connections that enabled them to receive regular flows of information and the possibility of procuring useful machinery and materials, at reasonable prices, at a later date.

Most of the respondents had come into contact with Europeans at some point in their lives. The nature of these relationships, the benefits, if any, which businessmen were able to derive from them, and the circumstances which gave rise to them - foreign travel, schooling, business contacts, employment in expatriate firms or hiring European technicians to work in their own firms - varied considerably from person to person. The respondents were asked about their friendships with Europeans where the relationship had gone beyond casual acquaintanceship and had eventually developed into a strong attachment whether this had occurred in Ghana, abroad, or both. It was the businessmen with comparatively large firms who had most often formed fairly close and long-term friendships with Europeans at some point during their adult lives; 48 % of those with firms in the top-third size ranking had experienced this compared to only 11 % of the rest.

There were three main kinds of situations that lent themselves to the formation of close friendships between the respondents and Europeans and which brought the respondents into general contact with people from Europe: friendships that developed with fellow students, workmates or tenants during a period of employment or study in Europe; contacts estab-

lished when the businessmen made visits abroad for specific purposes related to their business ambitions or career (for example, to secure supplies of equipment or obtain a specialized training relevant to their business needs); and, more frequently, as a result of a period of employment spent in a European firm based in Ghana prior to establishing their own enterprise. In the latter case, the special relationship that had grown out of the social interaction with European managers, technicians or employers had often continued long after the respondents had left the European firm.

The respondents who became involved with one or more Europeans as a result of a visit to Europe made with the aim of accomplishing a specific objective or who developed a circle of friends and acquaintances through employment in large expatriate firms based in Ghana were predominantly those whose firms were well above average in terms of success. The less successful respondents, on the other hand, were much more likely to have spent their time abroad in circumstances that ultimately proved to be far less useful. Working, for example, for many years in large, impersonal factories as semi-skilled workers provided few opportunities to learn about management or production techniques and did not lead to friendships with people who were in a position to provide help to prospective businessmen.

What kind of advantages did the respondents gain from their contacts with Europeans in Ghana and abroad? One of the most important benefits was capital. Several of the businessmen in the sample had either enjoyed a partnership with a European friend at an early stage in their business careers - gaining access, thereby, to experience, technical expertise, managerial training and funds at a time when their own resources were very meagre - or had received help in securing a bank loan or hire purchase credit. At least two of the respondents obtained some of their equipment with the help of people in Europe. One of these businessmen was able to arrange easy credit terms from an overseas supplier of textile machinery through the influence of European friends. The other had received free consignments of second-hand machinery from firms in Europe producing the same kind of commodities. Advice on how to set up more complex systems of organization and introduce more advanced technology had also been important in a few cases. Again, several businessmen had built up extensive contacts with European firms who supplied them with regular information concerning the market for goods in which they were interested. They also had friends abroad in various companies who helped them to negotiate deals with suitable suppliers who were prepared to trade directly with Ghanaian buyers. This meant that the latter could avoid importing through costly intermediaries and could sometimes obtain materials or goods in advance of payment.

In addition to these very concrete benefits of European friendship, and the "obligations" that friendship implies, however, there were several more diffuse and generalized advantages. These were more difficult to measure but probably of far greater importance. Among these were the following: a heightened awareness of the potential significance of European contacts generally and an enhanced skill and confidence in seeking to establish such relationships; a period of intensive exposure to Western values, knowledge and behaviour patterns, increasing the businessmens' ability to exploit future Western contacts to their advantage; and access to a social network of European contacts in Ghana and abroad, one or more of whom might be willing and able to provide much needed assistance at some present or future time.

It is not possible, here, to discuss the larger question raised by dependency theorists concerning whether and to what extent the benefits that may accrue to individual Ghanaians through "collaboration" with foreign capital merely reinforce the underlying structural weaknesses of the economy. Many complex issues are involved here and they remain largely unresolved in the literature on the subject.[1] What can be said, however, is that although this study deliberately tried to avoid the inclusion of firms where direct business partnerships with Europeans were currently in operation, it was nevertheless surprising to find that very few businessmen had ever participated in a joint local/foreign company involving co-ownership or co-management in the past. The very small number of cases where some kind of association was found to exist at the time of the study did not seem to involve partnership in the usual sense. Moreover, those businessmen who had been associated with Europeans in one capacity of another seem to have gained rather more from these arrangements than the European individual or company concerned.

Politics, social connections and economic advantages. - Political and other kinds of social connections, involving friends, kinsmen, former colleagues and others had been important to quite a few of the businessmen in the sample at different times in enabling them to obtain help in securing such things as bank loans, import licences, government contracts, preferential treatment with government officials in customs clearance, market opportunities, and so on. The discussion that follows summarizes some of the main findings.

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1 I have tried to examine these issues and the related problem of what forms "collaboration" may take and who stands to gain most from them, in: 'African Businessmen and Foreign Capital: Conflict or Collaboration', African Affairs, Vol. 76, April, 1977.
See also the comments in the concluding chapter.

Firstly, less than a third of the sample actively participated in politics in the sense of joining a political party (31 %) during the NKRUMAH era up to 1966. There was virtually no difference between the more and less successful respondents either in terms of their propensity to be associated with political parties in general or their likelihood of being members of the governing NKRUMAH party, the Convention People's Party (22 %), in particular. Although some of these respondents had originally joined a party for ideological reasons, many claimed that they joined the C.P.P. merely in order to enhance their choice of receiving favoured treatment. This was illustrated by the fact that some of these respondents did not join the C.P.P. until 1960 or 1961 (when the government declared itself to be disinterested in the plight of private indigenous firms) or until 1963 (when government contracts and import licence allocations became particularly scarce). Alternatively, they joined the party and provided a certain amount of financial support for its activities in order to "buy" immunity from political interference. Only a very tiny proportion of the sample (4 %) were directly and actively involved in politics at the local government or constituency level as a party organizer or at central government level as an M.P. or government minister. Although the majority of these were successful businessmen the smallness of their number makes it difficult to argue that direct involvement with the dominant political force prior to 1966 was a major cause of business advancement except in a very few cases.

Secondly, however, party affiliation and/or the manipulation of political and other social contacts with important people in central and local government, the civil service or the state corporations did appear to have been advantageous to a minority of the businessmen who were studied. There are several pieces of evidence for this. One concerns the admission by twenty-four businessmen that at one time or another they had used a combination of bribery and influence in order to gain such things as state building contracts and bank loans. (Clearly, it was impossible to estimate the actual extent to which influence had been used, since for obvious reasons the respondents tended to be very nervous about providing specific information). Three quarters of these respondents were among the group of relatively successful businessmen. At the same time there was a direct correlation between the extent to which businessmen had established connections with people in government and politics and the role that politicians and officials could play in economic life. Thus, the building contractors (60 %) and the traders (37 %), for whom the allocation of government building tenders and import licences, respectively, were crucially important, were much more likely than the manufacturers (23 %) to have been members of political parties at some time before the 1966 Coup. Moreover, some information is available from the contractors and traders in the survey which does not refer to actual known instances of soliciting

favours but which shows a correlation between political affiliation and social connections and receiving government contracts and import licences.

The building contractors were compared in terms of the five year period from the beginning of 1964 to the end of 1968 to see whether their different political loyalties were related to the period when they had received most government work; before or after the 1966 coup. Although the number of people involved is unfortunately very few, the facts available point to there being a strong correlation between political affiliation to the C.P.P. or the opposition and the period at which most government work was received. Thus, of the six contractors with C.P.P. membership, four received most of their government work before the 1966 coup, compared to only one of the four contractors with ties to the Opposition parties. All of the six contractors with links to the C.P.P. received some government work up to 1966, compared with two out of four contractors associated with the Opposition; these two had friends in the Public Works Department. Moreover three out of the four contractors who supported Opposition parties up to 1966 received most of their government contracts after the coup - whereas none of the C.P.P. members did.

Success in building contracting and the ability to obtain some fairly substantial government tenders also seems to be related to knowing people who hold official positions in government and politics. This is shown by the fact that out of thirteen contractors with useful social connections to governmental officials, ten were among the more successful and all had worked on substantial government public works. In contrast, nine out of the twelve contractors who lacked useful contacts were in the category of the "less successful" and seven of these had received virtually no government work at all.

In the case of the traders, the question that was considered was whether affiliation to the C.P.P. or the opposition parties - or links with people in politics - between 1950 and 1966 had affected their ability to obtain import licences during the difficult years from 1962 to 1965. The facts available show that four out of five of the traders with C.P.P. affiliations received some allocation of foreign exchange during these years whereas none of the five traders with political loyalties to the Opposition parties received any at all. Compared to the latter, the traders with no political leanings at all fared rather better; eight out of eighteen of these (44 %) received some allocation of foreign exchange.

A third point needs to be made concerning the relationship between social connections, political affiliations and economic advantages. The evidence just cited indicates that for certain kinds of businessmen, in particular,

being on the right or the wrong side of the political fence (and/or the availability of "well-placed" social contacts) was indeed crucial for business success during the decade of the 1960s. These findings, however, need to be placed carefully into perspective. For one thing, those businessmen who wish to benefit from receiving preferential treatment at the hands of officials, politicians, Europeans or anyone else, must exercise a degree of determined "enterprise" in "helping themselves" by establishing and utilizing social connections and political commitments in the first place. At the same time, it seems highly likely that government officials who are held responsible for public money will, in most cases, only be prepared to bestow their favours on businessmen whose firms are well managed and who appear to offer the most attractive, long-term sources of private benefits. Also, by giving assistance to able businessmen the office-holder or wielder of influence can convince himself that his country will benefit from his actions as well as himself. Thus, businessmen usually need to demonstrate their competence and achieve a reasonable level of firm expansion before they can expect to receive serious business advantages through political and social connections. This is shown by the fact that some of the traders who had no associations with politics at all nevertheless managed to obtain foreign exchange quotas and, in the years after the coup, previous C.P.P. supporters among the traders had no difficulty in continuing to secure foreign exchange. What seems to have been important here was not political affiliation but the size of these trading firms. Those who had already built up quite sizeable firms were not only in a better position to "negotiate" with officials by offering bribes because of their financial resources but their proven competence meant that they were "safer" candidates for favoured treatment from the point of view of government officials.

Involvement in social networks and associations. - The majority of the respondents (82 %) recognized the importance of social networks when they agreed with the statement that "it is necessary to have a lot of friends and contacts with important people if you want to be successful". One important way of finding friends, for both business and leisure-time enjoyment, is to seek companionship through membership of clubs, lodges, and associations of various kinds. Visits paid to bars or hotels also provide both a milieu and a venue for meeting people; old friendships and associations can be continued and new ones can be established. In the discussion that follows we will compare the more and less successful businessmen in terms of their propensity to participate in various kinds of social milieux and networks.

Among the sample as a whole over half of the respondents were members of at least one ethnic, regional or village association. Sometimes these were based in Accra, drawing together people who shared a common interest in the improvement or welfare of their home area, sometimes they were based in the home area itself. Quite a few of the respondents also held leading positions in running these associations. It was probably a mixture of local prestige and local pressure that made the successful businessmen (52 %) slightly more prone than the others (40 %) to become involved in these associations. Although membership may have conferred fewer "major" benefits than in the case of more prominent clubs and associations, contacts at lower levels of society with people who were suppliers, transporters, mechanics, traders and so on could be useful in practical ways. Nearly three-quarters (70 %) of the relatively successful respondents belonged to at least one businessman's association compared to 39 % of the less successful. Two of these associations, one founded in 1963 (The Ghana Indigenous Manufacturers' Association) and the other in 1967 (The Ghana Indigenous Businessmen's Association), were specifically concerned with the problems of Ghanaians. Their leaders had broken away from the larger more powerful groups because these were dominated by expatriates who tended to ignore what they considered the "trivial" concerns of indigenous businessmen. (See Chapter I).

The businessmen with large firms were also more likely to have useful, or potentially useful, social connections through friendships, family and acquaintanceships with people who held positions in banks, local and central government, public corporations and political life; 45 % of the relatively successful businessmen possessed such connections compared to 30 % of those with smaller firms. Moreover, the former group were nearly four times more likely to have three or more such useful contacts than the others (23 % compared to 6 %).

More information on social networks was obtained from a sub-sample (52 respondents) of the main sample. They were re-interviewed in 1970. Here again, the more successful businessmen revealed a stronger tendency to participate in a wide range of social activities. They were more likely to belong to clubs that reserved amenities and activities exclusively for the use of their members such as "lodges" like the Oddfellows, or others of less prestige, and the Freemasons (54 % compared to 46 %). They tended to frequent prominent bars and hotels in the Accra area more often and more regularly than those with smaller firms even though the cost of buying drinks in these places, as compared to small, local bars lacking a claim to social status, was only fractionally higher (62 % compared to 35 %). Drinking regularly at the centrally placed, prestigious bars and hotels in the Accra area may well have been beneficial to businessmen since these places were popularly regarded as being attractive and important places where expatriates, government ministers and professional people could readily be found and where conventions, meetings and gatherings of all kinds frequently took place. The relatively success-

ful businessmen in the sub-sample were also more likely to belong to voluntary associations of all kinds. The range of specialized interests and loyalties catered for by these associations varied enormously from the Progress Party Women's Group and the Achimota[1] Golf Club to various ethnic, regional or village benevolent societies and church groups.

When the information obtained for the sub-sample was re-worked so as to distinguish between clubs and associations that were socially "prominent" and those that, by comparison, were rather less so, a much greater difference emerged between the social life of the two groups. The procedure for doing this was necessarily rather crude but the same criteria were applied to both the successful and unsuccessful businessmen so any distortion in the data should affect both groups equally. Associations that were nationwide or international in character, whose activities presupposed a high level of education, professional competence or a cosmopolitan outlook (or a mixture of all of these), on the part of their members, were regarded as "prominent". Thus, associations like the Engineering Society, The Oddfellows or the national organization of the Y.M.C.A. seemed likely to possess a fairly sophisticated membership, or be run by people possessing wealth, good connections and positions of authority. Local churches and ethnic or hometown benefit societies (such as the Saltpond District Improvement Association) seemed likely to draw the majority of their members from a more moderate area of occupational and national life. Businessmen who mainly joined the latter rather than the former would be less likely to establish social connections that could benefit their business activities in the most important ways, such as obtaining bank loans, import licences or big government contracts. Comparing the relatively more and less successful businessmen in this way 74 % of the former group (who did belong to at least one club or association) were members of socially prominent ones while the same was true of only 41 % of the latter.

3. Summary

The evidence discussed in this chapter suggests that entrepreneurial flair in its different forms can and often does play an important part in enabling businessmen to achieve firm expansion. In the case of managing social networks, for example, the successful respondents were more likely to have formed close friendships with Europeans, to have travelled abroad (especially for training and employment) and to possess friends, associates and relatives who were potentially influential. In the case of the

1 Achimota is a suburb of Accra where Ghana's most famous secondary school is located.

building contractors and traders, those who had been relatively successful had more political and social contacts with people who were in a position to be helpful in the issuing of government contracts and import licences. The successful respondents also tended to belong to, or visit, a greater number of associations, clubs and bars and those they were attached to often enjoyed considerable prestige and probably numbered several important people among their clientele. Moreover, what evidence there is suggests that the successful businessmen were more willing to use the connections available to them.

Nevertheless, the relationship between business success and entrepreneurship is more complicated than this and any discussion of this relationship needs to take account of two important points. Firstly, creativity and opportunism by themselves are insufficient to ensure business success. The ability to display creative craftsmanship or basic innovation had been important to the success of many respondents but sound business practices and careful organization were necessary supports. Without them the benefits that accrued from innovation could easily be squandered: it tended to improve business prospects where firms were already being run in a relatively efficient manner but not otherwise. Similarly, the ability to establish and manipulate social contacts of all kinds, particularly with government officials, could normally be expected to yield useful "results" only in those cases where businessmen had already "proved" their competence and resourcefulness. Without this proven ability, kinsmen, government officials or friends with their own businesses would presumably be reluctant to put their own positions or finances at risk by helping someone else.

Secondly, in the case of innovation and social networks "inherited" resources may play an important part. Genetic and learning experiences provide the basis for the different kinds of creative talent and perception required both for innovation and social manipulation. The latter may also be helped by the greater social advantages some businessmen enjoy as a result of the family and other connections they possess even before they go into business. Alternatively, some businessmen may simply have been luckier in meeting people or possessing friends who later came to hold important positions. On the other hand, both of these aspects of entrepreneurship also depend on choice; the willingness to take definite decisions, to think out careful strategies and to make an effort to follow sustained courses of action.

Thus, if they are to succeed in business, creative craftsmen need to ensure that they transfer their skills to others and establish a production system oriented towards turning out at least some standardized commodities rather than concentrate solely on producing a few highly individual-

istic luxury goods. Those who "inherit" useful social contacts also need to extend and build on these if they are to achieve sustained business expansion. In fact, many of the highly successful people in the study came from very humble backgrounds and initially they had no important connections. Yet they managed to make contacts with useful people. Among those who spent time abroad, some managed to gain long term benefits from their experience, while others, whose circumstances were no more or less favourable, obtained relatively little of benefit to their business affairs. Moreover, as with any other resources, social contacts are useless unless they are utilized. This requires skill and effort. However great the initial advantages available to businessmen from their social origins, a very large part of this skill can only be acquired through learning from experience. Social connections build up in a cumulative fashion; a friendship or acquaintanceship, once made, leads to others. Thus, it seems likely that as a result of their own decisions and actions in dealing with people in the wider environment, some businessmen - whether originally by luck or judgement or both - learned the advantages of social networks more thoroughly, quickly and easily than others.

VI. 'SOCIAL FACTORS' IN ECONOMIC DEVELOPMENT: EXPLAINING ENTREPRENEURIAL BEHAVIOUR

In Chapter I, a little was said concerning the often complicated question of how far social factors - societal institutions, cultural values and beliefs and psychological orientations - have been important in promoting or inhibiting economic development in different parts of the world. It was argued there that this problem has been confused by the failure to see that there are at least three different phenomena involved when we talk of social factors and that each requires a different kind of explanation. There is the problem of how the political and social institutions of a given society, in interaction with economic forces, evolve to the point where they can support modern capitalist enterprises. Secondly, we may wish to explain the origins of economically rational behaviour and how this 'culture of capitalism' becomes established in business life. Thirdly, there is the question of what motivates people to become entrepreneurs and what social "resources" equip them to survive and to succeed.

The first issue is a vast one which requires a detailed historical and sociological analysis not only of each society but also of the way in which different countries have been brought into and have been affected by the mainstream of world development. Although an attempt has been made to indicate some of the ways in which these broad institutional changes evolved in Ghana the subject is basically beyond the competence of this study. As we shall see the social origins of entrepreneurs in Ghana, as elsewhere, have been affected by such changes. Moreover, the role of the entrepreneur in contributing to further social, economic and political change also deserves consideration. What is clear, however, is that the two issues - institutional change and the social background experiences that shape entrepreneurial endeavour - should be treated as analytically distinct so that the need to explain the former is not confused with the need to understand the latter, and vice versa.

In the light of these remarks it can be seen that a major difficulty arises when considering the relevance of the theories put forward by such writers as McCLELLAND, HAGEN, LE VINE and HOSELITZ. These writers, like other members of the American Sociology of Development Group, have addressed themselves to the problem of explaining how social factors affect economic development. In particular they have been concerned with the role of entrepreneurship, seeing the emergence of the modern entrepreneurial impulse as a process synonymous with the transformation of the wider socio-economic structures necessary to the emergence of capitalism. Indeed, they see entrepreneurship as the force which pulls society away from the restraining influence of "traditional" culture and institutions. Since, in their theories, they endowed entrepreneurship with

an extraordinary power which, in reality, it does not possess they were compelled to find "special" explanations for its emergence which were unnecessarily complex and elaborate. However, once it is recognized that a given generation of entrepreneurs is only one of the many groups involved in socio-economic change and, moreover, that a given generation of entrepreneurs can only function as part of a wider system, which emerged for the most part without their aid, the task of explaining entrepreneurial behaviour becomes a much more specific and modest one. The analysis which will be pursued here, therefore, will be confined to the problem of understanding how the businessmen who were studied became entrepreneurs and what enabled them to succeed. In addition, some attention will be given to the second issue which was mentioned above, namely, the origins of the economic rationality or the 'spirit of capitalism' evinced by those included in the study.

A second difficulty arises when considering the usefulness of the explanations for entrepreneurship put forward by McCLELLAND and the other writers who were mentioned. Regardless of what is being explained - merely the willingness and ability to function in business or, alternatively, the role of entrepreneurs in pulling society away from tradition - it seems to be assumed that the "resources" which enable people to act in these ways are basically "inherited" ones. Experiences obtained prior to taking up an entrepreneurial career, whether they originate in family life, class position, ideological commitment, membership of some kind of minority group and so on, provide the key to explaining entrepreneurial dynamism. Although the importance of inherited social experiences in shaping personality, motivation, knowledge and business ability cannot be denied it is necessary to recognize that what happens to the entrepreneur once he has already started in business is also crucial in shaping his future or later behaviour. Thus, not only does the environment continuously offer constraints and opportunities with which the entrepreneur must contend but his own decisions and actions also produce a reaction from the environment. This interaction between his own behaviour, the environment and the way the consequences of his actions react back on him provides a learning situation for the establishment of certain habits and practices which possess a greater or lesser capacity to enhance business success. Since the latter emerge and are acquired partly as the result of a learning experience which can only come into its own through actual concrete practice it follows that inherited experiences alone are insufficient to explain entrepreneurial behaviour.

In discussing the data obtained for the present study an attempt will be made to show how both approaches are useful in understanding business performance and orientation. However, before going on to do this it is necessary to look briefly at those theories which stress the importance of social experience while bearing in mind what has been said so far.

The main sociological and psychological explanations that have been offered to account for variations in the nature and volume of the entrepreneurial response can be loosely grouped under one of three main headings, although some theories draw upon several supposedly related and inter-dependent conceptual schemes.

Firstly, there are those explanations of entrepreneurship which rest on what KUNKEL (1970) has called 'psychodynamic' models of human behaviour. The exponents of these models assume that each person's behaviour is best understood in terms of a set of internalized drives and motivations laid down during the process of socialization in early life. This internal state is called the personality and is largely inaccessible to modification by later social experiences. Thus, present behaviour is mainly explicable in terms of internalized norms that govern day-to-day actions and originate in past circumstances.

One notable example of a 'psychodynamic' explanation of human behaviour is that given by McCLELLAND (1961). McCLELLAND's theory of achievement motivation suggests that there is a strong correlation between the energy and creativeness with which economic activity is pursued by certain nations, groups or individuals, rather than others (during certain historical periods, rather than others) and the extent to which children are encouraged to be independent and to set themselves high standards of attainment. The circumstances which make this process possible occur where a warm, close involvement exists between mothers and their children, and where fathers are relatively non-authoritarian and do not insist that their children remain completely subservient to them. If, moreover, parents consistently encourage their children to achieve goals that are neither too difficult nor too easy, in relation to the latter's age, then the adults that eventually emerge may well possess a strong need to achieve.

Numerous criticisms have been levelled at McCLELLAND. One of the most serious of these is the accusation of psychological reductionism; that social action cannot be understood solely in terms of the psychological propensities of discrete individuals. An important methodological problem raised by the theory of achievement motivation is that the causal relationship hypothesized between observed behaviour and a person's internal state are impossible to validate or demonstrate empirically (KUNKEL 1970). This is because internalized drives and values cannot be measured directly; their existence can only be inferred from the observable behaviour in which people indulge. Moreover, McCLELLAND's theory has also been accused of sociological naivety since he ignores the fact that men act within formal organizations and power structures. Thus, however highly motivated people may be they cannot exert an influence on economic progress if the distribution of power and leadership in society only allows

them to be traditional farmers or petty clerks as opposed to managers of large corporations or leading civil servants (REDLICH 1963).

HAGEN's theory (1962) that there is a link between economic change and and increase in the number of 'innovating personalities' present in a given generation also rests partly on a 'psychodynamic' model of human action. As a result of foreign invasion leading to colonization or following from internal changes in the distribution of power some groups in a society may suffer a diminuation in their power or a 'withdrawal of status respect'. The Samurai in Japan from 1600 onwards are a classic example of this process. Over a number of generations the crisis in family relationships created by these humiliations leads to subtle changes in the authority relationships between parents and children and in the dominant personality type that occurs. A 'retreatist', rather apathetic kind of person is produced who is introspective and therefore creative. Eventually a generation of people emerges whose actions, propelled by their inner, psychological propensity for innovation, lead them to tear through the traditions of their society and wrench it into a period of change. In addition to the question of the historical validity of the examples HAGEN provides to illustrate his theory, the emphasis he places on the dynamic consequences of childhood socialization and internalized personality characteristics are subject to the same criticisms as those made against McCLELLAND.

The second general category of explanations that try to account for variations in the nature and amount of the entrepreneurial response refer to phenomena that are more obviously sociological in character. Thus, it has been noticed that one particular group often predominates in the exercise of entrepreneurship in a given society at a certain point in time. One way of explaining this phenomenon is to refer to the culture and values peculiar to such groups which lead their members to pursue occupations and possess disciplines that unintentionally result in economic achievement. WEBER's famous, though largely discredited, analysis of the link between Calvinism and capitalism was the forerunner of this kind of work.

More recently, LE VINE (1966) has examined what he claims is the differential intensity of interest shown in business activity by various ethnic groups in Nigeria - particularly the Ibo, Yoruba and Hausa. In doing this, he draws heavily on McCLELLAND's theory of achievement motivation in order to explain the greater involvement of the Ibo in modern business compared to other groups. Nevertheless, it is to the special characteristics of their basic social structures and cultures that he refers in order to explain variations in the average levels of achievement drive recorded for these groups. He argues that traditionally the dominant channels of social mobility among the acephalous Ibo involved buying titles (that bestowed prestige and power) by earning wealth in farming and trade. In

these circumstances parent would encourage children to be independent and hard working. The political system in the north of Nigeria, on the other hand, provided opportunities for social mobility by rewarding behaviour shown towards the Fulani rulers that was based on the virtues of deference, obedience and loyalty. The yoruba stood in an intermediate position between the Ibo and Muslim North in terms of the degree of independence and initiative necessary to achieve a high social position.

Another kind of sociological explanation seeks the origins of entrepreneurship and innovation in terms of the socially marginal position that certain groups hold in the social structure as a whole. HOSELITZ (1960) is a major exponent of this view. Here, attention is focussed on different kinds of minority groups and the way in which the deprivation experienced by these groups may "encourage" them to seek entrepreneurial outlets for their energies. The source of marginality may be as follows: religious, as in the case of the Dissenters in seventeenth and eighteenth century Britain; ethnic, for example the Chinese in Malaya and the Indians in East Africa; or social, where a class or group have lost their traditional position of power and status and try to re-establish themselves in a new area. The Japanese samurai (HAGEN, 1962) and the Balinese aristocracy described by GEERTZ (1963) are supposed to be examples of social marginality.

The common theme which underlies all these attempts to account for entrepreneurship in terms of minority group status has been summarized neatly by MARRIS and SOMERSET (1971, p. 57). "Entrepreneurship characteristically arises from an interaction between social exclusion and access to resources which others ignore or cannot grasp." Thus, all of the minority groups who turn to entrepreneurial activity "seem to stand in a fundamentally similar relationship to the opportunity structure in society. On the one hand, they feel themselves excluded from the generally recognized means to success" but at the same time they "had in common their need to search out a new way to power and prestige" (pp. 56-57). In their study of Kenyan businessmen, MARRIS and SOMERSET did not find that their sample were drawn from a minority group as clearly identifiable, internally united and socially ostracized as, for example, the Quakers in England or the Chinese in South East Asia. Nevertheless the balance of social pressures that they describe had played an important role in shaping the lives of many of the respondents in their study, though at a personal rather than a group level. Much the same kind of configuration of social pressures had been at work in the lives of the Ghanaian businessmen in this study, as will be seen below.

The third way in which entrepreneurship has been explained in terms of social science categories is the attempt to apply a behaviourist analysis of human action to the study of economic decision-making. This approach has been developed in some detail by KUNKEL (1965 and 1970) partly in an attempt to discover more satisfying methodological and heuristic explanations than those provided by people like McCLELLAND and HAGEN. Behaviourists claim that economic behaviour, like any other kind of human activity, can be understood in terms of the interaction between the responses people make to various stimuli and the way in which the environment reacts to these by offering rewards or punishments. Actions that are repeatedly rewarded, both through meeting social approval and resulting in economic gains, will be reinforced over time and may become established as dominant patterns. They can just as easily be extinguished if circumstances change and behaviour is no longer rewarded. With this kind of explanation there is no need to assume the existence of internalized psychic states or to see adult behaviour as fixed by childhood experiences in order to explain entrepreneurial endeavour. Moreover, cultural and societal factors such as religious, political and economic institutions are not important in terms of the direct effect they exert but through "the way in which their components shape and maintain entrepreneurial activities" (KUNKEL 1970, p. 282).

Clearly the position taken by KUNKEL offers a valuable corrective to theorists like HAGEN who place sole emphasis on the importance of the general cultural environment and the way it equips businessmen with a set of pre-determined psychological and value orientations which can only be acquired through an intensive and probably early socialization.

Having tried to clear some kind of path through the theoretical thickets that surround the whole question of the role of cultural factors and of entrepreneurship in development we can now turn to the businessmen who were interviewed for this study. The analysis that follows explores the ways in which different factors have combined to shape the various patterns of entrepreneurship found among those who were studied. In order to do this the discussion is centred around three main questions all of which seem to demand an explanation: why do some people become businessmen rather than choose another kind of career; why were some businessmen rather more successful in building up a viable firm than others; and how did economically rational behaviour or the "culture" of business life become established as the basis of decision-making.

1. Choosing a Business Career: 'Vocational Frustration'

There are several reasons why it is necessary to explain the willingness of people to choose full-time business activity as a career in a country like Ghana particularly when - as in the case of those who were studied - they possess an above-average level of education. Firstly, in Ghana, business enterprise is a relatively low status occupation. This is shown by the ridicule and contempt that local businessmen often experience at the hands of government officials and the media. By contrast, those who hold professional, technical and administrative positions (not necessarily at a high level) in the public or foreign sectors of the economy by virtue of their educational attainments normally enjoy a good deal of prestige and security in addition to relatively high financial rewards - the latter accruing through the unofficial income opportunities provided by graft in addition to official salary. Secondly, running a business enterprise where a number of people are employed demands a considerable amount of effort, skill and risk, particularly in the case of those fields of business endeavour that were covered in this study: manufacturing, building contracting and large scale trade. Full time employment as a clerical officer, foreman or salesman, by contrast, is without doubt much easier as well as more secure. Thirdly, the desire for the security and relative ease offered by employment in the civil service and to a lesser extent in the large foreign corporations is not necessarily incompatible with private business activity. Numerous people in wage and salary employment in Ghana successfully combine the advantages of both kinds of activity.

Given these factors the capitalist entrepreneur has to be someone who, by virtue of his social origins and the scale and type of his resources, has nothing to lose by investing a great deal of time and energy in a difficult business venture. The availability of a large amount of capital through inheritance, retirement benefits or the "savings" accumulated during employment, for example, might act as a disincentive to the establishment of a modern business just as often as it operates as a means of breaking into the market. This is because the prospect of lower risk and higher rewards in relation to the required input of management effort may make investment in real estate and other kinds of rentier activities seem rather more profitable and desirable than manufacturing, building contracting or wholesale trade.

The choice of business as a career can be partly understood in terms of social background experiences. In several respects - their educational and occupational experience, their class origins and their urban and ethnic backgrounds, - the businessmen included in the 1968-70 Ghana survey tended to be victims (or beneficiaries) of a particular set of social circumstances or opportunity structure. Although their social position

had given them certain resources (social connections, aptitudes for commerce or administration and so on) that made them more aware and more ambitious than the majority concerning the opportunities available in their society it had also failed to provide most of the businessmen with the means to attain success in the highest positions available. They felt excluded from the recognized channels that led to elite membership. Many writers in this field have noted the importance of this phenomenon in producing entrepreneurs while recognizing that the form it takes may vary widely. MARRIS and SOMERSET's (1971) discussion of 'vocational frustration' has already been referred to.

Thus, firstly, the Ghanaian businessmen tended to be better educated than those of the same generation as themselves. Over three quarters of those interviewed had received at least some Primary education (50 % had completed primary school) compared with 18 % of the adult male population over the age of 25 in 1960.[1] In addition, 15 % of the respondents had also been to secondary school whereas the proportion in the population was only 3 %. At the same time, however, the majority had been ineligible for even moderately high positions in the government service, the professions or the expatriate business world because very few had completed secondary school or gone beyond this level.

Secondly, the occupational experience of the respondents prior to establishing their present firms both bears out the previous point about educational opportunity and reveals its own combination of access to opportunity compared to the population as a whole alongside the problem of blocked mobility to higher level positions. Only 10 % of the respondents had held managerial or professional positions. Of those who had ever worked in an employee capacity, the remainder had either been craftsmen or artisans in small local firms, expatriate companies or government corporations (31 %), where the highest position available to them was the job of foreman or supervisor, or they had been minor civil servants, primary school teachers, sales representatives or clerks (24 %). The limited career opportunities available in these organizations, beyond a certain point, gave them an incentive to transfer their valuable commercial, technical and administrative experience - albeit at a relatively low level - into their own business ventures.

Thirdly, their social class origins, urban backgrounds and ethnic membership, had also "combined" to create a set of experiences which meant that the businessmen who were studied were better placed than most people to understand the opportunities and to develop the skills relevant

1 The information on the population as a whole was obtained from the Ghana Census 1960, Advance Report of Volumes III and IV, Accra, the Central Bureau of Statistics.

in an exchange economy. In the case of social class, 81 % had fathers who were cocoa farmers, shopkeepers, small contractors, lorry owners, artisans, craftsmen or public employees, such as policemen, teachers and clerks. This compares with the figure of 26 % given by the 1948 Census for the adult male population as a whole.[1] It was also noticeable that 25 % of the businessmen had fathers who were engaged in trade as shopkeepers (rather than petty traders) or who had been small building contractors, road hauliers or produce buyers. This compares with a figure of less than 4 % of the adult male population in the 1948 Census when most of the fathers would still have been in active work. Another 13 % of the respondents had fathers who had been lower civil servants: teachers, prison warders, ministers and so on whereas a negligible proportion of the adult male population had been actively employed in these jobs in 1948. All of this suggests that the businessmen came from social backgrounds where the impact of change on themselves, and presumably some of their siblings, was very strong and where there was little reason for family members to be destitute.[2]

The respondents were also more urbanized than the population as a whole. Over half of the businessmen (51 %) had lived for most or all of their childhood in urban centres with a population (in the 1960 Census) of 50,000 or more at a time, in the 1930s, 40s and 50s, when although these towns were somewhat smaller, so too, was the proportion of the population living in urban areas (8 % in 1960). Another 22 % had grown up in sizeable towns of between 10 to 50,000 (compared to 9 % of the population). The strikingly urban background experienced by nearly three quarters of the sample had probably helped their business careers by increasing their chances of benefiting from at least a basic level of education since schools tend to be concentrated in urban localities, by exposing them to experiences which would tend to enhance their awareness of the possibility of making money through business and by familiarizing them with the channels through which goods, credit information and influence flow. Perhaps most important of all, the relatively loose-knit more cosmopolitan social networks characteristic of large towns, the greater number of opportunities for establishing ties outside the ethnic group of origin (through school, government employment and so on) and the number and variety of income opportunities available in the towns all meant that these businessmen had probably been much freer from the demands

1 Census of Population 1948. Reports and Tables. Gold Coast Census Office.

2 Their parents were atypical in other respects, as well, since they were much more likely to have been christians and/or to have received some schooling than the other people of their generation.

of kinship and much less encapsulated within ethnic or local "communities" than their typical rural counterparts.[1] As a result, they could afford to reject or at least control some of the demands made by kinsmen and others, as we saw in Chapter IV.

As far as ethnicity was concerned, the businessmen who were studied were members of tribal groups based in southern Ghana such as the Asante, Fanti, Ewe and Ga that have a long "experience" of modernization through the spread of an exchange economy and the growth of educational and employment opportunities in technical, commercial and administrative fields. In addition, a large proportion of the businessmen (50 % of the total compared to 19 % in the Ghana population Census of 1960) belonged to ethnic groups - the Asante, Akwapim, Akim and Kwahu - whose rural members had been heavily involved in cocoa farming for a long time. This meant that many of the respondents had direct experience of commerce and business. However, it is also likely that their relatives and ethnic associates had access to occupations (through family income derived from cash-crop farming and spent on education and so on) that reduced their need to become dependent on others, thereby helping to reduce the claims of kinship and community on time and capital in another way, as well.

Nevertheless, despite their lower middle-class origins, their urban experience and ethnic affiliations the businessmen did not possess the same order of advantages in the 1940s and 50s, when they were growing up and reaching adulthood, as those available to the better-educated sons of the long-established coastal elite or the important chiefs of the South. Some of the members of these latter groups had access to capital from generations of trading activity, they had a long tradition of education and professional training, particularly in law, they belonged to "old-boy" networks

1 Various studies have shown how rural entrepreneurs or businessmen who belong to a group that has retained its tightly-knit structure in the city (perhaps because of its experience of relative deprivation due to late incorporation into the process of capitalist development) are sometimes able to escape, partially, from the demands and the interference presented by kinship and community obligations through conversion to a religion such as Islam or the Jehovah's Witnesses.

See, K. HART, Entrepreneurs and Migrants: a study of modernization among the Frafra of Ghana, unpublished Ph.D. Thesis for Cambridge University 1969, for an example of the urban situation.

N. LONG, Social Change and the Individual, (Manchester: Manchester University Press, 1968) and D. PARKIN, Palms, Wine and Witnesses (London: Intertext Books, 1972), both examine the phenomenon in the rural context.

and often had close contacts with Britain and with the colonial administration. As the professions, the civil service and foreign corporations expanded in scope after 1945 the opportunities for this group at the top levels grew accordingly.

2. Differences in Entrepreneurial Performance

Another aspect of entrepreneurship that requires explanation partly in terms of background factors is the ability of some businessmen to build-up large and profitable organizations while others - who often began with approximately the same advantages in terms of capital, time of starting and who operated in a similar field of enterprise - did rather less well by comparison. What background experiences seem to have been at work in endowing the future businessmen with orientations and skills likely to be conducive to entrepreneurial performance?

When the businessmen in the study who had been highly successful (that is, those who owned firms in the top third of the ranking by size in each industry group) and the remaining respondents were compared, considerable differences were found between the two groups in terms of their pre-business experiences. These are summarized in Table 18.

Firstly, the very successful businessmen were more likely to have had some education and to have been to secondary school. Secondly, they were less likely to have served an apprenticeship in one or more trades but were twice or even three times as likely to have attended courses that combined a mixture of theoretical and practical skills or had taken courses in commerce and/or management. Most of those who had taken one or more of these technical or commercial courses at a 'Trade' school had spent between two and four years doing so, often some time after leaving school. Only a few of the businessmen had attended both formal secondary and 'Trade' schools. Thirdly, the previous occupational experience of the relatively successful tended more towards commerce and administration. Fifty per cent of this group had been employed at some time in a higher or lower managerial, clerical, administrative or sales capacity compared to 26 % of the less successful respondents. The latter came more often from artisan/craftsmen occupations either in large or small firms. In addition, the businessmen with smaller firms were also more than twice as likely (41 %) to have been previously engaged, wholly or partly, in a "traditional" occupation such as farming, fishing or working for a local master-craftsman in a small firm whereas over a third (37 % compared to 13 %) of the successful group had held at least one job in a factory or organization in Europe (or America) or had been employed in a managerial or 'higher' professional position in a large European or state corporation, usually in Ghana.

Table 18 Educational and Occupational Experiences by Size of Firm (Percentages)

Experience	Large[a)]	Small	All firms
Formal Education			
None	8	24	18
Primary School	69	66	67
Secondary[b)]	23	10	15
Total	100	100	100
N	61	125	186
Previous Occupational Experience			
Self-employed, training[c)]	32	36	35
Craftsman/Artisan	18	38	31
Civil Service, teaching, commercial	33	20	24
Professional/managerial	17	6	10
Total	100	100	100
N	60	125	185
Vocational Training			
Full time technical training	30 (61)[d)]	13 (125)	18 (186)
Part-time technical training	30 (61)	10 (125)	16 (186)
Course in commerce or management	22 (58)	7 (124)	12 (182)
Apprenticeship	31 (61)	60 (125)	51 (186)

a) "Large" and "small" refer to the businessmen with firms in the top third and bottom two-thirds of the ranking by size.

b) Three quarters of the respondents with secondary schooling had completed to form V (GCE). 'Secondary' does not include technical training obtained at 'Trade' Schools and Colleges. A very small number of those who attended secondary school (2 %) also received a post-secondary education at a teacher's training college or university.

c) Including one person who was unemployed.

d) Bases for percentages are given in parentheses.

These differences indicate that an educational and occupational background that provided a basis for competence in organizational, financial and marketing matters, was more useful for later business success than a largely practical or technically-oriented training. Of course, some businessmen had the advantage of bringing both kinds of "resources" to their business. Alternatively, they possessed a peculiar talent for improvising with machinery and creating new designs and products. Others had received a mainly practical training but one that was highly specialized and based on a technology or industry that was relatively new to Ghana. In these cases a technical rather than, or in addition to, a managerial background gave those concerned a distinct advantage over their rivals. More usually, however, a mainly practical or technical training does not seem to have equipped people very adequately for business life. There were several reasons for this.

One is that a secondary and/or more theoretically oriented technical education may not only help businessmen through providing the level of knowledge and confidence necessary for handling complex negotiations and arrangements but it may also facilitate entry into more sophisticated and therefore, perhaps, more profitable industries. Providing he has the capital the secondary school leaver is more able to think in terms of a business which, right from its inception, demands managerial rather than craft skills. Employment in a commercial or administrative capacity may also bring certain advantages. Thus, those who were employed in European firms or by the government as clerical officers, store-keepers, sales representatives, area managers, district officers and so on, were brought into contact with useful sources of knowledge, particularly the intricacies of commercial practice in large organizations, how the channels of influence and information operate, and the rudiments of administrative arrangements. In addition, these occupations, whether high or low, probably helped to acquaint those who held them with Western values and possibly helped them to develop a certain amount of skill in establishing connections (with Europeans and influential Ghanaians) and in coordinating a number of people in the execution of tasks. Moreover, even though they may not have been technicians those who worked in firms that manufactured or sold various kinds of machinery, that produced consumer goods or repaired cars probably managed to "pick up" a good deal of mechanical knowledge and technical information by asking judicious questions and "keeping their eyes open". A familiarity with basic skills of this kind seems to have proved useful, later on, to many of the businessmen who were studied if only by making them more aware of what specialized skills they would need to employ and what was involved financially and organizationally in making different decisions.

The main drawback to artisanship as an occupational background for potential businessmen is precisely that it provides little opportunity for people to develop these administrative, leadership and commercial skills. At the same time, whereas it may be relatively easy for those who lack certain kinds of technical expertise and practical knowledge to "buy" these at a relatively low cost, obtaining them from social contacts at home and abroad or from technical journals, it is more difficult for craftsmen/artisans to compensate for the element they lack, one that is vital for building-up a large organization; namely, the ability to co-ordinate and manipulate an increasingly large number of employees, operations and social networks. Hiring a skilled craftsman is not without its difficulties and costs from the employer's point of view. However, the problems this creates pale to insignificance by comparison with the task of finding and securing the services of an experienced and trained manager who is also trustworthy. Such people are likely to be employed by large foreign or state corporations or to be in business on their own account. Only a close relative, if then, is likely to provide managerial or commercial skills without demanding a salary that is quite beyond the pocket of the small artisan-entrepreneur.

Recent studies in less developed countries have identified two types of industrial entrepreneurship: the man who moves into industry after spending some years in trade and the craftsman whose experience is technical rather than managerial or commercial (ALEXANDER 1966; BERNA 1960; CARROLL 1965; KILBY 1965; and PAPANEK 1962). KILBY, for example, contrasts those Nigerian bakers in his sample who were 'production-oriented' with those who were 'market-oriented'. All of these writers are agreed that the trader-entrepreneur tends to be more successful since the growth of firms beyond a certain point depends more on the ability to exploit market opportunities and to handle managerial problems than a knowledge of technical processes. The craftsmen-entrepreneurs seem to be more important and more prevalent in the very early stages of industrialization, but this type tend to "die out". The majority of their enterprises remain small and inefficient and they are gradually superceded by people who move into industry equipped with a greater volume of resources, wide experience in commerce and a good deal of education.

Thus, the patterns of occupational experience characteristic of the businessmen in this study are not unique to Ghana. Of course the "trading" background referred to in these studies is not identical with the administrative/commercial type found among the Ghanaian businessmen. However, discussions in some of the earlier chapters revealed differences similar to those mentioned in the literature: between those whose marketing and firm organization remained haphazard and localized and traditional and those who developed quite sophisticated market outlets and

systems of production control (Chapter III); and the businessmen who were fascinated with their own craftsmanship and design-creativity in contrast to the innovators in organization-building (Chapter V). Also, former traders were quite prominent among the more successful manufacturers and contractors in the present study as was indicated in Chapter IV.

3. The Origins of Economic Rationality: "Learning on the Job"

It was argued at the beginning of this chapter that although the background experiences entrepreneurs bring to their business careers are important in helping to provide them with the orientation, motivation, skill and social connections necessary to induce them to enter business life and to succeed, this social inheritance factor is insufficient to explain the entrepreneurial response. One very important reason for this is that the entrepreneur has to function in a political, social and economic environment which, particularly in a dependent, ex-colonial economy like Ghana, is largely outside his control. Whether or not, to what extent and in what ways this environment offers opportunities for entrepreneurial and other kinds of endeavour will obviously be crucial in determining such things as the choice of career and field of enterprise as well as the ability to do well. A good deal was said about this in a general way in Chapter I while some of the discussion in Chapter II on economic constraints, in Chapter IV on kinship and the problem of trust and in Chapter V on politics and social networks provided specific examples of the effects of the wider environment on business activity.

Another reason why social inheritance is not altogether adequate as an explanation for the entrepreneurial response is that no matter how carefully we try to relate the possession of different "resources" to the actor's concrete decisions and to trace the origins of these "resources" there is a creative or dynamic element involved in day-to-day business life which cannot be explained in this way. It is revealed in the entrepreneur's ability to actually "put together" an organization where previously none existed, to continue altering and building up his enterprise over time, to develop a commitment to continuous firm expansion when the original intention may have been no more than to seek a comfortable "living" and to deal with the challenges constantly thrown up by a changing and therefore unpredictable environment. This creative, organization - building aspect of entrepreneurship involves the establishment of economic rationality, in WEBER's sense (see the discussion in Chapter III), as the keystone of decision-making. A set of principles, guidelines and habits, dominated by the systematic search for efficiency in the pursuit of long-term profit, must come to the fore, built up over time and found to be useful through practice.

In dealing with the question of how entrepreneurs become "plugged-into" the culture of capitalism and/or make the necessary creative response themselves, theorists like WEBER, and later HAGEN and McCLELLAND and others, sought an explanation not in terms of the kind of straightforward background factors - such as education, class position and occupational experience - which were discussed earlier on but more especially by referring to the presence of powerful psychological tensions and strongly held ideological beliefs or both. In these theories the entrepreneur's position is, perhaps, analogous to that of a car which possesses a battery more powerful and more highly charged than those found in other cars. Thus, the entrepreneur has access to a special source of energy and to unique gifts that are not available to others. Without this "magical" ingredient he cannot embark on entrepreneurial activity. His exclusive possession of very definite qualities requires a special explanation in terms of some kind of powerful force operating in his life. Once he begins to operate, his supply of energy and talent either gradually run down until he eventually ceases to be an entrepreneur altogether or the momentum he creates constantly re-charges his battery. McCLELLAND and WEBER provide specific explanations for the second contingency in their theories; WEBER discusses the importance of the sect as a source of social pressure while McCLELLAND argues that achievement motivation may be reinforced through the feedback of information concerning how well the entrepreneur has done in attaining the standards he set himself (the level of profit). In HAGEN's theory, however, it is not clear which of these mechanisms is at work.

It may be asked whether entrepreneurial activity really occurs in this way. There is at least one alternative explanation for creativity and the emergence of an orientation to growth that seems equally plausible. In this model of entrepreneurial behaviour it might be stressed that many people start their business concerns not a s the result of an inner psychological pressure but by accident or chance or out of a modest ambition to be self-employed. Alternatively, as was argued above, the people who become entrepreneurs may do so because they feel frustrated by the poor prospects available to them while their awareness of opportunity gives them some hope that a reasonable income can be obtained from business activity. However, there is no reason why their ambitions should be exceptionally high ones and they may, in fact, continue to hope that a better opening will one day emerge in their original career. Meanwhile, business provides a "living". In neither of these two cases is it necessary to assume that the batteries have a very high level of initial energy nor is it necessary to account for what energy there is in terms of a very special and exclusive supply of power.

Once the entrepreneur begins to establish his firm he is forced to make decisions more or less on a trial and error basis. If, through a mixture of luck and judgement, (and perhaps, more of one than the other) his decisions about firm organization, product variation, marketing and so on, result in a modicum of success the rewards that accrue to him as profits may play a crucial role in the establishment of sound business practice and in encouraging him to continue in business. Thus, the reactions of the market may both reinforce whatever decisions, skills and strategies enabled him to earn a good return, even if he hit upon these partly by chance, and increase his interest in and commitment to business as a career. This may help the "correct" decisions to become habitual and enshrined in routine practices. Alternatively, the market may "punish" his actions with negligible profits or losses thereby inducing him to rethink his strategies, give up altogether or adopt a very cautious approach in future, accepting very modest but safe business ambitions.

The skills, temperament, capacity for saving and hard work which the entrepreneur happened to possess at the beginning may certainly play a crucial role in enabling him to make full use of whatever opportunities show up and to do better than others. But so, too, do the skills and habits which he develops as he goes along through a process of experimentation, as his decisions and actions are either rewarded or punished by the way the market reacts to his products or services. External factors like the availability of cheap labour, an upswing in general economic activity and government policy towards small businessmen may help to strengthen and accelerate (or weaken and slow down) the learning process depending on whether the entrepreneur is lucky and/or perceptive enough to be in a position to take advantage of the gratuitous opportunities that may emerge at a given time. Those, for example, who enter the market at a particularly propitious time and who are sufficiently astute or fortunate to be able to make the "right" responses may experience a rapid success that strengthens their commitment to useful business habits and makes profit re-investment seem amply worthwhile. This, in turn, may ensure further competitive advantage and continued success. Moreover, once the "successful" businessman has carved out a slice of the market and has become committed to accumulation the dynamics of capitalist competition and the need to protect his growing material assets will drive him further to act in ways that will ensure his survival and expansion. Where unfavourable external factors begin to operate the entrepreneur who has developed sound business practices may yet manage to weather the storm, or he may possess sufficient resources and skills to move into a more "comfortable" niche. On the other hand, those whose survival had previously depended not on their business acumen and sound habits but on the existence of favourable market conditions may be unable to withstand a change in the latter and may go out of business.

In this model the starting position of the entrepreneur is no more important than what happens to him once he is actually operating his firm and the things he learns in the process of creating his own role. Moreover, every decision and action he takes interacts with all the others and has cumulative effects; each decision has consequences which may either constrain future actions or open the door more widely. Thus, the commitment to continuous, expanding business activity and the special creative quality of the entrepreneur may be a product of his working experience rather than something which has to be present before he can even begin. The battery may commence by being flat or relatively low but it may become highly charged later on.

It is probably impossible to devise a test that would establish the relative explanatory usefulness of these alternative models since research usually involves looking at established entrepreneurs and it is difficult to extrapolate backwards from these to the beginners they once were. Nevertheless, it seems that the second model is just as likely to be valid as the first in explaining the emergence of economic rationality. Certainly, the research carried out in Ghana seemed to indicate that this was so and it is hoped that the analysis in earlier chapters of the entrepreneurs at work in all the different aspects of their business life amply bears this out.

4. Summary

In this chapter it has been argued that any attempt to explain entrepreneurial behaviour - who goes into business, who succeeds and why - should not be confused with the need to explain how wider, historical transformations occur in socio-economic structure. If this pitfall is avoided the analysis becomes a reasonably straightforward one of exploring the way in which different social background factors have equipped people with some of the "resources" necessary for business life. In this respect, the following have been found to play an important role: the amount and kind of education and occupational experience people have had; and the way in which ethnic and social origins and the modernizing influences at work in people's lives have shaped their occupational preferences, expectations of mobility and their ability to handle relationships in the modern sector. These factors affect people by confronting them with different opportunity structures so that the main "life chances" available to one person at a given moment in time may not be available to others and may change quite quickly even for him if he does not act while his "luck" lasts. Social experience and circumstances are also important in determining how well-equipped people are to cope successfully with whatever tasks they eventually choose for themselves. Typically, the background experiences of those who were studied, in terms of training and previous occupations, were of one of two

kinds. This influenced the way in which the respondents chose to run their firms and the fields of business endeavour they selected. Either they had moved into industry from a clerical, professional or trading background, in which case their skill lay in marketing and management, or they had previously been artisans with a technical and practical training and they were primarily interested in questions of workmanship and production. The former experience often proved to be more valuable from the point of view of business success though there were many notable exceptions to this.

At the same time, however, it has been emphasized that the entrepreneurial response is necessarily a creative one and is often based on trial and error. Essentially, many, though by no means all, small capitalist entrepreneurs of the kind studied in Ghana learn to make and to be guided by rational principles of organization and often develop a commitment to economic expansion as they go along. This 'culture' of business life cannot be instilled into businessmen solely through a process of institutionalized learning, it cannot be incorporated into decision-making by being transferred directly from another organization nor does it necessarily emerge "ready-made" from the socially inherited "resources" that the entrepreneur brings to his firm. Rather, it develops, in part, out of the actual nature of the decisions he makes once he has become established in business and the way in which the environment responds to these. Some decisions may be made blindly: whether or not they result in profits (and how much) or losses is largely a matter of accident. Other decisions may be deliberate and informed, although they may still lead to consequences that were unintended. Many situations are possible. For example, businessmen may find that their decisions are "rewarded" with handsome profits and this may encourage them to be adventurous again in the future and to continue their current long-term investment rather than seek safer, easier outlets for profit making elsewhere. Alternatively, a series of "bad" decisions may be "punished" by the market with poor profits. This may discourage businessmen from making further investments of effort and experimentation.

Unless proper attention is given to the businessman at work, making decisions and coping with the environment, the phenomenon of entrepreneurship cannot be adequately understood.

VII. CONCLUSIONS

At the time when the field work for this study was being carried out the Ghanaian entrepreneurs whose lives and business activities have been examined were exceptional in that both their chosen field of business endeavour - manufacturing, building contracting and wholesale/retail trade in permanent stores - and the scale of their operations were not readily available to the majority of the self-employed or to those who aspired to wealth through some kind of commerce. (In the 1970s the situation has probably changed somewhat as a greater number of educated young people with technical experience or from quasi-professional administrative backgrounds have emerged, ready and able to tackle fairly complex types of business activity.) The information which has been discussed naturally refelcts the rather exceptional nature of the particular group selected for study. Had a decision been made to concentrate on those engaged in the long-distance food trade, for example, passenger transport or road haulage, in the provision of petty urban services such as food preparation or laundering or those involved in professional consultancy work, advertising or public relations, then, rather different results would have been obtained. Not only would the typical social backgrounds of those drawn into business have been different but the kinds of problems they faced and the typical strategies they evolved to cope with these would probably have been quite different as well. This needs to be kept in mind.

A number of themes have been pursued at different points in the preceding chapters but one which underlies the whole subject of African entrepreneurship and which runs through every chapter in one form or another is the question of dependency. Like most Third World countries Ghana manifests the symptoms and the problems of what has been called the condition of 'economic dependency' and 'neo-colonialism'. There were several ways in which those who were studied had clearly been affected by the consequence of Ghana's colonial past and by the nature of its continuing involvement in the world economy.

Firstly, the opportunities for both foreign and indigenous businessmen to flourish in manufacturing and building contracting only became available to any great extent in the 1950s when the demand on the home market rose sufficiently to make local manufacturers competitive with imports and when, in the case of contracting, the scale of government expenditure permitted extensive public investment. These, in turn, depended largely on external causes outside Ghana's control particularly the post-War rise in living standards in the advanced countries, which pushed up the demand and the price for certain Third World primary goods thereby increasing the incomes of Ghana's farmers and of the government, and the general world shortage of manufactured goods.

In Chapter II we saw how the overall trends in Ghana's economy, linked as these were to wider movements in the world economic system, affected local businessmen in more specific ways, too. Business success was often correlated with particular periods of starting. Those who went into business in the late 1940s when cocoa prices reached relatively high levels on world markets were more likely to experience rapid firm growth. A favourable climate for local businessmen also existed in the years between the achievement of independence in 1957 and the early 1960s when government expenditure on national development created a demand for numerous goods and services. The ability of the government, in turn, to finance this development depended to a considerable extent on attracting investment by the multinational corporations, securing various kinds of loans from foreign capital markets and international agencies and using up the reserves of foreign exchange built-up during earlier years when cocoa prices were favourable. Moreover, the determination showed by NKRUMAH in trying to establish an industrial base and supporting infrastructure could also be said to reflect the strength of foreign influences in shaping Ghana's development since it was the desire to move the economy away from the damaging consequences of primary production while bringing trade and industry under local control that motivated this development strategy in the first place.

The extent and the nature of the opportunities for innovation revealed another context in which the realities of economic backwardness in post-colonial societies are manifested. In Chapter V we saw how the "basic innovations" in organization and marketing which some businessmen displayed took the form of introducing techniques, ideas and equipment already familiar in other countries or to foreigners in Ghana and/or making modest adaptations in these in order to meet local requirements. Because countries like Ghana remain part of the mainstream of world capitalism so that local industries have to compete with established and superior foreign technology there are few, if any, possibilities for private individuals or the state to evolve and operate alternative production techniques that are both appropriate, in view of the country's unemployment problem, and yet capable of generating a "profit". The design creativity exhibited by some of the entrepreneurs with a practical craftsmanship training also indicated strong foreign influences. Their originality, awareness of consumer taste and technical skills had often developed following a period of involvement with overseas firms. At the same time the changing tastes of Ghanaian consumers were certainly affected by the various forms of contact with Europe; through the media, foreign travel, education, the presence of Europeans in Ghana and so on.

Thirdly, in so far as those who were studied possessed certain practical and more especially, administrative/commercial skills when they first went into business they had inevitably obtained these through working in Western-type organizations and through absorbing knowledge and principles derived from Western-based education. Chapter V, however, showed how more direct, personal contacts with individual Europeans in Ghana or abroad, who acted as employers, supervisors, friends or business associates, had often played a crucial role not only in helping to provide some would-be entrepreneurs with a training ground where they could learn some of the skills necessary for managing a fairly complex firm but also in giving them access to the world of international business. The latter had been beneficial in various ways. Foreign contacts enabled businessmen to receive regular knowledge about technical matters and consumer tastes. Others obtained second-hand machinery, access to export markets or cheaper raw materials through their overseas connections. In addition, several entrepreneurs were helped in the early stages of their business career through the capital, managerial skill or market contacts that resulted from a temporary partnership or association with a European.

These links are clear manifestations of national and individual "collaboration" in a world capitalist system based on profit and competition. As we saw in Chapter I many writers have argued that this system is incapable of improving the living standards of more than a small proportion of the population in most Third World countries. Thus, economic relationships which, according to some writers, hold back the development of Ghana as an integrated economy have nevertheless been beneficial to certain sectors of the emerging local business class, and, perhaps, to those whom they employ. Whether this is merely one of the "contradictions" of advanced capitalism or whether it heralds the dawn of a new era in many Third World countries of quasi-capitalist development based on the emergence of a powerful and competent national bourgeoisie (operating in conjunction with government enterprises) - as MARX envisaged in the case of India - remains to be seen.[1] At the moment no one can be completely certain as to which of these alternatives will prove to be the dominant one. Moreover, "collaboration" with foreign capital in the general sense does not mean that the interests of foreign and local firms are always in harmony or that they work in direct partnership. On the contrary, many Ghanaian firms are increasingly in conflict with the subsidiaries of multinational corporations since both are competing for the same markets. And the local

1 See the oft-quoted remarks by MARX on the inevitable consequences of the introduction of railways into India in 'The Future Results of the British Rule in India', a letter to the New-York Daily Tribune in, K. MARX & F. ENGELS: On Colonialism (Moscow; Progress Publishers 1968), pp. 81 - 87.

entrepreneur who forms some kind of agreement with a foreign individual or company often does so on a temporary or limited basis only, while the need to pursue his own economic interests (alongside, and perhaps even at the expense of, his overseas partner) are uppermost in his mind.

This summary of some of the ways dependency manifests itself calls for some comments on the usefulness of the theory of economic dependency and neo-colonialism in enabling us to understand a phenomenon like the rise of an African capitalist class. This is because while it is obviously impossible to make sense of the problems which face Ghanaian businessmen without drawing on the theory, there are difficulties, too.

One is that the main concepts employed fail to distinguish between the different kinds of restraints on economic development in countries like Ghana. For example, the problems that arise for any country which has become committed to the goal of national economic development, at a stage when an integrated world economy already exists, are not new. Every country that followed Britain's industrial path had to reckon with its superior technology and the compelling "persuasion" of its buying power. The problems of late development today are, perhaps, different in degree rather than in kind. Nor can socialist countries entirely avoid this dilemma. Further, although Western influence has often held back some aspects of the modernization of indigenous social and cultural institutions and/or has helped to perpetuate pre-capitalist structures which are often inimical to any kind of development many would argue that countries like Ghana did not, in any case, possess the kind of institutions necessary for economic change prior to Western intervention. It is necessary, therefore, to distinguish analytically between those obstacles to national economic progress that originate in the relatively unprepared state of the pre-change society and the difficulties of late development, on the one hand, and those that have been caused both by past Western exploitation and the perpetuation of unequal terms in the relationship between the more and less developed countries, today, on the other. The first have been inevitable while the second, clearly, have not.

Secondly, there would seem to be different levels at which dependency occurs in the relationship between foreign and local capital, or different degrees of subservience versus autonomy. Some of these are more difficult to avoid and/or more potentially harmful to local business interests than others. Thus, limitations on local industrial investment caused by a recession in the advanced industrial countries, and therefore a fall in Ghana's earnings from the sale of primary goods as well as declining opportunities for exporting some of her manufactured goods, represents an aspect of dependency which is of an altogether different order from, say, the need to obtain certain kinds of technical training and experience

by seeking temporary employment in foreign firms. Again, being in "partnership" with the subsidiary of an overseas company, as the person who "eases" the firm's position in the local economy by acting as an intermediary in negotiations with government officials or managing "public lations", involves a degree of dependency and therefore loss of bargaining power which is a long way from the quasi-autonomy enjoyed by a competent local businessman who arranges to import the machinery and expertise of a British firm on a shared profit basis so that he can set up a new industry, particularly if he already has other, established business interests.

We have seen that there were different patterns of entrepreneurship among those who were studied in Ghana. The businessmen often varied in their responses to the problems and opportunities involved in handling different aspects of business life.

One important contrast was that between the businessman with a mainly practical background and the man whose previous experience lay additionally or entirely in the sphere of administration and/or commerce. The former tended to be more concerned with expressing his basic technical skills and showed a craftsman's pride in his work. He often insisted on continuing to be involved in day-to-day production long after the increase in the number of employees made this unnecessary. His concern was usually with product "quality" and satisfying the wants of individual customers who placed small orders. Where firm expansion took place it mainly took the form of bringing more and more apprentices into the enterprise whilst relying also on the often unreliable services of one or two skilled workers. The artisan-entrepreneur tended to display a low level of awareness concerning the importance of securing regular bulk orders through going out and establishing social networks or utilizing his existing social contacts. A lack of formal education or experience of large organizations had often left him lacking in the kind of confidence which would allow him to pester bank officials for loans or "enlist" the support of government civil servants in obtaining contracts or import licences. In so far as he showed any ability to innovate, its direction lay in creative experimentation with product design and the wish to cater for specialized and often luxury tastes.

By contrast the commercial and/or administrative orientation which other businessmen brought to their firms often made it easier for them to be true "organization-builders" than was possible in the case of the artisan-entrepreneurs. These were the kind of people who, in BARTH's (1967) terms, were likely to prosper by linking up two different markets or possible fields of business operations through converting the previously unused potential in one sphere into a form that rendered it desirable and therefore marketable in another. Essentially, they were often successful at making these connecting operations because they understood how to

create and extract surplus value through organizing hired labour in a reasonably efficient manner and to 'realize' the unpaid labour-time locked up in the commodities produced by establishing extensive market outlets. The latter, in turn, frequently involved the kind of manipulations and arrangements - in social, political and commercial relationships within and outside the firm - which are widely regarded as characteristically "entrepreneurial". Businessmen of this type who tried hard to achieve firm expansion mainly did so by gradually investing their profits in the acquisition of items of machinery while attempting, in many cases, to replace skilled craftsmen with less skilled and therefore more economically vulnerable machine operators whenever possible.

Of course the "purity" of these two types of entrepreneur must not be exaggerated. For one thing, not a few of those who were studied came from class, occupational and educational backgrounds which had equipped them with both practical and administrative/commercial skills. This was sometimes revealed in their dual ability to demonstrate "basic innovation" in one or another sphere of organization, technology or marketing and in creative product design as well. Moreover, a number of those whose original orientation lay mainly in artisanship learned through trial and error, as the demand for their products grew, and/or through seeking outside help in the form of new training or expertise,to make the changes in organization, technology and social networks necessary to sustain firm growth. Nevertheless, the contrast between the artisan and the commercial entrepreneur remains a very useful one.

In view of this it is tempting to make a simple equation between business success, as measured by firm growth, and the two types of entrepreneurial response. In fact, however, this is hardly adequate since not only were many of those with a mainly practical artisan background highly successful, for reasons mentioned in the previous paragraph, but, in addition, there were other patterns of entrepreneurship which often existed independently of the artisan/commerce dichotomy. These exercised an influence on business success in their own right.

One such variation in the entrepreneurial response concerned the desire to achieve fairly constant firm expansion with all that this entailed in terms of holding down personal consumption and being prepared to expend a great deal of energy and time in making continuous and often difficult alterations in firm organization. It seems quite clear that the businessmen who were studied did not all possess or develop this commitment to growth to the same degree. Partly, this was because the rewards were not sufficient in all cases to reinforce this desire for growth or indeed to make it possible at all and partly, no doubt, because personality factors or the sway of other interests or values made the straightforward desire

for a comfortable "living" coupled with the chance to "be your own boss" seem rather more attractive.

Another aspect of entrepreneurship which offered scope for varied responses and which was also important in influencing the likelihood of business success through its effect on capital accumulation was the whole question of the diversification of business interests. In Chapter IV it was argued that the tendency to spread investments through purchasing houses and, to a lesser extent, establishing firms in new fields of enterprise was quite strong among those who were studied. However, businessmen varied in terms of the speed with which they took up these alternatives after once starting their first firm; that is, the extent to which they concentrated on building up one major enterprise over a fairly long period of time before seeking additional outlets. They also varied in that some saw house building, with its relative security, as the main form which business expansion should take while others preferred to direct the greater proportion of their investments into organized enterprise. Furthermore, those who did eventually establish a second or third firm differed according to whether or not this involved activities that were fairly closely related or "linked" to their original business. In general, entrepreneurs who channelled a higher proportion of their profits into house building than into plant, materials or equipment, who began spending money on houses quite soon after going into business or whose second and third enterprises did not involve rational linkages with or extensions to their first firms, were less likely to be successful overall.

The approach which the entrepreneurs preferred to adopt in dealing with the questions of kinship involvement in business, management and capital-sharing also varied a good deal and these different approaches were often related to business success. The main differences here are, perhaps, best understood in terms of the concept of 'reference groups'. A reference group is the source from which an individual obtains his identity by making certain choices concerning the social group to which he wishes to belong and therefore the values by which he prefers to live since the individual will normally, though not always, find this group's standards the most compelling.[1] Thus, while some businessmen seem to have aspired to place themselves in a national and international arena right from the outset of their business careers and were, accordingly, willing and able to adopt a relatively impersonal, achievement oriented approach in dealing with firm relationships including the creation of a certain degree of social distance between themselves and their kinsmen, others, by contrast, only

1 For an extensive discussion of reference group theory see W.G. RUNCIMAN, Relative Deprivation and Social Justice (London: Routledge and Kegan Paul, 1966).

developed such an orientation later on after experiencing a certain amount of success. Where this change occurred it did so because firm expansion gave access to social networks that offered alternative sources of prestige and support as against those stemming from paternalism and kinship and because the needs of growth per se became increasingly incompatible with sole management and with the survival of unregulated kinship involvement and patron-client relationships with employees.

However, by no means all of those who were studied adopted or came, in time, to adopt a western-type status identity for themselves or moved away from the relatively limited business horizons and personalized relationships typical of petty commodity production. For some businessmen their reference group was the local community of kinsmen, neighbours, friends and employees. This in itself may have been a factor contributing to their relative lack of success. Others seem to have taken refuge in paternalism, playing the role of "father figure" in relation to kinsmen, employees and other dependents, as a kind of compensation for only modest achievement. Again, quite a few businessmen did succeed in building up fairly substantial enterprises even though many of their employees continued to be apprentices, former workmates or relatives and despite their desire to retain personal control of all aspects of firm life.

Throughout the previous chapters we have examined the alleged "weaknesses" of Ghanaian businessmen in the light of empirical data. On the whole we have found that such tendencies as, for example, the desire to establish a number of small unrelated enterprises, or the willingness to allow kinsmen to interfere unduly in firm operations, both of which are supposed to reduce the rate of capital accumulation, are much less prevalent and destructive than is usually supposed. Another criticism frequently levelled at local businessmen in Ghana, and elsewhere in Africa, is that they can only succeed in business life by using political and social connections to obtain bank loans, private contracts or government patronage in the dispensation of import licences and public tenders. This, too, was found to be very far from true in the majority of cases and nowhere less so than in the use of direct access to political power through membership of, or a position in, a political party. Further, those who did benefit from bank loans, import licences or government contracts obtained partly by drawing on some kind of political or social connection normally did so only after they had already exhibited a good deal of skill and effort in building up a sizeable enterprise. "Luck" tends to favour those who are properly prepared to benefit from the potential it offers. In any case it is interesting to speculate why it is that local businessmen are so often singled out for criticism in this regard while foreign firms, both large and small, who are known to use the same tactics and who have far greater opportunities to do so, owing to their greater wealth, are often not attacked to the same extent.

As a general point, therefore, it can be said that Ghanaian businessmen respond to these and other problems in very different ways and it is extremely unhelpful to make assumptions about their behaviour as a group particularly when this means criticizing the many, for the most part unjustly, for the sins of the minority. Of course, there were important areas of business life where, despite a number of important exceptions, many firms did evince certain fundamental shortcomings. The problem of marketing was often approached in an unsystematic and half-hearted manner. Also, in a number of firms the unwillingness to delegate authority to subordinates and to establish capital-sharing arrangements remain formidable obstacles to expansion. At the same time, it is no doubt true that any economist who visited these firms determined to measure capital-output ratios, labour productivity rates and capacity utilization (providing he could lay his hands on the necessary precise data) could readily demonstrate the existence of all kinds of inefficiencies - although some of these, for example, the degree to which plant and machinery are under-utilized, would apply to large government and foreign companies, too.

However, as has been repeatedly argued throughout this book, the weaknesses shown by those who were studied need to be understood in terms of the difficulties they faced. These stem from the hazards endemic in Ghana's society, polity and economy. An indifferent and often hostile government and civil service, especially in the years before 1970, the poor and fluctuating investment opportunities offered by Ghana's dependent economy and competition from foreign firms possessing greater resources are among the problems which have combined to create an environment that offers relatively poor and uncertain rewards to those who show an ability and willingness to engage in economically rational behaviour through long-term involvement in productive enterprise. The "culture of capitalism" cannot easily take root and flourish where the institutional and economic climate inhibits the "right" business responses because it fails to offer an adequate reinforcement in the shape of economic and social rewards. Given this analysis it would seem more accurate to view some of the behaviour shown by Ghanaian businessmen as unavoidable responses to a situation of considerable difficulty rather than as evidence of failure or weakness. Indeed, viewed in this light the ability that many showed in building up profitable enterprises from small beginnings, their capacity to develop reasonably efficient systems of production and marketing and to increasingly challenge at many points the established foreign companies, seems rather creditable.

This discussion brings us to a final question that was raised at the beginning of this book; namely, in what ways has the nature and climate of Ghanaian enterprise been changing over the last decade. Two trends are particularly deserving of comment. One is the declining opportunities

over the last twenty years or so for the artisan-entrepreneur to move out of petty commodity production and establish a large firm that can compete effectively with the big companies. This does not mean that small producers can no longer continue to play an important role in Ghana's economy by providing goods and services in the form of cheap, essential commodities for the urban and rural poor and, in some cases, small quantities of luxury goods as well. Indeed, the argument that such petty services are essential to the survival of the multinational corporations in countries like Ghana, since they help to keep modern-sector wage levels low, bears a good deal of examination. Nor is this statement meant to imply that small-scale labour-intensive enterprises with their capacity to create employment opportunities are less preferable than large scale capital-intensive ones. In fact the relevance of the employment factor is amply demonstrated by the data gathered for this study. Rough calculations based on the 126 manufacturing firms in the sample suggest that for a total investment of approximately five million cedis in plant and equipment these manufacturers, between them, managed to provide jobs for about 5,500 people. It is also true that many of these were untypical of Ghanaian-owned firms in general since larger more advanced manufacturing enterprises were over represented in the study. The majority of indigenous firms have very little expensive equipment installed, if any. By contrast, the total cost of investment in plant and equipment, up to 1970, for the state-owned Fibre Bag, Glass Manufacturing and Steel Corporations, for example, was approximately eight and a half million cedis. These investments provided employment for no more than 2,000 people.

Rather, the point being made about the artisan entrepreneur is that whereas twenty or thirty years ago some of those whose training was partly or entirely of a practical nature were able, as we have seen, to slowly build-up large firms this has become more difficult (in the industries studied) as a nucleus of foreign, state and local private firms has emerged and established a hold on the market. So long as Ghana's economy continues to be dominated by the logic of capitalist competition and given the "sophistication" shown by its consumers it is those with sufficient capital to buy modern equipment and administrative and commercial skills who are likely to do well in the future. Businessmen who lack contacts with government officials and overseas firms, or who do not possess the ability to establish them, and those who rely on the labour of apprentices or craftsmen, either through preference or lack of capital, are likely to be confined more and more to the lower end of the market, to be heavily dependent on unreliable and costly sources of supply for their raw materials and on better organized, sometimes unscrupulous, traders for their market outlets.

Another change may have been taking place in certain fields of business enterprise in Ghana over the last ten years or so; namely, what might be called the "professionalization" of entrepreneurship. The resources that are increasingly required for business success provide considerable advantages to those people who have some experience of higher education and who previously worked in a professional, managerial or executive capacity. This is not only true of those "new" fields of enterprise, like advertising, the provision of consultancy services, insurance broking and so on, where this would be expected, but it is also relevant in the industries that were studied as well as in some, like vehicle repair, which were not. Farming, too, has increasingly provided an arena for private as well as state investment by people with the means to establish large-scale farms using modern methods. Maize farming, rice cultivation in Northern Ghana and poultry keeping are the most outstanding examples of this. Those who move into these fields tend to be people who can command support from others - relatives, former college friends or professional colleagues - who hold "good" positions in the civil service, in industry, the banks, the universities and so on. Some retain their positions as officers in the army, as university lecturers or managers of the state corporations, while others resign from these positions in order to give all their time to their own businesses, taking with them the knowledge and the commercial contacts with banks, suppliers and buyers built up during their period of employment.

Whether this new type of capitalist entrepreneur will eventually take over completely, in certain fields, and will prove to be more concerned with economic nationalism and more capable of utilizing Ghana's previously under-used resources than the first generation of 'modern-sector' entrepreneurs, who came from more lowly backgrounds, remains to be seen. What may make this difficult is the growing opportunity in Ghana today for those who possess the necessary connections to make a great deal of money through a variety of speculative and/or illegal ventures. Among these are the following: smuggling, illegal exporting, hoarding essential commodities, engaging in dubious foreign exchange transactions, securing the right to hold a quasi-government monopoly control of certain goods and resources, gaining the planning rights from local councils or chiefs to build expensive, urban, rented accommodation, and so on. The fact that these opportunities abound is partly a reflection of the increasing penetration of the market economy into every sphere of Ghanaian life so that people's material expectations are constantly being raised while the criteria of "cash-value" is brought to bear in most relationships and spheres of action to a greater or lesser degree. But, paradoxically, they are also a consequence of Ghana's superior manufacturing capacity compared to the surrounding French-franc countries - so that there is much to export - alongside recent government policies which are designed

to progressively curtail the importation of more and more manufactured goods. This combination of circumstances, along with other factors like the difficulties created by several years of inadequate rainfall in the mid-1970s and the fact that the value of the cedi is far out of line with the value of currencies in neighbouring countries, has created shortages on a vast scale. Scarcity has given rise to numerous speculative and sometimes illegal activities. In such an economic climate the able and the talented, particularly if they are not confined by lack of capital, education and social connections to seeking profit in more mundane but productive fields, may be attracted by the prospect of "easy" gains in these areas. In addition, the interference and distortions in the economy produced by these activities may further widen the gap between the need for a "culture of capitalism" and the capacity of society to provide the kind of environment in which this can emerge.

Needless to say we are moving here very much into the realms of speculation. Hopefully, further research into the different types of entrepreneurship in Ghana and other African countries will throw more light on these issues in the near future.

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Paul T. Kennedy was born in 1941. After finishing his studies in social sciences, he taught in the Department of Sociology at the University of Ghana between 1967 and 1970 and returned to Ghana in 1977 for another 6 months to teach at Cape Coast University. For two years, the author was also attached to the Institute of Development Studies at Sussex University. The Ph.D. was obtained from Birmingham University in 1974. Presently employed as a senior lecturer in the Department of Social Science at Manchester Polytechnic, he continues teaching and research into various aspects of development and sociology of the Third World. Other publications include articles in The Review of African Political Economy, African Affairs and Bulletin of the Institute of Development Studies.

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*This paper has been published as part of Michigan State University's Off-Farm Employment Project, which is financed by the Office of Rural Development and Development Administration, Development Support Bureau, U.S. Agency for International Development (AID/ta-CA-2). Funding for the survey and analyses were provided by this project as well as by USAID/Jamaica. The assistance of Annette Francis in the preparation of an earlier version of this paper is gratefully acknowledged.

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This paper is one of a series of reports produced by Michigan State University's Off-Farm Employment Project. The project, which is funded by the Office of Rural Development and Development Administration, Development Support Bureau, U.S. Agency for International Development, has the basic purpose of enhancing the ability of AID missions and host country institutions to identify and implement programs and policies that generate off-farm employment and income opportunities benefiting the rural poor. One of the major components of the project is the generation of new knowledge relating to rural non-farm activities. In collaboration with host country institutions and AID missions, detailed field surveys of small-scale enterprises are currently being conducted in Bangladesh, Jamaica, Honduras, and Thailand; the results of these studies will be published in this series. A second component of the project involves the marshalling and dissemination of existing knowledge of rural non-farm activities. A state-of-knowledge paper and special studies relating to off-farm activities will also appear in this series. Previously completed studies in this area currently available through the Off-Farm Employment Project include:

1. Carl Liedholm, "Research on Employment in the Rural Non-Farm Sector in Africa," African Rural Employment Paper No. 5, 1973.

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3. Enyinna Chuta, "The Economics of the Gara (Tie-Dye) Cloth Industry in Sierra Leone, February, African Rural Economy Working Paper No. 25, 1978.

4. Adewale Mabawonku, "An Economic Evaluation of Apprenticeship Training in Western Nigerian Small-Scale Industry," African Rural Employment Paper No. 17, 1979.

5. Steve Haggblade, J. Defay and Bob Pitman, "Small Manufacturing and Repair Enterprises in Haiti: Survey Results," Michigan State University Rural Development Series, Working Paper No. 4, 1979.

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U.S.A.

I. INTRODUCTION

This is the first technical report on the SMALL-SCALE, NON-FARM ESTABLISHMENT SURVEY sponsored by the Small Enterprise Development Corporation (SEDCO) and conducted by the Institute of Social and Economic Research (ISER) of the University of the West Indies, in collaboration with Michigan State University. The execution of this survey is an example of a growing interest in the potential role of small-scale industries in economic development strategies. (See United Nations (1969), Chuta and Liedholm (1975, 1976). Despite this interest, there is very limited information on the extent, structure and characteristic features of the small-scale sector; in addition, very little is known about the economic environment within which it functions. To remedy this paucity of information, an increasing number of countries are now realizing the need for comprehensive surveys of small-scale establishments.

1.1. Definition

Non-farm, small-scale enterprises may be defined using different criteria depending on the level of economic growth, population density, policy measures to be taken, and the extent of data deficiency. Within the context of this paper, "non-farm" refers to all enterprises not directly related to agriculture; however, this definition excludes those enterprises involved in transport activities, hotels, higgling and

chain stores whose combined employment exceeds twenty-five workers.[1] Since the small-scale sector is felt to be labor intensive, many analysts choose to define it in terms of the number of people employed in each enterprise. Because employment numbers differ from one type of enterprise to another with varying levels of capital intensity, a more precise approach would be to include the value of finance, capital invested, and/or gross sales, as part of the definition. In the initial stages of the Jamaican small-scale survey, the capital investment was excluded because it was felt that respondents would not disclose their true investment figures. Hence, within our context, a small-scale establishment is defined as one which employs 25 or fewer people.

This preliminary report is structured as follows: we first examine the history of industrial development in Jamaica, with focus on the role of Government vis-a-vis small-scale enterprises; this is followed by a discussion on the research methodology employed in the survey. We then present an examination of data from Phase I of the survey, analyzing certain specific issues. Our analysis deals with the number of establishments; the levels of employment by enterprise groups and location; the structure of the work force; the usage of powered machines; the level of record keeping, and the type of workshop structures. In the final section, findings to date are summarized and some general comments on future analysis are presented.

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[1]In this paper, "non-farm" is implied in any reference to small-scale.

1.2. Historical Pattern of Industrial Development in Jamaica

Jamaica has a population of 2.1 million (1978), an area of 4411 square miles, and a population density of 410 persons per square mile. The national income per capita in 1978 was US $981. About 60% of the population is rural based, and the Jamaican economy relies heavily on primary agricultural production. The major economic sectors are bauxite/alumina, agriculture, tourism, and manufacturing. Jamaica is an import-dependent economy currently purchasing significant quantities of consumer goods, raw materials and machinery from abroad. With increases in world oil prices and a relative decline in prices of primary agricultural commodities, Jamaica, like many non-oil producing countries, is affected by severe balance of payments problems.

There was very little industrial activity in Jamaica prior to the early 1950s. Industrial activity was limited to preliminary processing of primary products (mainly agricultural) for export, and the manufacture of light consumer goods for the local market, especially those for which transportation costs from the metropolitan countries were prohibitive.

The Jamaican Government in the early 1950s began to promote industrial development on a much wider scale. The work of Lewis (1944, 1950) was extremely influential in guiding government decision-making. The basic line of his reasoning was that the Caribbean colonies were labor-surplus economies short of local finance capital and entrepreneurial ability. What was required was for Caribbean economies to attract foreign capital and entrepreneurial talent. Certain incentives had to be offered by the government to foreign private investors. These incentives, including generous tax holidays, were offered to foreign investors under the Pioneer Industries (Encouragement)

Law (1949), the Industrial Incentives Law (1956), and the Export Industries (Encouragement) Law (1956).[1] The government also established the Industrial Development Corporation (1952) which provided, inter alia, cheap factory space and easy access to power, water, and transportation to those firms operating under the industrial incentive laws.

These policies met with limited success. Certain deficiencies included the establishment of a small number of enterprises, low employment effects, low domestic value-added, the introduction of machine-intensive technology and overall loss of potential government tax revenue. The finance capital, technology and raw materials were obtained mainly from overseas sources (where these firms were branches of foreign owned multi-national corporations). The transfer of profits was guaranteed under the incentive laws. Thus, the main benefit which accrued locally was in the form of wages and salaries to a small number of local workers.[2] The deficiencies in the industrial structure and in the pattern of industrial development in Jamaica persist although it can be argued that successive governments have attempted to increase the level of direct state involvement and participation in industrial activity.

Overall, the manufacturing sector has, over the last four years, been adversely affected by numerous factors causing negative growth and stagnation. Because of its continued reliance on imported inputs, and given the severe shortage of foreign exchange, manufacturing output, employment, and real wages have declined significantly. The sector now contributes 16.8% of

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[1]See Chen-Young (1966, 1967) and Jefferson (1972, Chapter 5) for a review of incentive measures in Jamaica.

[2]See Brewster and Thomas (1967) for a detailed analysis of these policies.

Gross Domestic Product (1978) and employs 78,000 persons or 11.1% of the employed labor force (1978).[1]

1.3. Government's Activities vis-a-vis Small-Scale Enterprises

An historical assessment of the contribution of small-scale enterprises to Jamaica's industrial development cannot be exhaustive, given the absence of reliable data. The early activities of small businesses in Jamaica were restricted to handicraft, garments, footwear, repairing and servicing, and commodity trading. Small-scale handicraft, repairing and servicing, and trading were dominant in the very early stages; garment and footwear production developed as the government began to take an initial interest in the promotion of small enterprises with the establishment of the Small Business Loan Board (SBLB) in 1956.

In the pre-independence period, government involvement in the provision of assistance to small-scale enterprises took the form of financing through the Small Business Loan Board (SBLB). Initially, the SBLB was empowered to grant loans (maximum J£500 = J$1,000)[2] to small businesses. Small businesses often faced serious working capital shortages because of the limited size of the loans granted and the fact that most of such loans were utilized for fixed capital purchases. The SBLB provided minimal advice to small-scale enterprises on issues related to financial and other management practices, marketing and use of technology. Even where such assistance was made available, it was limited to SBLB's debtors. Although in operation at that time, the Jamaica Industrial Development Corporation (JIDC) was established to facilitate

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[1]See Economic and Social Survey, Jamaica 1978, National Planning Agency, Kingston, Jamaica, Section 9.1.

[2]In 1978, J$1 = US$0.645

economic activities of the larger enterprises and as such, paid little attention to small local firms.

The fact that small-scale firms were being seriously neglected was recognized by the government in the immediate post-independence period. The 1963 - 1968 Five Year Independence Plan (1963) points out that:

> "Insufficient attention has been paid to the problem of assistance to very small enterprises and the need to help and encourage them to improve their techniques and expand their activities."

The government aimed to "provide special and suitable help to small establishments" as part of its policy to correct these deficiencies. Little assistance to small-scale enterprises actually materialized during the Plan period. Most of this came in the form of financing through SBLB, with the loan ceiling to individual small enterprises being increased to J£1,000 = J$2,000, and J£200,000 = J$400,000 being allocated for disbursement over the period 1963 - 1968. With the industrial development thrust mainly supportive of larger enterprises, it was not surprising that direct assistance to small establishments was minimal.

It was not until the mid 1970s that government reconsidered the role of small enterprises in the national economy and sought to actively promote their development. Some 14 industrial activities were identified as priority areas suitable for small-scale enterprises; these included furniture, garments, footwear, wooden toys, and food processing. In addition, the government proposed an integrated institution to handle finance, marketing and general developmental problems of small enterprises. Such an institution was to be established by integrating four government agencies. These were the SBLB; the Development Venture Capital Financing Limited (DVCF) established in 1973, as a branch of the Jamaica Development Bank (JDB); the

Small Industries Development Division (SIDD) - a department of JIDC, also established in 1973; and the Small Business Financing Scheme (SBFS), operated by the Bank of Jamaica. These plans for integrating the major state enterprises with responsibility for small business development did not materialize.

Government's involvement in the promotion of small-scale enterprise development during the period 1975 to the present has increased significantly. In 1977, SEDCO began its operations by basically absorbing the activities of SBLB and SIDD. SEDCO is expected, inter alia, to provide financial and technical assistance to very small-scale enterprises. During the same year (1977), Premier Investment Corporation (PIC), a subsidiary of the Bank of Jamaica, was established with objectives similar to SEDCO's but providing financing through commercial banks and concentrating on the larger of the small enterprises. Additional assistance was granted by the government during the period through the building of industrial complexes, especially for small-scale enterprises, and the provision of training facilities for small entrepreneurs.

The government reiterated its commitment to the development of small-scale enterprise in its most recent Development Plan (1978). The Plan identifies SEDCO as the major government institution through which financing, technical and marketing assistance will be provided to small-scale enterprises. A sum of J$68 million is projected for the development of small industries over the Plan period, and it is also proposed that co-operatives be encouraged as the dominant enterprise for small businesses.[1] The stated

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[1]See National Planning Agency Five Year Development Plan 1978-1982 Main Document, Kingston, Jamaica, 1978, pp. 40-53.

objectives of the government in the Development Plan for the next five years clearly provide for wide ranging assistance to, and promotion of, small-scale enterprises in Jamaica.

II. RESEARCH METHODOLOGY

2.1. Sampling Procedure

The sampling design being used in the study is a two-stage stratified sampling approach. The first stage of stratification was at the parish level while the second was the population size distribution of localities. Every parish was included in the survey since parish capitals exert some spatial socio-economic influence on the surrounding areas and also because national plans and policies should be formulated with existing administrative divisions in mind. It is expected that this approach would increase the use of the research results.

The second stage of stratification was necessary as similar studies in other countries have shown that the economic features of small-scale enterprises vary with population size distribution within a country.[1] The country was stratified into four population size categories (strata) using the 1970 population census, which represents the most recent and comprehensive demographic information. The selection of sampling areas was from over

[1]See Liedholm and Chuta (1975).

60 rural towns[1] and more than 2,250 enumeration districts.[2] For various reasons, use of the 1970 census data does not affect the reliability of the sample. For one, any relative population size changes would have a cancelling effect so that there is little distortion for the nation as a whole. Secondly, it is safe to assume that in the majority of cases, the relative population size changes were not significant enough to take any locality out of its stratum; for example, 99% of the E.D.'s had population sizes of less than 1,000, with an average of about 500. Finally, it is unlikely that since 1970, the population of any rural locality would have more than doubled; hence one can reasonably argue, that they will remain in the "2,000 or less" size category.

The four population size strata were:

(i) Below 2,000 (i.e., the Enumeration Districts or E.D.'s)

(ii) 2,000-20,000 (i.e., the small or rural towns)

(iii) 20,000-100,000 (i.e., the three major towns - Spanish Town, May Pen and Montego Bay)

(iv) Above 100,000 (i.e., Kingston)

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[1]By "rural" we mean any locality with less than 20,000 population size. "Rural Towns" refer to those with population sizes of 2,000-20,000; in Phase I of the survey, 29 of these towns were in the sample, and 8 of the remaining were covered as special studies. The rural towns included in the sample were Mandeville, Savanna la-mar, Morant Bay, St. Ann's Bay, Bog Walk, Port Maria, Bull Savanna-Junction Area, Hayes, Chapleton, Bull Bay, Seven Miles, Lucea, Seaforth, Buff Bay, Black River, Point Hill, Albert Town, Race Course, Anchovy, Golden Grove, Lacovia, Cambridge, Bethel Town, Wakefield, Sandy Bay, Lawrence Tavern, Oracabessa, Claremont, Above Rocks, and Gayle.

[2]For the purpose of the 1970 Population Census Survey, Jamaica was divided (by the Department of Statistics) into localities called Enumeration Districts (E.D.'s). In the majority of cases, the boundaries of these E.D.'s are the same as they were in the 1960 Population Census Survey. A random sample of about 90 E.D.'s were covered in Phase I.

Only a fraction of each of the first two strata were randomly chosen for complete enumeration due to the large number of sampling units. Thus, a 4% random sample of the first stratum and 50% of the second stratum were included in the Phase I survey. The sample results were then appropriately expanded to reflect the national figures. Because of their importance due to population and level of economic activity, all places falling in the last two strata would be automatically included in the sample. All 14 parishes in the country (including Kingston) were covered in the survey.

Using the random sampling procedure described, three parish capitals (Santa Cruz, Port Antonio, and Falmouth), two resort towns (Negril and Ocho Rios) and a few major rural towns (Old Harbour, Linstead, and Central Village) did not fall into the sample. These places were included in Phase I as special studies, and although not part of the more detailed analysis, data were also collected from these locations.

The survey in Jamaica is being conducted in three phases. Phase I was addressed to the identification of the number, composition and location of small enterprises (both manufacturing and distribution) throughout Jamaica. The main objective in this Phase, was to prepare a nation-wide sampling frame (statistical list) for Phase II and Phase III. Hence, it dealt mainly with identification and listing of different types of enterprises and their geographical location. However, additional data were collected in the process, including information on the type and number of people employed in the business, the type of workshop structure, the number of powered machines, and whether or not the firm used any record keeping system.

The procedure in Phase I was to conduct a complete enumeration of designed places from each stratum through a street-by-street canvassing of areas, which lasted about four months.[1] There were various difficulties encountered in executing this Phase. First, there were "teething" problems common to the early stages of almost all surveys; second, there were problems of transportation directly related to the fact that the survey was so expansive encompassing many rural areas to which access was difficult. Third, enumerators encountered initial suspicion by the respondents, particularly in some areas.

2.2. Phase II and III

Phases II and III concentrate on manufacturing activities. For Phase II, the study utilized a sample of manufacturing enterprises drawn from the Phase I list, giving emphasis to background socio-economic information on the entrepreneur and establishment, along with issues related to the sources and uses of credit. A sample of about 1,000 manufacturing enterprises was randomly selected on a national basis from the Phase I list, giving due proportionality weights to the total number of manufacturing enterprises in each stratum and to the types of enterprise. Data collection for this exercise took about one and one half (1½) months and responses from about 700 firms were obtained. Among the problems encountered in this Phase were the continued suspicion of respondents and the fact that several establishments had ceased operations since the completion of Phase I.

Phase III, the main area of research activity, was aimed at generating flow-type information on manufacturing enterprises for factors of production,

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[1]The Phase I survey was conducted from September 1978 to December 1978.

output, credit and other relevant variables. It has a total of seven (7) stock (inventory type) and flow-type questionnaires. Some of these questionnaires required twice-a-week visits to each respondent while others were done on a weekly, monthly or quarterly basis. To get the total and accurate picture of a business activity such visits will be conducted for one year. The sample respondents for Phase III were picked from Phase II responses. Again, due regard was paid to the total number of manufacturing enterprises between strata and to the number of enterprises of each type within a stratum. The study is currently dealing with about 300 respondents.

Certain problems in this Phase have affected the smooth functioning of the survey; among those easily identifiable is the national economic crisis which forced closures of many small enterprises, and reduced significantly the viability of those still engaged in productive activity.

III. DESCRIPTIVE PROFILE, PHASE I RESULTS

3.1. Introduction

The data from Phase I are disaggregated on the basis of the nature and type of economic activity conducted by the enterprise (i.e., food, woodwork, metalwork, etc.) and by geographical location (i.e., Kingston, major towns, rural towns and rural enumeration districts). In the survey, nine (9) broad enterprise groups or categories are identified, as follows:

(1) Food Preparation and Processing (i.e., meat and milk processing, fruit and vegetable canning, bakery, bammy and condiment production, etc.)

(2) Textiles and Wearing Apparel (i.e., tailoring/dressmaking, shoemaking, leather works, etc.)

(3) Craft and Related Products (i.e., bag making, coir/sisal/straw works, bamboo and cane works, wood carving, etc.)

(4) Woodwork (i.e., sawmilling, carpentry and general woodwork, upholstering, etc.)

(5) Metalwork (i.e., general metalwork, blacksmith, goldsmith, tinsmith, welding, etc.)

(6) Repair Work (i.e., car repair, bicycle repair, tire repair, other machinery repair, etc.)

(7) Other Manufacturing (i.e., printery, block/brick/tile making, rubber, paper, plastic and chemical products, jewelry, etc.)

(8) Distribution (i.e., groceries, retail stores, wholesale, etc.)

(9) Other Non-Manufacturing Services[1] (i.e., bars, restaurants, dry cleaning, hair dresser/barber, etc.)

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[1]For ease of reference, the nine categories will be referred to as Food, Wearing Apparel, Craft, Woodwork, Metalwork, Repairs, Other Manufacturing, Distribution, and Other Non-Manufacturing respectively.

In certain instances, focus was placed on the first seven categories in order to draw attention to what may be termed "production-oriented" activities. The disaggregation of data by location permitted identification of variations due to location or population densities and hence will inform decision-makers on the necessity to make special provision for these differences. All tables used in the presentation are derived from Phase I data of the survey.

3.2. National Distribution of Establishments and Employment

In Table 1, we present the basic national data on the small-scale sector, in terms of the number of establishments and the level of employment. Nationally, there are just under 38,000 establishments employing approximately 79,000 workers with an average of 2.1 workers per establishment. Employment by small-scale enterprises accounted for 11% of total employment in Jamaica in 1978. When the establishments are grouped into two broad categories (i.e., manufacturing and non-manufacturing), the data show that the non-manufacturing category is dominant. Non-manufacturing activity accounts for 63% of all workers and roughly the same percentage of establishments. The average number of workers per establishment in both categories is roughly the same, although the enterprise group variations within manufacturing are great.

An examination of the nine individual enterprise groups indicates that Distribution is the largest, accounting for almost 50% of the establishments (18,677) and roughly 36,500 workers (46% of the total labor force in the small-scale sector). In terms of the number of establishments, Distribution is followed by Wearing Apparel (5,915), Other Non-Manufacturing (5,720) and Craft (3,801). In terms of employment, Other Non-Manufacturing, with a higher per establishment work force, employs around 13,500 workers, about 50% more than the next largest category, Wearing Apparel. Of special interest is

TABLE 1

Jamaica: Distribution of Small Scale Establishments and Employment by Enterprise Group - 1978

Enterprise Group	Establishments		Workers		% of Establishments and Workers in Manufacturing		Average Number of Workers Per Establishment
	Number	%	Number	%	Establish-ments	Workers	
Food	289	0.8	2,001	2.5	2.2	6.8	6.9
Wearing Apparel	5,915	15.7	8,831	11.1	44.3	30.1	1.5
Craft	3,801	10.1	6,826	8.6	28.5	23.0	1.8
Woodwork	1,191	3.2	3,382	4.3	8.9	11.5	2.8
Metalwork	429	1.1	1,668	2.1	3.2	5.7	3.9
Repairs	1,172	3.1	4,763	6.0	8.8	16.2	4.1
Other Manufac-turing	546	1.4	1,887	2.4	4.1	6.4	3.5
All Manufacturing	13,341	35.3	29,358	37.0	100.0	100.0	2.2
Distribution	18,677	49.5	36,445	46.0	---	---	2.0
Other Non-Manu-facturing Services	5,720	15.1	13,481	17.0	---	---	2.4
All Non-Manufac-turing	24,397	64.6	49,926	63.0	---	---	2.1
All Enterprises	37,738	100.0	79,284	100.0	---	---	2.1

SOURCE: Survey Data

Food which, although having the least number of establishments (289), employs 2,000 workers, thus having the highest number of workers per establishment. Statistics indicating the average number of workers per establishment in the different enterprise groups are presented in Table 1. This information facilitates an examination of employment possibilities among small enterprises and may be useful for manpower planning. The Food enterprise group had the highest average number of workers per establishment (6.9) followed by Repairs (4.1) and Metalwork (3.9). At the same time, the lowest average number of workers per establishment are in Wearing Apparel (1.5), and Craft (1.8).

More detailed information on those enterprises which comprise our broad enterprise groups has shown interesting results. The data summarizing these results are presented in Appendix I. We now examine these enterprise groups in greater depth.

3.2.1. Food. Nationally, this group is dominated by bakery and condiments (which includes "other" food processing work) establishments which account for 43% and 34% of the total number of the group's establishments, respectively. They are also the two leading employers of labor, accounting for 48% and 45% of the labor employed. Based on the average number of workers per firm, condiments manufacturing establishments are the largest (9.2) followed by fruit and vegetables (8.2) and then bakeries (7.8).

3.2.2. Wearing Apparel. At the individual enterprise level, the most important in this group are dressmaking, tailoring, shoemaking/repairs and leather work. Dressmaking is the most significant category accounting for for 47% of total enterprises and 39% of workers. The second largest enterprise type in the wearing apparel group is tailoring which accounts for 32% of total enterprises and 33% of the workers employed. Shoemaking/repairs

is the third most important category with 18% of total enterprises and a similar percentage of employment. Garment making, although insignificant within the group in terms of the number of enterprises with only 2% of total, employs 9% of the group's work force.

3.2.3. Craft. This group is totally dominated by enterprises producing commodities made from coir, sisal, and straw. This category (abbreviated "coir") accounts for 86% of all craft enterprises and 88% of all employment generated. "Bamboo" (production of commodities using bamboo, wood, and cane) is the other significant category in the craft group; these enterprises account for 14% of total craft producers, and 11% of the employment generated there. Coir and bamboo activities together dominate the area of craft production, accounting for 99.8% of all craft producers and generating 99% of total employment. The other enterprise group identified (bagmaking) is comparatively insignificant, with less than 1% of total craft enterprises and about 1% of employment.

3.2.4. Woodwork. The most important category in this group is woodwork/cabinet making which accounts for 73% of enterprises and 78% of workers employed. Upholstering is the other important area of economic activity with 20% of enterprises and 15% of total employment. Sawmilling and carpentry establishments make insignificant contributions to the sector both in terms of employment and number of enterprises. There are some 40 small sawmilling establishments operating throughout the country.

3.2.5. Metalwork. Welding, metalwork, and blacksmithing enterprises dominate the group, with welding accounting for 48% of total establishments and 44% of total employment. Metalwork, defined as a separate category here, includes metal forging and production of bolts and joints. This category

has 27% of the total enterprises and generates 36% of total employment in the group. Blacksmithing enterprises, the third largest category, represent 20% of the group's total and account for 15% of employment. Welding, metalwork and blacksmithing comprise 95% of all enterprises and generate a similar percentage of all employment in the metalwork group.

3.2.6. Repairs. Car repair activities/garages account for 89% and 92%, respectively, of the establishments and employment in this group. When bicycle and tire repairs are added, the corresponding combined percentages are 92% and 94%. Enterprises engaged in plumbing have corresponding statistics of 6% and 4%. Other machinery repairs account for a small proportion of both total enterprises (3%) and employment (2%) of the group. Car repairs have the highest average number of workers per enterprise (4.2). It is followed by other machinery repairs (3.4).

3.2.7. Other Manufacturing. Compared with other groups, this category shows the least dominance by any type of enterprise. At the aggregate level, charcoal production (which is almost exclusively found in the E.D.'s) accounts for 28% of the enterprises but only 8% of the employment. Other important enterprises are jewelry and watch repairs, photo studios, brick making, pottery, and printing.

In terms of employment in this enterprise group, more than half is generated by firms producing plastics (22%), bricks/tiles (17%), printed materials (14%), and pottery (10%). The per firm average number of workers is highest in plastic production (15.1), followed by printing (5.7), bricks/tiles (4.7), and pottery (3.1).

3.2.8. Distribution. This is an extremely important group, accounting for 49.5% of enterprises and 46% of estimated employment. It is dominated

nationally by grocery stores which account for 85% of the number of establishments in the group. The next largest percentage of the group is other retail stores at 12%. Although the average grocery store employs only 1.7 persons, compared to 5.3 for hardware and 4.1 for flower shops, its numerical dominance results in accounting for approximately three-fourths of the total number of workers in the sector. Its dominance also pulls the average establishment work force down to 2.0.

3.2.9. Other Non-Manufacturing. The bar/restaurant establishment type dominates this group to an even greater extent than grocery stores dominate distribution, accounting for nearly 90% of the total number of establishments and approximately 88% of the number of workers. The hair dresser/barber salon establishment is the only other of significance, accounting for 7% and 6% of the number of establishments and number of workers, respectively.

3.3. Locational Variations in Establishments and Employment

The variations which result from a locational breakdown are presented in Tables 2 and 3. The Rural Enumeration Districts (E.D.'s) dominate both in terms of the total number of establishments and employment. In the latter case, this dominance is not as great because the average number of workers per establishment in the rural E.D.'s is the lowest of the four groups (1.7). This compares with 3.4 for Kingston, 3.1 for the major towns and 2.8 for the rural towns.

In Appendices II, III, IV, and V we present data on Kingston, the Major Towns, the Rural Towns, and the Rural E.D.'s, respectively. The Kingston area is of special interest for certain reasons. First, employment in the manufacturing enterprise group as a whole when compared with the

TABLE 2

Jamaica: Distribution of Small Scale Establishments and Employment by Location - 1978

Location	Number of Establishments	% of Establishments in each Region	Number of Workers	% of Workers in each Region	Average Number of Workers per Establishment
Kingston	4,244	11.2	14,224	18.0	3.4
Major Towns	2,116	5.6	6,614	8.3	3.1
Rural Towns	3,878	10.3	10,696	13.2	2.8
Rural E.D.s	27,500	72.9	47,750	60.5	1.7
Jamaica	37,738	100.0	79,284	100.0	2.1

SOURCE: Survey Data

TABLE 3

Jamaica: Percentage Distribution of Establishments and Employment By Enterprise Group Among Population Size Strata

Population Size Strata / Enterprise Group	PERCENTAGES									
	KINGSTON		MAJOR TOWNS		RURAL TOWNS		E.D.s		JAMAICA	
	Estab-lishments	Employ-ment	Estab-lishments	Employ-ment	Estab-lishments	Employ-ment	Estab-lishments	Employ-ment	Estab-lishments	Employ-ment
Foods	22.5	23.5	9.7	11.4	15.9	18.9	51.9	46.2	0.8	2.5
Wearing Apparel	10.3	22.8	5.0	8.0	9.1	11.7	75.6	57.5	15.7	11.1
Craft	2.6	4.0	3.3	3.0	0.4		93.4	92.3	10.1	8.6
Woodwork	23.9	35.5	8.8	13.1	14.8	15.8	52.5	35.5	3.2	4.3
Metalwork	30.1	37.2	10.3	10.1	12.6	9.2	46.6	43.5	1.1	2.1
Repairs	34.7	39.3	12.9	13.3	22.5	24.9	29.9	22.6	3.1	6.0
Other Manufacturing	22.0	25.9	7.7	11.0	15.4	14.1	54.9	49.0	1.4	2.4
Manufacturing Enterprises	12.9	23.7	5.9	8.8	8.9	12.2	72.3	55.3	35.4	37.0
Distribution	7.9	11.2	4.7	7.0	9.6	12.8	77.8	69.0	49.5	46.0
Other Non-Manufacturing Services	18.5	23.7	7.8	11.0	15.6	18.0	58.1	47.3	15.2	17.0
Non-Manufacturing Enterprises	10.4	14.6	5.4	8.1	11.0	14.2	73.2	63.1	64.6	63.0
Jamaica/ All Enterprises	11.2	18.0	5.6	8.3	10.3	13.2	72.9	60.5	100.0	100.0

SOURCE: Survey Data

overall small-scale sector, is larger than for any of the other locational groups identified. In Kingston, manufacturing employs nearly half the total labor force (49%) of small-scale enterprises in that location. This compares with 39% in Major Towns, 33.6% in Rural Towns, 34% in Rural E.D.'s. and 37% nationally. These statistics suggest a direct relationship between the relative importance of manufacturing activity and level of urbanization. Second, for manufacturing enterprise groups with the exception of Food and Other Manufacturing, the average employment per establishment is higher in Kingston than for any other location. The average number of workers per manufacturing establishment is 4.0 in Kingston, compared with 3.3 in Major Towns, 3.0 for Rural Towns, 1.7 for Rural E.D.'s and 2.2 nationally.

An examination of the importance of the different enterprise groups within each location shows certain interesting patterns. Distribution decreased in relative importance with increasing urbanization. It accounts for more than half of total employment in rural E.D.'s (52.7%), falls to 43.7% for Rural Towns, 38.5% in Major Towns and finally 28.7% in Kingston. In terms of the number of establishments, the pattern is similar. One possible explanation is that the urban centers tend to be serviced mainly by the larger super markets and other larger specialized marketing outlets. In rural areas, the agricultural population is a major producing component requiring distribution services. In all locations, distribution is the dominant employer of labor, followed in all cases by Other Non-Manufacturing.

It is instructive to examine the relative importance of the different enterprise groups within the broad manufacturing category. In the three urban groups (including rural towns) the three most important enterprise groups in terms of employment are Wearing Apparel, Repairs and Woodwork.

However, for the Rural E.D.'s, Craft ranks first, accounting for nearly 39% of manufacturing employment. The highest corresponding percentage in any of the other three locations is 8% (in Major Towns) falling as low as 1.2% in Rural Towns. The locational variations which characterize the various small enterprise groups are now presented.

3.3.1. Food. Although the pattern varies somewhat, baking and condiments are the two major enterprise types in the four locational divisions. Baking becomes most dominant in the Rural Towns accounting for 78% of the establishments and employing 85% of the workers; in Major Towns, the corresponding figures are 71% and 83%. Bakeries take second place to condiments in Rural E.D.'s, where the latter accounts for one-half of the number of establishments and over 78% of the number of workers. Bakeries employ more workers, on average, in the Major and Rural Towns (9.7 and 9.3 workers) than in Kingston (7.2); one possible explanation of this variation is that the dominant baking establishments in Kingston each employ more than 25 workers, thus falling outside our definition of small-scale enterprises and hence not being included in the survey.

3.3.2. Wearing Apparel. At the individual enterprise level, tailoring, dressmaking and shoemaking are the dominant enterprises in all locations categorized. Taken together, they account for 87%, 91%, 95%, and 100% of the manufacturing enterprises respectively in Kingston, the Major Towns, the Rural Towns and the E.D.'s. The corresponding figures for employment are 67%, 81%, 89%, and 100%. In all locations, tailoring and dressmaking are more important than shoemaking. However, tailoring is more significant in the more urbanized areas. Dressmaking, for example, accounts for more than 50% of the firms in the E.D.'s. This suggests that as one moves to

the more urban locations, there may be more competition from imported and/or larger factory-produced dresses. Most of the larger dressmaking establishments in the urban areas may have been outside of our sample frame. The data show that as one moves to the less urbanized areas, the production of garments greatly diminishes. In addition, it would appear that garment production is more factory-oriented in the urban areas. The average number of workers per firm is above 9.2 in Kingston and 5.6 and 4.4 respectively in the Major Towns and the Rural Towns. Finally, in terms of the evidence available, the importance of shoemaking activity declines from more to less urban areas; at the same time, the pattern which characterizes leather work is not similar to shoemaking.

3.3.3. Craft. This group has an average number of workers per establishment (1.8) which is lower than the national average (2.1); only bag making enterprises (4.7) have an average above the national figure. There is some variation between the average number of workers per craft enterprise in Kingston (2.7) as opposed to all other locations (1.7). Not unexpectedly, the group is predominantly rural based. The data show that 93% of all craft enterprises which account for 92% of those employed in the group are located in Rural E.D.'s. In the case of coir activity, 99% of enterprises are located in Rural E.D.'s; for bamboo enterprises, only 57% are found in Rural E.D.'s, with another 23% located in the Major Towns (mainly in Montego Bay), 15% in Kingston, and the remainder (5%) in Rural Towns.

In urban centers, however, bamboo rather than coir establishments predominate. For example, in Kingston, 78% of craft enterprise are in the bamboo category, accounting for 66% of employment, whereas the corresponding figures for coir are 16% and 22% respectively. The pattern is similar in other major

urban centers and the Rural Towns with bamboo accounting for over 90% of all craft enterprises and related employment in both locations. There is a reversal in the Rural E.D.'s where one finds coir enterprises being very important with respect to both the number of enterprises and employment generated. Coir enterprises account for 91% of all craft enterprises and 95% of related employment in Rural E.D.'s. This pattern may be explained by suggesting that rural coir enterprises produce the basic raw materials needed in the specific production processes, and would not have to obtain supplies from sources outside the E.D.'s. It may also be possible that productive techniques used by coir enterprises do not require the level of technological sophistication which characterize bamboo activity and, as such, coir establishments tend to be more attractive in areas characterized by large supplies of unskilled labor.

3.3.4. Woodwork. The average number of workers per enterprise (3.0) in this group is higher than the national figure. Sawmilling with 4.6 workers per enterprise and woodwork/cabinet making with 3.0 have the highest number of workers per enterprise, while carpentry with 1.3 is the lowest. The majority of establishments (68%) are located in Rural Towns (15%) and E.D.'s (53%). These generate employment for about one-half of the group's total, with enterprises in Rural E.D.'s employing 35%. For woodwork/cabinet making, 57% of all such enterprises are found in Rural E.D.'s, 13% in Rural Towns, and 21% in Kingston. The general national pattern, which suggests a significant rural bias in terms of the location of small enterprises in Jamaica, characterizes small sawmilling and carpentry establishments. For sawmilling, 84% of all enterprises are located in Rural Towns and E.D.'s, while the comparable figure for carpentry is 75%.

3.3.5. Metalwork. The locational distribution of enterprises in this group is not as skewed as the national total for all groups. For the entire group, 30% of all enterprises accounting for 37% of the group's employment, are located in Kingston. At the same time, 47% of all enterprises with a corresponding employment figure of 43%, are found in the Rural E.D.'s.

Some 27% of welding enterprises are located in Kingston, while 62% are in Rural E.D.'s. Specific metalwork enterprises, a part of the wider metalwork enterprise group, reflect somewhat greater urban concentration than welding; some 47% of these enterprises with a similar percentage of employment are to be found in Kingston, while the corresponding figures for Rural E.D.'s are 21% and 32% respectively. It is not unusal to find that blacksmithing is more rural based than enterprises in either category which we have just listed; 58% of all blacksmiths accounting for 40% of the total employed are in Rural E.D.'s, and if Rural Towns are included, the above figures increase to 86% and 56%, respectively. Although an insignificant number of blacksmithing enterprises are located in Kingston, the average number of workers per establishment (6.7) is more than three times that of the Rural E.D.'s (2.0).

3.3.6. Repairs. In the Repairs enterprise group, the dominance of car repair activity declines with increasing urbanization; this may mean that larger garages tend to be more widespread in urban locations. At the same time, not surprisingly, other machinery and bicycle repair enterprises increase in number from rural to urban areas.

3.3.7. Other Manufacturing. In considering the enterprises categorized as Other Manufacturing, we find that except in the Rural E.D.'s (dominated by plastic production, brick making and charcoal production), those enterprises

engaged in printing, jewelry, watch repair, and photographic activity are the most important both in terms of number of establishments and employment generated.

3.4. Size and Composition of Work Force

The discussion of the size of the work force in small-scale establishments will be presented with reference to information on establishments employing 1, 2-5, 6-10, and over 10 workers. Similarly, consideration of the work force composition will be relative to the following categories; proprietor, family worker, trainee, and hired worker.

Table 4 shows that roughly 50% of all establishments are one person operations with another 46% employing between 2 and 5 people. Establishments employing 6 people or more account for only 4% of the total number. There are differences when one compares manufacturing with non-manufacturing activity. A higher percentage of non-manufacturing firms employ between 2 and 5 workers but very few employ 6 and over. In manufacturing, most of the firms are one person operations but when compared with non-manufacturing, there is a higher percentage employing 6 and over (6.2%) than for non-manufacturing (3.1%).

As a result of the dominance of one man businesses, proprietors account for the largest segment (51%) of the small enterprise work force. Hired workers (24%) and family workers (20%) comprise the other significant categories. Nationally, trainees contribute under 5% of the work force perhaps indicating a failure of the apprenticeship system to gain support among small entrepreneurs. Generally speaking, the data show some differences between manufacturing and non-manufacturing activity, with more hired workers and trainees in small manufacturing enterprises. At the same time proprietors

TABLE 4

Jamaica: Percentage of Firms by Size and Composition of Work Force - 1978

Enterprise	Percentage of Establishments by Size of Work Force				Percentage of Work Force by Type			
	1	2-5	6-10	10+	Proprietor	Family Workers	Trainees	Hired Workers
Food	23.8	35.2	11.0	30.0	16.5	5.1	1.1	77.3
Wearing Apparel	80.1	17.7	1.4	0.8	69.2	3.8	9.6	17.4
Craft	61.2	37.2	1.5	0.1	58.4	35.9	0.2	5.4
Woodwork	45.8	42.0	9.2	3.0	37.9	6.8	20.8	37.4
Metalwork	24.4	58.6	13.6	3.5	29.4	4.9	21.8	43.9
Repairs	23.3	55.3	1.1	5.3	28.1	7.8	23.7	40.4
Other Manufacturing	50.0	40.4	6.3	3.3	34.5	9.3	3.1	53.1
Manufacturing	62.4	31.4	4.2	2.0	45.3	12.1	10.1	32.5
Distribution	45.4	51.6	2.4	0.7	57.3	27.0	0.4	15.2
Other Non-Manufacturing Services	32.9	63.7	2.2	1.3	46.9	21.2	1.8	30.2
Non-Manufacturing	42.5	54.4	2.3	0.8	54.5	25.5	0.8	19.3
All Enterprises	49.5	46.2	3.0	1.2	51.0	20.3	4.3	24.3

SOURCE: Survey Data

and family workers account for a larger percentage of the work force in non-manufacturing activity. Each of the manufacturing enterprise groups is examined in greater detail.

3.4.1. Food. We begin with an examination of the food group dominated by the bakery and condiment (including other food processing work) enterprise types. However, the size and composition of the respective work forces differ considerably. Some 48% of the small bakeries employ between 2 and 5 workers -- the same percentage as employed in those with over six (6) workers. The latter category is split 23% for establishments with 6-10 workers and 25% for those with over 10. In contrast, establishments making condiments are either one man operations (30% of total number) or ones employing 10 workers and over (56% of total). For bakeries, hired workers comprise 73% of the labor force, proprietors 10%, and family workers 9%. In the case of condiments, hired workers dominate, accounting for 87% of workers with proprietors accounting for 12%. There are few family workers or trainees employed in the manufacture of condiments.

3.4.2. Wearing Apparel. The most dominant feature of this group is the one-man business operation. The percentage increases markedly with increasing ruralization. For example, in tailoring the percentage for one-man operations is 37.4% in Kingston and 87.0% in the Rural E.D.'s. In dressmaking and shoemaking, the corresponding figures are 66.4% and 53.1% in Kingston, increasing to 88.4% and 96.7% in the E.D.'s, respectively. Except for garment and leather work, relatively less important in each of the locations, less than 4% of the enterprises employ more than 10 people.

With respect to work force type, the national picture is also reflected at the individual enterprise level. Proprietors and hired workers in most cases account for more than 75% of the work force. Increasing levels of

urbanization are associated with higher percentages for hired workers, but lower percentages for proprietors and to some extent trainees of apprentices. The category of family workers is relatively insignificant in the labor force of this group. The relative percentage ranking of all four types of work force is the same in all the enterprises -- namely, proprietors are the highest followed by hired workers, trainees and family workers in that order.

3.4.3. Craft. For the group as a whole, 60% of the enterprises employ one worker, while an additional 37% employ 2-5 workers. The dominant categories -- coir and bamboo enterprises -- show similar features nationally and across the different locations. Craft enterprises have the lowest number of trainees (0.4%) and hired workers (5.4%). Proprietors and family workers account for 94.3% of all workers in the group, with the proportions becoming even larger in rural locations. In bamboo enterprises, proprietors represent 75% of the work force, with the proportion becoming even larger in rural locations.

3.4.4. Woodwork. About 46% of all small woodwork enterprises are one-man operations. This is particularly true in carpentry with 86% of these establishments being one-man businesses. Another 42% of small-scale woodwork enterprises employ 2-5 workers, leaving only 12% employing more than 5 workers. Of the 36 enterprises, employing 10+ workers, 34 are in the woodwork/cabinet making category. Proprietors, accounting for 38% of the work force, and hired workers (37%), make up the majority of workers employed. Proprietors are more significant in carpentry and upholstering with 64% in carpentry and 52% in upholstering. Trainees account for approximately one-quarter of the workers in the group. Upholstering, however, has about 64% of its work force in the trainee category.

3.4.5. Metalwork. For the metalwork group, roughly 25% of all enterprises are one-man operations, while 59% employ between 2 and 5 workers. One-man operations are dominant in goldsmithing (80% of firms), tinsmithing (56%) and blacksmithing (42%), while the number of firms employing 2-5 workers account for 66% of all firms in metalwork (a separate category), 46% in blacksmithing, 61% in welding and 44% in tinsmithing. About one-fifth of all welding firms employ 6-10 workers, with locksmithing 11% and blacksmithing 9% being less significant.

Hired workers, trainees and propritetors represent 96% of those employed in the metalwork enterprise group; hired workers represent 44% of the group's work force, with proprietors 30%, and trainees 22%. Hired workers are the largest group in all but two categories, blacksmithing and tinsmithing. In the welding category, hired workers represent the largest category with 36%, trainees 33%, and proprietors 29% of the work force. The comparable figure for metalwork are 59%, 12%, and 26% respectively, and for blacksmithing, 29%, 17%, and 37%.

3.4.6. Repairs. An examination of the repairs enterprise group which has the lowest percentage of one-man operations (23%) shows a direct association with the level of urbanization and firm size. This is much more evident on examining the relationship between the E.D.'s and the three other strata which, as a group, indicate a high level of similarity. With respect to type of labor force, the relative magnitude of trainees and proprietors generally increases with decreasing levels of urbanization. The case for hired workers is the reverse, while that for family workers is not so definitive.

This sector has, in aggregate, the highest percentage (23.4%) of trainees. Not surprisingly, a large number of these trainees or apprentices are found

in car repairs (24%), musical instrument repair (24%), other machinery repair (21%), and bicycle repair (16%). The smallest numbers are found in plumbing (4%) and tire repair (2%). Locationally, not all enterprise types have apprentices; however, for car repair, increasing urbanization tends to be associated with decreasing percentages of apprentices.

3.4.7. Other Manufacturing. The final enterprise group discussed is the broad category, "Other Manufacturing." Only establishments in printing and production of plastics and tiles have (along with firms in the "other" category) more than 40% employing 6 or more workers. Charcoal production is entirely a one person operation. The majority of the remaining enterprises employ 2-5 persons. The locational pattern is consistent with what was stated earlier for small-scale enterprises operating in Jamaica. This group (52%) is second only to Foods (77%) with respect to the percentage of the labor force accounted for by hired labor. None of these enterprises show a significant percentage of apprentices.

3.5. Level of Mechanization

An in-depth analysis of this issue will use the information collected in Phase III. A rough indication of the level of mechanization in small-scale establishments, the use of powered and non-powered machines will be examined. The relevant data are presented in Table 5 and Appendix I. The first striking fact is that in all but one instance, at least two-thirds of machines utilized in the different enterprise groups were powered. This exception is in Wearing Apparel where over 60% of the machines are non-powered, nearly twice the percentage of Craft, which ranks second in terms of use of non-powered machines. This high percentage of non-powered machines in Wearing Apparel is most likely due to the large number of one-person tailoring and dress making establishments

TABLE 5

Jamaica: Firms by Use of Machinery, by Enterprise Group - 1978

Enterprise Group	Type of Machines (%)		% of Enterprises having at least one powered machine	Average number of powered machines per enterprise	Average number of workers per powered machine
	Powered	Non-Powered			
Food	89.3	10.7	48.6	1.7	3.9
Wearing Apparel	37.0	63.0	25.0	0.5	3.3
Craft	66.1	33.9	1.4	0.03	59.3
Woodwork	78.7	21.3	45.8	1.7	1.7
Metalwork	77.1	22.9	94.3	1.8	2.3
Repairs	81.2	18.8	43.2	1.0	3.7
Other Manufacturing	93.6	6.4	42.3	1.8	1.9
Distribution	92.0	8.0	23.5	0.4	4.4
Other Non-Manufacturing Services	97.0	3.0	38.3	0.68	3.4
National Average	75.5	24.5	26.2	0.54	3.9

SOURCE: Survey Data

using a single non-powered mahcine. It was indicated earlier that Wearing Apparel and Craft also top the list in terms of the precentage of one-person establishments. In other enterprise groups, at least 75% of machines are powered, with Other Manufacturing leading at 97%. Nationally 75.5% are powered and 24.5% are non-powered machines. A more detailed assessment of kinds of machines used follows.

3.5.1. Food. In this category, roughly 79% of the enterprises have at least one powered machine; the percentage for bakeries and condiment makers being 86% and 32%, respectively. In baking, nearly all machines (97%) are powered, while 77% in condiment making are powered. By far, the "most mechanized" enterprise type in this group is ice cream making, with all machines being powered, and a ratio of 1.2 workers per powered machine. This compares with 3.1 for baking and 4.8 for condiment making. The pattern remains the same throughout all locations, with at least 93% of all machines in bakeries being powered. All bakeries in the rural areas have only powered machines.

3.5.2. Wearing Apparel. The national figures in the Wearing Apparel group, at the individual enterprise level, show a very distinct departure from the established pattern with close to 70% of the machines in tailoring and dressmaking being non-powered, while the corresponding figures for garments and leather work are less than 30%. The data for the latter categories are consistent with our earlier assertion that garment production and leather work tend to be organized along factory type lines. In shoemaking, there are slightly more powered than non-powered machines. While they seem to be well distributed in the other enterprises, the small number of powered machines in shoemaking is generally accounted for by a few

factory type firms; furthermore, shoemaking has the highest number of workers per powered machine while for garment production it is the lowest. Locationally, with increasing urbanization, the proportion of powered machines increases correspondingly, while average number of workers per machine falls.

3.5.3. Craft. The Craft group presents an interesting picture in terms of its use of machines. The enterprises are basically labor-intensive and rarely use any form of machinery. Only 1.4% of all craft enterprises have at least one powered machine. For the entire group, the average workers per powered machine (59.3) is many times the national figure (3.9). Coir enterprises have an extremely high average of 288 workers per powered machine while bagmaking averaged a low of 2.4. The general tendency is for increasing labor intensity in the rural locations.

3.5.4. Woodwork. In the case of these enterprises, powered machines (79% of all machines) are the dominant type used. Some 90% of all machines used in sawmilling are powered, while the comparable statistics for woodwork/cabinet making and carpentry are 80% and 75% respectively. Nearly half of all woodwork enterprises have at least one powered machine, with sawmilling being most significant as 93% of all sawmilling enterprises have at least one powered machine. Apart from woodwork/cabinet making, which have 1.5 workers for every powered machine, the other categories have about 3 workers per powered machine.

3.5.5. Metalwork. In the Metalwork group there is widespread use of machine-intensive technology. About three-quarters of all machines used are powered, with approximately 94% of all enterprises in the sector having at least one powered machine. Among the dominant enterprises,

welding has 1.6 workers per powered machine, blacksmithing 2.4, and metalwork 2.2. There are no significant locational variations with respect to the level of mechanization.

3.5.6. Repairs. The enterprises categorized in "Repairs," except for plumbing, have as usual more powered than non-powered machines. However, bicycle repair has no machinery at all. Again, except for plumbing, between 30% and 45% of the enterprises have at least one powered machine. The average number of powered machines per enterprise is less than one in all except "car repair" which has only 1.1. Thus, a large number of the firms do not have even one powered machine. Except for car repair, this is corroborated by the average number of workers per firm being less than the average number of workers per powered machine. Nationally, numbers and percentage of powered machines are associated with increasing urbanization.

3.5.7. Other Manufacturing. In this broad enterprise group, except for charcoal production with none and jewelry with 64%, all the enterprises have close to 100% powered machines. However, more than 95% of enterprises in pottery and 70% in jewelry/watch repair have no powered machines at all. Except in printing and plastic products, the number of powered machines per enterprise reveals a low number of workers per enterprise.

3.6. Extent of Record Keeping

The data in Table 6 and Appendix I show the extent of record keeping among small enterprises. A working definition of "record keeping" used in the survey refers to information easily used periodically by the proprietor to undertake simple profit/loss analyses for the business. In

TABLE 6

Jamaica: Percentage of Small Scale Establishments Keeping Records, by Location and Enterprise Group - 1978

Enterprise Group	LOCATIONS				
	Kingston	Major Towns	Rural Towns	Rural E.D.s	Jamaica
Food	57.9	67.9	65.2	33.4	47.1
Wearing Apparel	16.3	10.5	7.1	2.8	5.0
Craft	8.0	12.8	15.4	0	1.0
Woodwork	27.7	25.7	23.9	16.0	20.8
Metalwork	37.3	20.5	12.0	0	14.7
Repairs	32.2	23.2	26.5	0	22.3
Other Manufacturing	47.5	42.4	47.6	8.4	26.0
Distribution	31.5	31.5	28.7	15.5	18.1
Other Non-Manufacturing	32.8	39.0	36.2	20.3	26.0
Location Average	30.1	28.6	27.6	11.3	16.1

SOURCE: Survey Data

general, the level of record keeping decreases with increasing rurality, the percentage of establishments not keeping records increases from just under 70% in Kingston to around 90% in the Rural E.D.'s. The national average is 84%. If the keeping of records as well as the number of workers per firm (as we noted earlier) is an indication of the level of business organization, then the small enterprises in Kingston display the greater level of organization. The performance of the different enterprise groups reveals some interesting facts.

3.6.1. Food. Within the Food group, roughly 47% of enterprises keep records, with the highest (79%) for bakeries. In the other major enterprise type, condiment making, only a third of establishments keep records. In bakeries, 100% keep records in the Rural E.D.'s compared with 78% in Rural Towns, 80% in Major Towns, and 67% in Kingston. Similarly, in the case of condiments, the highest percentage is attained in the rural areas.

3.6.2. Wearing Apparel. In the Wearing Apparel group which accounts for 44% of manufacturing enterprises, only 5% of the enterprises engage in any form of record keeping. This confirms the view that only a minimal number of small enterprises keep records; however, this masks a great variation at the specific type of enterprise. The higher the number of workers per establishment, the more it is organized along factory type lines and hence the greater the possibility that it will keep records. For example, 63% of firms in garment production and 40% in leather work keep records; this is quite high compared with 7% for tailoring, 3% for shoemaking and 2% for dressmaking. Locationally, increasing levels of urbanization are associated with rising percentages of record keeping.

3.6.3. Craft. Not unexpectedly, very few (1%) Craft enterprises keep records of business transactions; in general, more bagmaking enterprises (14%) maintain records as opposed to coir (under 1%) and bamboo (6.0%) establishments. In this group, the level of record keeping decreases with distance from urban areas. Significantly, none of the rural small enterprises in this group maintain any records.

3.6.4. Woodwork. One-fifth of this group keep records. The most significant (i.e., woodwork/cabinet making) has an average of 24%, slightly above that of the group of the other categories; only sawmilling enterprises (17%) have over 10% of firms engaged in record keeping. In this group, the general pattern indicates a decreasing level of record keeping with movement from urban centers to Rural E.D.'s.

3.6.5. Metalwork. In the metalwork group, about 15% of all enterprises have any system of record keeping; this is just below the national average of 16%. Goldsmithing (67%) and locksmithing enterprises (44%) are the enterprise groups characterized by fairly high levels of record keeping while blacksmithing (7%) and welding (9%) have few enterprises keeping records. Predictably, the level of record keeping is greater in urban centers (Kingston 37% of the firms in the group) than in rural areas (about 16%).

3.6.6. Repairs. The three most important enterprise types in the Repairs group, car repairs, plumbing and other machinery repairs, show respectively 22%, 18%, and 53% of the firms keeping records. The percentage for car repairs, which completely dominates this group, is slightly higher than the national average for all firms. Increasing levels of urbanization are associated with higher percentages of record keeping.

3.6.7. Other Manufacturing. Enterprises in the group classified as Other Manufacturing show less than 40% of firms keep records. Not surprisingly, charcoal production shows no record keeping, while 100% of the firms in tile production keep records. This enterprise type is followed by printery (72%) and pottery (43%). Locationally, as one moves to the less urbanized areas, the level of record keeping within the same enterprise type declines.

3.7. Workshop Structure

The Phase I questionnaire generated information on the type of workshop structure used by small-scale enterprises. The structure was initially identified as being either of a temporary or permanent nature; if permanent, the type of structure was listed according to the dominant materials from which it was constructed (i.e., zinc, wood, or cement). The national data show that all groups (except woodwork, metalwork, and repairs) are characterized by over 50% of their structures being cement type construction. In addition, at the national level, some 88% of all small-scale enterprises have wooden or cement type structures. Compared with manufacturing, the non-manufacturing groups tend to exhibit more permanent structures. This may be due to the fact that in the manufacturing group, enterprise groups like wearing apparel and craft, which account for a significant number of establishments, have a high percentage of their enterprises "housed" on verandahs; at the same time, the other enterprise groups in manufacturing have relatively more temporary structures. Additional information is presented in Table 7.

3.7.1. Food. Roughly 60% of all food workshop structures are of concrete construction. In the two main establishment types, the patterns are

TABLE 7

Jamaica: Workshop Structure of Establishments - 1978

Enterprise	Percent of Establishments of Type of Workshop Structure					
	Verandah	Temporary	Mud	Zinc	Wood	Cement
Foods	1.9	20.7	0.8	2.7	14.2	59.8
Wearing Apparel	21.9	1.7	-	0.2	19.2	57.2
Craft	29.8	3.9	-	0.4	15.2	50.6
Woodwork	3.6	11.6	0.3	10.6	34.9	38.9
Metalwork	2.1	21.3	6.2	18.7	2.8	48.9
Repairs	2.6	23.5	0.2	16.4	11.7	45.7
Other Manufacturing	0.7	28.1	-	6.4	13.8	51.0
Manufacturing Sub-Total	18.7	7.4	0.3	3.6	17.9	52.1
Distribution	0.9	0.9	0.3	1.0	24.7	72.2
Other Non-Manufacturing	0.8	0.7	0.1	0.1	12.1	86.2
Non-Manufacturing Sub-Total	0.9	0.8	0.2	0.8	21.7	75.6
Grand Total	7.2	3.1	0.2	1.8	20.3	67.3

SOURCE: Survey Data

markedly different. For bakeries, 91% of structures are of concrete, with the other 9% distributed between temporary, zinc, wood, and verandahs. For condiments, over half of the workshops (58%) are temporary with those of cement taking second place (40%). The patterns over different locations are of interest in the case of bakeries, as the E.D.'s and the Rural Towns both have a higher percentage of cement structures than Kingston and the Major Towns.

3.7.2. Wearing Apparel. The data show that almost all of the enterprises in this sector are housed in permanent wood and concrete structures. Except for dressmaking and shoemaking, more than 80% of enterprise structures are permanent. The corresponding figures for dress and shoemaking are 71% and 79%, respectively. A higher percentage of dressmaking (29%), tailoring (18%), and shoemaking (13%) tend to be located on verandahs. Again, garment production and leather work have close to 90% of their structures of concrete.

3.7.3. Craft. Of the workshop structures for craft enterprises, 66% are fairly permanent (i.e., made of concrete (51%) and wood (15%), while the remainder (30%) are more temporary, being located on verandahs. A disaggregated picture of categories show coir enterprises having the highest percentage of "verandah-type" operations (33%) as opposed to bamboo enterprises (7%).

3.7.4. Woodwork. About 75% of the firms in the Woodwork group operate in permanent (wood, concrete) structures. For carpentry, 89% of the enterprises operate in permanent structures, with comparable statistics for woodwork/cabinet making and upholstering 76% and 71%, respectively. This pattern remains the same throughout all locations. About 70% of saw milling enterprises are located in temporary structures.

3.7.5. Metalwork. In the case of Metalwork enterprises, only one-half of the structures are of a permanent nature (mainly wood), with 21% temporary and 19% zinc. Of all the enterprise types, only blacksmithing (22%) and welding (47%) have under 60% of their total enterprises in concrete structures. Goldsmithing and locksmithing enterprises have the highest percentage of permanent structures with 100% of their enterprise structure either of concrete or wood. Blacksmithing (36%) and welding (22%) have the highest percentage of temporary structures.

3.7.6. Repairs. Except for the two most dominant enterprises in this group -- car repair and plumbing -- these enterprises have more than 70% of their structures permanent of wood or concrete. The corresponding figures for car repair and plumbing are 56% and 46%, respectively. Thus, a high percentage of the firms are housed in temporary structures. Locationally, decreasing levels of urbanization are associated with lower percentages of permanent structures for each type of repair enterprise.

3.7.7. Other Manufacturing. Here again, the majority of enterprise types have, except for charcoal and brick making, a high percentage of their workshop structures of permanent nature. Charcoal production is completely in the open; close to half of the enterprises in brick making are located in temporary structures, as is a high percentage (20%) of tile making.

IV. SUMMARY AND CONCLUSIONS

The Phase I survey data which has been analyzed in this paper provides information which can assist public policy decision-making relating to the growth and development of the small enterprise sector in Jamaica. There are an estimated 40,000 small scale enterprises employing some 80,000 people, over one-tenth of the national work force. Firms engaged in manufacturing activity account for 35% of all small enterprises, generating employment for about the same percentage of small enterprise workers. However, enterprises involved in Distribution dominate the sector, accounting for 50% of total firms and 46% of employment. Significantly, three-quarters of the total number of small enterprises and 60% of the work force are located in rural districts.

Apart from Distribution and Other Non-Manufacturing, the most dominant enterprise groups are Wearing Apparel, Craft, Woodwork, and Repairs. Nationally, the average number of workers per small enterprise is 2.1; however, in manufacturing, the figure ranges from 1.5 in Wearing Apparel to 7 in Foods. Additionally, the data show that increasing levels of urbanization are associated with higher averages per firm.

For all small enterprises, the majority of the work force are proprietors; the one-man business therefore assumes a high level of importance. Only a small percentage of workers are trainees and these are found mainly in Woodwork, Metalwork and Repairs. There is widespread use of powered machines by small enterprises with the exception of Craft. In addition,

increasing levels of urbanization are associated with increasing usage of powered machinery. Not unexpectedly, about 85% of all small enterprises maintain no system of record keeping. There also seems to be a direct relationship between greater urbanization, larger firm size, and improved techniques of record keeping.

Further analysis (in Phases II and III) will concentrate on the manufacturing category although non-manufacturing activity is obviously important because of its dominance both in terms of the number of establishments and employment. With respect to policy guidelines, certain clear-cut proposals are already arising out of the findings and these are now outlined briefly.

First, the geographical dispersion of small-scale enterprises suggests the need for greater decentralization of government agencies established to service the industry. Presently these agencies are relatively inaccessible to small businessmen located outside of Kingston. If small enterprises are to be adequately developed a variety of infrastructional services are required.

Second, the dominance of one-man businesses is instructive. A one-man business means that a single person has the responsibility for production, finance, marketing, and numerous other business functions. The anticipated result of this type of management cannot be determined a priori. Still the key question that arises is how to deliver cost effective assistance to such small enterprises.

Third, widespread use of powered machines indicates a willingness of the sector to utilize modern technology but simultaneously raises serious questions about the knowledge and availability of "appropriate" technology. National institutions with responsibility for technological development

such as the Scientific Research Council (SRC), and the Jamaica Industrial Development Corporation (JIDC) should be more responsive to the needs and opportunities for the small enterprise sector. To complement this thrust, there should be cooperation between these agencies and those with special concerns to promote small enterprises.

Fourth, the generally low percentage of small enterprises which maintain records is a serious limitation on their ability to obtain loans from local and foreign financial institutions. Low levels of record keeping are so widespread in certain enterprise groups like Wearing Apparel, Craft, and Metalwork that it raises the question as to whether the strict rules being applied by government institutions like SEDCO ought not to be modified. This relaxation of rules could be tied to a period of intensive training for proprietors in the fundamentals of record keeping.

The average size of establishments especially in rural E.D.'s (1.7 workers per establishment), which provide over 60% of employment in the small-scale industry, raises a special challenge as to whether there exists scope for expansion of their economic activity. Numerous difficulties arise in small, especially a one-man, business when policy issues related to employment creation are to be assessed. The operations of many of these enterprises are so unstructured that a major re-organization of the industry in general, and the modus operandi of individual establishments in particular, may be a prerequisite for any meaningful expansion in production. Certainly, the data suggest that Food, Woodwork, Metalwork and Repair enterprise groups offer the best prospects for expansion and, ceteris paribus, government policies should reflect this concern. Specifically, in terms of immediate

employment creation, government may wish to examine the possibilities of actively promoting the apprenticeship system, especially among those enterprises we have just identified.

Finally, in Craft and Wearing Apparel, certain possibilities may exist for cooperative forms of organization and community based enterprise organizations. These possibilities could facilitate improvement in performance generally, and optimization of scale economies.

V. APPENDICES

APPENDIX I - Jamaica: Breakdown of All Enterprise Groups - 1978

Enterprise Type	Enterprise		Workers		Average Workers per		Percent Keeping Records
	Number	Percent	Number	Percent	Enter-prise	Powered Machine	
FOODS:	289	0.8	2,001	2.5	6.9	3.9	47.1
Bakery	123	0.3	955	1.2	7.8	3.1	78.9
Condiments	98	0.3	905	1.1	9.2	4.9	33.7
Meat Process-ing	32	0.1	65	0.1	2.0	-	3.1
Others	36	0.1	76	0.1	2.1	4.7	13.9
WEARING APPAREL:	5,915	15.7	8,831	11.1	1.5	3.3	5.0
Dressmaking	2,803	7.4	3,457	4.4	1.2	4.0	1.9
Tailoring	1,889	5.0	2,902	3.7	1.5	3.4	7.1
Shoemaking	1,091	2.9	1,564	2.0	1.4	5.4	2.7
Garment making	109	0.3	820	1.0	7.5	1.3	63.3
Others	23	0.1	88	0.1	3.8	3.1	34.8
CRAFT:	3,801	10.1	6,826	8.6	1.8	59.3	1.0
Coil/straw/ sisal	3,271	8.7	6,042	7.6	1.8	287.7	0.1
Bamboo/Bag making	523	1.4	751	0.9	1.4	9.4	6.0
Bag making	7	-	33	-	4.7	2.4	14.2
WOODWORK:	1,191	3.2	3,382	4.3	2.8	1.7	20.8
General Wood-work	906	2.4	2,696	3.4	3.0	1.5	24.2
Upholstering	244	0.6	496	0.6	2.0	3.4	9.0
Sawmilling	41	0.1	190	0.2	4.6	3.2	17.1

Enterprise Type	Enterprise		Workers		Average Workers per		Percent Keeping Records
	Number	Percent	Number	Percent	Enter-prise	Powered Machine	
METALWORK:	429	1.1	1,668	2.1	3.9	2.3	14.7
Welding	202	0.5	732	0.9	3.6	1.6	8.9
Metalwork	116	0.3	607	0.8	5.2	2.2	27.6
Blacksmith	86	0.2	251	0.3	3.0	2.1	7.0
Others	25	0.1	78	0.1	3.1	3.5	28.0
REPAIRS:	1,172	3.1	4,763	6.0	4.1	3.7	22.3
Car Repair	1,048	2.8	4,401	5.6	4.2	3.7	21.8
Plumbing	54	0.1	155	0.2	2.9	8.4	18.5
Appliance Repair	30	0.1	102	0.1	3.4	4.6	53.3
Others	40	0.1	105	0.1	2.6	4.8	17.5
OTHER MANUFACTURING:	546	1.4	1,887	2.4	3.5	1.9	26.0
Plastic Products	28	0.1	423	0.5	15.1	0.9	7.1
Brick/Tile making	68	0.2	319	0.4	4.7	3.2	14.7
Printing	47	0.1	269	0.3	5.7	1.1	72.3
Pottery	60	0.2	188	0.2	3.1	26.9	43.3
Others	343	0.9	688	0.9	2.0	2.3	20.4
DISTRIBUTION:	18,677	49.5	36,445	46.0	2.0	4.4	18.1
Grocery	15,794	41.8	27,197	34.3	1.7	4.1	13.3
Retail store	2,330	6.2	6,614	8.3	2.8	4.9	39.8
Hardware	324	0.9	1,732	2.2	5.3	11.2	63.0
Others	229	0.6	902	1.1	3.9	15.8	63.3

Enterprise Type	Enterprise		Workers		Average Workers per		Percent Keeping Records
	Number	Percent	Number	Percent	Enter-prise	Powered Machine	
OTHER NON-MFG. SERVICES:	5,720	15.2	13,481	17.0	2.4	3.4	26.0
Bar/Restaurant	5,128	13.6	11,753	14.8	2.2	4.7	25.6
Hair Dresser/ Barber	421	1.1	827	1.0	1.9	1.2	24.7
Others	171	0.5	901	1.1	5.3	2.6	39.8
All Enterprises	37,738	100	79,284	100	2.1	3.9	16.1

SOURCE: Survey Data

APPENDIX II - Kingston: Distribution of Small-Scale Establishments and Employments by Enterprise Group-1978

Enterprise Group	Number of Establishments	Number of Workers	Percentage of Workers in Manufacturing	Percentage of Workers in all Establishments	Average Number of Workers per Establishment
Food	65	470	6.8	3.3	7.2
Wearing Apparel	609	2,017	29.1	14.2	3.3
Craft	100	275	4.0	1.9	2.7
Woodwork	285	1,202	17.3	8.5	4.2
Metalwork	129	621	8.9	4.4	4.8
Repairs	407	1,871	26.9	13.1	4.6
Other Manufacturing	120	489	7.0	13.4	4.1
Manufacturing Enterprises	1,715	6,945	100.0	48.8	4.0
Distribution	1,472	4,080	-	28.7	2.8
Other Non-Manufacturing Services	1,057	3,199	-	22.5	3.0
Non-Manufacturing Enterprises	2,529	7,279	-	51.2	2.9
All Enterprises	4,244	14,244	-	100.0	3.3

SOURCE: Survey Data

APPENDIX III - Major Towns: Distribution of Small-Scale Establishments and Employment by Enterprise Group-1978

Enterprise Group	Number of Establishments	Number of Workers	Percentage of Workers in Manufacturing	Percentage of Workers in all Establishments	Average Number of Workers per Establishment
Food	28	288	8.8	3.4	8.1
Wearing Apparel	295	703	27.3	10.6	2.4
Craft	125	207	8.0	3.1	1.7
Woodwork	105	444	17.2	6.7	4.2
Metalwork	44	168	6.5	2.5	3.8
Repairs	151	633	24.6	9.6	4.2
Other Manufacturing	42	207	8.0	3.1	4.9
Manufacturing Enterprises	790	2,590	100.0	39.2	3.3
Distribution	882	2,547	-	38.5	2.9
Other Non-Manufacturing Services	444	1,477	-	22.3	3.3
Non-Manufacturing Enterprises	1,326	4,024	-	60.8	3.0
All Enterprises	2,116	6,614	-	100.0	3.1

SOURCE: Survey Data

APPENDIX IV - Rural Towns: Distribution of Small-Scale Establishments and Employment by Enterprise Group - 1978

Enterprise Group	Number of Establishments	Number of Workers	Percentage of Workers in Manufacturing	Percentage of Workers in all Establishments	Average Number of Workers per Establishment
Food	46	378	10.5	3.5	8.1
Wearing Apparel	536	1,036	28.8	9.7	1.9
Craft	26	44	1.2	0.4	1.7
Woodwork	176	536	14.9	5.0	3.0
Metalwork	54	154	4.3	1.4	2.9
Repairs	264	1,184	32.9	11.1	4.5
Other Manufacturing	84	266	7.4	2.5	3.2
Manufacturing Enterprises	1,186	3,598	100.0	33.6	3.0
Distribution	1,798	4,668	-	43.7	2.6
Other Non-Manufacturing Services	894	2,430	-	22.7	2.7
Non-Manufacturing Enterprises	2,692	7,098	-	66.4	2.6
All Enterprises	3,878	10,696	-	100.0	2.8

SOURCE: Survey Data

APPENDIX V - Rural Enumeration Districts: Distribution of Small-Scale Establishments and Employment by Enterprise Group-1978

Enterprise Group	Number of Establishments	Number of Workers	Percentage of Workers in Manufacturing	Percentage of Workers in all Establishments	Average Number of Workers per Establishment
Food	150	925	5.7	1.9	6.2
Wearing Apparel	4,475	5,075	31.3	10.6	1.1
Craft	3,550	6,300	38.8	13.2	1.8
Woodwork	625	1,200	7.4	2.5	1.9
Metalwork	200	725	4.5	1.5	3.6
Repairs	350	1,075	6.6	2.9	3.1
Other Manufacturing	300	925	5.7	1.9	3.1
Manufacturing Enterprises	9,650	16,225	100.0	34.0	1.7
Distribution	14,525	25,150	-	52.7	1.7
Other Non-Manufacturing Services	3,325	6,375	-	13.3	1.9
Non-Manufacturing Enterprises	17,850	31,525	-	66.0	1.8
All Enterprises	27,500	47,750	-	100.0	1.7

SOURCE: Survey Data

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*This paper has been published as part of Michigan State University's Off-Farm Employment Project, which is financed by the Office of Rural Development and Development Administration, Development Support Bureau, U.S. Agency for International Development (AID/ta-CA-2). Funding for the survey and analyses were provided by this project as well as contract # AID-521-C-48 with the Pragma Corporation.

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Foreward

This paper is one of a series of reports produced by Michigan State University's Off-Farm Employment Project. The project, which is funded by the Office of Rural Development and Development Administration, Development Support Bureau, U.S. Agency for International Development, has the basic purpose of enhancing the ability of AID missions and host country institutions to identify and implement programs and policies that generate off-farm employment and income opportunities benefiting the rural poor. One of the major components of the project is the generation of new knowledge relating to off-farm activities. In collaboration with host country institutions and AID missions, detailed field surveys of small-scale enterprises are currently being conducted in Bangladesh, Jamaica, Honduras, and Thailand; the results of these studies will be published in this series. A second component of the project involves the marshalling and dissemination of existing knowledge of off-farm activities. A state-of-knowledge paper and special studies relating to off-farm activities will also appear in this series. Previously completed studies in this area currently available through the Off-Farm Employment Project include:

1. Carl Liedholm, "Research on Employment in the Rural Nonfarm Sector in Africa," African Rural Employment Paper No. 5, 1973.

2. Carl Liedholm and Enyinna Chuta, "The Economics of Rural and Urban Small-Scale Industries in Sierra Leone," African Rural Employment Paper No. 14, 1974.

3. Enyinna Chuta, "The Economics of the Gara (Tie-Dye) Cloth Industry in Sierra Leone," February, African Rural Economy Working Paper No. 25, 1978.

4. Adewale Mabawonku, "An Economic Evaluation of Apprenticeship Training in Western Nigerian Small-Scale Industry," African Rural Employment Paper No. 17, 1979.

Copies of these papers as well as additional information on the Off-Farm Employment Project can be obtained by writing

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Acknowledgments

Numerous individuals and organizations cooperated in carrying out the small enterprise survey in Haiti. The organizations which participated in this effort are: USAID/Haiti, the Office of Rural Development and Development Administration Development Support Bureau, AID/Washington, the Pragma Corporation, and the Off-Farm Employment Project of the Department of Agricultural Economics at Michigan State University. Funding was provided by USAID/Haiti and by the Office of Rural Development and Development Administration, Development Support Bureau, AID/Washington. USAID/Haiti provided technical assistance throughout the project and also provided transportation and logistic support for the survey work. Pragma took primary responsibility for the fieldwork and data coding. Michigan State University (MSU) took leadership in the data analysis and in writing up the survey report. The general methodological framework for the survey came from MSU, but all three cooperating parties shared in designing the questionnaire for specific use in Haiti.

A study of this sort requires cooperation in many quarters and a number of specific individuals need to be thanked for their generous assistance during various phases of this study. In preparations for the survey work, Gary Smith, USAID/Guatemala offered many valuable insights and suggestions. Enyinna Chuta offered valuable advice throughout and guided the sample selection for the second phase of the

survey. Bob Pitman and Jacques Defay of the Pragma Corporation handled the fieldwork over difficult terrain and in the face of the Haitian rainy season. Pere Roger Desir applied his considerable linguistic skills in translating the Phase II questionnaire. Herb Kriesel, Enyinna Chuta, Steve Jacobson, Peter Kilby, and Carl Liedholm were very generous in offering their insights on various drafts of this report. Jim Boomgard offered timely assistance with the analysis of the survey data. Jim Pease and Micki Terwillegar provided timely typing and technical assistance at various stages of the report preparation. Finally, the Haitian Ministry of the Interior is to be thanked for the cooperation they showed throughout the study.

I. INTRODUCTION

Small manufacturing and repair businesses are of widespread importance in Haiti. Despite their importance, remarkably little was previously known about these small firms. So little was known that a recent ILO report on Haitian small enterprises felt obliged to begin with a complaint about "the cruel lack of information" concerning small enterprises (Stimbre, 1978, p. 3). The report goes on to insist that such information would be invaluable to policy makers interested in assisting the small enterprises. Given their great potential for employment creation and broadly-based income generation, a survey of small enterprises in Haiti was undertaken to fill this important information gap. The goals of the survey were twofold: (1) to determine the magnitude, composition, and basic characteristics of the small-scale enterprises in Haiti, and (2) to make a preliminary identification of major constraints facing these small firms.

For purposes of this study small enterprises are defined as those with less than fifty workers. Among the different kinds of small firms in Haiti, this survey concentrated specifically on small manufacturing and repair enterprises. Retailers, traders, and services were not enumerated, and it is important to bear this in mind while reading this report.

Before proceeding with the results of the small enterprise survey, it will be useful to give some general background information on Haiti

and, in particular, a brief outline of the overall industrial sector within which the small enterprises operate. One of the most distinguishing features of Haiti is its high population density. An estimated five million people live on Haiti's third of the Caribbean island of Hispanola. Haiti covers 27,750 km square kilometers of extremely mountainous territory. Total Gross Domestic Product (GDP) was approximately one billion dollars in 1976, which makes GDP per capita approximately $220. Agriculture accounts for 45 percent of GDP, and an estimated 75 percent of the population works in agriculture. The principal crops grown are corn, sorghum, sugar cane, and coffee.

The industrial sector accounts for 12 to 18 percent of Haiti's GDP. Within the industrial sector, by far the most dynamic segment is the assembly-goods industries, which have been established in the 1970s. These assembly industries are export-oriented. They manufacture primarily electronic components, baseballs, and undergarments — all of which utilize almost exclusively imported raw materials. These export-oriented assembly industries account for 40 percent of the value added in Haitian manufacturing and two-thirds of the formal sector industrial employment. Agro-industries are the second major component of Haiti's industrial sector. Older agro-industries, which process primarily local raw materials, include the manufacturers of sugar, rum, essential oils, twine, and leather products. More recent agro-industries, such as textiles, flour, cigarettes, and beer, utilize mainly imported inputs. Heavy industry in Haiti is extremely small. It consists of one cement plant and a small steel mill which produces mainly reinforcing rods used in construction. It should be noted in conclusion that the vast majority of Haiti's formal industry is concentrated in the Port-au-Prince area.

With this general background we turn to our report of the basic characteristics of the small enterprise sector in Haiti. The paper is divided into four major sections. In the first, the survey methodology, geographic coverage, and data collection procedures are outlined. The second section of the paper provides a broad overview of the small enterprise sector, describing its extent, composition, and basic characteristics. The third portion of the report examines in detail the potential constraints faced by Haitian small enterprises. Specifically discussed in this section are issues concerning the demand for small enterprise output, capital constraints, raw materials, and management and skilled labor problems. The final chapter of the report provides a summary of the main findings. We turn now to our discussion of the survey methodology as this will lay the groundwork for the subsequent analysis of the survey results.

II. SURVEY METHODOLOGY

2.1. General Strategy

As with other small enterprise surveys in which Michigan State University has participated, this survey was divided into two phases. During Phase I, a census of small industries was conducted in all major urban areas of Haiti as well as in many of the smaller rural[1] localities. The objective of the census was to provide a sampling frame from which a representative sample of enterprises could be drawn for more intensive study in Phase II. The principle difference between the Haiti survey and other MSU studies lies in the Phase II portions. In Haiti, time constraints necessitated a single-interview Phase II survey whereas, in Sierra Leone, Jamaica, Bangladesh, (and soon Thailand and Honduras), the Phase II surveys are multiple-visit, year-long data collection efforts.

In the Phase I census in Haiti enumerators traveled street by street in each of 36 chosen localities listing all small enterprises and their locations.[2] Enumerators obtained basic descriptive information on each enterprise — information such as the number of employees, number of machines, and a brief description of the workshop.

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[1]The United Nations defines rural localities as those with less than 20,000 inhabitants, and that convention is adopted in this paper. For reasons which are explained on the following page, this survey thoroughly covered only those localities of over 1,000 in population. Therefore, when the term "small, rural localities" is used in this paper, it refers to the localities between 1,000 and 2,000 in population.

[2]Addresses were listed where possible, but formal addresses often did not exist. In those cases where formal addresses were not available, a serial number was marked on the wall of the enterprise and its location was carefully noted.

From the Phase I listing a sample of firms was drawn for study in Phase II. At each Phase II enterprise a single one to two hour questionnaire was administered to the owner or manager of the firm. The information obtained in the Phase II survey was more detailed than that obtained in Phase I. In particular, the Phase II questionnaire covered the following topics: socioeconomic characteristics of the owners, education and training of the owners and workers, initial capital and its sources, a detailed inventory of current capital goods, seasonality of the business, linkages with other sectors, perceptions of growth patterns of the industries, detailed credit histories, management practices, and entrepreneurs' perceptions of principal constraints faced by the small businesses.[1]

The survey methodology outlined above was designed for operation within the six month time horizon required by USAID/Haiti. The USAID mission determined that information adequate for their project identification could be gathered within that period. The six month time horizon did, however, necessitate two compromises of which the reader should be aware:

1. The focus of the study was limited to the more densely settled areas of Haiti. The sample of localities surveyed included only six from among those with population under 1,000. Because of the time limitation, these six were largely selected for purposes of convenience; often they were located along main roads. In addition, these six areas account for only .5 percent of the population living in communities of less than

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[1]Copies of both the Phase I and Phase II questionnaires are available upon request from the author.

1,000 inhabitants (table 1). Because of lack of representativeness it is not feasible to extrapolate the data from these six localities to the rest of the very small Haitian localities. In three cases we have made extrapolations in this report, in tables 2, 4, and 28. These extrapolations concern the number of small enterprises, magnitude of employment, and demand for credit. It is important to realize that these extrapolations are made only for areas of Haiti over 1,000 in population.

2. Time required that this survey consist of a single Phase II interview rather than a very intensive, multiple-visit investigation. Because the Phase II was limited to a single interview, the prospects for obtaining reliable information on flow variables such as annual output, purchased inputs, and profits were exceedingly low. The difficulty of obtaining reliable flow information from a single interview arises since, in the absence of systematic, uniform records, one must rely on the respondent's memory for obtaining the required information. Generally, data relating to flow variables are subject to high measurement and reporting errors since there exist large fluctuations in seasonal activity levels and long periods of memory recall are involved. For these reasons information on magnitude of annual output and on profitability were not obtained from this survey.

2.2. Sample Selection

2.2.1. Localities. Thirty-six localities were enumerated in the Phase I survey. These 36 localities were chosen in an effort to assure geographic representation, the representation of different locality sizes, and areas of special interest to the USAID mission. The localities

TABLE 1

DISTRIBUTION OF LOCALITIES SURVEYED IN PHASE I

Locality Population Size	Localities			Percent of Population-Group Covered In Phase I Survey
	Number	Names	Percent of Total	
Under 1,000	6	Recourt, Pont Sonde, Estere, Les Poteaux, La Chapelle, Ennery	--	0.5
1,000 - 2,000	7	Duvalier-Ville, Bainet, Marigot, Caracol, Plaisance, Anse Rouge, Camp Perrin	16	21.0
2,000 - 5,000	9	Leogane, Mirebalais, Lascahobas, Belladere, Acul-du-Nord, Gros Morne, Dessalines, Aquin, Verette	28	29.0
5,000 - 20,000	9	Petit-Goave, Jacmel, Trou-du-Nord, Limbe, St. Marc, Hinche, Petite-Riviere-de-l'Artibonite, Jeremie, Port-de-Paix	69	81.0
20,000 - 100,000	4	Cap-Haitien, Gonaives, Les Cayes, Carrefour	100	73.0
Over 100,000	1	Port-au-Prince	100	80.0

SOURCE: Population figures are taken from the Institut Haitien de Statistique, Resultats preliminaires du recensement general de la population du logement et de l'agriculture, September 1971.

surveyed were: Port-au-Prince, Carrefour, Cayes, Gonaives, Cap-Haitien, Port-de-Paix, Jeremie, Petite-Riviere-de-l'Artibonite, Hinche, St. Marc, Limbe, Trou-du-Nord, Jacmel, Petit-Goave, Verette, Aquin, Dessalines, Gros Morne, Acul-du-Nord, Belladere, Lascahobas, Mirebalais, Leogane, Camp Perrin, Anse Rouge, Plaisance, Caracol, Marigot, Bainet, Duvalier Ville, Ennery, La Chappelle, Les Poteaux, Estere, Pont Sonde, and Roucourt.

In the Phase II sample, 28 of these localities were represented. The areas excluded from the Phase II survey were: La Chapelle, Ennery, Duvalier Ville, Bainet, Marigot, Caracol, Dessalines, and Petit-Goave. The size distribution of these localities is outlined in table 1.

2.2.2. Enterprises. The survey was limited to manufacturing and repair industries with less than 50 employees. The Phase I census of small firms yielded a sample frame consisting of 4,950 small enterprises. That sample frame was stratified by enterprise type and size, and by locality size. From the stratified sample frame 1,100 firms were randomly selected for study in Phase II. In addition to the 1,100 random choices for the Phase II sample, 200 firms were chosen in a purposeful manner in order to ensure that the smaller industry classifications would be adequately represented in the sample. Thus the firms ultimately chosen for study in Phase II represented a cross-section of enterprise types, enterprise sizes, and locality sizes.

2.3. Fieldwork

Including the basic survey organization, questionnaire pretesting, enumerator training and coding, the fieldwork for the entire survey lasted from 1 October 1978 to 15 March 1979. The Phase I data was

gathered between 24 October and 17 November 1978. Phase II interviewing took place between 18 January and 17 February 1979, and during that period 1,256 questionnaires were satisfactorily completed. All interviews were conducted in Creole.

III. DESCRIPTIVE PROFILE

3.1. Magnitude of the Small Enterprise Sector

Small-scale enterprises (SSE) are of widespread importance in Haiti. The Phase I survey found SSE in large numbers all across the country and at all locality size levels. In total, 4,950 enterprises were surveyed during Phase I and these enterprises employed a total of 20,404 individuals. Since inadequate representation[1] of localities below 1,000 in population will not permit extrapolation to other similar-size areas in Haiti, extrapolations of the enterprise and employment figures are offered in table 2 for all localities of over 1,000 in population. From these extrapolations we estimate that approximately 8,500 small-scale enterprises operate in Haitian localities with population over 1,000 and these enterprises employ roughly 34,000 people.

In assessing the absolute magnitude of the SSE in Haiti it is important to note that these projections undoubtedly underestimate both the number of firms and the employment generated in Haitian small enterprises. This underestimation occurs because the smallest localities (those below 1,000 in population) were not surveyed, and these areas account for 80 percent of the population in Haiti. Furthermore, the importance of small enterprises appears to increase in the smaller localities. The percentage of population "directly employed" by the SSE rises

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[1]See p.5 for elaboration.

TABLE 2

ESTIMATES* OF EMPLOYMENT AND NUMBER OF ENTERPRISES IN LOCALITIES OVER 1,000 IN POPULATION

Localities	Enterprises			Employment		
	Number Surveyed	Estimated Number By Locality		Number Surveyed	Estimated Number By Locality	
		Number	Percent		Number	Percent
Under 1,000	136	---	--	414	---	--
1,000 - 2,000	288	1,632	19	820	4,659	14
2,000 - 5,000	525	1,805	21	2,100	7,219	21
5,000 - 20,000	1,288	1,585	19	4,592	5,648	17
20,000 - 100,000	948	1,291	15	4,577	6,223	19
Over 100,000	1,765	2,199	26	7,901	9,876	29
Total	4,950	8,517	100	20,404	33,625	100

SOURCE: Phase I survey.

*Estimates are made by multiplying actual numbers surveyed by the inverse of the sampling fractions for each locality size.

from 2.2 percent in Port-au-Prince to 8.4 percent[1] in the localities with population between 1,000 and 2,000 (table 3). Since our figures do not include estimates for four-fifths of the population living in the extremely small localities, and since the importance of the SSE seems to increase in small localities, the 34,000 employment figure presents only a partial estimate as to the aggregate importance of the SSE. The actual importance of the SSE contribution to total Haitian employment would loom much larger if the extremely small localities could be considered.[2]

3.2. Composition

The small enterprises in Haiti are involved in a wide variety of activities — from cement block making and printing shops to candy making, tailoring, and leatherwork. Most numerous among small enterprises are the tailors. Tailors also offer the bulk of the employment in the SSE sector with 45 percent of those employed (table 4). Carpenters are the second most important with 11 percent of SSE employment, followed by

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[1]The reader is urged to consult the note in table 3 for a discussion of potential biases in these figures.

[2]It would be desirable to compare SSE employment with that generated by the large-scale industries in Haiti, however, the data do not currently exist that would permit a satisfactory comparison. Our survey covered enterprises employing under fifty persons. A study in the Institut Haitien de Statistique (IHS) has studied firms that employ over 100 workers. The IHS survey found that the large firms generate a total of 24,819 jobs, mainly in the Port-au-Prince area (Institut Haitien de Statistique, 1978). A comparison of this figure with the 34,000 we project is not particularly meaningful. When data can be gathered on firms employing between fifty and one hundred workers, and also gathered for the extremely small localities in Haiti, one will be able to make meaningful assessments of the relative importance of the large versus the SSE sector. We signal this lacuna in the hope that some future researchers will be able to supply the final missing data.

TABLE 3

"DIRECT EMPLOYMENT"* IN HAITIAN SSE, BY LOCALITY SIZE

Locality Population	SSE Employment (1978) / Total Population (1971)
1,000 - 2,000	8.4
2,000 - 5,000	7.5
5,000 - 20,000	4.7
20,000 - 100,000	4.7
Over 100,000	2.2

SOURCE: Phase I survey and Resultats preliminaires du recensement general de la population, du logement et de l'agriculture. Institut Haitien de Statistique, September 1973.

*These "direct employment" percentages are biased upwards because 1978 employment figures are used in the numerator while 1971 population figures are all that is available for the denominator. This bias should not pose a problem given that the purpose of these figures is only to rank the importance of small enterprises by locality size. Biases in the locality rankings may occur because of the time lag between the gathering of the population and employment data and because population may be growing at different rates in the various locality size groups. For example, it is most probable that the population of Port-au-Prince has been growing more rapidly than the population in other areas, and it is likely that the number of small enterprises is also increasing more rapidly than in the other localities. Therefore our 1978 employment figures for Port-au-Prince are biased upwards compared to other areas. Using inflated 1978 employment figures we tend to overstate the importance of small enterprises in Port-au-Prince relative to their importance in other localities. Therefore, if we could correct for this bias, the trend would be accentuated.

TABLE 4

ESTIMATED EMPLOYMENT BY ENTERPRISE TYPE
(For Localities with Population Over 1,000)

Enterprise Type	Enterprises		Employment	
	Number	Percent	Number	Percent
Tailoring	3,956	46.4	15,210	45.2
Carpentry	990	11.6	3,664	10.9
Car repair	219	2.6	2,538	7.5
Bakery	297	3.5	2,007	6.0
Metal working	528	6.2	1,887	5.6
Shoe repair	723	8.5	1,432	4.3
Wood products	213	2.5	1,012	3.0
Machine repair	264	3.1	942	2.8
Beverage manufacture	175	2.1	893	2.7
Cement block making	145	1.7	600	1.8
Grain milling	113	1.3	431	1.3
Goldsmithing	142	1.7	406	1.2
Cloth making, nets	64	.8	376	1.1
Straw, sisal, bamboo products	130	1.5	359	1.1
Candy making	165	1.9	316	.9
Production of soap, oils, and essential oils	22	.3	276	.8
Tire repair	95	1.1	267	.8
Pastry shop	71	.8	190	.6
Printing	24	.3	181	.5
Leather work	49	.6	102	.3
Mattress making	24	.3	93	.3
Watch repair	53	.6	88	.3
Other	55	.6	356	1.1
Total	8,517	100.0	33,625	100.0

SOURCE: Phase I survey.

car repair with 9 percent, metal work with 6 percent, bakeries with 6 percent, shoe repair with 5 percent, and wood products and machine repair with 3 percent.

Within each enterprise group it is interesting to note how relative importance, in terms of employment, varies by locality size. As table 5 shows, tailoring, carpentry, and bakeries become less important in larger towns. On the other hand, car repair, metal work, and machine repair are more prevalent in the large urban areas where demand for their output is greater. Wood products (largely wood sculpture) are also more important in large urban areas than in the rural areas; as we shall see later, this is because of the availability of the export and tourist markets which are centered in the large cities.

3.3. Seasonality

The vast majority of small enterprises visited experienced seasonal fluctuations in their levels of activity.[1] Of the firms surveyed, 94 percent have either a high or a low season. The high season seems to coincide for a large number of enterprises; 63 percent of the firms indicated their peak season to be in December (table 6). On the other hand, the periods of low activity appear to be spread more uniformly throughout the year. Even so, there does seem to be a large slump in January and

[1] In a single-interview survey it is difficult to obtain accurate estimates of the magnitude of seasonal variations. To get any feel for the size of the seasonal fluctuations requires a whole series of questions which attempt to compare activity levels in different months. Such a series of questions was not asked, both because of the difficulty of obtaining reliable estimates and because it was felt the interview time could more profitably be spent exploring other areas of interest concerning the functioning of the small enterprises.

TABLE 5

DISTRIBUTION OF ENTERPRISES, BY LOCALITY SIZE

Enterprise Type	Locality Size				
	1,000-2,000	2,000-5,000	5,000-20,000	20,000-100,000	Over 100,000
	Percent of Total SSE Employment				
Tailoring	46	58	49	47	32
Carpentry	14	11	12	11	9
Car repair	3	-	5	12	14
Metal working	5	3	5	6	8
Shoe repair	4	1	5	5	6
Bakeries	8	8	9	4	3
Wood products	3	-	1	1	7
Machine repair	2	1	1	2	6
Beverage manufacture	0	9	1	1	1
Cement block making	0	1	2	1	3
Milling	0	4	2	0	0
Goldsmithing	0	1	1	1	2
Cloth and net making	4	0	0	2	1
Straw, sisal, and bamboo products	2	1	1	0	1
Candy making	2	0	2	0	1
Essential oils	3	0	1	1	0
Tire repair	1	0	1	0	2
Pastry shop	1	1	1	0	1
Printing	0	0	0	0	2
Leather work	0	0	0	1	0
Mattress making	0	0	0	0	1
Watch repair	0	0	0	0	1

SOURCE: Phase I survey.

TABLE 6

SEASONALITY

	Entrepreneurs Indicating Their:	
	High Season	Low Season
	Percent	Percent
January	3	23
February	2	21
March	3	7
April	1	4
May	1	7
June	2	8
July	2	14
August	1	3
September	5	2
October	10	3
November	3	1
December	63	2
Total	100	100

SOURCE: Phase II survey.

February. Forty-four percent of the entrepreneurs indicated these two months to be their period of lowest activity.

The seasonality in small businesses is caused by several factors. In some cases the supply of inputs used by the small enterprises varies substantially over the course of the year. This is the case, for example, in agricultural processing activities such as grain milling. At harvest time the supply of inputs (grain) rises sharply and activity levels among the small mill operators increase substantially. In other industries the supply of inputs remains stable throughout the year, but demand for the small industry output varies greatly over the course of the year. This is true, for example, among tailors. Seventy-seven percent of the tailors interviewed pointed to a high season in December, and 88 percent of them attributed this increase in activity to the demand generated by the festivals which occur during Christmas and New Year. Thus variations in the supply of inputs as well as variations in demand patterns play important roles in determining the seasonal patterns of small businesses.

In addition to fluctuations in input supply and output demand, there exists a third possible cause of variations in small enterprise activity — seasonal work requirements in other activities, primarily agriculture. Alternative employment is important among the small enterprises surveyed. Twenty-eight percent of the entrepreneurs visited were currently working at another job. This is not surprising given that we interviewed them in Janaury and February, months which 44 percent of them considered to be their period of lowest activity. Of the 28 percent who were working at another job, the single largest source of outside employment was

agriculture, which employed 31 percent.[1] Given the importance of agriculture as an outside source of employment, it is not surprising to find that additional occupations are much more important in rural areas than in the larger localities. Forty-five percent of the entrepreneurs in the smaller localities work at other jobs in addition to their small-scale enterprise, while only seventeen percent of those in Port-au-Prince have another job (table 7). Given the importance of outside employment in agriculture, which is itself very seasonal, it is easily seen how fluctuations in agricultural labor demands can be important causes of seasonality in the small enterprise activity.

While seasonality is important for the majority of businesses, there are several enterprises which are less susceptible to seasonal fluctuations. It is primarily the machine repair, car repair, and printing businesses which indicated no seasonality in their levels of activity (table 8). For these industries the lack of seasonality is probably due to consistent, year around demand for their products.

3.4. Labor Profile

The average size of the enterprises studied was quite small, 4.1 employees per firm. Firms in the large towns, though, do tend to be larger than those in rural areas. In the smallest localities, enterprises employ 3 workers per firm on average while in the largest cities the average size is 4.5 workers (table 9).

The workers in Haiti's SSE include entrepreneurs, family workers, apprentices, hired workers, and "jobbers." Virtually all firms are owned

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[1]The second largest source of alternative employment was retailing, which employed 22 percent.

TABLE 7

PERCENT OF SMALL BUSINESS ENTREPRENEURS WITH OUTSIDE OCCUPATIONS
(January, February 1979)

Locality Size	Percent
1,000 - 2,000	44
2,000 - 5,000	48
5,000 - 20,000	37
20,000 - 100,000	23
Over 100,000	17

SOURCE: Phase II survey.

TABLE 8

LACK OF SEASONALITY

Enterprise Type	Percent of Entrepreneurs Indicating:	
	No Low Season	No High Season
	Percent	Percent
Machine repair	21	18
Car repair	20	16
Printing	18	10
Candy making	16	7
Straw products	15	12
Wood products	14	16
Cement block making	14	12
Cloth, net making	13	19
Tire repair	12	11
Goldsmithing	9	6
Pastry shops	8	14
Bakery	7	6
Beverage manufacture	6	6
Mattress making	6	13
Metal working	6	7
Leather working	4	4
Carpentry	2	3
Tailoring	1	1
Shoe repair	1	1
Average for all firms surveyed	6	5

SOURCE: Phase II survey.

TABLE 9

LABOR PROFILE OF HAITIAN SMALL ENTERPRISES

Locality Size	Total Employment	Entrepreneurs	Family Workers	Apprentices	Hired Workers	Jobbers
Under 1,000	3.0	1.0	.05	.5	1.1	.06
1,000 - 2,000	2.9	1.0	.10	1.0	.7	.06
2,000 - 5,000	4.0	1.0	.20	1.8	.9	.07
5,000 - 20,000	3.6	1.1	.20	1.4	.9	.08
20,000 - 100,000	4.8	1.1	.40	2.0	1.4	.06
Over 100,000	4.5	1.1	.30	1.3	1.7	.14
Average for all firms surveyed	4.1	1.0	.25	1.5	1.3	.10

SOURCE: Phase I survey.

by a single entrepreneur. The average entrepreneur interviewed has eight dependents. Roughly 80 percent of the entrepreneurs are men and 20 percent are women. Over half of the owners/managers have completed six years or more of education. The majority (60 percent) received their training as apprentices in other small enterprises, while 11 percent were trained in vocational schools and 14 percent are working the same line of business as their father or mother. In looking further at the family background of the entrepreneurs, one finds that farming was by far the most common occupation of the entrepreneurs' fathers. Many of the mothers were also farmers (34 percent) but large numbers of them were involved in business activity. Thirty percent of the mothers were retailers and twenty-two percent were tailors. Slightly under half (40 percent) of the current small business entrepreneurs were involved in another line of work prior to opening their small business. Of these, the most common previous occupations were farming (20 percent) and retailing (15 percent).

Family workers are of minor importance in Haitian small enterprises. They constitute 6 percent of SSE employment.

It is hired workers and apprentices which form the bulk of the employment in Haitian small enterprises. Together these two groups account for 66 percent of total SSE employment, with hired workers accounting for 31 percent and apprentices 35 percent. The importance of apprentices does not vary across locality sizes. Hired workers, however, are used more commonly in large urban areas than they are in the rural areas. In the rural areas, firms average one hired worker each, whereas firms in Port-au-Prince employ an average of 1.7 hired workers each.

The "jobbers" constitute the smallest, but still a very interesting, segment of the SSE work force. A jobber is a worker who possesses a skill but no workshop or equipment. He receives orders for work and then arranges to use the facilities of an established shop in order to perform the requested job. Jobbers constitute only 2 percent of overall employment in the enterprises surveyed, but that figure rises to 7.3 percent in machine repair shops, 7.1 percent in wood products, and 4.5 percent for car repair businesses.

Women account for 16 percent of the employment in Haitian small enterprises. The importance of women employees varies markedly by industry. Of total pastry shop employment, women account for 50 percent (table 10). Tailors are next with 30 percent, followed by manufacturers of straw products at 27 percent. At the other extreme, carpenters employ only 1.2 percent women, metal workers .8 percent, while the tire repair and leather workshops surveyed employ no women. Across locality sizes, though, the employment of women is fairly uniform.

Women are owners or managers of 18 percent of the firms surveyed. In many respects, male and female entrepreneurs have very similar characteristics. Their educational background, age, training, and the number of employees they supervise are virtually the same. One major difference, however, is that women entrepreneurs tend to employ many more female workers than do their male counterparts. Among establishments run by male entrepreneurs, only 6 percent of the workers are female, whereas under women entrepreneurs two-thirds of the employees are female. This is closely associated with the fact that women are concentrated in certain industries such as pastry shops, tailoring, straw products, and candy

TABLE 10

THE EMPLOYMENT OF WOMEN IN HAITIAN SMALL ENTERPRISES

Enterprise Type	Women As A Percent of Total Employment	Percent Of Women Entrepreneurs
Pastry	50	86
Tailoring	30	43
Straw products	27	23
Cloth making, nets	25	6
Wood sculpture	24	7
Milling	22	6
Printing	16	0
Baking	16	20
Candy making	15	86
Goldsmithing	10	0
Beverage manufacture	7	6
Cement block making	3	3
Oils and essential oils	3	0
Machine repair	3	0
Carpentry	1	0
Shoe repair	1	0
Car repair	1	0
Metal working	1	0
Leather working	0	0
Watch repair	0	0
Mattress making	0	0
Tire repair	0	0

SOURCE: Phase II survey.

making. In these industries women entrepreneurs account for 86, 43, 23, and 86 percent respectively of all entrepreneurs in those lines of activities. It is clear from table 10 that large amounts of female employment is concentrated in those particular industries.

3.5. Capital Composition

In describing the capital composition of small enterprises in Haiti, we will examine three measures of capital usage: equipment per worker, total capital per worker, and total capital per firm.[1] The value of equipment per worker is the most accurate capital figure obtained from the survey because enumerators made an item-by-item inventory of machinery and tools in each firm visited. Estimates of total capital were also obtained but they are less reliable than the equipment figures because entrepreneurs gave lump sum estimates for three of the total capital components — raw materials, building, and inventory of finished goods.

By any of the three capital measures, the sums of capital required by small enterprises in Haiti are modest. The average value of equipment per worker currently lies between $130 and $300[2] among tailors, carpenters, metal workers, and car repair shops, four of the largest employers among the small enterprises (table 11). This equipment per worker figure varies more dramatically when all types of small enterprises are considered. Equipment per worker ranges roughly from $2,200 among ice makers to $20 for manufacturers of straw products.

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[1]Equipment is machinery plus tools. Total capital is equipment plus building, raw materials, and inventory of finished goods.

[2]All capital values in this report are given in 1978 dollars. To arrive at this current dollar valuation we used the capital price deflators given by Zuvekas (1978, p. 6). Using these deflaters along with original purchase price and year of purchase, one is able to reflate the original purchase price to 1978 dollars.

TABLE 11

CURRENT CAPITAL STRUCTURE
(1978 Dollars)

Enterprise Type	Capital/Labor Ratios			Total Capital Per Firm
	Equipment†/Worker	Equipment Plus Building/Worker	Capital/Worker*	
Ice making	$2,161	$3,714	$3,814	$21,615
Printing	1,969	4,816	5,482	28,892
Grain milling	1,763	3,171	3,364	14,019
Heavy wood products (boats and truck bodies)	1,285	1,285	1,554	4,819
Essential oils	919	2,321	4,428	73,803
Cement block making	429	804	1,624	10,162
Shoe repair	404	1,039	1,209	2,437
Goldsmithing	344	1,013	1,367	2,412
Car repair	294	464	654	5,248
Pastry shops	280	3,931	3,985	12,524
Metal work	272	1,094	1,230	2,633

SOURCE: Phase II questionnaire.

*Total capital is equipment plus building, raw materials, and inventory of finished goods.

†Equipment is machinery plus tools.

Table 11 continued

Enterprise Type	Capital/Labor Ratios			Total Capital Per Firm
	Equipment†/Worker	Equipment Plus Building/Worker	Total Capital/Worker*	
Machine repair	$257	$2,427	$2,524	$8,858
Cloth, net making	251	333	364	1,797
Beverage manufacture	243	829	1,760	17,987
Tailoring	176	1,512	1,665	7,484
Tire repair	155	156	232	866
Carpentry	126	639	816	3,302
Wood sculpture	93	135	929	7,939
Mattress making	75	829	1,033	2,296
Candy making	42	343	373	635
Straw products	18	104	385	1,540

SOURCE: Phase II questionnaire.

*Total capital is equipment plus building, raw materials, and inventory of finished goods.

†Equipment is machinery plus tools.

Total capital per worker ranges between $650 and $1,700 among the tailors, metal workers, shoe repair shops, and carpenters. Outside of these major 4 employers the total capital per worker varies between a high of $5,500 in printing shops and a low of $230 among tire repair businesses. Total capital per firm varies from $74,000 in essential oil plants to $870 in tire repair shops.[1]

Part of the reason that capital costs are kept as low as they are among small businesses is that many entrepreneurs do not own buildings. In fact, 30 percent of the firms surveyed do not operate inside buildings. They work outside on sidewalks or on verandas. There are certain

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[1]It is somewhat difficult to compare these capital figures with those for large-scale industries in Haiti (large-scale industries are those employing over fifty workers). In heavy industry investments per worker are much larger than those in small enterprises. Schwartz (1978, p. 5) maintains that investment per worker in large agro-industries and in import substituting industries (presumably steel and cement) ranges between $20,000 and $35,000 per worker. These figures are an order of magnitude larger than most of the capital/labor ratios for the small enterprises cited in table 11.

At the other end of the large-scale spectrum are the export-oriented assembly industries which manufacture baseballs, textiles, and electronic goods. For these large assembly industries it is not clear whether large firms require more or less capital per worker than do the small enterprises surveyed. Schwartz (1978, p. 5) states that in the export-assembly industries, "capital investment per worker" ranges between $750 and $3,500. This corresponds to the World Bank estimate that, "average investment per employee" in enterprises created under the industrial incentive laws is between $200 and $3,200 (World Bank, p. 21). A mimeographed publication put out by the U.S. Commercial Library indicates that, "average investment per assembly job is less than $2,000" (U.S. Commercial Library, 1978, p. 1). It is difficult to compare these figures with the capital/labor ratios given for Haiti's small enterprises. The comparison is difficult because the investment figures given for the large firms, figures such as "capital investment per worker," are not defined. It is not clear whether they refer to equipment per worker, fixed capital per worker, or total capital per worker. Furthermore, the range of values given for investments per worker is very large. Any comparison between small firms and assembly industries will have to be made for specific industries and this will require additional information concerning the large assembly firms.

industries in which working from outside of a permanent building is less common than in others. For example, in milling operations, printing shops, bakeries, and tailoring the vast majority of the enterprises surveyed operate from permanent buildings (table 12). However, in other types of enterprises such as metal working, mattress making, cloth making, car repair, tire repair, and cement block making over half of the businesses interviewed are located either on sidewalks, verandas, or outside. It should not be inferred that industries such as these, in which large numbers of firms operate outside of a permanent structure, are of a less stable nature than those industries which are more securely housed. Firms operating on verandas or outside will often open for business in the same location week after week and year after year. In fact, 58 percent of the tire repair shops, 40 percent of the car repair businesses, 47 percent of the metal workers, and 44 percent of the mattress makers surveyed have been in business for over 10 years. These industries operate largely outside and that clearly has not precluded their ability to remain in business for long periods of time.

Capital usage varies not only among industries; it also fluctuates widely <u>within</u> given industries. For example, tailors in the 2,000 to 5,000 person localities use only $47 worth of equipment per worker, whereas in Port-au-Prince tailors use an average of $310 worth of equipment per worker (table 13). Among metal workers, capital equipment per worker increases from $40 in the smallest localities to $330 in Port-au-Prince.

In both of these cases, for metal workers and tailors, the trend is for enterprises to be more capital-intensive in the larger urban areas

TABLE 12

BUILDINGS, PERMANENT VERSUS TEMPORARY

Enterprise Type	Proportion Operating: In Permanent Structures	Outside On Sidewalks Or Verandas
	Percent	Percent
Milling (sugar and grain)	95	5
Printing	95	5
Bakery	93	7
Tailoring	85	15
Pastry shops	85	15
Oils and essential oils	73	27
Machine repair	71	29
Leather products	68	32
Goldsmithing	67	33
Wood products	64	36
Candy making	63	37
Carpentry	58	42
Shoe repair	58	42
Straw products	57	43
Watch repair	57	43
Mattress making	50	50
Metal working	49	51
Cloth and net making	44	56
Car repair	47	63
Cement block making	28	72
Tire repair	22	78
Average for all firms surveyed	71	29

SOURCE: Phase I survey.

TABLE 13

VALUE OF EQUIPMENT[1] PER WORKER

Enterprise Type	Locality Size 1,000-2,000	2,000-5,000	5,000-20,000	20,000-100,000	Over 100,000
	1978 Dollars				
Tailoring	83	47	98	124	310
Metal working	39	127	130	383	328
Carpentry	42	51	114	189	137
Shoe repair	93	200	551	331	418
Leather work	--	--	91	123	168
Car repair	--	--	387	279	276
Machine repair	--	455	945	149	153
Bakery	95	162	715	173	779
Candy making	17	--	56	43	20
Straw products	22	31	14	33	19
Cement block making	--	419	389	155	478

SOURCE: Phase II survey.

NOTE: The enterprises included in this table are the only ones for which the data base was large enough to display differing capital costs over several locality sizes. Missing entries in the table indicate an inadequate number of observations.

[1]Equipment is machinery plus tools.

than in the rural localities. This same trend prevails among many other small enterprises. For example, carpentry, shoe repair, and leather working shops tend to use more capital per worker in urban areas than do their counterparts in rural localities. This trend probably results because of the greater availability of electricity and power machines in the major urban areas and because capital costs may well be lower in the larger towns than in the rural areas. The lower capital costs in large towns can result from the greater availability of low-cost credit and lower equipment prices because fewer transport and handling costs are incorporated into the final price. In addition, higher wages in the cities may make capital cheaper relative to labor, creating an incentive for the use of more capital-intensive methods of production in the large towns.

The trend of increasing capital per worker in larger towns does not appear to hold for all industries. For example, in machine repair more capital per worker is used in the rural than in urban areas. This reversal is probably due to the nature of the repair work taking place. The repair work in the rural areas may be repair of agricultural equipment, whereas the machine repair in the urban areas includes many light household appliances among the machines that are worked on. In other industries such as candy making, cement block making, and the manufacture of straw products, capital per worker is roughly constant across locality sizes. These three industries, though, seem to be exceptions. In general, there exist substantial variations in the amounts of capital per worker in the small firms.

3.6. Growth Trends in Small[1] Enterprises

The preceding discussion has addressed static issues: the current structure of Haitian small enterprises and the current importance of each of the different types of SSE. This concluding section of the Descriptive Profile will consider the dynamics of the small enterprise sector. In particular, an attempt is made to give some indication of how the relative importance of different small industries may be changing over time.

The basis for discussing growth trends in Haitian small enterprises is table 14. Table 14 provides several sets of information which offer indications on different aspects of small enterprise growth. The data deal with entrepreneurs' estimates of: increases in the number of firms per industry (column B), and indications of how their individual output per firm has been changing (column C). Also included is information on the age distribution of firms in each industry (column A) and on rates of net investment in capital equipment (column D). It is important to note that an inevitable inconvenience arises with these data because of the fact that, of all the firms in the growth process, we are only able to interview the survivors. Had it been possible to obtain information from those firms which have dropped out of business, the picture presented below might have been less rosy. This potential upward bias is particularly likely with respect to the rates of net investment given in column D. In addition to the survivor firm bias, it should be noted that, in giving their estimates of growth trends, entrepreneurs were asked to give

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[1]It is important to remember that the ensuing discussion pertains only to trends within the small enterprise segment of each industry. Firms with more than fifty employees are not included in the analysis.

TABLE 14

GROWTH INDICATORS

	A Age Composition				B Number of Firms		C Output Per Firm		D Rate of Net Investment In Equipment, 1974-1978[3]	
	Percentage of Firms In Business For:				Net Percentage Of Entrepreneurs Indicating Increase[1]		Net Percentage Of Entrepreneurs Indicating Increase[1]			
	1-4 Years	5-9 Years	10-19 Years	Over 20 Years	Past 5 Years	Past Year	Past 5 Years	Past Year	Industry As A Whole	Average of Individual Firms' Rates of Investment
	Percent									
All enterprises (1256)	27	23	24	25	18	24	16	13	2.4	6.3
Watch repair (15)	47	13	13	27	13	26	- 7	13	- 5.6	-19.0
Machine repair (55)	44	26	16	13	17	40	15	2	- 1.3	8.9
Essential oils (8)	44	11	33	11	75	63	25	63	---	---
Cement block making (35)	43	34	11	11	9	43	0	28	4.1	1.0
Candy making (28)	43	25	21	11	14	11	7	-25	-21.0	12.9
Car repair (45)	39	17	13	26	13	33	24	- 9	1.0	1.2
Pastry (13)	36	21	29	7	23	30	15	-18	-17.0	-22.0
Bakery (49)	35	18	22	22	- 4	33	21	-19	- 2.0	- 5.8
Beverage manufacture (18)	33	11	17	39	0	- 6	28	0	5.9	- 6.6
Mattress making (9)	33	22	11	33	-11	33	0	-11	- 4.5	.0
Wood sculpture (34)	32	32	15	21	26	38	24	24	1.0	- 4.5
Goldsmithing (34)	32	18	24	27	3	38	46	- 9	3.7	46.8
Metal working (74)	28	23	20	27	25	35	21	- 3	2.3	- 5.6

Table 14 continued

Straw products (44)	28	28	17	28	0	- 2	6	-15	- 6.3	11.0
Tailoring (378)	27	25	26	20	28	33	13	-15	7.1	7.7
Printing (11)	27	18	36	18	9	18	18	0	---	---
Cloth, net making (17)	24	29	29	18	35	35	18	6	13.8	-38.9
Heavy wood products (9)	22	11	22	44	45	22	45	0	---	---
Milling (36)	20	26	26	29	16	30	19	-19	.5	2.6
Shoe repair (128)	17	16	27	38	2	- 9	12	-45	.5	2.1
Carpentry (74)	14	21	29	36	30	10	19	-23	2.8	2.0
Leather working (24)	13	29	17	42	-25	8	- 4	-21	-11.3	- 7.5
Tire repair (19)	0	42	26	31	5	26	11	-16	- 4.3	2.8

SOURCE: Phase II survey.

[1]Column B is defined as the percent of entrepreneurs indicating an increase in number of firms minus the percent of entrepreneurs indicating a decrease. Each entrepreneur gave estimates only for his/her industry and for his/her own locality or neighborhood. Note that this column says nothing about the magnitude of the increase or decrease in number of firms. A positive number only indicates that more entrepreneurs lived in localities with an increasing number of firms than lived in localities with a decreasing number of firms.

[2]Column C is defined as the percent of entrepreneurs indicating that their own output had increased minus those indicating their output had decreased. A sample calculation is performed in paragraph 2, page 37.

[3]Column D is defined as the rate at which new equipment is purchased $\left(\left[\sum_{i=1974}^{1978} \frac{\Delta ki}{ki-1}\right]/5\right)$ minus the rate of depreciation (annual depreciation/K) of the total stock of equipment. Straight-line depreciation is used. The first figure, for the industry as a whole, computes the net investment rate when the entire industry is considered as a single unit. The second figure, the average of individual firms' rates of investment, computes net investment rates for each firm and then averages those rates. See page 39, paragraph 1 for a description of how to interpret the two figures.

only directions, not magnitudes. Thus for estimates of changes in the number of firms and output per firm the figures in table 14 (columns B and C) give only rough indications of the direction of change. With these two caveats in mind, we turn to an evaluation of the figures in table 14. When used judiciously the four sets of data information provided can offer important insights into growth trends in Haitian small enterprises. The information is particularly useful for constrasting trends among different industries.

3.6.1. Aggregate SSE Growth. The small enterprise sector in Haiti appears to be growing over the medium run, that is, over the past five years. Looking at the aggregate of all small enterprises, entrepreneurs indicate that both output per firm and the number of firms have increased over the past five years. There has been a positive net rate of investment in capital equipment over the past five years; the rate of increase in equipment has been 6.3 percent per year for the average firm. Apparently increases in output per firm are due at least in part to increased capitalization of the small firms.

Looking at the short-run, it appears that 1978 was perceived to be a difficult year for the small enterprises in Haiti. While 28 percent of the firms interviewed indicated that their output had increased last year, 41 percent indicated declines in output.[1] Adopting the convention used in table 14 we can say that a net of 13 percent of the firms indicated their output had decreased.

The age distribution of small firms indicates that there are large numbers of experienced firms currently operating in Haiti. Three-fourths of

[1]The remaining 31 percent indicated their output was stable or that they were too new to respond.

the small enterprises surveyed have been in business for over five years, half have been in business over ten years, and one-fourth of the small firms have been producing for more than twenty years. In the aggregate, the small enterprises appear to be growing on all fronts — in terms of number of firms, capital stock, and in terms of output per firm.

As always, the average figures mask considerable variations among trends in different industries. We turn, therefore, to look at certain specific industries. The enterprises discussed below were selected for two reasons: either clear judgements could be made about their growth records, or they account for such a large proportion of SSE employment that they cannot be ignored. Of the industries selected for comment, the growth industries appear to be machine repair, cement block making, car repair, wood sculpture, and tailoring. The moderate gainers appear to be metal working, shoe repair, and carpentry. The declining small industries seem to be leather working and bakeries.

3.6.2. Machine Repair. The machine repair industry offers clear indications of growth. Large numbers of entrepreneurs have been moving into the machine repair business in recent years. So many have been entering the industry that fully 44 percent of the firms interviewed were less than five years old and 70 percent have been in business for 9 years or less.[1]

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[1]It is recognized that large numbers of new firms do not necessarily imply that an industry is growing. It is possible that failure rates are even higher than the entry rates, and that the industry is in fact declining. What large numbers of young firms does indicate is interest on the part of entrepreneurs, and ease of entry and movement into an industry. Where this movement into an industry occurs along with an increase in the number of firms and in output per firm (as in machine repair) we consider this to be a sign of growth within an industry. On the other hand, in the bakery industry there are also large numbers of new firms being established, but the total number of firms in the industry appears to be declining. Drop-out rates apparently exceed the rate of new firms. In this case large numbers of new firms are not a sign of growth in the industry.

Entrepreneurs indicate that the total number of machine repair firms has increased over the past five years. Even with the increasing number of firms it appears that the older firms (those in business for over five years) have still been able to increase their individual output over that period.

At 8.9 percent the average rate of investment in equipment is among the largest of all small industries. Only industries such as straw products, goldsmithing, and candy making, which start from very low bases, have invested faster than the machine repair shops. To arrive at the 8.9 percent figure, rates of investment are computed for each firm and then the rates are averaged together. This procedure gives small firms and large firms equal weight, and the figures computed in this fashion are the second figures listed in column D of table 14. However, investment rates can be computed in a different manner. The first figure in column D is computed in this different fashion where the capital for all machine repair shops is lumped together and a net investment rate is computed for the industry as a unit. When the capital is aggregated in this manner, changes in capital in the larger firms carry more weight than those among the small firms. Under this aggregate, industry-wide calculation there appears to be a slight, 1.3 percent, rate of disinvestment in capital stock. Since aggregate industry investment (where larger firms have a greater weight) is slightly negative and the average of individual firms' rates of investment (where small and large firms have equal weight) are large and positive, it is clear that the large firms are net disinvestors while the small firms are increasing their stock of equipment quite rapidly.

Indications are that the machine repair industry is growing both in terms of number of firms and in output per firm. In terms of stock of

equipment, the larger small-scale firms are net disinvestors while the smaller firms are investing at a rapid rate.

3.6.3. Cement Block Making. The cement block making industry also appears to be growing over the short- and medium-run. Large numbers of entrepreneurs have been investing in the cement block making industry in recent years. Forty-three percent of the firms have begun operations in the past five years and seventy-five percent have been in business for nine years or less. These large numbers of newly established firms make the cement block industry the youngest of all the small industries.

As with machine repair, the total number of cement block making firms appears to have increased over the past five years. Output per firm, though, appears to have remained roughly constant over that period. Rates of investment in equipment have been moderate but positive.

An indicator of short-run strength in the cement block making industry is the fact that the majority of cement block makers did not complain of a downturn in their activity levels last year. This is in marked contrast to the large majority of industries which felt 1978 to be a poor year. While bakers, metal workers, carpenters, shoe repair shops, and even tailors and car repair shops fell prey to the short-run downturn, the cement block makers continued to increase their output. One suspects that it is the existence of a local cement plant in Port-au-Prince as well as a strong demand for construction materials which have allowed the cement block makers to grow in recent years.

3.6.4. Car Repair. The growth indicators in the car repair industry are very similar to those in the machine repair and cement block making businesses. The more established firms have been increasing their output over the past five years and still there has been room for substantial numbers of new firms to enter the trade; 39 percent of the firms visited

have been established in the past five years. The total number of firms appears to have increased over that time span. Rates of investment in the car repair businesses have been positive but small, indicating that increases in output per firm may be resulting from the additional utilization of labor.

3.6.5. Wood Sculpture. Wood sculptors also appear to have been doing well. There are large numbers of young firms in the business indicating that it is attracting new entrepreneurs. In addition, both the number of firms and individual firm output have been growing over the past five years. The small wood sculpture firms have been net disinvestors in capital while the large firms have increased their stock of equipment slightly. Given the low net rate of investment in equipment it would appear that, as in the car repair business, increases in output per firm may be the result of increasing labor utilization.

3.6.6. Tailoring. Tailoring is the largest of Haiti's small industries and business in this line appears to be increasing over time. There are clear indications that both the number of firms and the output per firm have increased over the past five years. In addition, investment rates appear to be high among tailors, higher than in most other industries. The main cause for concern in reviewing the tailoring industry lies in the fact that many firms felt their output had declined over the past year. This implies that the tailoring industry may be susceptible to short-run fluctuations in general economic conditions. Despite this sensitivity to short-run downturns, the tailoring industry appears to be strong over the medium- to long-run. Over the past five years small tailoring firms have been growing in numbers in terms of output per firm and in terms of total capital stock.

3.6.7. Metal Working. Both the number of firms and output per firm have increased over the past five years among metal working firms. Reinvestment figures indicate that small firms have been net disinvestors in equipment while the larger metal working firms have increased their stock of equipment moderately over the past five years.

3.6.8. Carpentry. The carpentry firms constitute a rather old industry; 36 percent of the firms have been in business for over 20 years and there are very few new firms. Only 14 percent of the carpenters have been established in the past 5 years. This small number of new firms, combined with entrepreneurs' estimates that the total number of carpentry firms has been increasing, implies very low drop-out rates among carpenters. Output per firm appears to have increased over the past five years, and rates of capital investment have been positive but small. Many enterprises felt their output had declined last year indicating perhaps a sensitivity to short-run economic downturns.

3.6.9. Shoe Repair. Trends in the shoe repair industry are very similar to those in carpentry. There exist large numbers of very old shoe repair shops. Thirty-eight percent of the shops have been in business for over twenty years, and the number of new firms entering in the past five years has been small. Only 14 percent of the current firms have begun business within the past 5 years. Output per firm has increased over the past five years and the net rate of investment in equipment has been small but positive. As with carpenters, shoe repair shops appear to be sensitive to short-run downturns in activity.

3.6.10. Leather Work. Even more clearly than the bakers, small leather workers in Haiti appear to be on the decline. The number of firms seems to have dropped noticeably in the past five years; even output per

firm has declined. Very few entrepreneurs are getting into the leather working business and a huge proportion, 42 percent, have been in business for over 20 years. Rates of investment in capital equipment, strongly negative, are among the lowest of any industry.

This concludes the descriptive overview of small enterprises in Haiti. Having discussed the current structure of small enterprises as well as past growth trends, we turn to examine factors which can constrain the future growth of small-scale firms.

IV. POTENTIAL CONSTRAINTS FACING HAITIAN SMALL ENTERPRISES

A major goal of this study is to make a preliminary identification of constraints faced by small-scale industries in Haiti. A useful way to launch such a discussion is to look briefly at what entrepreneurs themselves perceive to be their principal problems; table 15 summarizes their concerns. Lack of machines and tools, and cash limitations are clearly perceived to be the most important problems facing the small entrepreneurs. Insufficient demand, shortage of raw materials, lack of credit, and lack of working space are also of concern. The variation in these problems across regions, locality sizes, and across industries will be examined in the following sections where each type of problem is examined individually.

As a framework for analyzing the constraints faced by small entrepreneurs we will look first at demand constraints faced by the small firms and then turn to supply problems. On the demand side current and potential markets for SSE products are examined and an attempt is made to evaluate their potential for growth. On the supply side a look is taken at the inputs used by small enterprises — inputs such as capital, credit, management skills, trained labor, and raw materials. Attention to the supply side is important as bottlenecks associated with any of these inputs can hamper the growth of the small enterprise sector. Each of the potential supply and demand constraints will be examined in turn, and the first constraint to be discussed is that of demand for the small enterprise output.

TABLE 15

OWNER/MANAGER PERCEPTIONS OF PRINCIPLE PROBLEMS FACING HAITIAN SSE

Problem	Owners/Managers Listing This Problem	Owners/Managers Listing This As Most Important Problem
	Percent	
Lack of machines and tools	62.8	20.2
Cash	41.4	38.1
Insufficient demand	35.1	8.7
Shortage of raw materials	31.9	5.6
Lack of credit	27.7	7.7
Lack of working space	25.0	5.2
Lack of electricity	16.7	.9
Lack of storage space	13.4	1.0
Lack of skilled labor	10.3	1.6
Transportation problems	5.8	.3
Maintenance and spare parts	5.7	.9

SOURCE: Phase II survey.

4.1. Demand as a Potential Constraint

Demand is the first constraint considered because it is so fundamental. Industries can function with poor quality machines and credit shortages, but they cannot survive without a market for their products. Limitations of the market tend to prescribe limits for the scope of small enterprise activity.

Thirty-five percent of the entrepreneurs surveyed listed demand as one of their major problems. The demand problem was prevalent across all industries and was deemed particularly acute in the leather goods industry where 63 percent of the entrepreneurs mentioned it, and among bakers where 41 percent complained of demand inadequacies. Demand appears to be least important in the car repair and machine repair business where 22 to 24 percent of the firms expressed concern.

In reviewing the role of demand our first task is to determine where the current demand lies. Table 16 indicates, by locality size, the nature of current market for Haitian SSE products. With table 16 as a starting point we will explore the demand issue in detail considering three major sources of demand: (1) consumer demand in Haiti, (2) subcontracting demand by larger businesses, and (3) export demand.

4.1.1. Consumer Demand in Haiti

4.1.1.1. Local Consumer Demand. Local consumers provide the major market outlet for products of Haitian small enterprises. Eighty-four percent of the businesses interviewed sell to local consumers, and this dependence on local incomes is stronger in the smaller, rural areas where export and tourist markets are less readily available. Local traders are also an important source of demand in the smaller localities.

TABLE 16

CURRENT MARKET OUTLETS FOR HAITIAN SSE GOODS

Locality Size	Local Consumers	Local Traders	Outside Traders	Exporters	Tourists	Other	Total*
	Percent of Enterprises which Sell to Each Source						
All Haiti	84	13	17	4	2	56	175
Under 1,000	93	25	29	-	-	36	189
1,000 - 2,000	76	18	22	-	-	51	169
2,000 - 5,000	87	21	18	-	-	58	183
5,000 - 20,000	88	6	17	3	1	59	174
20,000 - 100,000	89	15	9	1	2	59	175
Over 100,000	78	12	19	6	4	54	174

SOURCE: Phase II survey.

*Entrepreneurs were allowed up to three answers which is why the total percent can exceed one hundred.

To the extent that these local traders circulate the SSE goods within a single locality, their importance in the rural areas reinforces the conclusion that small enterprises in the rural areas are highly dependent on local incomes as a source of demand for their goods.

4.1.1.2. Consumer Demand in Other Localities. There is considerable mobility of small-scale industry goods across Haiti. Thirty percent of the enterprises sell to traders, seventeen percent of whom are outside traders, indicating that trade with other localities is not uncommon in Haitian SSE. Bakeries (47 percent), leather work (38 percent), and grain mills (33 percent) are the enterprises most heavily involved in trade with other localities.[1] With the exception of the service industries such as car, tire, and machine repair, considerable mobility exists in all the other types of enterprises as well.

Consumer demand within Haiti — both local consumers and the demand from other localities — is of crucial importance for the small enterprise. Given the dependence on consumer demand and assuming a positive income elasticity of demand,[2] the growth of incomes in Haiti becomes a crucial determinant of the growth prospects in Haitian small enterprises. The limited data available indicate that, from 1960 to 1967, real per capita annual GDP fell slightly; since 1967 it has grown at a rate of about 1.3 percent per year (Zuvekas, 1978, p. 2). The data on which these

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[1]Straw products (38 percent) and wood sculpture (26 percent) are also heavily involved in outside trading, but as we will see shortly, this is primarily due to export demand rather than to the demand generated by consumers in other localities.

[2]Indeed evidence from other countries reveals that these coefficients are positive. See, for example, King and Byerlee, 1977.

income projections were made is admittedly weak, but in the absence of any other information, these figures are sobering. The growth of local incomes is of critical importance to the future growth prospects for small industries in Haiti.

4.1.2. Subcontracting. Another component of the local market demand for SSE goods is that afforded by larger businesses. A major reason for interest in this question of the demand relationship between small and large industries is the fact that in other countries, notably Japan, subcontracting arrangements between smaller and larger firms have been very important in the growth of small industries. Subcontracting can be an important potential source of demand for SSE products.

On average, 7 percent of the small firms interviewed do subcontracting work for larger businesses. However, as table 17 shows, the demand generated by the larger businesses is clearly much greater in the

TABLE 17

SUBCONTRACTING DONE FOR LARGER BUSINESSES

Locality Size	Percent of Total Enterprises Surveyed Which do Subcontracting for Larger Enterprises
Under 1,000	0.0
1,000 - 2,000	4.1
2,000 - 5,000	4.0
5,000 - 20,000	4.3
20,000 - 100,000	8.7
Over 100,000	9.8

SOURCE: Phase II survey.

larger towns than in the rural areas. None of the enterprises surveyed in the smallest localities were involved in subcontracting work whereas almost one-tenth of the firms in Port-au-Prince were so engaged. The bulk of the larger industries are located in the larger towns, particularly in Port-au-Prince, and so it is not surprising that the demand generated by larger industries is more prominent in the larger cities.

The importance of subcontracting varies not only by locality size; it also varies considerably by industry type (table 18). Tailors and shoe

TABLE 18

THE IMPORTANCE OF SUBCONTRACTING, BY INDUSTRY

Enterprise Type	Percent of Enterprises Surveyed Which do Work Under Contract For Larger Enterprises
Wood products	20.9
Machine repair	20.0
Cement block making	20.0
Straw products	13.0
Car repair	13.0
Metal work	10.8
Carpentry	6.2
Shoe repair	3.9
Tailoring	2.4
All other	--
Average	7.0

SOURCE: Phase II survey.

repair shops do essentially no subcontracting work for larger firms. However, for wood products, machine repair, and cement block making roughly 20 percent of the small firms do contract work for bigger enterprises. For straw products, car repair, metal working shops, and carpenters there is also a high frequency of subcontracting work done for larger firms.

Of the five industries in which subcontracting is most important, four were tagged as growth industries in our evaluation at the end of the Descriptive Profile. It is very possible that the subcontracting demand has played a role in the expansion of those four enterprises — wood products, machine repair, cement block making, and car repair. If so, further exploration[1] of these subcontracting arrangements would be of crucial importance in industrial policy making because where complementarities exist between large and small enterprises the two sectors can grow in tandem. In the cement block industry one suspects that large construction firms buy the small firms' blocks to use in their building projects. However, the relationship between larger enterprises and machine repair shops, car repair shops, and metal working firms is less clear. Exploration of these relationships could well lead to identification of the areas in which large and small industries are complementary, and the identification of these complementarities would be extremely useful in planning any industrial programs.

4.1.3. Export Demand. The export market represents another important outlet for Haitian SSE goods. From table 16 we saw that sales to tourists and exporters are made directly by only 6 percent of the firms

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[1]See, for example, Watanabe 1974 and 1979.

interviewed. However, this modest aggregate figure masks the fact that the export market is very important for certain of the small enterprises. For example, wood sculpture and straw products depend heavily on the export market. Sixty-five percent of the wood sculptors and twenty-three percent of the producers of straw products sell directly to exporters and tourists (table 19). In addition, 38 percent of the straw weavers and 26 percent of the wood sculptors sell to long distance traders and a large percentage of these wood and straw items probably flow into the export market. Considering the traders, exporters, and tourists it is clear that the export market is of prime importance to the straw and wood sculpture enterprises.

Export growth has the important advantage that it is not limited by the rate of growth of the local market; in fact, growth in Haiti's industrial sector in the past ten years has been paced largely by the growth of export industries. The recent World Bank Mission to Haiti has stated, "They (the export industries) played a dominating part in changing the face of Haiti's manufacturing sector" (World Bank, 1978, p. 21). The export of light manufactures (petite industrie) has skyrocketed in recent years as can be seen in table 20, and these light manufactures are made up of two distinct groups: (1) small-scale industry exports, and (2) large-scale,[1] primarily assembly type industries.

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[1]That the assembly industries are large-scale is verified by the observation that one-half of all firms in Haiti employing over 100 persons are involved in assembly-type export industries. This calculation is based on a report by the Institut Haitien de Statistique (IHS, 1978). In addition, the recent World Bank Mission to Haiti indicates that the average size of the assembly industries established between 1973 and 1977 is 89 workers (World Bank, 1978, p. 177).

TABLE 19

CURRENT MARKETS FOR SELECTED SMALL INDUSTRIES

Enterprise Type	Local Consumers	Local Traders	Sub-contracting	Outside Traders	Exporters	Tourists	Total*
	Percent						
Wood sculpture	46	21	21	26	44	21	179
Straw, sisal, and bamboo products	72	21	13	38	17	6	167
Metal working	84	16	11	20	3	0	134
Tailoring	88	6	2	10	2	2	110
Carpentry	87	3	6	12	1	0	109
Car repair	89	4	13	4	0	0	110
Machine repair	91	6	20	6	0	0	123

SOURCE: Phase II survey.

*Entrepreneurs were allowed up to three answers which is why the total can exceed one hundred.

TABLE 20

HAITIAN EXPORTS (IN GOURDES)[1]

		Exports of Light Manufactures[2]									
			Major Assembly Industries (Large-Scale)				SSE[3]				
	Total Exports	Total Light Manufactures	Baseballs	Leather Goods	Electrical Assembly	Underwear	Baskets	Straw & Sisal Handbags	Wood Articles	Total SSE	% of Light Mfg Exports
1975/76	587,668,875	155,460,631	68,221,098	11,732,440	11,330,379	6,222,850	4,038,709	1,768,790	4,113,986	19,689,849	12
1974/75	405,894,093	129,008,365	45,132,418	10,872,110	11,914,028	4,411,624	1,283,752	620,556	2,801,504	11,166,221	9
1973/74	356,665,755	92,245,102	26,193,000	11,112,000	5,347,000	981,000	214,000	40,000	3,524,000	11,200,000	12
1972/73	256,544,378	103,071,505	---	4,895,000	2,842,000	249,000	10,000	10,000	2,282,000	9,159,000	9
1971/72	211,534,983	78,567,869	---	3,668,000	2,954,000	515,000	---	29,000	2,176,000	9,057,000	12
1970/71	241,144,820	NA	10,025,000	2,550,000	1,136,000	1,954,000	23,000	130,000	1,401,000	10,160,000	
1969/70	202,583,382	NA	4,441,000	7,697,000	---	3,435,000	9,000	2,000	1,535,000	8,120,000	
1968/69	186,280,755	NA	2,008,000	4,961,000	---	---	4,000	4,000	751,000	9,924,000	

SOURCE: Le Commerce Exterieure d'Haiti. Departement de Finances et des Affaires Economiques. Various issues.

[1]Five gourdes equal one U.S. dollar.

[2]Light manufactures is a translation of "petite industrie."

[3]SSE products included all straw articles, sisal (except for string and fishing nets), wood articles, decorative items, items of shell, necklaces, and paintings.

We will examine first the exports from small-scale enterprises using official export data published by the Haitian government. According to these official trade statistics SSE exports have doubled since 1968 (table 20) and this large growth rate is primarily due to the rapid increase in exports of straw and wood articles. These data, therefore, corroborate the Phase II results which point to wood and straw articles as the most important of the SSE exports.

Turning to the large-scale, assembly goods exports we see spectacular increases over the past eight years. Baseball exports alone rose from virtually nothing in 1968/69 to over 11 percent of total Haitian exports in 1975/76. Electrical assembly, undergarments, and leather goods have increased rapidly as well. Roughly 200 of these large-scale export industries have been established since 1971 (World Bank, 1978, p. 21). Their importance in Haiti is undeniable.

It is important to realize, though, that the assembly goods exports have benefited from substantial amounts of assistance which was not available to the SSE sector. For example, the assembly goods industries enjoy considerable financial support from U.S. investors. Over 40 percent of the large-scale export firms are either partially or wholly owned by U.S. investors (Commercial Office, U.S. Embassy, 1978, p. 1). Furthermore, the large-scale exporters enjoy enormous tax and tariff exemptions which the SSE do not. As an illustration, the price a small entrepreneur pays for a sewing machine includes a 30 percent tariff duty (10.6 percent under GATT). The prices for saws, files, and other hand tools used by wood sculptors include a 1.1 gourde per kilo import duty (.9 GATT).[1] In

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[1]Republique d'Haiti.

contrast to the small enterprises, many of the large-scale assembly industries receive complete exemption from import duties on their equipment and raw materials. Thus the small enterprises are at a considerable cost disadvantage in many areas.

The substantial increases in SSE exports have been achieved without the benefit of any public intervention or outside support. Not only have they received no outside support, the SSE have operated under price handicaps due to input prices which are inflated by tariff duties. Given the fact that small industry exports have doubled in the past ten years despite these unfavorable conditions, there may well exist room for a major boost to SSEs through tariff adjustment and export promotion.

4.1.4. Conclusion. There are three principal sources of demand for the products of Haitian small enterprises — consumer demand in Haiti (local demand and consumer demand in other localities), subcontracting demand by larger firms, and export demand. Most small enterprises depend heavily on consumer demand within Haiti. However, firms with additional market outlets — either subcontracting or export markets — tend to fare better than those enterprises whose markets are limited solely to local consumers. Of the five industries in which subcontracting and export demand were the most readily available, four were classified as growth industries. Clearly, demand plays a crucial role in fostering the growth of small enterprises.

Having reviewed the demand for SSE products we turn to take an in-depth look at the supply side and the various inputs which can constrain the development of small enterprises. We look first at capital and credit and then move on to raw materials, and managerial and skilled labor inputs.

4.2. Capital Constraints

In discussing the issue of capital constraints we will examine several related topics: fixed capital, working capital, and credit. Entrepreneurs perceive all three to be major problems. When asked to list their most important problem, 40 percent of the entrepreneurs listed cash (working capital) as their most pressing concern, while 20 percent mentioned machinery and tools (fixed capital), and 8 percent considered credit to be their major concern (table 21). All three potential problems, fixed capital, working capital, and credit, are of major concern in Haitian small enterprises.

TABLE 21

ENTREPRENEURS' PERCEPTIONS OF CAPITAL CONSTRAINTS

	Percent of Entrepreneurs Listing:	
	Most Important Problem	Problem
Cash	48	56
Machinery and tools	20	63
Credit	8	28

SOURCE: Phase II survey.

The distinction made between working capital and fixed capital is very important. Entrepreneurs indicate cash (working capital) to be their most important problem, and their actions underline that concern. Of the entrepreneurs who borrowed money last year, 87 percent used the borrowed

funds to purchase raw materials, a short-term expenditure of working capital. Only 13 percent of those who borrowed spent the funds on fixed capital goods such as machinery and equipment. Working capital is clearly an important problem; when the entrepreneurs had to go outside of their business for financial support, the support they received was in the form of short-term working capital.

The working capital problem is of prime importance in small enterprises; it is very difficult, however, to identify the ultimate cause of working capital shortages. Working capital shortages are often symptoms of more basic underlying problems. For example, a raw material supply problem can easily manifest itself as a working capital shortage. Consider a small town where raw material delivery occurs only once every three months. The small entrepreneur is required to tie up large amounts of cash in procuring his three-month supply of raw materials. He is short of cash for other short-term expenses, and thus, what is really a problem of raw material supply, surfaces as a working capital problem. Similarly, unsteady demand can cause working capital shortages. During a period of slack demand an entrepreneur must still pay fixed costs, and maintain some stock of raw materials and perhaps a stock of finished goods without the inflow of revenue from the sale of his product. In such cases insufficient demand can manifest itself as a working capital problem. In similar fashion management problems, credit shortages, and a host of other problems can cause working capital shortages.

Before attempting to sort out these commingled effects and before evaluating the severity of each type of capital constraint it will be necessary to look briefly at the current capital structure of Haiti's small

enterprises. In reviewing the capital composition of the small enterprises we will look first at the current demand for capital among small enterprises. We then turn to sources available for supplying those capital needs. We conclude the capital section by attempting to assess the severity of the three types of capital constraints.

4.2.1. Demand for Capital

4.2.1.1. Initial Capital. The first demand faced by new firms is initial capital. The initial capital requirements for equipment and raw materials range between $6,243 for milling operations and $109 for candy makers (table 22). The major small industries such as tailoring and carpentry require $480 each on average.

4.2.1.2. Subsequent Investment. Once in business additional demands for capital arise for purposes of replacement and expansion. Table 23 displays data concerning these ongoing expenditures in machinery and tools. From these data for the years 1974 to 1978 it is evident that fixed capital expenditures vary considerably from year to year and from enterprise to enterprise. Table 23 is useful for giving an idea of the order of magnitude of annual equipment expenditures in small enterprises. The carpenters interviewed spend an average of $56 per year on machinery and tools. For tailors, that same figure is $103; for car repair shops an average of $248 is spent annually on tools and machinery.

4.2.1.3. Current Capital Stock. The initial capital and subsequent investments determine the current size of the capital stock of small enterprises. Currently those capital stocks range between $24,000[1] per firm among essential oil producers, and $900 per firm for

[1]These figures are obtained by reflecting original purchase prices to 1978 dollars.

TABLE 22

INITIAL CAPITAL BY ENTERPRISE TYPE
(In 1978 Dollars)

Enterprise Type	Average Initial Expenditure Per Enterprise for Equipment and Raw Materials
Milling (sugar and grain)	$6,243
Printing	4,865
Ice making	4,169
Oils and essential oils	3,606
Beverage manufacture	2,076
Bakery	2,076
Heavy wood products (boats and truck bodies)	1,747
Car repair	1,525
Cement block making	1,513
Wood sculpture	1,235
Cloth making, nets	1,119
Machine repair	815
Metal working	734
Shoe repair	492
Tailoring	480
Carpentry	479
Goldsmithing	474
Pastry shops	431
Tire repair	305
Mattress making	299
Straw products	291
Leather working	235
Candy making	109

SOURCE: Phase II survey.

TABLE 23

GROSS ANNUAL INVESTMENT IN MACHINERY AND TOOLS
(In 1978 Dollars)

Enterprise Type	Average Expenditure Per Firm					
	1974	1975	1976	1977	1978	1974-1978
Tailoring	$ 52	$121	$184	$ 59	$101	$103
Carpentry	54	15	118	25	68	56
Metal working	179	98	37	63	273	130
Goldsmithing	5	38	220	15	25	61
Shoe repair	129	27	145	14	32	69
Leatherwork	2	6	20	5	9	8
Straw products	3	0	19	16	20	12
Wood sculpture	84	33	38	168	110	87
Cement block making	127	233	4	817	261	288
Bakery	512	17	226	33	224	202
Beverage manufacture	0	0	620	576	263	292
Candy making	3	1	6	2	31	9
Grain milling	299	1071	373	3	101	369
Car repair	408	183	258	50	340	248
Machine repair	66	35	62	46	121	66
Tire repair	43	0	16	10	11	16

SOURCE: Phase II survey.

tire repair shops (table 24). Carpenters and tailors surveyed had capital stocks of $3,300 and $2,500 respectively.

Current capital stock can be broken down into its constituent parts in order to give a rough feel for the magnitude of fixed versus working capital requirements in small enterprises. The required breakdown of the capital stock is displayed in table 24.[1] It must be emphasized that these stock figures represent only a snapshot of the capital stock that was present the day each firm was interviewed. These figures may not be truly representative since raw materials and the inventory of finished goods in particular fluctuate dramatically throughout the year. As a second qualification it should be noted that we do not have data on cash on hand which is another important component of working capital. Keeping these qualifications in mind, table 24 can provide a crude indication of the magnitude of working capital versus fixed capital requirements in small firms. For example, it appears that essential oil plants require relatively large amounts of working capital — they average over $35,000 per firm in raw materials and inventory of finished goods. This amounts to 47 percent of their total capital. On the other hand, candy makers average only $51 worth of raw materials and finished goods which means that these components of their working capital come to 8 percent of the total capital stock. Tailors possess about $700 worth of raw materials and finished good inventories and these come to 9 percent of their total capital stock.

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[1]As was mentioned previously, in this breakdown machinery figures are much more accurate than those for buildings, raw materials, and inventory of finished goods. This is because we took a complete inventory of machinery and tools while the entrepreneurs gave only lump-sum estimates for values of their buildings, raw materials, and finished good inventories.

TABLE 24

CURRENT CAPITAL INVESTMENT PER FIRM
(Original Cost Reflated to 1978 Dollars)

Enterprise Type	Machinery	Building	Raw Materials	Inventory Of Finished Goods	Total
Printing	$10,383	$15,000	$ 3,340	$ 169	$28,892
Grain milling	7,346	5,868	312	492	14,019
Heavy wood products	3,998	0	681	140	4,819
Ice making	12,245	8,800	430	140	21,615
Machine repair	903	7,614	245	96	8,858
Car repair	2,362	1,362	1,315	209	5,248
Cement block making	2,687	2,348	1,213	3,914	10,162
Goldsmithing	607	1,180	438	187	2,412
Essential oils	15,312	23,667	23,909	11,215	73,803
Beverage manufacture	2,489	5,987	6,051	3,459	17,987
Shoe repair	815	1,280	98	2,453	2,437
Bakery	3,570	3,918	1,755	1,257	10,500
Carpentry	511	2,076	346	369	3,302
Tailoring	791	6,006	274	412	7,484
Metal working	1,018	3,077	293	218	4,606
Cloth, net making	1,247	400	79	71	1,797
Leather working	164	781	55	83	1,083
Pastry shops	881	11,474	148	21	12,524
Tire repair	583	0	70	214	866
Wood sculpture	807	258	2,937	3,937	7,939
Mattress making	166	1,789	261	81	2,296
Candy making	72	512	26	25	635
Straw products	72	343	619	506	1,540

SOURCE: Phase II survey.

4.2.1.4. Methods of Decreasing the Demand for Capital.

The demands for capital, particularly current fixed capital requirements, can be altered in a number of ways. First of all an entrepreneur can reduce his capital requirements by not investing in a building. This is an important option; 30 percent of the enterprises interviewed work without purchasing or even renting permanent building quarters. They operate their businesses outside on sidewalks and on verandas. It should be remembered, though, that this option is utilized more in some industries than in others (table 12). Printers, for example, would have a hard time operating out of doors whereas in tire repair, where noxious gases are emitted from melting rubber, working outside of a building may even be preferable to working inside. Therefore the feasibility of lowering initial capital costs through no investment in a building should be examined on an industry-by-industry basis.

A second way of minimizing capital requirements is through the use of rented buildings and equipment. Fifty-two percent of the firms interviewed, in fact, availed themselves of this option and rented their building quarters. Machinery rental appears to be much less common; only 6 percent of the enterprises in our study rented their equipment. It is not evident from this survey whether the small amount of machine rental is due to lack of demand or lack of a supply of rentable machines. Additional study[1] in this area would be of considerable value because, if supply of the rental machines is posing the constraint, a policy intervention might be of assistance in breaking that particular bottleneck. In any case it is

[1]See, for example, Vancil, 1963 and Terborgh, 1967.

clear that renting, particularly the rental of buildings, is an important means of lowering the capital costs of entry into business.

Another form of rental is the rental of workshop space and equipment which is carried out through the jobber arrangement. A jobber, it will be recalled, is a worker with skills but no shop or equipment. He receives contracts to repair or produce a certain good and when he receives the contract arranges with someone who is currently in business to rent the use of his shop and tools for the time it takes to complete his work. Of the workforce surveyed 2.2 percent consisted of jobbers. This figure rose slightly in Port-au-Prince where 3.1 percent of the small enterprise employment consisted of jobbers. The jobbers comprise, therefore, a modest segment of the SSE sector. This particular arrangement, though, does offer the lowest capital barriers to entry in small business.

A final option which allows an entrepreneur to decrease capital needs is that of choosing among different methods of production[1] and selecting the one which requires the least amount of capital. We have seen previously (table 13) that there exists a wide variety of possible capital/labor combinations within many industries. Taking account of the price of equipment and labor, the productivity difference among different techniques, and the profit range which is acceptable to the entrepreneur, the businessperson may be allowed some latitude in the method of production he/she chooses. Where the latitude exists, a potential entrepreneur may

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[1]For an analysis of choice of technique which covers various industries in Sierra Leone see Byerlee, et. al., 1979.

select the technique with the lowest capital requirement and thus minimize that barrier to entry.[1]

4.2.2. Sources of Capital. Given the various determinants of the demand for capital it is important to identify the sources which are available for supplying the needed capital. Table 25 provides a convenient summary of sources of capital for both initial capital and ongoing investment expenditures.

4.2.2.1. Personal Savings. Personal savings provided the start-up capital for most small enterprises surveyed. In fact, 72 percent of the initial capital was provided from the personal savings of the entrepreneurs (table 25). Those savings were primarily generated in agriculture in the rural areas while in the large urban areas the majority of the entrepreneurs saved money from earnings in other businesses.

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[1]The preceding discussion has addressed macro-level techniques for decreasing capital requirements. There also exists an important micro-level method of affecting the value of capital utilized in small businesses — tariff adjustment. Import tariffs are imposed on most capital equipment used by Haitian small enterprises, and these tariffs automatically increase the barriers to entry and expansion by artificially raising the local purchase price of equipment. Examining the case of the tailors we find that hand and motorized sewing machines coming into Haiti face a 30 percent tariff (10.6 percent under GATT). On scissors, needles for the sewing machines, and replacement parts import duties of 30 percent are levied. For carpenters, handsaws, files, pliers, hammers, and punches all face a 1.1 gourde per kilo import duty (.9 gde in GATT) (Republique d'Haiti, p. 157).

While small firm enterprises in Haiti face artificially high barriers to entry due to the imposition of tariffs, many large firms are exempted from the tariff duties on their capital goods. The exemption status of firms is a complex issue. Schwartz (1977, p. 15) cites the example of the export industries in which the granting of tariff exemptions is not decided in a uniform matter but rather on a case-by-case basis. Because of this complication it is difficult to pinpoint the magnitude of the discrimination between small and large enterprises. Research into this question would shed important light on the degree to which the present tariff structure discriminates against small firms.

TABLE 25

SOURCES AND USES OF CAPITAL

Source	Initial Purchase Of Equipment and Raw Materials		Subsequent Investment in Equipment and and Tools, 1978	
	Percent Of Enterprises	Percent Of Capital	Percent of Enterprises	Percent Of Capital
Personal savings	62.0	72.0	95.0	81.0
Gifts (family and friends)	23.0	12.0		
Borrowed funds	8.0	12.0	5.0	19.0
(Family)	(2.4)	(2.7)	(0.4)	(0.4)
(Friends)	(3.7)	(4.0)	(2.0)	(8.7)
(Moneylender)	(0.8)	(2.4)	(1.7)	(1.3)
(Bank)	(0.8)	(2.8)	(0.9)	(8.1)
(Caisse Populaire)	(0.3)	(0.1)	(0.0)	(0.0)
Other	7.0	4.0	0.0	0.0
Total	100.0	100.0	100.0	100.0

SOURCE: Phase II survey.

4.2.2.2. Family and Friends. The second most important source of start-up capital was family and friends. Gifts from these two sources accounted for 12 percent of the initial investment capital in the firms visited. Family members and friends also granted loans to prospective entrepreneurs.

In addition to being an important source of start-up capital these two sources — family and friends, and personal savings — are of crucial importance in providing money for ongoing investments. Last year 90 percent of the equipment purchased by the small entrepreneurs interviewed was purchased with funds supplied by personal savings, and family and friends. Of that 90 percent, 9 percent came in the form of loans from family members and friends. Thus for both recurring expenditures and for start-up capital, personal savings, and family members and friends offer a large share of financing required by small businesses.

4.2.2.3. Moneylenders. Although substantially behind personal sources and family and friends, moneylenders offer a third source of capital for new firms. The moneylenders provided 2.4 percent of the start-up capital in the firms surveyed. However, the moneylenders are slightly more important in financing ongoing expenditures for existing firms; they provided 8 percent of the funds for equipment purchases in 1978. Moneylenders are important in all locality sizes although they are marginally more important in the smallest rural areas (table 26).

4.2.2.4. Formal Credit. Moneylenders, personal savings, and support from family and friends represent the informal sources of financing available to small firms. The banks and caisses populaire represent formal sources of credit. Together the banks and caisses

TABLE 26

SOURCE OF LOANS OBTAINED IN 1978, BY LOCALITY SIZE[1]
(Percent of Loans)

Locality Size	Family	Friends	Commercial Bank	Caisse Populaire	Money Lender	Landlord	Other	Total
	Percent							
Under 1,000	25	75	0	.0	25	0	0	100
1,000 - 2,000	14	57	7	7.0	14	0	0	100
2,000 - 5,000	25	50	5	5.0	5	10	0	100
5,000 - 20,000	14	59	4	0.0	14	6	6	100
20,000 - 100,000	17	52	19	0.0	15	3	1	100
Average for all enterprises surveyed	17	55	12	1.4	14	4	2	100

SOURCE: Phase II survey.

[1]Data pertain to firms established in earlier years; loans were for capital expansion or working purposes, not initial establishment.

populaire provided 3 percent of the initial capital to the firms surveyed. In terms of ongoing investment they provided 8.1 percent of the equipment investment in 1978. The caisses populaire appear to be more important in the rural areas whereas the banks tend to finance a larger percentage of businesses in the larger towns (table 26).

4.2.2.5. Terms of Credit. Credit is an important source of financing capital expenditures in small firms and in completing our look at sources of capital in small firms it is important to be aware of the terms under which small entrepreneurs can borrow these funds. The terms of credit granted to small entrepreneurs vary considerably depending on the source. The loans from family members and friends are generally very flexible in duration and often carry no interest.

Moneylenders are also extremely flexible in their timing — so flexible that in several cases it was impossible to compute an interest rate on moneylender loans; the repayment period could not be clearly specified. Among those loans for which it was possible to calculate the interest rate, the rate varied between 40 percent and 240 percent per year. These loans were generally of short duration ranging between one month and a year, and the loans rarely required collateral. The size of the loans granted by the moneylenders was most commonly in the $50 to $300 range although some were granted for as little as $25. At the other extreme one moneylender loan was offered for $6,000 over 5 years. The moneylenders do charge much higher interest rates than the banks, but they offer greater flexibility to their customers both in timing and magnitude of their loans.

The banks and caisses populaire charge much lower interest rates than do the moneylenders. The banks charge between 12 and 15 percent on

their loans, but they have high collateral requirements. The small entrepreneur who had borrowed from banks typically left a title to land, house, or some other building as collateral for the bank loan. The bank loans are generally larger in magnitude and of longer duration than those offered by the moneylenders. Bank loans were typically in the $2,000 to $10,000 range with their repayment term between 5 months and several years. The smallest bank loan encountered was a $200 loan over 6 months; the largest was $50,000 over 2.5 years. Banks do offer the lowest credit rates outside of family gifts and loans, but the collateral and other requirements imposed by the banks make it difficult for most of the small enterprises to qualify.

4.2.3. Evaluation of Capital Constraints

4.2.3.1. Barriers to the Formal Credit Market. A major barrier to using formal financial markets is the inaccessability of formal institutions in many of the rural areas in which the SSE operate. Ninety-four percent of the entrepreneurs interviewed had never applied for a loan from a formal credit institution. The large majority of them had never applied because there existed no local office or credit bureau and they had no contact with or knowledge of any formal credit institution.

Another problem with formal credit markets is that the processing time required by formal credit institutions is often too long for small entrepreneurs to wait. Lengthy processing time is particularly troublesome for small enterprises as short-term working capital loans represent the major portion of their credit needs. Of the firms which have applied for formal loans but have not received them, half have failed to obtain the loans because they have not yet received word back from the lending

institution. Several of the entrepreneurs indicated they had given up on the loan applications because they had gone so long without hearing from the banks. The length of processing time for the entrepreneurs who did receive formal loans is listed in table 27. From that table we can see that half of the loans were processed within two months of the date of application, but the other half took three months or more. A three delay may be acceptable to an entrepreneur looking to purchase a new piece of equipment but, as we saw, the bulk of the small enterprise credit goes for short-term purchases of raw materials. For these entrepreneurs a three-month delay may well be too long.

TABLE 27

PROCESSING TIME FOR LOANS FROM BANKS AND CAISSE POPULAIRE

Processing Time In Months	Number of Loans
1	18
2	4
3	11
6	5
8	2
12	1
15	1
22	1

SOURCE: Phase II survey.

Collateral requirements represent a third barrier to many small entrepreneurs. Thirty percent of the small businesses surveyed are not housed in any permanent building and without a building or piece of land to offer as collateral many of the small entrepreneurs have no hope of obtaining credit from the formal sector. Roughly half of the entrepreneurs who were denied credit from the banks did not receive the loans because they failed to meet the banks' collateral requirements.

4.2.3.2. Interest Rate and the Demand for Credit. While lack of institutions, lengthy processing time, and high collateral requirements pose serious obstacles to small entrepreneurs, the interest rates do not. It was noted earlier that the 12 to 15 percent interest rates of the banks are substantially below those charged by the moneylenders. In attempting any sort of loan program for small industries determination of the interest rate to be charged is a crucial issue. Table 28 attempts to give some feel for the demand for credit at various interest rates. Two simple rates were selected; 10 percent was chosen as a round number very close to the official bank rate and 50 percent was taken as a rough estimate of interest rates in the informal sector. Given these two interest rates, entrepreneurs were asked how much they would be interested in borrowing at each rate. At 10 percent the average loan requested was $2,410 while the 50 percent rate yielded an average response of $250. The number of loans requested also dropped at the higher interest rate but it dropped only half as much as the loan amounts. The figures for credit demand have been extrapolated to all of Haiti living in localities over 1,000 in population and the results are listed in table 28. From these extrapolations it is estimated that the total amount of credit

TABLE 28

ESTIMATES OF POTENTIAL DEMAND FOR CREDIT IN ALL LOCALITIES OVER 1,000 IN POPULATION

	10 Percent Interest Rate		50 Percent Interest Rate	
Size of Loan	Number of Borrowers	Amt. Credit Requested ($)	Number of Borrowers	Amt. Credit Requested ($)
Under $200	855	$ 85,000	353	$ 35,000
$200 - $999	2,732	1,616,000	551	328,000
$1,000 - $1,999	1,121	1,681,000	209	313,000
$2,000 - $2,999	716	1,790,000	47	117,000
$3,000 - $3,999	248	868,000	33	115,000
$4,000 - $4,999	179	805,000	14	63,000
$5,000 - $9,999	424	3,180,000	44	330,000
Over $10,000	463	4,630,000	52	520,000
Total	6,738	14,665,000	1,303	1,821,000

SOURCE: Phase II survey.

requested at a 10 percent rate of interest is $14 million and at 50 percent the total was for $1.8 million. It must be immediately noted that these figures are only very crude indicators of credit demand and the 10 percent figure surely represents an upper limit on the total credit demand in localities over 1,000 in population. The answers given to this question are not expected to be very accurate and even if they were, demand for credit and ability to qualify for loans are two very different matters. These figures on the demand for credit must be treated with extreme caution.

Rather than estimating the aggregate demand for credit, table 28 is probably most useful in giving some feel for the numbers and the size distribution of loans that might be potentially requested by small enterprises. Table 28 indicates that large numbers of loans in the $200 to $3,000 range might be expected. This corresponds closely to the size of loans actually contracted in 1978. The vast majority of the loans granted in 1978 were in the $100 to $3,000 range. In the granting of large numbers of rather small loans a potential credit program would want to carefully consider the overhead costs involved in processing the loans.

In concluding this evaluation of credit constraints we emphasize that several barriers combine to prevent the small firms from having access to formal credit markets. Formal institutions are physically inaccessable to many small enterprises, particularly those in rural areas. Where the formal institutions exist, collateral requirements, processing time, and loan sizes — particularly considering the small size requirements for working capital loans — are not well suited to the needs of the small enterprises. Flexible credit is available in the informal market but the interest rates are extremely high. The fragmentation of the credit

market disadvantages the small firms vis-a-vis the large firms. These larger firms do have access to formal credit channels where interest rates are extremely low. The small enterprises continue to experience credit problems even though they are willing to pay higher rates of interest to borrow funds in formal credit markets.

4.2.3.3. Fixed Capital Constraints. Large numbers of entrepreneurs in all localities and industries complained of shortages of machinery and tools. This is not surprising as it is very normal for small entrepreneurs to complain of equipment shortages even when they have no need for additional fixed capital.[1] It is essential, therefore, to carefully evaluate requests for fixed capital.

Several kinds of information are required before an informed judgment can be made as to whether or not fixed capital is in short supply. That information includes: (1) the capacity utilization of current equipment, (2) measures of technical and economic efficiency or current and alternative techniques of production, and (3) information on whether or not new kinds of machines offer potential for the production of more saleable goods.

Measurement of excess capacity is particularly useful in assessing the need for additional machinery,[2] and in seasonal businesses such as those surveyed, flow data are needed to make reliable estimates of annual rates of capacity utilization. We did, however, make crude calculations

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[1]See Harper, 1977.

[2]It should be noted that there is an economic rationale for a certain amount of excess capacity. See Winston, 1974 for a discussion of this issue.

based on our single interview. These rough calculations pointed to substantial amounts of excess capacity at the time of the interview; however, it must be remembered that our interview took place in January and February, periods which 44 percent of the entrepreneurs considered to be their lowest season. It is not surprising to find excess capacity in the low season. More detailed flow information will be required to determine capacity utilization during other seasons of the year.

In addition to capacity estimates, information concerning the technical and economic efficiency[1] of various types of equipment would be useful in evaluating the desirability of additional machinery. A technically efficient technique of production is one which produces a maximum amount of output with a given set of inputs. Economic efficiency refers to techniques which maximize output with respect to the scarce factor of production which in developing countries usually is capital. Measures of both kinds of efficiency are particularly useful[2] in evaluating the kinds of machinery that it would be desirable to encourage in machine rental or credit programs.

A third kind of information which is useful for diagnosing fixed capital shortages would be a determination of whether or not new kinds of machines will increase the saleability of the output. For example, it is possible that an embroidery attachment would enhance the marketability of a tailor's products. Newer vintages of machines may also produce items

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[1]For a good discussion of technical efficiency see: C. Peter Timmer, 1970.

[2]For a good, practical example of the use of such information see: C. Peter Timmer, 1973.

which are more highly sought by consumers than are those items produced with the current equipment.

Some of the information required for assessing fixed capital shortages can be studied on an industry-wide basis. For example, examination of demand conditions and the efficiency of different techniques of production falls in this category. On the other hand, information on capacity utilization is specific to individual firms and these estimates will have to be made on a case-by-case basis.

To obtain the above kinds of information — capacity estimates, demand appraisals, and information on technical and economic efficiency — additional study will be required, but the information gathered would be of great value in policy design and implementation. Information on capacity utilization of capital stock is, of course, useful in credit programs as part of an assessment of a firm's need for new equipment. Consideration of possible demand increases due to the acquisition of new equipment can also play a role in deciding whether or not to make a loan or rent a new kind of machine. Data on the technical and economic efficiency of various techniques of production allows those involved in credit or machine rental programs to evaluate the potential profitability and likely employment generation effects of different machinery packages they might provide. Efficiency considerations will also be important in allowing policy makers to compare actual techniques of production with those not currently in use and to detemine whether or not they can make an important contribution to the economy by playing an information disseminating role. Similarly, policies aimed at encouraging shifts in production techniques by tariff or

other price manipulations will want indication of the magnitude of the price change necessary to effect a desired shift. They would also find useful an ex ante indication of the likely effects in terms of employment and output of their policy intervention. Finally, a knowledge of average productivity and profit rates in an industry is extremely valuable in evaluating the need for management assistance and in indicating the direction in which possible operating improvements can be made. Thus in numerous areas demand, capacity, and efficiency considerations can provide invaluable information for policy makers.

4.2.3.4. Working Capital Shortages. As was mentioned previously, working capital shortages can be the manifestation of numerous underlying problems — demand, raw material supplies, credit shortages, mismanagement, and so forth. Statistical tests[1] were performed in an attempt to correlate working capital shortages with each of those possible underlying causes. The results of these tests indicate that those entrepreneurs keeping records are less likely to experience working capital problems than are those who do not. Lack of managerial skills may, therefore, be contributing to working capital shortages. Credit availability, demand, and raw materials also appear to be correlated with working capital problems. The exact nature of working capital shortages, however, is very subtle. It varies substantially from locality to locality and from firm to firm, and it is at the individual firm level that working capital shortages are best diagnosed. Many programs of assistance will be dealing with individual firms — either granting credit, loaning machinery, or

[1]A chi-squared test and linear discriminant function were used.

offering management assistance — and a determination of sources of working capital is best made for individual firms at that time.

4.2.4. Conclusion. Shortages of working capital, fixed capital, and credit are of major concern to small entrepreneurs. Credit shortages appear to be related to the fragmentation of the credit market. A diagnosis of fixed capital shortages requires additional information on capacity utilization in individual firms, the efficiency of various techniques of production, and the demand for output produced by those different techniques. Working capital shortages appear to be related to management, credit, demand, and raw material problems. Specific problems of this nature, however, need to be evaluated at the firm level. Since many programs will be dealing with individual firms the determination of specific working capital requirements is best made on an individual basis at that time.

4.3. Raw Materials

The supply of raw materials is of moderate concern for small firms in Haiti. Thirty-five percent of the entrepreneurs listed raw material supply as a problem; six percent indicated it to be their most important problem. When entrepreneurs were asked what types of nonfinancial assistance they needed most their single most frequent response was "make raw materials available." Fifty-eight percent of the entrepreneurs surveyed made this request.

Shortages of raw materials can arise for several reasons. Raw materials can be in short supply due to bad transportation and marketing networks. Shortages may also occur when imported raw materials are not available in sufficient quantities or when the supply of imported raw materials is sporadic. Both of these explanations for raw material

shortages result from bottlenecks in the raw material supply network. It is possible, though, for raw materials to be a problem for small enterprises even in the absence of supply bottlenecks. Shortages of working capital can impede raw material procurement. Thus if working capital is in short supply due to mismanagement, lack of steady demand, or for any number of reasons, raw material procurement can still be a problem even where the necessary raw materials are available locally. Thus raw material problems can be related to supply bottlenecks or they can be related to working capital shortages. Each of these sources of raw material problems seems to exist in Haitian small enterprises.

4.3.1. Bottlenecks in the Supply of Raw Materials. Transportation difficulties appear to be an important factor influencing the severity of the raw material problem. Most of the enterprises experiencing larger than average raw material problems are those which are the least accessable by road — Hinche, Belladere, Mirebalais, Port-de-Paix, Anse Rouge, and Gros Morne (table 29). In these areas it would appear that the raw material deficiency is related to transport difficulties.

Another consideration which is of major importance in examining raw material problems is whether or not an industry uses large amounts of imported raw materials. In fact, industries in which the majority of the firms use at least some imported raw materials are those industries which complain the most about raw material shortages. Goldsmiths, watch repair shops, metal working shops, car repair shops, and carpenters are examples of such industries in which imported raw materials and raw material complaints appear to be correlated (table 30). For goldsmiths the import of their basic raw material poses an obvious constraint to their operations.

TABLE 29

PROPORTION OF ENTREPRENEURS REPORTING RAW MATERIALS AS A PROBLEM, BY LOCALITY

Locality	Percent
Hinche	62
Belladere	57
Mirebalais	50
Port-de-Paix	44
Acul-du-Nord	44
Anse Rouge	43
Cap-Hatien	38
Leogane	37
Gros Morne	33
Lascahobas	33
Petite-Riviere-de-l'Artibonite	32
Gonaives	31
Saint-Marc	31
Jeremie	31
Port-au-Prince	30
Limbe	30
Cayes	29
Verettes	28
Jacmel	27
Trou-du-Nord	26
Plaisance	25
Carrefour	22
Les Poteaux	17
Estere	8
Camp Perrin	8

SOURCE: Phase II survey.

TABLE 30

PROPORTION OF ENTREPRENEURS REPORTING RAW MATERIAL SUPPLY AS A PROBLEM

Enterprise Type	Raw Materials A Problem	Over 50 Percent Of Firms Use Some Imported Raw Materials	Raw Materials the Most Important Problem
Goldsmithing	74	+	21
Watch repair	60	+	7
Cloth, net making	47		24
Pastry shops	14	+	0
Metal working	42	+	10
Straw products	39		7
Tire repair	39	+	0
Leather working	38		8
Machine repair	36	+	6
Printing shops	36		0
Cement block making	35		12
Car repair	35		2
Mattress making	33		0
Shoe repair	33		6
Carpentry	31	+	6
Wood products	30		7
Tailoring	29	+	4
Candy making	14		0
Bakery	10		0
Grain milling	3		0
Average for all enterprises surveyed	32		6

SOURCE: Phase II survey.

In the repair industries — watch, car, and machine repair — which require the import of many replacement parts, the relationship between raw material constraints and imports is clear. Tailors use substantial amounts of imported cloth and the carpenters require imported nails, bolts, hinges, and so forth. On the other hand, agricultural processing industries, which do not require large amounts of imported raw materials, appear relatively unconcerned about raw material problems. Grain millers and candy makers express very little concern over raw material shortages. Thus it would appear that the import composition of raw materials is a major determinant of raw material problems.

In reviewing the relationship between imports and raw material problems it is of interest to examine more closely certain import substituting industries because several large-scale industries have been established in Haiti specifically to produce local raw materials and thereby reduce import dependence. Bakeries, cement block making, and metal working are three industries which find some of their inputs produced locally in these import-substituting industries. The bakers' demand for flour appears to be well satisfied by the local flour mill. Only 10 percent of the bakers surveyed listed raw materials as a problem, and none considered raw materials to be their most important problem.

Cement block makers, on the other hand, seem to be less well supplied by the local cement plant. Thirty-five percent of the cement block makers complained of raw material shortages and 12 percent considered raw materials to be their most important problem. This is difficult to explain given the large amounts of excess capacity in the local cement plant (World Bank, 1978, p. 21), and given the fact that substantial

amounts of cement are exported. It is possible that the large cement plant has produced adequate quantities of cement but that working capital or transport problems have impeded the distribution of the cement to small block makers. Further study will be required to resolve this issue.

The third import-substituting industry of interest is the steel industry. Despite the construction of the steel plant in Port-au-Prince the small metal working sector in Haiti still complains of substantial raw material shortages, and they also remain heavily dependent on imported inputs (table 30). The single steel plant in Haiti currently supplies only half of the structural steel used in Haiti and other basic inputs to the metal working sector remain in short supply (World Bank, 1978, p. 21). According to the head instructor of the metal working school in Camp Perrin, basic requirements of U-bars, I-bars, T-bars, plough shears, and bolts are extremely difficult to procure, even in Port-au-Prince. The metal industry suffers due to the fact that there currently exists no foundry in Haiti. The one steel mill possesses an arc furnace, but it has never been used because of the inadequate supply of electrical power. Thus the import substituting industries in Haiti appear to have solved the raw material problems of the local bakers, but for the cement block makers and metal workers raw material supply problems continue.

4.3.2. Working Capital Shortages. Supply bottlenecks are important in explaining raw material shortages but working capital shortages also contribute to raw material problems of small enterprises. Of the small businesses who borrowed money in 1978, fully 87 percent used the borrowed funds to purchase raw materials. This means that 16 percent of all the firms interviewed had to borrow money to purchase raw materials in 1978. Had that working capital credit not been available raw material problems

would certainly have been aggravated. It is clear that shortages of working capital and credit can contribute to problems of raw material procurement. Thus working capital shortages as well as supply bottlenecks currently contribute to raw material problems among Haitian small enterprises.

4.3.3. Conclusion. When policy decisions have been made identifying regions and specific industries on which to focus it will be useful to trace individual products and determine which factors — supply bottlenecks or working capital shortages — are relevant in explaining raw material shortages in those regions and industries. In some cases the potential for useful interventions may be easily diagnosed. For example, the cement block industry is an industry in which there appears to be a raw material problem despite the existence of excess capacity in the local cement plant. In this instance the cause of the raw material problem might be determined without much difficulty. The industry and regional rankings of raw material problems (tables 29 and 30) are useful in providing direction for any groups interested in further study of raw material shortages in Haitian small enterprises.

Having reviewed raw material problems in small enterprises we turn to look at management constraints in the operation of small businesses.

4.4. Managerial Personnel

Very few entrepreneurs considered management practices to be a problem in the operation of their businesses. When asked what type of nonfinancial assistance they would like most, only 4 percent requested help in developing management skills.

The following brief exposition is designed to offer an impressionistic view of certain aspects of current management practices in Haitian small enterprises. The exposition is brief because it is difficult to obtain penetrating insights on management practices in a single interview which covers as wide a range of topics as did ours. In the following discussion four aspects of management training and practices are discussed: education, record keeping, selling goods on credit, and use of banks.

4.4.1. Formal Education. Eighty-seven percent of the entrepreneurs interviewed have received some formal education and 56 percent of them have completed their education through the sixth year, through middle 2 (table 31). If these figures are correct[1] it would imply a high level of literacy as the average literacy rate for Haitian adults is only 20 percent (World Bank, 1978, p. 110). High levels of literacy are important as they indicate that many small business managers may possess the basic educational skills necessary for implementing new management and record keeping practices.

4.4.2. Record Keeping. Half of the entrepreneurs interviewed keep records of some sort. This figure is uniform throughout the country; businesses located in the larger towns are not more apt to keep records than entrepreneurs in the rural areas. The 50 percent of the firms who do not keep records of any sort were asked why they do not. The majority of them, 52 percent, responded that their business was not large enough to justify keeping records. In those enterprises which do keep records, cash

[1]There may be a tendency to give inflated estimates of educational background in order not to appear uneducated in front of the enumerators.

TABLE 31

LEVEL OF SCHOOLING COMPLETED BY OWNERS OF SMALL ENTERPRISES

Years of Education Completed	Frequency	Cumulative Frequency
Over 14	.1	.1
13	2.9	3.0
12	4.2	7.2
11	3.5	10.7
10	6.4	17.1
9	8.1	25.2
8	6.7	31.9
7	6.4	38.3
6	17.3	55.6
5	7.2	62.8
4	8.1	70.9
3	5.9	76.8
2	6.6	83.4
1	2.6	86.0
0	14.0	100.0

SOURCE: Phase II survey.

books (23 percent), production books (21 percent), and sales books (20 percent) are the most common information recorded. However, even knowing what kinds of records are kept it is extremely difficult to determine exactly how sophisticated the bookkeeping procedures are without actually examining the books and discussing them at length with the entrepreneur.

4.4.3. Selling Goods on Credit. Seventy percent of the entrepreneurs interviewed sell their goods on credit. This figure seems quite large in view of the fact that so many entrepreneurs complain of shortages of working capital. By selling on credit the entrepreneurs are not replenishing their supply of working capital. It is probable that this practice is at least a partial cause of the working capital shortages mentioned by so many entrepreneurs.

It is not clear why so many entrepreneurs sell their goods on credit even in the face of working capital shortages. It could be that consumers are so short of cash that small entrepreneurs are required to sell on credit in order to maintain their clientele. Local consumer demand is extremely important for the small businesses and competition for customers may require selling goods on credit.

While the majority of entrepreneurs do sell goods on credit, 30 percent do not. They do not sell on credit because they are unwilling to risk nonpayment and they are concerned about cash-flow problems. These fears of nonpayment appear to be well founded as half of the entrepreneurs selling on credit complain of payment problems, and these payment problems aggravate working capital shortages.

4.4.4. Banks. One-third of the businesses surveyed maintain bank accounts of some sort; however, this percentage varies greatly by locality size. In the larger towns such as Cayes, Port-au-Prince, and Jacmel nearly half of the entrepreneurs possessed bank accounts. In the smaller and more isolated localities such as Verette, Mirebalais, Hinche, and Lascahobas less than 15 percent of the entrepreneurs utilized bank accounts (table 32). It is undoubtedly the greater availability of banking institutions in the large towns which explains this tendency. Without flow information indicating how the entrepreneurs utilize their bank accounts it is not possible to assess their impact on the management of the small enterprises.

4.4.5. Conclusion. This brief description indicates a relatively high level of education among small business entrepreneurs, high levels of record keeping, and a moderate propensity for using local banking institutions in managing their money. On a less optimistic note we observe that working capital problems may be aggravated by the widespread practice of selling goods on credit. Additional in-depth information will be required to provide a more definite assessment of the effectiveness of current management practices.

The next potential constraint to be considered is that of the availability of skilled laborers in small enterprises.

4.5. Skilled Labor

Lack of skilled labor is not perceived as a problem by entrepreneurs in Haitian small enterprises. On average, only 10 percent of the entrepreneurs interviewed considered skilled labor shortages to be a problem and less than two percent of the businesses listed shortages of skilled labor as their most important problem.

TABLE 32

PROPORTION OF ENTREPRENEURS WITH BANK ACCOUNTS, BY LOCALITY

Locality	Percent of Entrepreneurs With Bank Accounts
Cayes	49
Port-au-Prince	46
Jacmel	45
Port-de-Paix	42
Cap-Haitien	38
Carrefour	37
Leogane	37
Acul-du-Nord	33
Pont Sonde	25
Petite-Riviere-de-l'Artibonite	17
Jeremie	15
Belladere	14
Lascahobas	13
Hinche	13
Mirebalais	9
Verette	6

SOURCE: Phase II survey.

Concern with skilled labor did, however, vary by industry. Printing, watch repair shops, bakeries, cloth and net makers, and leather workers are more concerned with skilled labor shortages than are cement block makers, tire repairers, and mattress makers. In fact, not a single mattress maker or tire repair person expressed concern over skilled labor shortages (table 33).

The skilled labor in small enterprises is trained through the apprenticeship system, vocational schools, by family members, and in some industries large numbers of workers are self-taught (table 34). Each of these systems of training will be examined in turn.

4.5.1. The Apprenticeship System.[1] The apprenticeship system is by far the most important method of training workers in Haitian small enterprises and the system maintains its importance across all locality sizes. Fifty-nine percent of the entrepreneurs interviewed learned their trade as apprentices and among the current SSE labor force 35 percent of the workers are apprentices.

The training period for apprentices is typically one and a half years; however, the duration does vary by industry. Grain milling apprentices require only three months training, on average, while goldsmith, carpenter, and car repair shop apprentices spend, on average, over two years in training (table 35).

The system of remunerating apprentices varies among different industries. In 54 percent of the enterprises surveyed the apprentices receive a salary while learning their trade (table 36). Among tailoring

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[1]For a recent study which has compared the rates of return to apprenticeship training versus trade centers in Nigeria, see Mabawonku, 1979.

TABLE 33

PERCENT OF ENTREPRENEURS INDICATING LACK OF SKILLED LABOR AS A PROBLEM

Enterprise type	Percent
Printing	36.4
Watch repair	20.0
Bakery	18.0
Cloth, net making	18.0
Leather working	17.0
Pastry shops	14.0
Car repair	13.0
Grain milling	13.0
Shoe repair	13.0
Straw products	11.0
Tailoring	11.0
Metal working	11.0
Wood products	9.0
Carpentry	8.0
Machine repair	7.0
Candy making	4.0
Cement block making	3.0
Goldsmithing	3.0
Essential oils	0.0
Tire repair	0.0
Mattress making	0.0

SOURCE: Phase II survey.

TABLE 34

SOURCE OF ENTREPRENEURS' TRAINING

	Apprenticeship	Family	Vocational School	Self-Taught	Other	Total
	Percent					
Carpentry	76	7	12	-	5	100
Shoe repair	76	9	9	-	6	100
Wood products	70	2	5	-	23	100
Tailoring	70	11	16	-	3	100
Car repair	70	7	13	-	11	100
Tire repair	68	11	0	-	21	100
Goldsmithing	67	24	3	-	6	100
Machine repair	60	6	16	-	18	100
Mattress making	56	11	0	-	33	100
Metal working	55	4	23	-	18	100
Leather working	54	17	4	-	25	100
Watch repair	53	7	13	-	27	100
Cloth, net making	41	29	12	-	17	100
Straw products	40	34	4	-	21	100
Pastry shops	36	36	14	-	14	100
Beverage manufacture	33	39	0	-	28	100
Essential oils	33	11	0	-	56	100
Bakery	21	15	0	53	11	100
Candy making	19	22	0	46	13	100
Printing	18	27	27	-	27	100
Cement block making	17	3	3	66	11	100
Grain milling	8	19	0	-	72	100
Average	59	12	11	-	17	100

SOURCE: Phase II survey.

TABLE 35

DURATION OF TRAINING
(In Months)

Enterprise Type	Apprenticeship: Of Proprietors	Apprenticeship: Of Apprentices Currently In Shop	Family	Vocational School
Grain milling	3	6	6	-
Printing	5	11	10	34
Cement block making	6	5	-	-
Straw products	10	12	13	9
Tire repair	12	7	4	-
Bakery	13	9	3	-
Mattress making	16	-	-	-
Wood products	16	14	-	36
Shoe repair	16	17	28	40
Leather working	17	21	12	-
Cloth, net making	17	8	4	25
Tailoring	18	17	19	25
Beverage manufacture	18	-	30	-
Metal working	19	17	29	31
Machine repair	19	21	14	30
Pastry shops	20	16	5	19
Essential oils	20	-	-	-
Watch repair	20	18	-	36
Candy making	22	-	9	-
Goldsmithing	25	25	22	-
Carpentry	27	19	23	25
Car repair	30	21	19	29
Average	19	17	17	28

SOURCE: Phase II survey.

TABLE 36

FREQUENCY OF DIFFERENT COMPENSATION PRACTICES FOR APPRENTICES

Enterprise Type	Apprentice					
	Pays a Fee	Receives a Wage	Receives a Room	Receives Nothing	Other	Total
	Percent					
Tailoring	39	27	1	12	21	100
Carpentry	6	72	2	7	14	100
Metal working	13	77	3	-	8	100
Goldsmithing	0	50	0	13	38	100
Printing	0	83	0	0	17	100
Shoe repair	4	63	12	12	8	100
Leather working	0	50	33	0	17	100
Straw products	10	70	0	20	0	100
Wood products	0	80	5	15	0	100
Cloth, net making	0	100	0	0	0	100
Cement block making	0	83	0	0	17	100
Bakery	6	89	0	0	6	100
Grain milling	0	100	0	0	0	100
Essential oils	33	67	0	0	0	100
Car repair	14	73	0	7	7	100
Machine repair	3	70	0	12	15	100
Tire repair	10	70	10	10	0	100
Average	20	54	2	9	15	100

SOURCE: Phase II survey.

apprentices, however, 39 percent are required to pay a learning fee; these tailoring apprentices are required to pay for the privilege of learning their trade. An explanation was not obtained as to why tailors are so likely to require learning fees when virtually all other industries make payments to their apprentices. It would appear, however, that locality size is an important factor in determining whether or not the tailors require learning fees. In the small localities as many as 79 percent of the tailoring apprentices either receive no compensation or they are required to pay learning fees. In Port-au-Prince that figure drops to 38 percent (table 37). For some reason apprentices in the smaller localities are willing to pay for the privilege of learning the tailoring trade. It is not clear why this is so but further inquiry would certainly be important to anyone interested in running training programs in the small rural localities.

4.5.2. Teaching by Family Members. Of the entrepreneurs interviewed 12 percent learned their trade from family members. This method of training is more common in the rural areas than it is in the larger cities. In the smallest localities 20 percent of the entrepreneurs visited had been trained by family members while in Port-au-Prince that figure dropped to 9 percent. It would seem that family businesses are more common in the rural areas than in the large towns. As to the duration of the training period, the length of family training is virtually identical to that of apprentices; roughly a year and a half is required, on average.

4.5.3. Vocational Schools. Vocational schools provided the training for 11 percent of the entrepreneurs interviewed. The vocational training was most important in printing shops where 27 percent of the entrepreneurs

TABLE 37

COMPENSATION PRACTICES FOR TAILORING APPRENTICES

Locality Size	Apprentice				Other	Total
	Pays Fee	Gets Paid	Receives Room	Receives Nothing		
	Percent					
Under 1,000	16	33	0	50	0	100
1,000 - 2,000	25	38	0	25	13	100
2,000 - 5,000	67	9	0	12	12	100
5,000 - 20,000	40	17	2	19	23	100
20,000 - 100,000	38	35	0	8	18	100
Over 100,000	31	34	2	7	26	100

SOURCE: Phase II survey.

had received such training and among metal workers of whom 23 percent were trained in vocational schools.

Vocational schools are much more important in large cities than they are in small rural areas. None of the entrepreneurs interviewed in the smallest locality size had received training in a vocational school whereas roughly 15 percent of those in the largest towns had been trained in such schools. Vocational schools required the longest training period of all the training systems; on average, vocational training lasted for something over two years.

4.5.4. Self-Teaching

A final source of training in small enterprises is self-teaching. None of the self-taught entrepreneurs mentioned learning his/her trade from a book. The self-teaching appears to consist of observing and asking questions of established entrepreneurs without retaining any formal ties.

Self-teaching is of major importance in three industries — the bakery, candy making, and cement block making industries. In the cement block making industry 66 percent of the entrepreneurs interviewed are self-taught. Among bakers and candy makers that figure is roughly 50 percent (table 34). The large percentage of self-taught entrepreneurs in the cement block making industry is explained by the fact that it is the youngest of all the small enterprises surveyed and, because the industry is so new, no apprenticeship system was in existence to train the first-generation entrepreneurs. An apprenticeship system, however, may currently be developing as 34 percent of the entrepreneurs currently engaged in cement block making do have apprentices working for them. In the bakery and candy making industries it is less clear why so many entrepreneurs are

self-taught although this phenemenon is clearly related to the fact that the apprenticeship system is not well developed in these industries (table 34).

4.5.5. Conclusion. Skilled labor is not perceived as a problem except in certain industries, particularly in printing and watch repair shops. The major method of training skilled labor for small enterprises is currently the apprenticeship system. Family members, vocational schools, and self-teaching are also important sources of training in certain localities and in certain industries.

This concludes our case by case examination of various constraints faced by small entrepreneurs in Haiti. A recapitulation of the major findings and recommendations for further action are included in the following summary chapter.

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V. SUMMARY

5.1. Profile of the Small Enterprise Sector

Small-scale enterprises (SSE) were found in large numbers in all localities surveyed. From the survey it is estimated that in all Haitian localities of over 1,000 in population there are approximately 8,500 small enterprises and these small enterprises employ roughly 33,600 workers.

The SSE in Haiti are involved in a wide variety of activities from printing shops to candy making to tailoring, carpentry, and machine repair. Tailors provide the bulk of the SSE employment with 45 percent, and carpenters are second most important in this regard accounting for 11 percent of total SSE employment.

The small businesses employ four workers each, on average. They are largely single proprietor shops and they employ very few family workers. Hired workers and apprentices account for the bulk of the SSE employment with 31 and 35 percent respectively. Sixteen percent of the small enterprise labor force is made up of women.

The sums of capital required by small enterprises in Haiti are not large. The average value of machinery and tools per worker currently lies between $200 and $300 among tailors and carpenters, the two largest SSE employers. Total capital per firm varies from a high of $64,000 in essential oil manufacture to $600 per firm among tire repair shops.

Capital-labor combinations used in small enterprises vary widely even within given industries. For example, tailors in the smallest localities surveyed use $80 worth of equipment per worker while that figure rises to

$290 per worker in the largest towns. In virtually all industries there exists a wide array of capital/labor combinations which are used.

In the aggregate the small enterprises sector in Haiti appears to be growing. The entrepreneurs interviewed believe that both the number of firms and output per firm have increased over the past five years. Growth trends vary considerably by industry. Machine repair, cement block making, car repair, wood sculpture, and tailoring appear to be experiencing the most rapid expansion of activity. The moderate gainers among the enterprises surveyed appear to be metal working, shoe repair, and carpentry. The declining small industries seem to be bakeries and leather working shops.

5.2. Preliminary Identification of Constraints

5.2.1. Demand. Demand is a critical constraint. Most small enterprises in Haiti rely primarily on local consumer demand; however, those industries with additional market outlets seem to be growing faster than industries which are solely dependent on local consumer demand. Export industries, notably wood sculpture, have done particularly well. Subcontracting with larger firms offers an additional source of demand for small enterprises. Of the five small industries most heavily involved in subcontracting, four — car repair, cement block making, wood sculpture, and machine repair — have been tagged as growth industries. Demand is a crucial variable affecting the growth of small enterprises.

5.2.2. Working Capital. Shortage of cash (working capital) is the single most important problem mentioned by entrepreneurs. Eighty-seven percent of the entrepreneurs who borrowed money in 1978 borrowed the funds in order to purchase raw materials indicating that their own supply of working capital was not adequate to finance the raw material purchases.

Working capital is clearly an important problem; however, it is often a symptom rather than the ultimate cause of problems. Inefficient management, shortages of credit, and slack demand, for example, can all lead to working capital shortages. The ultimate underlying cause of working capital shortages varies from region to region and from firm to firm, and working capital problems, therefore, are best diagnosed at the individual firm level.

5.2.3. Fixed Capital. Entrepreneurs felt lack of machines and tools to be their second most important problem. Lack of machinery can be a problem if a firm is currently operating at full capacity and requires additional equipment for expansion, or it can be a problem if the entrepreneur's current equipment is extremely inefficient or if newer machinery could produce higher quality items for which the demand would be higher. Concerning the capacity issue, our rough calculations indicate that large amounts of excess capacity existed in the small firms at the time they were interviewed. The interviews, however, were conducted in January and February, months which 40 percent of the entrepreneurs indicated were their periods of lowest activity; hence it is not surprising to have found large amounts of excess capacity. It is difficult to assess the validity of the entrepreneurs' complaints of inadequate supplies of fixed capital without further data on capacity utilization throughout the year, on the efficiency of differing techniques of production, and on the demand for products produced with new types of machinery.

In supplying their fixed capital needs entrepreneurs turn most often to personal savings, family, and friends. Together these three sources supplied 91 percent of the initial capital among the firms interviewed.

For ongoing investments in machinery and tools in 1978 these same three sources again supplied 91 percent of the investment funds.

5.2.4. Credit. Credit is a problem for small entrepreneurs. It was listed as their fourth most important problem behind working capital (cash), fixed capital, and insufficient demand. The capital market in which small entrepreneurs operate is extremely fragmented; 94 percent of the entrepreneurs interviewed have never applied for a loan from a formal credit institution. Interest rates in the formal sector range between 12 and 15 percent while those in the informal sector lie between anywhere from 24 to 240 percent per year. Major barriers to use of the formal credit market appear to be lack of credit institutions, particularly in the rural areas, high collateral requirements, and lengthy loan processing time.

5.2.5. Raw Materials. Raw materials are a problem of definite concern for small entrepreneurs. Thirty-two percent indicated raw material shortages to be a problem and, when asked what type of nonfinancial assistance they would like, 58 percent of the entrepreneurs requested raw materials. The raw material problems in Haitian small enterprises occur for two reasons: (1) there exist transportation and import bottlenecks which cause supply shortages, and (2) raw material procurement is sometimes a problem because of shortages of working capital at the firm level.

5.2.6. Management Skills. Very few entrepreneurs were concerned about managerial constraints although more detailed information than was obtained in this survey will be required to determine to what degree management practices constrain the activity of small enterprises. Firm managers do appear to be more highly educated than the average Haitian adult; 56 percent have completed 6 years or more of school. Half of the entrepreneurs interviewed keep records and one-third maintain bank accounts.

5.2.7. Supply of Skilled Labor. Entrepreneurs were unconcerned about supplies of skilled labor. It is the apprenticeship system which provides the bulk of the training for small enterprise workers and entrepreneurs. Thirty-five percent of the current small enterprise labor force is comprised of apprentices. The apprenticeship system provided training for approximately 60 percent of the current small enterprise entrepreneurs while 11 percent of the entrepreneurs were trained in vocational schools.

5.3. Recommendations

1. A policy review would be extremely useful in guiding future work with small enterprises. Such a review should make an assessment of the overall policy environment within which small enterprises operate. For example, a review of the current tariff structure would afford valuable information concerning the degree to which small enterprises are disadvantaged by current duty structures. The environment within which small enterprises operate is influenced by the large number of organizations currently involved in delivering assistance to small enterprises. A complete listing of organizations currently involved in such assistance programs would be valuable to any agency contemplating intervention.

2. Identification of a target group among the various enterprise types and regions will be important in formulating a policy or program intervention. This report has indicated wide variations in problems faced in different types of enterprises and in different locality sizes and regions. Delivery systems, types of assistance offered, and the kinds of enterprises assisted will vary greatly depending on geographical region and on whether the focus is on rural as opposed to urban areas or small versus medium-sized businesses.

3. Case studies of specific industries would be important in identifying differing techniques of production where they exist and in evaluating the efficiency of the different techniques. These studies should include an evaluation of techniques used in both small- and large-scale firms. Such information is extremely valuable for formulating general policies and for specific program use, for example, in guiding machine rental programs, and credit, technical, and management assistance programs. It also provides a basis for comparing the efficiency of existing techniques with the efficiency of those not currently utilized in Haiti thus allowing an agency to play an effective information-disseminating role.

4. An important follow-up to this survey would be to measure some key flow variables such as output, purchased inputs, and profits. This would be a crucial step in providing a technical data base for identifying sectoral linkages and for evaluating constraints such as management, markets, working capital, and fixed capital. Such information is also useful for identifying viable product and firm types, and for evaluating factors affecting the successful operation of small enterprises.

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MSU RURAL DEVELOPMENT SERIES

WORKING PAPER

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IN JAMAICA:
SOCIOECONOMIC CHARACTERISTICS AND CONSTRAINTS

By

Yacob Fisseha and Omar Davies

Working Paper No. 16

1981

Institute of Social and Economic Research
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*This paper has been published as part of Michigan State University's Off-Farm Employment Project, which is financed by the Office of Rural Development and Development Administration, Development Support Bureau, U.S. Agency for International Development (AID/ta-CA-2). Funding for the survey and analyses were provided by this project as well as by USAID/Jamaica.

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Foreword

This paper is one of a series of reports produced by Michigan State University's Off-Farm Employment Project. The project, which is funded by the Office of Rural Development and Development Administration, Development Support Bureau, U.S. Agency for International Development, has the basic purpose of enhancing the ability of AID missions and host country institutions to identify and implement programs and policies that generate off-farm employment and income opportunities benefiting the rural poor. One of the major components of the project is the generation of new knowledge relating to off-farm activities. In collaboration with host country institutions and AID missions, detailed field surveys of small-scale enterprises are currently being conducted in Egypt, Jamaica, Honduras, and Thailand; the results of these studies will be published in this series. A second component of the project involves the marshalling and dissemination of existing knowledge of off-farm activities. A state-of-knowledge paper and special studies relating to off-farm activities will also appear in this series. Previously completed studies in this area currently available through the Off-Farm Employment Project include:

1. Carl Liedholm, "Research on Employment in the Rural Non-Farm Sector in Africa," African Rural Employment Paper No. 5, 1973.

2. Carl Liedholm and Enyinna Chuta, "The Economics of Rural and Urban Small-Scale Industries in Sierra Leone," African Rural Employment Paper No. 14, 1974.

3. Enyinna Chuta, "The Economics of the Gara (Tye-Dye) Cloth Industry in Sierra Leone," African Rural Economy Working Paper No. 25, 1978.

4. Adewale Mabowonku, "An Economic Evaluation of Apprenticeship Training in Western Nigerian Small-Scale Industry," African Rural Employment Paper No. 17, 1979.

5. Steve Haggblade, J. Defay and Bob Pitman, "Small Manufacturing and Repair Enterprises in Haiti: Survey Results," Michigan State University Rural Development Series, Working Paper No. 4, 1979.

6. Enyinna Chuta and Carl Liedholm, "Rural Non-Farm Employment: A Review of the State-of-the-Art," Michigan State University Rural Development Paper, Paper No. 4, 1979.

7. Omar Davies, Yacob Fisseha and Claremont Kirton, "Small-Scale Enterprises in Jamaica: Initial Survey Results," Michigan State University Rural Development Series, Working Paper No. 8, 1979.

8. Enyinna Chuta, "Techniques of Production, Efficiency and Profitability in the Sierra Leone Clothing Industry," African Rural Employment Paper No. 30, 1980.

9. Middleton Wilson, "Some Problems in Operating a Loan Program for Craft and Emerging Small-Scale Non-Farm Enterprises in Jamaica," Michigan State University Rural Development Series, Working Paper No. 15, 1981.

Copies of these papers as well as additional information on the Off-Farm Employment Project can be obtained by writing:

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Acknowledgment

We are indebted to several people who generously contributed towards the completion of this paper. The following people deserve special mention. Carl Liedholm reviewed the manuscript and suggested valuable guides throughout the development of this document. Herb Kriesel and Peter Kilby also read earlier drafts of the paper and gave us very helpful suggestions. Our appreciation goes to Anne Morris and Sandra Repic who cheerfully and repeatedly contributed their typing skills, sometimes under difficult time constraints.

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I. INTRODUCTION

In August, 1978, an extensive survey was started in Jamaica on small-scale, non-farm enterprises (SSE). A SSE is defined as an enterprise employing 25 or fewer people.[1] The project was sponsored by the Small Enterprise Development Corporation (S.E.D.C.O.) and conducted by the Institute of Social and Economic Research (I.S.E.R.) of the University of the West Indies in collaboration with Michigan State University.

Basically, the project consisted of a series of one-shot surveys and a one-year longitudinal study on flow data for SSE inputs, outputs and credit services. The study is divided into three phases: Phase I was a one-shot survey of identification and enumeration as well as a skeletal description of the employment, mechanization and workshop structure in the SSE sector. The report of Phase I has already been published (see Davies et al., 1979). Phase II is concerned with obtaining information about the proprietor and the business envinronment, while Phase III is aimed at detailed analyses of production, marketing and credit situations in this sector.

This report deals with Phase II of the project. We begin with a descriptive profile of the proprietor (owner/manager) and the enterprise within the ambits of the main business constraints as perceived by the proprietors. These constraints include lack of adequate product demand, problems of finance, and shortages of raw materials and utilities, as well as possible weaknesses in production techniques and managerial capability. The report concludes with a summary and recommendations.

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[1] For a detailed description of the definition, see Davies et al. (1979, p. 1); henceforth, SSE refers to manufacturing enterprises only.

1.1. The Small Scale Manufacturing Enterprise Sector

With a population of about 2.2 million and an area of 4400 square miles, Jamaica has 40,000 small scale non-farm enterprises employing 80,000 people. About 35% of these enterprises are manufacturing establishments as per Department of Statistics industrial classification, which is based on the International Standard of Industrial Classification (ISIC), and they account for 37% of the employment in this sector.

The number of small scale manufacturing enterprises and the number of people they provide with full- or part-time employment have been increasing over the last few years, both in absolute and relative terms. Publications of the Department of Statistics[2] show that between 1976 and 1977 the number of people employed in small scale manufacturing enterprises[3] rose by about 12% while that for the large scale manufacturing enterprises fell by about 7%. This resulted in the small scale employment share rising from 36% to 40% in the manufacturing sector. There is reason to believe that this trend has continued.

The cause for such a trend cannot be definitely identified at this stage, but there are several possibilities. First, the large scale establishments are relatively more dependent on imported raw materials than the smaller establishments and hence more affected by the severe foreign exchange restrictions which prevailed in Jamaica recently. Second, the larger establishments may be less efficient when forced to reduce production levels than the smaller ones and thus may find it more difficult

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[2] See Department of Statistics, Employment, Earnings, and Hours in Large Establishments, 1977, p. 15.

[3] _____, The Labour Force, 1977, p. 50. Their definition for a small scale enterprise is one that employs 10 people or less. This grouping accounts for a large majority of the enterprises in our definition, which is 25 people or less.

to survive under difficult economic conditions. Finally, the relative increase in small scale employment may reflect new enterprises being established by those who have lost their jobs in either the private or public sector. (Haggblade, Defay and Pitman (1979) also found in Haiti that the small scale non-farm sector has been growing over the last few years.)

The relative rise in the importance of the small scale non-farm sector may not be a transient phenomenon that occurs during times of economic difficulties. Studies from other countries have indicated similar growth in the SSE sector in growing economies as well. Chuta and Liedholm (1979) cite evidence to support this phenomenon.

When such growth in (self) employment occurs in a country experiencing declining or stagnant economic conditions, the domestic market share for those businesses already in the market must shrink, thus creating demand problems, as will be seen later. Whether such developments in turn lead to higher enterprise dropouts cannot be ascertained at this stage. However, besides the fact that the sector is growing as indicated above, there is evidence to show that in times of poor economic environment, proprietors would rather absorb a significant part of the fixed costs rather than close down business (see Fisseha, 1981).

1.2. Objectives of the Project

The overall objective of the project is to provide benchmark information on the extent, composition, contributions and socioeconomic characteristics of the small scale non-farm enterprises sector in Jamaica. The Survey Project is divided into three phases: (a) Phase I deals with the information already discussed on page 1; (b) Phase II deals with past as well as current socioeconomic factors related to the proprietor and the

business itself; and (c) Phase III provides comprehensive information about production, marketing and credit in the sector. In particular, Phase III provides data on the two factors of production, labor and capital, and the information base for the comparative economic analysis of businesses.

Both the Phase I and Phase II data are one-shot surveys whereas the Phase III data were generated over a year of repeated and systematic visits to individual enterprises.

1.3. Sampling Procedure

For all the survey phases, the country was classified into four population strata which we call "locations." The locations are (1) Kingston, (2) the Major Towns, (3) The Rural or Smaller Towns and (4) Rural Localities or Enumeration Districts (E.D.'s). The locations or strata are defined as follows:

a) Greater than 100,000 population (Kingston only);

b) 20,000 - 100,000 (the Major Towns--Montego Bay, Spanish Town and May Pen);

c) 2,000 - 20,000 (about 60 Smaller or Rural Towns);

d) below 2,000 (about 2,250 Rural Localities or Enumeration Districts).

For more explanation on the strata and sampling procedure, see pp. 9 - 11 of the Phase I report by Davies et al. (1979).

To account for possible refusals, closures, wrong addresses, failures to make contact, business site changes and even migration and death, a bigger sample than estimated was randomly drawn for Phase II from the listing obtained in Phase I. A weighting procedure among the locations and among enterprise types was used to pick this sample. However, the effective random sample size of 710 enterprises for which data were collected resulted in a disproportionate sampling outcome. Data collection took about one and one-half (1½) months.

The data were collected during January and the first half of February 1979, before we began the collection of flow data in Phase III. It should be noted that in similar studies (e.g., Liedholm and Chuta in Sierra Leone) such data collection was carried out near the end of the flow-type survey. The advantage of our approach is that one gets the data much earlier for further use and there is less pressure during training and field work than when the flow-type data collection is under way. The disadvantage is that one may fail to see important relationships at this early stage and if a quick supplementary survey (corresponding to our Special Studies) is not carried out later, deficiencies in the flow-type data collection may not be corrected.

1.4. Analytical Presentation

The general pattern of analysis here closely follows that of the Phase I report (see Davies et al.[1979]). Data for the individual enterprise type (e.g., tailoring or blacksmithing) and the corresponding enterprise group type[4] (e.g., wearing apparel or general metal work) are first discussed for the country as a whole and then differences or similarities are noted at the locality or stratum levels.

The report focuses on the problems and constraints faced by the proprietors. In all cases, these problems are what the proprietors perceive

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[4]In the Phase I report, all SSE enterprises are grouped into nine major categories, seven of which (a-g) describe those in the manufacturing sector:

a) Food production and processing
b) Wearing apparel, including shoes and leather work
c) Craft and related products
d) Woodwork, including sawmilling and upholstering
e) Metal work, including blacksmiths, goldsmiths, and tinsmiths
f) Mechanical repair work, e.g., automotive and other machinery
g) Other manufacturing, e.g., rubber, paper, plastic, brick, miscellaneous chemicals, printing, etc.
h) Distribution, e.g., groceries, retail stores, wholesale, etc.
i) Other non-manufacturing services, e.g., bars, restaurants, dry cleaning, etc.

them to be except in the section dealing with management issues. Management weaknesses may not be perceived by a proprietor or, if perceived, may not be willingly accepted as such. Nevertheless, it is very important to carefully choose proxy variables that help to identify comparative differences in management performance. Therefore, even though management problems were not explicitly mentioned by the proprietors, we have discussed certain topics considered useful in explaining differences in management practices and capabilities. When the data for the flow-type information are analyzed, topics discussed in Phase II will be related to variables such as the income levels, labor and capital utilizations and general business practices.

1.5. Bird's Eye View of Typical Enterprise Types

This section presents a selective description of a "typical" firm within each of the major enterprise groups or subsectors. We include it here with the hope that as a result some of the statistical parameters of the SSE discussed in this report will be more meaningful. Each enterprise type was chosen because of its relative numerical importance within an enterprise group.

1.5.1. Wearing Apparel

In the wearing apparel group, tailoring/dressmaking and shoemaking are the most important enterprises. Commonly, a proprietor in one of these enterprises will set up his or her work table inside a room or under the porch of his house. The work table or bench may be taken out in the morning and retrieved at night. There may be a stool or two on which the customers sit and chat. Sometimes, two tailors or shoemakers may jointly rent a room.

Usually, there is a helper (an apprentice) who is learning the trade and doing odd jobs such as ironing finished clothes or shining finished pairs

of shoes. When the proprietor is absent the apprentice has the opportunity to deal with customers in matters concerning prices, sizes and styles.

Tailors and dressmakers usually keep small amounts of raw materials on hand -- mostly cloth linings, spools of thread, buttons, zippers and rubbery fabric bands. Occasionally they may have some cloth or fabric stored on open shelves. Shoemakers usually buy enough leather to last one week. The permanently stocked materials consist of threads, glue, nails and rubber soles. A tailor/dressmaker always has a sewing machine while a shoemaker may not, in which case he would either buy ready-made (already sewn) coverings for the tops of the shoes or else he would have them sewn by someone who has the appropriate machine.

The typical, very small tailoring and shoemaking enterprises described above are different from their larger counterparts at the opposite end of the small scale enterprise category. The larger businesses have two or three rooms, about three to five machines, and a larger stock of cloth, threads, and other materials. They often specialize in the production of one type or style of a product such as school uniforms, children's clothes, or formal suits in tailoring enterprises, and ladies' or children's shoes in the shoemaking enterprises. Sometimes shoemakers will subcontract to produce specific styles under a well-known trademark name (such as Van Del or Bata). The bigger businesses frequently employ about six to ten people and a few apprentices, who are sometimes family members.

1.5.2. Woodwork

A woodworker usually has a bigger and more spacious workshop than workers in other SSEs. He also has had at least 5 years of experience elsewhere, for the quality of work or craftsmanship is of great importance in woodworking. A woodworker may be well-known for the beds, cabinets,

tables and chairs, or doors and windows he constructs and his business depends greatly on his reputation in these specific areas.

Because of raw material shortages and the lengthy process required to obtain them, the availability of sufficient stocks of raw materials is very essential in woodworking. As a result, the amount of working capital required per purchase tends to be large.

Practically every carpenter has one or two machines -- usually an electric saw and planer. Many have bigger or more machines than they currently need, mainly to offset future inflation and possible shortages.

The main problem, as of the first quarter of 1980, seemed to be lack of raw materials, particularly lumber; but for carpenters in the housing construction industry, lack of demand was also a big problem. Among the small carpenters, whose market was entirely domestic, nearly everyone was converting to using locally produced pine and cedar lumber. A major complaint, however, is that the trees are cut young and the lumber is not well seasoned.

Unlike the typical, very small woodworking establishments described above, relatively larger woodwork shops in the SSE employ from 10 to 20 workers. There is usually a management office where relatively complete records are kept and production work is planned. The market may not be entirely domestic; many of these enterprises have had experience in exporting wooden items to other Caribbean countries and the United States. These bigger enterprises have better access to raw materials than their smaller counterparts, because they have more working capital, better access to financial institutions, differential access to imported raw materials and because their size makes it economical to import mahogany lumber.

1.5.3. Metal Works

Enterprises in this category are either very small or relatively big. Blacksmith, locksmith, tinsmith, and goldsmith enterprises are usually one person operations with very few machines. Any such enterprise may have a charcoal furnace, gas stove, a bellows, fan, anvil, hammar or soldering rod, depending on its area of production.

In blacksmith works, raw materials are not a problem because scrap metal is widely used. But the demand for blacksmithing services is so low in many places that the art seems to be dying out. This is not so strange, for blacksmiths have historically been closely associated with horse carriages and two-wheeled carts, vehicles which have nearly disappeared from Jamaica.

On the other hand, the bigger metal work enterprises in the SSE category have more machines and use imported metal rods and sheets. Almost all have an electric welder, a cutter, a bender and perhaps an acetylene welder and a sander. There is a shortage of inexpensive electric welders, as those in current use are quite old. [Raw material shortages do not seem to be as serious here as in other kinds of enterprises such as woodworking and shoemaking.] Major products of larger metal works are grilled doors, gates, windows and fences as well as metal containers; the demand for the former has increased as the level of crime has risen.

1.5.4. Auto Repairs

In recent years restrictions have been placed on the importation of new motor cars into Jamaica as a result of the foreign exchange shortage. Cars which are available are very expensive. Hence there has been a corresponding increase in the percentage of older cars on the road and also a growth in the number of auto repair establishments. The shortage

of foreign exchange has affected their operations because spare parts are difficult to purchase. This situation has led to the development of domestic substitutes.

Auto repair is different from the other enterprises in that a skilled mechanic can rent shop and equipment and run a garage without making an initial large investment in fixed assets. Mechanics need supply only a modest working capital, for customers have to pay a great part of the repair bill in advance. The demand for some specialized machines is so high, however, that credit to finance such machines is eagerly sought. As expected, the number of apprentices per enterprise is higher here than in other businesses.

1.5.5. Craft Work

The two largest craft enterprises are straw work and woodcarving. Most people who do straw work and some who do woodcarving have farming as their main occupation.

Straw work is done mostly by women and woodcarving by men. The collection and processing (curing) of the straw stalks is done by the women themselves; in a few cases they dye their own straw. Usually the various stages of work are done by different people. The ownership changes also at these different stages. For example, the woman at the farm level will knit or weave plain strips about 3 or 5 inches wide and sell them to another woman who puts these strips together into a bag or a mat. This woman, in turn, takes the bags or mats to a retailer who adds plastic or fabric linings to them and decorates them with different colors. Sometimes this last stage is carried out not by a retailer but by somebody who does the decoration at home and sells the product to a retailer. The making of a hat, on the other hand, is usually completed at the farm level. Although

the ultimate consumer is usually the tourist, information concerning product demand flows back adequately through the same channel that the craft woman uses to sell the straw strips.

Woodcarving is a craft most often engaged in by professional woodcarvers, so the role of the person from the farm is sometimes limited to the preliminary stages of carving and supplying the raw wood.

In both of these enterprises, particularly straw work, family members or neighbors begin to learn the art in their childhood. In some cases, persons will improve their skill so much that they advance to weaving hats and decorative items from sisal fibers -- products which require a higher level of skill.

II. DESCRIPTIVE PROFILE OF THE PROPRIETOR AND THE ENTERPRISE

In an attempt to expand both employment and production and to reduce the demand for severely limited foreign exchange funds, past and present government administrations in Jamaica have been readily inclined to provide effective assistance and policy measures to the small business sector (see Government of Jamaica National Planning Agency, 1978 and Jamaica Labour Party, 1980). This section attempts to highlight the main characteristics of the sector by giving a general description of the people employed and a profile of the sector enterprises.

A descriptive profile of proprietors and enterprises helps to partially explain some of the problems encountered in the sector and will aid in formulating the appropriate policy measures. It will also give rough indications of the number of people who are supported by the sector.

2.1. The Proprietor

Who is the average small business proprietor in Jamaica? Table 1 shows that on the national level, this person is a man or a woman who is about 40 years old, has 4 children and supports about 5 people. Most proprietors are Jamaican nationals. In Kingston, as well as in Major and Rural Towns, a proprietor will almost certainly be male, while in the E.D.'s female proprietors outnumber men by two to one.

A further examination of the age category shows that older proprietors (over 40 years of age) are found in enterprises traditionally known as "cottage" industries, e.g., shoemaking, straw work, tailoring or dressmaking,

Table 1

Descriptive Characteristics of Small Scale Proprietors in Jamaica
(Percentage of Proprietors)

Descriptive Characteristics	Kingston	Major Towns	Rural Towns	E.D.'s*	Jamaica
Nationality: Jamaican	99.4	99.0	99.4	100.0	99.8
Age					
30 years or less	20.6	21.8	21.6	20.0	20.3
31-40 years	39.4	31.3	26.9	21.5	24.9
over 40 years	40.0	46.9	51.5	58.5	54.8
Gender					
male	85.7	93.0	93.3	35.3	50.7
female	14.3	7.0	6.7	64.7	49.3
Martial status					
"legal" marriage	40.0	57.2	62.1	41.2	43.9
common law relationship	20.0	21.4	17.3	----	5.4
widowed	----	----	----	17.6	12.6
single	40.0	21.4	20.7	41.2	38.1
Average age	36.0	41.6	44.4	40.2	40.1
Average number of children	2.7	4.5	4.4	4.1	4.0
Average number of dependents	4.6	5.2	4.3	5.1	4.9

Source: Nationality and age categories are from Phase II data (1979); the rest is from Fisseha (1981).

*Enumeration Districts, see page 4.

bamboo carving, and tin, gold, or blacksmithing. The younger proprietors are found in enterprises which are relatively new to the sector and require more skills, such as auto repair, upholstery, metal works (excluding blacksmithing), cabinet making and woodcarving. However, a direct relationship appears to exist between the amount of initial investment required and the age of the proprietor, which probably indicates that before one can invest in the more expensive ventures, it is necessary to be employed elsewhere (either for someone else or self-employed in another business) in order to accumulate both the required capital and the necessary expertise. Examples of enterprises with large initial investments are block, brick, or tile production, the baking industry, sawmilling, printing, fruit and vegetable canning or the production of paper, pulp, rubber, glass or chemicals.

2.1.1. Age and Sex Distributions

The average age of the proprietors in the different locations is about 40 years. Since the average age of a SSE in Jamaica is about 13 years, it can be said that many of the proprietors started their business in their late twenties.[5] This is especially true in the two main locations, the rural localities (E.D.'s) and Kingston, where the average ages of the small scale enterprise are about 15 and 8 years respectively. About 55% of the proprietors are over 40 years of age and another 20% are 30 years of age or younger (including 2% who are 20 years of age or younger).

While the starting age is about the same in all locations there is an increasingly higher percentage of older proprietors in the more rural areas. And a markedly lower percentage of younger enterprises (say,

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[5]See Table 4 on age of the enterprise and Table 2 for the percentage of enterprises that were started from scratch by the proprietors.

less than 1, 5, or 10 years old) exists in the more rural areas. These two observations may indicate that the rate of new businesses being established in the urban areas is higher than in the rural ones. There are indications that the incidence of relatively younger enterprises in the urban areas is not due to high rates of business failures or dropouts.

At the national level, equal number of men and women are owner/operators (proprietors) of small scale enterprises, but this is caused by an overwhelmingly high ratio of women to men in the rural enterprises. It is interesting to note that the cottage industry-type of production may be one avenue by which some women are increasingly freeing themselves from the confines of the traditional household chores. The high incidence of female proprietorship is due to the fact that craft work and dressmaking account for almost one-quarter and one-fifth respectively of the manufacturing enterprises in Jamaica. Also, more than 90% of the craft enterprise and 50% of the dressmaking businesses are found in the rural areas (E.D.'s) (see Davies et al., 1979, pages 16, 17, 24 and Appendix V). All the dressmaking and most of the straw work are done by women.

2.1.2. Marital Status

The weighted percentage of all the proprietors whose current marital status is single comes to about 38%.[6] The percentages for the Major Towns and the Rural Towns are substantially lower than those for Kingston or the E.D.'s; this difference may result in part because, compared with Kingston and the E.D.'s, the two other urban or semi-urban areas have a higher percentage of proprietors with higher levels of education (secondary schooling and above), which is usually associated in Jamaica with a higher

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[6]This category could possibly include persons previously living in common law relationships.

percentage of married individuals. The remaining balance in the marital status category is accounted for by "legal" marriages and common law companionship (nationally about 44% and 5% respectively) and in the case of the E.D.'s by people with deceased mates.

2.1.3. Number of Children and Dependents

The average number of children per proprietor for all locations is four. But the figure for Kingston is lower (2.7), which is consistent with the figures indicating that the average age in Kingston is relatively low and that the category "single" in marital status is relatively higher here (see Table 1).

The national figure for the average number of dependents per proprietor is about five. These are family members who depend on the proprietor for more than half of their support for more than 6 months of the year. Not much difference exists among locations in this category.

2.2. The Small Scale Manufacturing Enterprise

This section deals with the entrepreneurial capacity and level of cooperative work among proprietors as well as the potential for future business growth. It must be noted that, in many instances, it is not easy to keep the attributes of the proprietor and his business separate and distinct.

2.2.1. Mode of Business Acquisition

Nationally, the overwhelming majority of entrepreneurs started their business individually from scratch (see Table 2). The only other important mode of business acquisition is inheritance, which accounts for about one-tenth of all businesses. The pattern is the same at the disaggregated locations, with those who started individually from scratch or from an

Table 2

Mode of Small Scale Business Acquisition in Jamaica by Location
(Percentage)

Mode of Business Acquisition	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Started by individual from scratch	80.0	92.9	78.5	87.5	86.0
Inherited	13.3	7.1	13.6	12.5	11.5
Started in a partnership*	----	----	4.3	----	1.3
Other	6.7	----	3.6	----	1.2
TOTALS	100.0	100.0	100.0	100.0	100.0

Source: Fisseha, 1981

*This is genuine partnership and not just work in the same workshop, with the proprietors sharing the rent.

inherited business accounting for over four-fifths of businesses in the four locational strata. The only other form of acquisition of any significance in any of the locations is that of partnerships, which account for about four percent of the businesses in the Rural Towns. Nationally, however, this mode of acquisition has little significance.

2.2.2. Form of Current Ownership

As can be seen from Table 3, the dominant ownership pattern in the small scale manufacturing sector is the sole proprietorship, which accounts for 94% of all businesses in the sector. Partnerships, cooperatives and limited liability companies combine to account for less than 6% of the total number of enterprises.

The disaggregated data do not indicate much divergence from the national pattern, although a clear relationship exists between level of urbanization and extent of sole proprietorship, which increases from 84% in Kingston and the Major Towns to 89% in the Rural Towns to 98% in the Rural E.D.'s. Partnerships are of some importance in Kingston and in the Major and Rural Towns, representing 11%, 13% and 8% of the total number of businesses respectively. But this form of ownership is unimportant in the Rural E.D.'s.

2.2.3. Age of the Enterprise[7]

Nationally the small manufacturers have been in business for some time nearly two-thirds have owned their present businesses for over five years (see Table 4). In fact, over 44% of these businesses are owned by persons who have been operating them for over 10 years. Yet the disaggregated data show that the dominance of older businesses nationally results

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[7]Actually, the number of years under the present owner is almost the same as age of enterprise since an overwhelming majority of the enterprises were started from scratch by the present owner.

Table 3

Form of Small Scale Business Ownership by Location
(Percentage)

Ownership Type	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Sole Proprietorship	83.9	83.7	89.2	97.7	94.3
Cooperatives	0.6	1.0	1.2	0.8	0.8
Partnerships	11.1	13.3	7.8	1.5	4.0
Limited Liability Companies (Ltd.)	4.4	2.0	0.6	----	0.7
Other types	----	----	1.2	----	0.1

Source: Phase II Survey Data, 1979

Table 4

Small Scale Business Under Ownership of Present Proprietor
(Percentage of Enterprises)

Years Owned by Present Proprietor	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
1	13.3	15.3	12.6	8.3	9.7
2	12.8	15.3	15.0	7.2	9.1
3 - 5	31.1	26.5	20.4	15.1	18.3
6 - 10	18.3	21.4	25.0	17.7	18.7
11 - 20	15.6	17.3	15.0	30.9	26.7
over 20	8.9	4.2	12.0	20.8	17.5

Source: Phase II Survey data (1979)

mainly from the situation in the Rural E.D.'s. For both Kingston and the Major Towns, well over a half of the enterprises have been operated by the present owner for only five years or less, while for the Rural Towns just under a half have been under the present ownership the same length of time. In contrast, the businesses in the Rural E.D.'s tend to be much older, with only 30% under present ownership of five years or less. Over one-half of those surveyed in the Rural E.D.'s have been over ten years in the present ownership, compared with less than 25% in both Kingston and the Major Towns and 27% for those in the Rural Towns.

The pattern emerges such that in Kingston, the Major Towns and the Rural Towns a significant percentage of the entrepreneurs are relatively new to their business (five years or less) while in the Rural E.D.'s the majority (nearly 70%) have been in the business for over five years (see Table 4).

The average age or number of years of ownership for all enterprises is about 13. The youngest enterprise groups are foods, followed by auto repair, woodwork, and metal work, each with an average age of less than 7 years. The oldest ones are craft work (17 years), followed by wearing apparel (12 years) and other manufacturing (11 years).

As a whole, tailoring, dressmaking, shoemaking, and straw work are the more stable types of enterprises (see Table 5). The rest have been late starters, except for auto repairs, whose lower average indicates a frequent change of hands rather than the age of a new enterprise. The financial barriers to entry may not be as great in auto repairs as in the other types of bigger enterprises since renting of auto repair plants is the most common way for many people to enter this business (see Fisseha, 1981). The rate of business closure for the corresponding periods would be necessary, of course, to see the sectoral growth or decline.

Table 5

Average Number of Years Under Present Ownership for Major Enterprise Types

Enterprise Types*	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Tailors	10.2	7.8	7.3	11.5	10.7
Dressmakers	7.0	3.9	10.1	14.0	13.0
Shoemakers	8.0	15.1	15.5	16.4	14.9
Woodwork	9.0	9.6	7.2	4.6	6.3
Metal Work	7.9	6.6	7.6	2.0	4.6
Auto Repairs	6.7	3.0	5.7	5.6	5.6
Straw Work	7.5	6.0	10.0	18.6	18.5
Upholstery	6.8	4.0	6.7	14.0	8.7
Wood Carving	6.2	6.8	13.5	5.7	6.4

Source: Phase II Survey Data, 1979

*These enterprises were chosen because they constitute more than 80% of both the sample size in Phase II and the small scale manufacturing sector in Jamaica; for more details, see Appendix I of Davies et al., 1979.

2.2.4. Size Distribution of the Enterprises

Nationally, about two-thirds of the enterprises employed only the proprietor (see Table 6). In fact, fully 93% of the enterprises employed five or fewer workers; this figure is consistent with the findings for Phase I of the survey, where the corresponding number was 94%.

When the data are disaggregated by locations, it is seen that important variations exist. In Kingston and the Major Towns, for example, approximately one-fourth of the enterprises employed over five persons. The corresponding figures are 13% for the Rural Towns and 1% for the E.D.'s. Accordingly, the dominance of the firm with only one person employed is inversely related to the level of urbanization; the percentage decreases from 82% in the E.D.'s to 23% in Kingston.

2.2.5. Size, Sex, and Skill Distribution of the Work Force

The average size and age distribution of the work force (including the proprietor) per enterprise are shown in Table 7. Compared with Phase I results, the average size given here is about the same as for the rest of the locations, but it is higher for the Major Towns (4.2 versus 3.0). Yet not only is the national average the same as for Phase I, but the relative size position of all the locations is the same.

Except in the E.D.'s, the gender distribution of the work force is heavily biased in favor of males. The percentage of females in the work force ranges from as low as 14% in Kingston to as high as 47% in the E.D.'s -- due to the fact that nearly two-thirds of the proprietors in the E.D.'s are females. Nationally, however, females account for only one-third of the work force.

Table 6

Size of Enterprise Work Force by Location
(Percentage of Enterprises)

Size of Work Force	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
1	23.3	26.5	46.7	81.9	68.0
2	19.4	18.4	19.8	9.4	12.1
3	15.0	12.2	6.6	3.4	5.7
4	12.0	12.2	9.6	2.3	4.8
5	6.2	5.2	4.1	1.8	2.7
6 - 10	17.2	18.4	9.6	.8	4.7
11 - 20	5.7	7.1	2.4	.4	1.7
over 20	1.2	----	1.2	----	.3
TOTAL	100.0	100.0	100.0	100.0	100.0

Source: Phase II, Survey data 1979

Among the important enterprises, woodwork, metal work and auto repair provide the major share of employment opportunities for unskilled[8] males. Employment opportunities for unskilled females are very low except in wearing apparel and crafts. Enterprises dependent on factory-type production provide about equal employment opportunities for both men and women.

2.2.6. Age Distribution of the Work Force

The average age for the entire work force is about 35 years (see Table 7); if the average age of proprietors (40 years, as indicated in Table 1) is excluded, the average age for the work force is 31.3 years.[9] Again, reflecting the stability of enterprises in the rural areas, the average age for the work force rises as one moves to the more rural areas. The situation holds also for skilled males and females. For the unskilled group, the average age declines, both for males and females, as one moves to the rural areas. Indeed, with the unskilled male labor force in the E.D.'s averaging approximately 16 years, very young workers appear in some enterprises. On the whole, not much difference exists between the average ages of skilled males and skilled females either at the national or disaggregated locational levels.

Fisseha (1981) estimated that the number of years worked in an enterprise by each non-proprietor skilled worker is about 3 years; hence most of the workers probably worked elsewhere previous to working in their present job.

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[8]The classification into "skilled" or "unskilled" was done using the propreitor's own knowledge and judgment as to whether a worker has some training in a given subject or had a special talent in a given field relevant to the business. All proprietors were considered skilled.

[9]This figure was extrapolated using Tables 1 and 4 from Davies et al. (1979) as well as Tables 1 and 7 in this report.

Table 7

Average Number of Workers and Average Worker Age in All Enterprises

Average Per Enterprise	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Number of Workers					
Males	3.8	3.4	2.8	0.8	1.5
Females	0.6	0.7	0.4	0.7	0.7
Total	4.4	4.2	3.1	1.5	2.2
Age of Workers					
Males	28.4	30.2	32.0	28.5	28.9
Skilled	31.8	32.1	35.7	38.8	37.2
Unskilled	20.3	22.6	21.8	16.5	17.8
Females	26.2	32.2	27.7	24.8	25.7
Skilled	27.3	34.6	37.4	38.6	36.8
Unskilled	24.3	27.2	23.6	22.7	23.5
Total	28.5	32.1	31.8	37.2	35.3

Source: Phase II Survey Data, 1979

III. CONSTRAINTS FACING THE SMALL SCALE ENTREPRENEUR

In order to place the small scale sector in its proper context within the economy and in order to develop policy actions aimed at increasing the sector's contribution to the economy, it is important to understand the nature of the problems faced by the proprietors.

A number of questions were asked in order to identify and understand possible bottlenecks in finance, production, marketing and other areas related to the business. Proprietors were also asked to indicate the most crucial (perceived) problems they faced and rank the top three. The results of these inquiries have been integrated and summarized into nine major problem areas shown in Table 8, and they highlight the difficulties proprietors face. Because of the open-ended nature of the questions asked, the responses are much more specific than implied here. However, detailed analysis of these problems, adding our own knowledge and understanding of the issues involved, is limited only to those which were viewed as crucial by a substantial number of the proprietors. These problems mainly related to demand, finance, raw materials and production technique.

Certain constraints which are very important in conducting a business may not be perceived as problems by the proprietor or, even if perceived, may not be disclosed in an interview (Chuta and Liedholm, 1979). Problems related to management shortcomings, for example, often fall in this category. Therefore, in an attempt to relate some commonly accepted management characteristics and practices to the proprietors in the survey, a section on this topic has been added at the end of this chapter.

Table 8

Proprietors' Perception of Principal Problems Facing Jamaican Small Scale Enterprises (Percentages of Proprietors)

Critical Problem Areas	Location									
	Kingston		Major Towns		Rural Towns		E.D.'s		Jamaica	
	Among Top 3	Most Important	Among Top 3	Most Important	Among Top 3	Most Important	Among Top 3	Most Important	Among Top 3	Most Important
Demand	80.6	14.5	41.4	20.0	47.9	18.6	77.6	46.0	66.7	38.0
Finance	76.7	53.6	76.8	38.9	77.2	46.1	67.7	31.0	70.2	35.8
Raw Materials	26.7	7.8	34.7	16.8	31.7	13.2	19.4	6.1	22.3	7.6
Import License	8.9	2.8	4.2	1.1	8.4	5.4	1.5	0.8	3.2	1.5
Spare Parts/Machinery	39.4	12.3	33.7	14.7	32.3	5.4	7.6	1.9	15.4	4.3
Utilities	6.7	0.6	4.2	----	9.0	3.5	3.4	1.3	4.4	1.2
Fuel	8.3	----	12.6	1.1	9.0	0.6	4.2	0.6	5.7	0.6
Transportation	3.9	1.1	5.3	1.1	10.8	1.8	41.1	2.3	31.5	2.0
Other	31.1	7.3	23.2	6.3	24.0	5.4	27.4	10.0	27.3	9.0
TOTAL	*	100.0	*	100.0	*	100.0	*	100.0	*	100.0

Source: Phase II Survey Data, 1979

*Since proprietors could respond to more than one problem area, the totals for percentage of proprietors in these columns add up to more than 100% of the proprietors.

3.1. Ranking of Major Constraints

The major problems as perceived by the entrepreneurs, ranked for the first as well as for the top three positions of importance, are shown in Table 8. The entry "other" refers to problems such as lack of adequate working space, lack of technical advice, labor problems, etc.

3.1.1. Most Important Problem

Inadequate demand for their product was perceived by 38% of the entrepreneurs as the most important problem facing them. This problem and lack of finance represent the major constraints affecting production for three-quarters of the entrepreneurs. Less than 10% of the entrepreneurs named any other single problem as important.

At the disaggregated level, inadequate demand and finance remain the major problems, but others emerge and the relative importance of individual problems changes. Finance is dominant in Kingston with over one-half of the respondents naming it as the most important problem. Insufficient demand and spare parts/equipment follow, named by 14.5% and 12.3% respectively of the respondents. The difference in the relative importance of demand and finance nationally, as compared to the situation in Kingston, is striking. While nationally the two problems are ranked almost equally, in Kingston, finance is ranked over demand as the single most important problem by four times as many respondents (54% to 14%).

In the Major and Rural Towns, finance is regarded by most respondents as the single most important problem. But the dominance of finance as a problem, evident in Kingston, does not occur in these locations because inadequate demand, raw materials, spare parts and equipment are also important. The E.D.'s represent the only location where respondents rank

demand ahead of finance as the single most important problem. But even here nearly one-third of the proprietors view finance as the single most important problem.

Locational disaggregation indicates that in Kingston and the E.D.'s raw materials are not important. However, inadequate demand is an important problem in the E.D.'s. While it is a major problem in the other three locations, in none of them is it ranked as the major problem by more than 20%, and in each of them at least twice as many respondents viewed finance as the major problem compared to demand. In the E.D.'s, however, one and one-half times the number of those who mentioned finance say lack of demand is the major problem they are facing. Hence the question of markets arises as a serious factor affecting production in the E.D.'s.

3.1.2. Three Most Important Problems

As can be seen from Table 8, demand, finance, and transportation are perceived by the small scale proprietors as the three major problems affecting business. Both demand and finance are listed by over two-thirds of those interviewed as one of their three major problems (66.7% and 70.2% respectively). These percentages are not surprising since the two problems were ranked highest when entrepreneurs were asked to list their most important problem.

Transportation as a problem displays strange characteristics in that while nationally only an insignificant percentage (2%) regard it as the major problem, nearly one-third of the respondents view it as one of the three most important problems. This means that while only a small percentage both nationally and in each location see it as <u>the</u> major problem, an important proportion perceive it to be the second or third most important constraint.

The importance of transportation nationally derives mainly from its ranking in the Rural E.D.'s, where over 40% of the entrepreneurs perceive it as one of their three most important problems. The combination of demand and transportation, listed by 78% and 41% of the entrepreneurs respectively, suggests that in the Rural E.D.'s there is great concern about (a) the existence of a market for products, (b) the cost of transportating raw materials from outside of the immediate vicinity, and (c) the problem of transporting finished products to the market. Obviously the problem mentioned in (c) could influence the perception of inadequate demand as a constraint to production.

Shortages of raw materials and spare parts/machinery are also important in all the locations except the E.D.'s. In these locations both are considered as a problem by about one-third of the proprietors. Lack of spare parts and shortage of machinery at reasonable prices is more serious than lack of raw materials in these locations; close to 40% of the proprietors in Kingston, for instance, put it among the top three. However, at the time the survey was carried out, the raw material constraint had not reached the critical stage experienced a year or so later.

3.2. Demand-Related Problems

One way to ascertain whether demand shortages actually exist is to look at two rough indicators of capacity levels. Present production levels could be compared with what the business could (desires to) produce, with or without machines, under normal working hours. Table 9 gives this information, which is labelled as enterprise capacity. Typical business sales' levels in the recent past are also an indicator. Table 10 presents this information (note that "last year's" sales are expected to be lower than the typical recent past). For each type of location specified in Table 9, the enterprise capacity is higher than what is called "machine" capacity, -- the fixed capital capacity utilization for those enterprises with a machine or machines. The difference

Table 9

Percentage Distribution for Production Levels and for Enterprise and Machinery Capacities

	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
1. Percentage of Proprietors Reporting Excess Capacity	64.0	70.1	40.7	55.9	56.4
2. Percentage of Enterprise Capacity Level Utilized*	55.4	59.0	62.5	66.6	65.4
3. Percentage of Machinery Capacity Level Utilized*	48.0	59.3	48.8	53.2	52.5
4. Percentage of Proprietors Who Plan to Increase Production:					
a. Out of all Proprietors	71.7	35.7	55.2	29.1	37.3
Their Production Level Last Year:					
i. Increased	32.1	40.9	35.2	24.7	27.5
ii. Constant	38.2	29.5	23.1	50.6	45.3
iii. Decreased	29.8	29.5	41.8	24.7	27.2
b. Out of only Those with Excess Capacity	87.7	38.2	75.0	32.2	43.5

Source: Phase II Survey Data (1979) except entry 3 which came from Fisseha's (1981) study

*For a description of these terms see page 31

may not be that significant, however, when the "normal" machine capacity underutilization is account for.[10]

The E.D.'s show the highest percentage for enterprise capacity utilized, yet at the same time show the largest proportion of enterprises with demand problems. This may be explained by the fact that many of the proprietors in the rural areas (such as those involved in craft work) especially those that own no machines or buy very few of their raw materials, find problems related to spare parts, raw materials and import licenses less critical compared with the other problems discussed previously. Therefore, given the same income levels, an equal drop in demand would be considered relatively more serious by proprietors in the E.D.'s than by those in the other locations. The effect would then be a higher percentage of the proprietors in the E.D.'s mentioning demand as the most serious problem. Furthermore, the variation in enterprise composition may be a source of variation in demand. For example, enterprises producing craft work (mainly for the tourist industry) account for 37% of the enterprises in the E.D.'s; the corresponding figure for each of the other locations is less than 16%. While this does not mean that the fall in product demand is not a serious problem in the E.D.'s, particularly since relatively more people there reported a decline in last year's production, it does give a hint as to why the level of enterprise capacity utilized there is 67%, which is higher than the 55%, 59%, and 62% for Kingston, the Major Towns, and the Rural Towns respectively.

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[10]It is possible that the enterprise capacity utilization may have been overestimated since the enterprises were visited during or just following the Christmas season, during which demand peaks for many enterprise types; the "machine" capacity utilization information was done a year later in April.

Firms usually have excess capacity (the difference between the desired and the actual) built into their production system (Gold, 1979 and Winston, 1974). Gold estimates this to be 15% to 20% (p. 76) for the United States. Winston, quoting Murray Foss, says that manufacturing capital stock in the United States has been idle more than 75% of the time; 90% of such excess capacity was intended ex ante (pp. 1301 and 1311).

Table 10

Classification of Proprietors by Direction of Last Year's Production Volume Change and Source of Chief Competition
(Percentage)

Production Volume Change: Source of Competition	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
1. Increased Production	26.8	26.8	26.5	12.5	16.4
Source of Competition:					
a. Small Manufacturer	64.6	53.9	59.1	63.6	62.8
b. Large Manufacturer	10.4	42.3	18.2	6.1	9.9
c. No Competition	27.1	19.2	25.0	30.3	28.8
2. Constant Production	37.4	34.0	24.7	29.7	30.2
Source of Competition:					
a. Small Manufacturer	59.7	60.6	61.0	65.4	64.0
b. Large Manufacturer	4.5	27.3	7.3	5.1	6.5
c. No Competition	35.8	18.2	29.3	33.3	32.4
3. Decreased Production	35.8	39.2	48.8	57.8	53.1
Source of Competition:					
a. Small Manufacturer	59.4	42.1	61.7	84.2	76.4
b. Large Manufacturer	3.2	39.5	19.8	3.9	7.3
c. No Competition	35.9	23.7	22.2	12.5	17.0
Totals for Volume Change	100.0	100.0	100.0	100.0	100.0

Source: Phase II Survey Data, 1979

NOTE: Since a proprietor could have more than one source of competition, the percentages of all the sources add up to slightly more than 100.

3.2.1. Level of Demand

In the Phase II Survey, proprietors were asked to comment on their volume of sales during the previous 12 months. Slightly over one-half felt that sales had decreased during that period while 47% responded that sales had either held constant or had increased. Of this percentage, the majority felt that sales had remained constant (see Table 10).

This somewhat pessimistic view of sales levels was influenced mainly by the situation in Rural E.D.'s, where 58% of the proprietors felt that sales had decreased as opposed to just 12% who had perceived an increase in sales. The view that sales had decreased complements the perception in the Rural E.D.'s that demand is the major problem of the enterprises there.

In each of the other locations, proprietors responded that levels of production had either increased or remained constant -- 64% in Kingston, 61% in the Major Towns and 51% in the Rural Towns. In each of these locations, roughly the same percentage (27%) perceived an increase in production during the previous twelve months. However, nearly half the respondents in the Rural Towns perceived a decrease in production levels, compared with 36% and 39% for Kingston and the Major Towns respectively.

Table 10 also shows the nature and level of competition with respect to the level or status of production achieved over the last 12 months. Except in the E.D.'s, all locations show that higher competition from small manufacturers did not seem to adversely affect a proprietor's production level. For example, among those who reported production increases over the last 12 months in Kingston, close to two-thirds of them stated that other small manufacturers were their chief competitors in the market; but for those who reported a decrease in production, about 59% of them reported the same kind of competition. There seems to be a relationship, however,

between the source of competition and level of production in the E.D.'s. For those reporting an increase in production (12%) about 64% of them mentioned other small proprietors as competitors, while the corresponding percentage for those reporting a decrease (57.8%) is about 84%.

This general pattern within locations is exactly the same among those proprietors who reported no competition at all. In other words, except for the E.D.'s, the percentage of proprietors who reported no serious competition from anybody seems insensitive to the level of production. In the E.D.'s, however, the level of production was directly related to the level of competition.

Without making more locational identification of the sources of competition, it is not possible to state conclusively the reason for this pattern. However, a possible answer is that relatively bigger SSE proprietors have started to sell their products in the Rural E.D.'s. A second possibility is that with increased economic difficulties the number of SSE's has grown, either in the E.D.'s themselves or elsewhere in the country, and this has resulted in a more competitive market and reduced sales for many of the producers. Finally, the most likely explanation is that with a general economic squeeze on and the tourist industry down, there could be reduced demand for craft work, the main product of rural enterprises; indeed, 80% of the craft enterprises said their production was low last year.

If demand is as crucial a problem in the E.D.'s as the cummulative discussions seem to indicate, then proprietors' planned production levels for the immediate future should also shed some light on this issue. This is clearly the case, as can be seen from Table 9, which shows that although they were operating at an average of 53% machine capacity and 56% of them reported one-third excess enterprise capacity, only one-third of the proprietors in the E.D.'s had any plans to increase production for the next 12 months. In Kingston, on the other hand, while excess enterprise

capacity is higher, the people seem to be more optimistic in that close to 88% of those with excess capacity had plans to increase production.

The size of the average percentage of underutilization rises as one moves to the more urban areas -- a picture which parallels the level of mechanization among enterprises in the SSE sector. Thus, as to the question of why more urban enterprises tend to have higher average excess capacity, one needs to note that the faster prices of capital goods rise and the more restrictions are imposed on their availability, the greater the temptation becomes to over capitalize as a security for the future.

Finally, it is interesting to note from Table 9 that next year's planned production does not seem to be affected by last year's realized production. For example, an equal percentage, both from those who had a decrease and from those who had an increase in production (about 27%), said they have plans to increase production for next year. Since a large percentage of their sales volume is generated from custom made products (e.g., in wearing apparel, woodwork, repair works, etc.), it is possible that for many proprietors of the very small enterprises, this plan could mean a wish to increase sales or the desire to work harder rather than the presence of a concrete plan of action.

3.2.2. Market Outlets and Policies

With respect to market outlets and marketing policies, we will look at two important aspects of marketing which directly affect the demand for products and services provided by the SSE sector. First we will look at the various purchasers who generate demand for SSE outputs. This will be followed by a brief discussion of the marketing policies followed under the various demand situations in the four locations.

Nationally, over 87% of sales from the small enterprises were made directly to individuals, with distributors accounting for 12% (see Table 11).

This national pattern reflects the general situation in each location, except in the case of the small towns, where almost all sales are made directly to individuals and the importance of distributors declines. Distributors account for 4% of the sales of entrepreneurs in Rural Towns compared to 15% in Kingston and the Major Towns and 12% in the Rural E.D.'s.

In all cases, neither the Government nor the export sector is important. The Government's most important contribution is that it purchases 4% of the sales of the producers in small towns. It should be noted, however, that the level of sales to the export sector (either direct export or through tourism) is underestimated in that products from certain enterprises such as craft work are sold to small "distributors" (or individuals), who in turn sell them to tourists.

Table 11 does not give any indication of why the E.D.'s should have more demand shortages than the other locations; the main purchasers in all the locations are individual consumers, followed by distributors. A reference to the last four tables of the appendices in the Phase I report shows, however, a unique situation in that craft enterprises in the E.D.'s account for 37% of the manufacturing enterprises whereas the corresponding figures for Kingston, the Major Towns and the Smaller Towns are only 6%, 16% and 3% respectively. Relating this to the fact that the number of tourists coming into the country has been declining between 1974 and 1979, it is possible to conclude that this may have contributed to the low demand levels in the E.D.'s (and the Major Towns, too).

Another important topic directly related to the problem of demand shortages is marketing or pricing policies of small scale enterprises. All things being equal, the bigger the fall in demand, the higher the credit or price reductions that would be given by enterprises. To some extent this is

Table 11

Percentage Shares of Sales Among Market Outlets

Market Outlets	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Sales to Individuals	83.2	79.6	94.6	87.2	86.9
Sales to Distributors	14.6	15.1	3.8	11.9	11.7
Sales to Government	1.9	4.3	1.6	0.6	1.1
Sales to Exporters	0.3	1.0	----	0.3	0.3
TOTALS	100.0	100.0	100.0	100.0	100.0

Source: Phase II Survey Data, 1979

shown to be the case for all locations except the E.D.'s (see Tables 8 and 12). However, there is a limit as to how much prices can vary in custom made production. Once prices are established, they become common knowledge and tend to remain stable; if they were to be lowered, it would not be easy to raise them again.

Table 12 shows the extension of sales credit and discounts by proprietors to their customers. The entrepreneurs were asked what types of credit terms they extended to their customers. It will be recalled that nationally 87% of sales are made to individuals, so the credit terms offered reflect each entrepreneur's perception of what is necessary to retain his clientele and what his own cash flow constraints may be.

Slightly over one-third of the proprietors said that they do extend sales credit for a limited period (see Table 12). About 19% of these said the credit is for a month or less while 6% said there was usually no specific time period established for which credit could be outstanding; much would depend on the customer, his purchase value and the liquidity condition of the proprietor. The major portion of the credit extended (close to 30%) is for less than three months. About one-tenth of the businesses do not give credit but make discounts when necessary. However, more than one-half of the proprietors neither give credit nor extend discounts.

When disaggregated, the data indicate that the percentage of those who give credit for up to 30 days is quite significant; Kingston, the Major Towns and the Rural Towns account for 31%, 35% and 29% respectively of the total number of proprietors providing such credit. In fact, in the Major Towns this form of transaction accounted for a larger percentage of sales than did cash transactions. Also of note was that cash discounts in the Major Towns account for one-fifth of all transactions.

Table 12

Main Transaction Types by Location

(Percentage of Proprietors)

Sales Transaction Type	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Cash	52.8	33.3	32.9	57.2*	53.1
Cash discount	6.1	19.8	6.0	10.6	10.2
30 days or less credit	30.6	35.4	29.3	14.0	18.8
31-60 days credit	3.9	2.1	12.6	4.5	5.0
61-90 days credit	3.3	2.1	9.0	3.8	4.1
91 days or more credit	2.2	3.1	1.8	3.6	3.1
No specifications	1.1	4.2	8.4	6.3	5.7
TOTALS	100.0	100.0	100.0	100.0	100.0

Source: Phase II Survey Data, 1979

*The high cash sales in the E.Ds. are indicative of the fact that the enterprise mix there is highly biased towards craft work, in which case products are not sold to local consumers but to tourists through market intermediaries (see page 40).

The percentage of proprietors who sell cash (57%) may seem unexpectedly high for the E.D.'s. However, one must realize that the "distributors" of the craft products are individual intermediaries who sell them to retailers or tourists; they are not the same as the local customers of a tailor or shoemaker.

3.2.3. Sources of Competition

Nationally, the large majority (70%) of small scale manufacturers perceived other small manufacturers as their chief competitors (see Table 13). Surprisingly, nearly a quarter of all small scale manufacturers perceived themselves as having no competition. Nationally, the question of whether imported goods constituted competition did not arise at all.

At the disaggregated level the response showed interesting variations, with Kingston and the Rural E.D.'s displaying a greater similarity than usual. In Kingston, three-fifths of the enterprises identified similar size manufacturers as the chief competitors and over one-third felt that they had no real competition. In the Rural E.D.'s, three-quarters identified other small manufacturers as their chief rival and one-fifth felt that they had no rivals at all. In both Kingston and the Rural E.D.'s neither local manufacturers nor "other" sources were discerned as competitors.

The views of small scale producers in the Major and the Rural Towns are somewhat different, with close to one-third in the former locations regarding large local manufacturers as their chief competitors. Only in the Major Towns do less than one-half of the producers identify other small manufacturers as their chief competitors, although with 47%, other small manufacturers are still by far the most important source of competition within this stratum. In the Rural Towns, 60% of the producers view their fellow small manufacturers as their chief rival, while just over a quarter feel that they have no

Table 13

Main Source of Competition by Location
(Percentage of Proprietors)

Source of Competition	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Small manufacturer	60.6	47.2	59.5	75.2	70.3
Large manufacturer	4.4	30.3	14.1	3.4	6.1
Other (imported goods, etc.)	1.7	----	0.6	0.4	1.0
None	33.3	22.5	25.8	21.0	23.1
TOTALS	100.0	100.0	100.0	100.0	100.0

Source: Phase II Survey Data, 1979

competition. The Major Towns stand out because nearly one-third of the proprietors perceive large manufacturers as their chief source of competition. The relatively high percentage, 23% nationally of small manufacturers at each location who perceived of themselves as having no competition is revealing. It means that for this group, expansion of production should not be constrained by a fear of competition from any source. Rather, other factors will have to be considered in evaluating the potential for expansion by these businesses.

A substantial number of proprietors both in the Major Towns and the small towns consider large manufacturers as a source of serious competition. A closer look at the data reveals that most of these proprietors are in enterprises where competition from larger ones would be expected. Such enterprises are bakeries, brick or tile making, printing, woodwork and photo studios. Their larger counterparts have a nationwide network of sales systems which allow them to compete effectively with local producers. In the tourist resort areas, even tailors and dressmakers feel this kind of competition.

IV. PROBLEMS RELATED TO CAPITAL CONSTRAINTS

4.1. Initial Capital

Two types of capital are identified here for a small scale enterprise: capital required to initially launch the business, and capital subsequently required to maintain current levels of business activities or to allow for expansion. Information on the former is provided in Tables 14 to 17. The latter type is discussed within the context of proprietors' attempts to obtain credits and trade discounts.

4.1.1. Size of Initial Capital

Initial investment requirements may vary due to factors such as enterprise type, location, business size and future production plans. Our data show that the average initial investment for all small manufacturing enterprises in Jamaica was about J$1410 (see Table 17). Great variations exist, however, among the different locations and among the enterprise groups within locations. Additional intragroup variations can be expected to occur because of differences in enterprise type, age of proprietor and/or business and the initial size of the work force.

The variations are large, for instance, when the different locations are compared. The overall investment level ranges from J$5628 for the Major Towns to only J$ 403 in the E.D.'s. The fact that the amount of the initial investment is directly related to the level of urbanization is not unexpected. Small scale enterprises in the less urban or more rural areas are smaller in size, use less machinery and are dominated by enterprises (such as straw work)

Table 14

Average Initial Investment (Jamaican $)* Among Enterprise Groups

Enterprise Groups	Location					Average Age of Enterprise Groups**
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica	
Foods	$10,125	$25,218	$29,614	$ 210	$ 5,580	7.7
Wearing apparel	1,926	1,369	556	318	608	11.0
Craft	371	2,467	420	123	320	16.2
Woodwork	2,712	6,521	3,558	1,643	2,240	7.6
Metal works	9,386	9,382	1,868	1,600	3,086	9.5
Repair works	3,567	2,754	2,920	2,250	2,509	5.6
Other manufacturing	16,489	9,537	7,473	1,603	4,509	8.8
OVERALL	$ 3,762	$ 5,628	$ 3,393	$ 403	$ 1,410	12.6
Locational Average Age	8.3	7.2	9.0	14.6	12.6	

Source: Phase II Survey Data, 1979

*U.S. $1.00 = Jamaican $1.78 currently

**We do not have the necessary capital price indices to adjust for inflation. We hope the indicated enterprise group and locational average ages will give a rough idea of investment level variations among enterprises and between locations.

that require no major capital investment. The figure J$5628 for the Major Towns is substantially higher than that for Kingston or the smaller towns. This may be partially explained by the fact that one Major Town, Montego Bay, is a regional capital and as such may have fewer very large enterprises (like those in Kingston) but relatively more enterprises (as in wood work) which fall in the upper range of our SSE size definition (e.g. see Tables 6 and 7 for work force size). And another Major Town, Spanish Town, is an industrial suburb, very close to Kingston and hence it attracts businesses which are much larger than the average size in our SSE. For example, enterprises like tile, brick, and blockmaking, sawmills, and ice manufacturing tend to be located close to the main market and where factory space is cheap and ample. Thus, the above two towns would effectively raise the average initial investment in the Major Towns.

When enterprise groups are compared, the locational differences follow the general pattern already discussed. In the urban areas (other than Kingston), food production (processing) is the most expensive venture to start, followed by the categories labelled "other manufacturing" (which is the most expensive in Kingston) and metal works. Food processing in rural areas consists mainly of the production of bammies and condiments in small quantities.[11] The data indicate that craft production in Major Towns is substantially higher than in other locations, which can be explained by the fact that Montego Bay is a tourist center where a great number of wood carving, straw, basket and garment works are located. Becuase of the large turnover of products, (at least during the tourist season) and the need to stock up products, a fair amount of investment is required to start these businesses.

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[11]For a complete description of the enterprise groups, see Davies, et al., 1979, p. 14.

Table 15

Average Investment By Enterprise Type for Each Location (Jamaican $)

Enterprises*		Location				
		Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Type	Number**					
Tailors	109	$ 792	$ 676	$ 680	$ 361	$ 465
Dressmakers	107	1,097	596	330	249	305
Woodwork	59	3,940	7,982	5,154	1,742	3,146
Garages	65	3,530	2,615	3,177	2,600	3,016
Shoemaking	68	2,670	3,243	343	302	816
Craft/Wood Carving	140	429	2,469	420	116	120
Metal Works***	26	10,708	10,557	2,628	1,050	4,785

Source: Phase II Survey Data, 1979

*See Table 5 and its footnote for the average age and relative importance of these enterprises.

**Number of enterprises in the sample.

***Includes general metal work, welding, and blacksmithing.

It is essential to point out that even disaggregation at the enterprise group level masks great individual differences. The number of enterprises that invested as much as the national average is small. For example, a close look at the data reveals that more than 75% of all firms initially invested only J$500 or less, and that more than 90% of them invested J$1000 or less.

Among the various types of enterprises, metal works, woodworking, and garages seem to be relatively expensive to start (see Table 15). At the opposite end are crafts and dressmaking. Of course, the level of investment is directly related to production techniques: the higher the level of mechanization required, the bigger the initial investment must be.

4.1.2. Composition of Initial Capital

In order to identify critical investment needs, it is very useful to know the different uses to which the initial investment is applied. Table 16 provides this information. The average initial investment on enterprises for each location is divided among five major investment items, for each investment item in each location, two percentage values are shown. The first provides the average percentage share over <u>all</u> enterprises and the second gives percentage share for <u>only</u> <u>those</u> enterprises that actually invested in the specific item listed.

The difference between the two percentages in columns 1 and 2 has very important implications. For example, while the overall percentage share of machinery/tools in Jamaica was about 34%, when only those firms that actually invested on this item are considered, the share almost doubles to 63%. The picture is similar for buildings and other items investment shares.[12] The

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[12] The main items in the Other Items category are transaction costs and in a few cases "goodwill" payments. SSE in the urban areas tend to proportionally spend more on these. In any case the value for goodwill payment is less than 0.2%.

Table 16

Breakdown of Initial Investment Levels: Average Share in Percentage for Different Uses

Investment Category	Location									
	Kingston		Major Towns		Rural Towns		E.D.'s		Jamaica	
	1*	2*	1*	2*	1*	2*	1*	2*	1*	2*
Machinery/Tools	46.2	54.8	36.1	54.4	45.9	60.0	30.6	65.4	34.3	62.9
Working Capital	32.9	34.5	25.5	26.8	24.5	25.5	33.3	33.4	32.0	32.4
Furniture/Office*** Equipment	8.0	24.8	18.1	29.3	18.3	31.5	29.0	38.4	24.7	35.5
Buildings	9.2	24.8	8.6	28.7	8.9	37.6	4.0	51.9	5.3	45.8
Other Items	3.7	33.5	11.5	21.5	2.4	21.5	3.1	22.0	3.7	23.4
TOTAL, All Enterprises	100.0	**	100.0	**	100.0	**	100.0	**	100.0	**

Source: Phase II Survey Data (1979)

*Column 1 values are averages over all enterprises and Column 2 values are averages over only those enterprises that did invest on a given investment item.

**These columns add up to more than 100 since average percentage shares are relatively high as a result of excluding those proprietors who made 0% investment on the relevant category.

***There really is not much 'furniture' or 'office equipment' in the rural areas; what is referred to here are things such as counters, shelves, chairs or stools and other display structures.

implication here, especially for the E.D.'s, is that relatively few enterprises invest in buildings, machinery/tools and goodwill payments. However, those that do tend to spend a larger share of their investment on them. Also, firms might not invest in all of these items simultaneously. While the picture is somewhat similar in the urban and semi-urban areas, it is much less accentuated. From such a tabular presentation can be drawn the unique and very important conclusion that certain investment items are invariably important across enterprises and locations. Working capital stands out in this respect, averaging approximately one-third of the total initial investments nationally. This proportion holds for Kingston and the Rural E.D.'s while for the Major Rural Towns it is closer to one-quarter of total initial investment. This fact should counter the popular tendency to underestimate the need of credit for working capital uses. In Table 16 the almost surprising coincidence of the values in Columns 1 and 2 for each location supports this assertion.

The share of furniture/office equipment in the E.D.'s may seem very high (29%). The explanation lies in the fact that the average investment in the E.D.'s is low in absolute figures. Therefore, whatever is available is allocated among tools, furniture and working capital in small shares.

The general picture that emerges is that machinery/tools and working capital each account nationally for one-third of the initial investment; another one-fourth goes for furniture and/or office equipment and the remainder is divided between workshop structure and other expenses.

4.1.3. Sources of Initial Capital

In seeking to understand how small scale enterprises deal with the problems associated with capital, the entrepreneurs were questioned about the source of funds they used to start their present businesses. Personal

savings formed the basis of financing in all cases, but this was augmented by loans from relatives and friends, commercial banks, government organizations[13] and others.

Nationally, nine out of ten enterprises were initiated with personal savings alone, no other source of financing was of importance. Those who received assistance from relatives and friends accounted for 6%, and entrepreneurs who were assisted financially by government organizations represented one-half of one percent of the total (see Table 17). These findings suggest that since entrepreneurs have relied almost totally on their own savings -- in most cases limited capital -- to begin businesses, such constraints may have limited their scope of operations and the level of technology utilized. Clearly, the length of time a business had been in operation is an important factor, for most of them were begun when far less government activity existed in the small scale sector. An examination of some recent business starts or subsequent expansions would serve to indicate whether government agencies have altered the general pattern in investments.

The disaggregated data diverge little from the national picture, although the role of commercial banks is slightly less important in Kingston than in other towns. Financing from commercial banks assisted in providing the initial capital for 6.7%, 11.2%, and 7.8% of businesses in Kingston, the Major Towns and the Rural Towns respectively. Conversely, personal

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[13]The governmental organizations or agencies referred to here and subsequently are the Small Business Loan Board (SBLB), the Development Venture Capital Financing Limited (DVCT), the Small Industries Development Division (SIDO) and the Small Business Financing Scheme (SBFS). The Small Enterprises Development Corporation (SEDCO) was formed late in 1977 to absorb the activities of many of these agencies. In mid-1980, the Small Industries Finance Company (SIFCO) was formed, combining the DVCT, the SBLB, and SEDCO.

Table 17

Source of Initial Funding By Location*

Source	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Personal savings (alone)	84.4	75.5	84.2	92.8	89.9
Personal savings plus relatives and friends	5.6	9.2	6.6	5.7	6.0
Personal savings plus commercial banks	6.7	11.2	7.8	0.4	2.5
Personal savings plus government agencies	2.3	3.0	----	----	0.5
Personal savings plus others	1.0	1.1	1.4	1.4	1.1
TOTALS	100.0	100.0	100.0	100.0	100.0

Source: Phase II Survey Data (1979)

*Percentage of Proprietors

savings alone, although representing the major initial funding for enterprises in the Major Towns, is comparatively less important than in Kingston and the Rural Towns, where it provided over 84% of funding in each. The combination of these two facts is of interest and once again demonstrates the point which we have made concerning the nature of the SSE's in the Major Towns. However, it should also be noted that in these locations nearly one-third of the enterprises were started two years ago or less. The possibility is strong that the newer businesses are more likely to deal with financial institutions to help in establishing operations, although the fact that Government assisted financing is insignificant, even in these locations, cannot be escaped.

4.2. Demand for External Credit

To determine the opportunities and perceived needs for additional financial resources from external sources, proprietors were asked if they had ever applied for a loan, regardless of source. If so, they were then asked where they had applied and if they were successful. If they had not applied, the reason for this was also requested. The information for these responses is shown in Tables 18 and 20. Those people who actively sought financial aid were also asked to name the major problems faced, and this information is shown in Table 21.

4.2.1. Sources of Credit

To determine the perceived need for additional financial resources from external sources, it is important to distinguish between those who were deterred from applying and those that did apply. Figures in Table 20 indicate that about half of the proprietors who did not apply for credits actually wanted to apply. Thus, when this group is combined

with those who actually applied (Table 19), we estimate that the national figure for those who perceived a need for external additional finance is about 58%. The remaining 42% said that they had no need for credit or had never thought about it.

Table 18 provides two types of information: rates of application and the rates of success (granted loans) from such applications. Nationally, just over half of the applications were submitted to various governmental financial agencies, close to one-fourth were requests to relatives and friends, while another 12% were submitted to commercial banks. Thus, a large number of proprietors look to the government for some source of financial aid; this is especially true among the rural towns and E.D.'s.

At the various locational levels, great differences exist in the overall rates of application to the different potential sources, with the widest differences appearing between the other locations and the E.D.'s. In the former group, nearly 40% of the proprietors applied for credit from various sources; in the E.D.'s, the percentage drops to 12. Reasons for this difference are not obvious but, as Table 20 indicates, close to 60% of the proprietors in the E.D.'s said they did not need credit or had never thought about it (an additional 16 percent did not know where to apply); the next highest corresponding figure is found in the Major Towns where 45% of the proprietors answered similarly.

As for different funding sources, about 40% of the proprietors in the urban and semi-urban areas (i.e., excluding the E.D.'s) applied to the commercial banks and about the same percentage applied to government financial agencies. On the other hand, the rates of applications from E.D.'s to these same sources were about 1% and 56% respectively. Thus, a strange pattern emerges: almost no proprietors from the E.D.'s approach

Table 18

Credit Applications and Their Success Rates

Credit Sources	Location									
	Kingston		Major Towns		Rural Towns		E.D.'s		Jamaica	
	Application Rate[a]	Success Rate[b]	Application Rate	Success Rate	Application Rate	Success Rate	Application Rate	Success Rate	Application Rate	Success Rate
Commercial Banks	39.8	54.3	43.2	48.0	43.5	66.7	1.2	----	12.4	15.8
Government Organization	40.9	22.2	36.2	38.1	40.6	25.0	55.9	36.8	51.4	34.0
Relatives and Friends	8.0	85.7	10.3	50.0	11.6	62.5	29.4	60.0	23.9	62.9
Others	11.3	20.0	10.3	66.7	4.3	33.3	2.9	----	14.0	9.5
All Sources Combined	42.2	39.8	44.9	46.6	37.1	47.8	12.5	38.2	20.4	39.8

Source: Phase II Survey Data (1979)

a/ This is the percentage of those who applied from the total number of proprietors in each location.

b/ This is success rates out of the total applications made.

the commercial banks, yet they apply to government agencies by a higher percentage than do proprietors in the other locations. Another important potential source of credit for the rural areas (close to 30%) is relatives and friends; the corresponding figure for the urban and semi-urban areas is only about 10%. The remaining 10% of the enterprises outside the E.D.'s apply to other sources, such as credit unions, insurance companies and retailers; such sources are unimportant in the E.D.'s.

Information from enterprise group loan applications shows that the bigger the enterprise and the more closely its production and organizational structure resemble that of a factory, the higher the chances that it will look to the commercial banks for credit. Wood and metal works, auto repairs and the other manufacturing enterprises fit this category.[14] On the other hand, small and/or rural enterprises such as those making wearing apparel, crafts and some woodwork look more to governmental agencies rather than commercial banks.[15]

Thus, the general picture that emerges is that enterprises in the E.D.'s (which are small yet constitute the largest majority) and the smaller ones in the other locations perceive governmental sources, and to a large extent relatives and friends, as their chief sources of credit. The enterprises in urban and semi-urban areas, particularly those which are bigger and well organized, look mainly to the commercial sources and, to a significant extent, to governmental sources.

Age differences do not seem to influence loan application rates. For example, 20% of those 30 years old or younger applied for a loan, while

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[14] Their rates of application to the commercial banks were 38%, 30%, 39% and 23% respectively as compared with applications rates of 8%, 25%, 25%, and 5% respectively to the governmental agencies.

[15] Their respective rates of applications were 60%, 96%, and 45% to the former as compared with 17%, 2%, and 26% to the commercial banks.

about 22% of those in the 31-40 year age category and 19% of those above 40 years of age requested such loans. This general pattern holds within each age category of each location.

The type of ownership under which an enterprise is organized may have an influence on whether or not a loan is requested. Although the number of enterprises with non-sole proprietorship amounts to less than 6% in Jamaica (see Table 3), and thus contributes relatively little to the overall picture, the rate of application rises rapidly as one moves from sole proprietorship to partnership and then to limited liability companies (see Table 19). The rate of application in the latter group is about 91% or almost 3 times that found for sole proprietors (28%) and about twice that for partnerships (52%). The rate of application for cooperatives is only 17%.

Education has a very strong influence on the rate of application. At the national level, about 18% of those who had some primary education applied for loans. This percentage jumps to 27% and 42% respectively for those who had secondary and tertiary educations. Except for the Major Towns, the pattern is similar, and the percentage jumps even higher as one moves to the more urban areas. In Kingston, the percentages for the three levels of education (primary, secondary, and tertiary) are 37, 48, and 89 respectively; the corresponding figures for the Rural Towns are 31, 48, and 71; and for the E.D.'s, 11, 20, and 33. The main reason for such differences and patterns may be the level of general awareness of loan availability among the proprietors.

The rates at which applications were successful are shown also in Table 18. At the national level, about two of every five applications are successful. Generally, enterprises in the E.D.'s are less successful than their counterparts in the other locations.

Table 19

Distribution of Application Rates by Ownership Types Among Locations*

Ownership Types	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Sole Proprietorship	34.8	42.7	35.6	12.0	27.6
Cooperative	----	----	----	50.0	16.7
Partnership	55.0	53.8	53.8	25.0	52.0
Limited	87.5	100.0	100.0	----	90.9
Over All Ownership Types	42.2	44.9	37.1	12.5	20.4

Source: Phase II Survey Data, 1979

*Percent of proprietors in each ownership form making applications in each location.

When the volume of loans involved is not considered, proprietors seeking credit from relatives and friends have the highest success rate at 63%. The high figure is commonly attributed to the fact that relatives or friends know the applicant well and want to help. This high rate of success is common in all the locations. Proprietors seeking loans from governmental agencies rank second in their success rate at 34%. However, because they account for half of the total loan applications compared with about 1/4 for relatives and friends, they play the most important role at the national level.

Overall, commercial banks are the most important sources in all the locations outside the E.D.'s. Not only are their success rates higher there (57%), but relatively more people apply to them for loans. But commercial banks show a very bad record in the E.D.'s, with very few proprietors applying to them for loans and even fewer succeeding in getting credit. Thus, the two most important sources of credit for those in the E.D.'s are governmental agencies and relatives and friends.

Finally there is the category labelled "other" in Table 18. It includes credit sources from credit unions, insurance companies and retailers (merchants). At the national level about one-half of the applications in this category succeed.

The data show that the government plays a very important role in providing credit to the small rural enterprises as well as to most of the small urban ones. Yet because information about applicants is gathered at relatively higher cost by government financial agencies, and because paperwork for small loans is more expensive, public institutions may not be as efficient in extending credit as commercial banks and the informal sector. Such observations should not discourage public credit officials

nor preclude efficient administration of public credit funds, but simply serve as a reminder that at least some overhead costs may have to be absorbed.

In most cases, little information is available to determine the full costs to both borrower and lender of loans given by relatives and friends. Hence not much can be done other than to make information about other potential credit sources more accessible to proprietors so that they can make more informed decisions.

At the enterprise group level, those organized on factory-type bases have the lowest failure rates (usually less than 10%) in their formal loan applications. These include food processing, metal works, and bigger auto repair services. However, the failure rates in wearing apparel and woodwork enterprises are of the order of 75% and 50% respectively. For the craft enterprise group, the numbers that applied and succeeded were much too negligible for comparison.

The Phase II questionnaire did not inquire about the amount of the loan, how it was used, the interest rate charged, nor the payment schedule. However, answers to managerial questions raised in subsequent interviews with the proprietors (Fisseha, 1981) indicate that loan amount ranges from J$500 to J$65,000, with average and modal values in the neighborhood of J$7,000 and J$2,500 respectively. Loans were granted primarily for the purchases of raw materials and machinery. Value-wise, more than 2/3 of the credit was likely used for the purchase of raw materials by large enterprise types such as garment production, woodworking, metal working, and shoemaking.

The interest rate has risen considerably, from about 7% in 1975 to anywhere from 13 - 18% by 1980. The governmental agencies were charging

much lower rates than the commercial banks (SEDCO charged about 11%). However, not many proprietors seemed aware of the amount they might ultimately be paying for interest.

The period for which the loan is granted varies from one year to 15 years; the most common was 3 to 4 years. Although it is not known exactly how many proprietors paid up at the end of the loan period, indications are that a very large number of them have their debts in arrears -- see the conclusion and summary section.

4.2.2. Reasons for Not Applying for Credit

As Table 18 shows, about one-fifth of the proprietors did apply for some kind of loan. Thus, for the country as a whole, close to 80% did not apply for a loan for various reasons, as shown in Table 20. The main reason for not applying was "never bothered" or "never seriously thought about it," which accounted at the national level for about 1/3 of all the non-applying proprietors. Another 15% said they did not know where to apply -- an answer which presumably considers only formal credit applications. A substantial percentage, close to 20%, said they had no need for credit. If the reason "never bothered" could also be broadly interpreted as lack of perceived need for credit, then the number of proprietors who possibly saw no need for credit could be slightly more than one-half.

The remaining 1/3 saw the need to improve the business through external credit. However, due to a number of perceived problems, they did not apply. The major deterring factors for this group were collateral requirements,[16]

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[16]This problem is mentioned at the national level by about 1/3 of the proprietors who wanted to apply for a loan (and knew where to apply) but did not do so due to the reasons given in Table 20. We will also see later, in Table 21, that 40% of those proprietors who applied said they experienced some problems in the process because of the collateral problem.

Table 20

Reasons for Not Applying for Credit (Percentages of Proprietors)

Reasons	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Never Bothered	20.6	16.7	14.6	39.6	33.6
No Need for Credit	18.6	27.8	19.4	18.7	19.3
No Knowledge of Source	5.2	3.7	23.3	16.5	14.9
Collateral Problems	15.5	13.0	11.7	8.7	10.1
Afraid of Financial Risk	19.6	11.0	12.6	5.2	8.1
Low Demand	16.5	13.0	10.7	4.8	7.3
Expensive Process	1.0	7.4	1.9	----	0.7
Other Reasons	3.0	7.4	5.8	6.5	6.0
TOTALS	100.0	100.0	100.0	100.0	100.0

Source: Phase II Survey Data (1979)

fear of financial risk or debt, and the low market demand for their products. Very few people mentioned high interest rate as being a deterrent. In fact, the "expensive process" was mentioned by less than 1% of the proprietors and of the 6% remaining, an overwhelming majority said they did not apply because they thought their loan requests would never be granted.

At the locational level, there are some interesting differences. For example, lack of knowledge about where to apply is a very important reason in the Rural Towns and the E.D.'s, which account for more than 80% of all the SSE manufacturing enterprises in Jamaica. The proportion of people in the E.D.'s who never thought about applying is relatively large; part of the explanation could be that this reason is not clearly distinguishable in some proprietors' minds from having no knowledge of where to apply. The remaining major reasons (collateral problems, financial risk and low demand) become more important as one examines data from the more urban areas.

The problem of collateral, for example, is mentioned by about 16% of the proprietors in Kingston but only 9% in the E.D.'s. As can be seen in Table 21, collateral is perceived as a very important problem also for those people who applied for a loan. In fact, close to 14% of all the proprietors, both those that applied and those that did not apply, perceived collateral to be a major problem. There may be two aspects to this problem: applicants do not have the necessary assets for collateral or they are unwilling to submit their assets as collateral.

4.3. Problems in the Credit Market

The perceived problems faced by proprietors who did not apply for loans are displayed in Table 20. Table 21 shows the problems encountered by those proprietors who applied for credit. The combined results from

Table 21

Propietors Experiencing Various Credit Problems in Each Locality
(Percentage of Proprietors)

Problem Areas for Loan Applicants	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Collateral	45.8	26.2	26.2	26.7	29.1
Profit Viability Doubted	5.6	4.8	6.6	16.7	13.7
Lack of Contact	4.2	7.1	4.9	10.0	8.6
Loan Granted too Small	2.8	7.1	3.3	10.0	8.3
Time Consuming Process	9.7	11.9	4.9	6.7	7.2
Others	2.7	4.8	11.5	6.6	6.4
No Problem	29.2	38.1	42.6	23.3	26.7
TOTALS	100.0	100.0	100.0	100.0	100.0

Source: Phase II Survey Data (1979)

these two groups should indicate the overall picture of the perceived problems associated with applying for and obtaining credit.

Table 21 shows that for all locations and enterprises combined, a little over one-quarter said they faced no problems when applying for a loan. Although the situation will vary by enterprise type, size and location, it is quite interesting that close to three-quarters said they encountered some problems when they applied for credit. The percentage of people who said they had no problems is consistently higher for those who applied to the commercial banks rather than governmental agencies. For example, the percentage of people who applied to commercial banks and had no problems was 48% in Kingston, 71% in the Major Towns and 58% in the Rural Towns; the corresponding locational percentages for those who applied to the governmental agencies were 19%, 17% and 21%. This is not unexpected however, as the governmental agencies tend to cater to the less viable or smaller enterprises and those who apply to them may include those who think they have no chance of success in obtaining a loan from the commercial banks.

4.3.1. Collateral or Security Problem

The largest percentage of complaints is accounted for by the collateral requirement, with the problem being more serious in Kingston where one-half of the applicants expressed this complaint than in the other locations, where roughly one-quarter of the applicants expressed such complaints. Collateral is also a more serious problem among people who apply to governmental agencies rather than commercial banks. Almost no applications were made to the commercial banks from the E.D.'s; therefore, considering only the remaining locations, about 45% of those who applied to the government agencies mentioned collateral as a problem compared with 30% of those who applied to the commercial banks. Even in the E.D.'s, about 27% of those applying to the

governmental agencies said it was the most serious problem. Thus, when all SSE's in all locations are combined, about 14% mentioned collateral requirements as the most serious problem.

4.3.2. Size Limitation

Nearly 14% of the proprietors who applied said that creditors doubted the viability of the enterprise, allegedly because of the small size of the business; as a result their loan applications were turned down. This problem becomes greater, as expected, as one moves progressively from urban to more rural areas. For example, close to 17% of the proprietors in the E.D.'s think this is a major problem as opposed to a maximum of 7% in the other locations.

4.3.3. Transaction Costs and Other Problems

The amount of time spent in trying to secure a loan and the frequency of loan officers failing to honor appointments, or just the difficulty of contacting them, were two other major problems mentioned. Loan transaction costs are even higher for proprietors who must travel long distances to apply for credit. The costs are even greater for those small proprietors who usually apply to governmental credit agencies, none of which have branches outside Kingston.

The other problems mentioned as important by the remaining proprietors included inability of some enterprise types to quality for a (presumably government) loan, high interest rates, disagreement among business co-owners, etc. But these problems comprised a very small percentage of all problems -- less than 1%. As concerns high interest rates, it appears that the small proprietors, particularly those in the countryside, are not fully aware of the costs related to the interest payments. Fisseha (1981) found

that some proprietors did not quite realize the effect that the interest rate would have on their overall credit costs. Once interest rates were calculated for applicants, using their desired credit needs and payment rates, they were surprised to learn that interest would be so high. As a result, some proprietors said they were no longer interested in applying for credit.

It is important to note the complexity of the collateral issue, both from the creditor's point of view and from that of the applicant. To a banker, the availability of assets for collateral is primarily a sign that his future loan investment is likely to be secure and also that the potential debtor has the ability to work hard and accumulate some wealth -- as indicated by the past performance of the applicant. Especially when those requesting loans are highly mobile, the need for a secure loan is, of course, the most overriding reason for the collateral requirement.

From the applicant's point of view, there are several reasons why he doesn't want to commit his assets as collateral: he may be too advanced in age and doesn't want to risk his lifelong savings; he may want to take chances with someone else's resources but not his own; or there may be other parties who have ownership interest in his assets and he thus needs their full consent.

V. PROBLEMS OF RAW MATERIALS AND PRODUCTION TECHNIQUES

5.1. Raw Material Constraints

About one-fourth of the proprietors placed the problem of raw materials among the top three; about 8% considered it as the most serious one (see Table 8), thus making it third in the category of single most serious problems. Obviously, however, the raw material problem is closely connected to other problems such as the working capital, the availability of transportation and the demand situation.

The importance of raw materials varies among locations and enterprise types. For example, the rural areas consider raw materials less of a problem than the other locations, primarily because enterprises in the E.D.'s are dominated by craft and other enterprises for which the main raw materials are locally produced.

The differences among enterprise types are not great (see Table 22). At the national level, while only 5% of the proprietors in straw work considered raw materials among the top three problems, in every other enterprise raw material problems were ranked among the top three by at least one-quarter to one-third of the proprietors. The situation is even more serious among upholsterers, shoemakers, tailors and the larger woodwork enterprises, all of which depend on imported material for at least one key ingredient in their input mix.

The survey did not include questions related to the proportion of imports in the input mix, for it was recognized that proprietors may have difficulty in distinguishing between imported and non-imported inputs. Yet it would not be

Table 22

Percentage of Proprietors (by Enterprise Type) Who Consider Raw Materials Among the Top Three Problems

Enterprise Types	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Tailors	26.5	38.5	38.5	35.5	34.9
Dressmakers	14.3	30.0	17.2	28.3	27.0
Shoemakers	50.0	55.6	41.7	31.3	36.5
Woodwork	19.0	36.4	30.8	28.6	27.5
Auto Repair	18.8	22.2	20.0	40.0	26.6
Metal Work	23.1	30.8	30.8	----	29.6
Straw Work	----	----	----	5.4	5.4
Upholstery	40.0	100.0	14.3	100.0	59.4
Wood Carving	16.7	28.6	50.0	33.3	30.6

Source: Phase II Survey Data, 1979

difficult, in general, to identify essential input mixes without asking the proprietors. Enterprises such as tailoring, dressmaking, garages, metal working, upholstering and part of the shoe industry use mainly imported materials. On the other hand, craft industries (which account for close to 30% of the manufacturing sector) and a proportion of the wood business use mostly indigenous raw materials. Aside from these major enterprises, others such as bakeries depend totally on imported raw materials and as a result were hard pressed during the 1979-80 period.

5.2. Production Techniques and Problems

Detailed analyses of factor intensity, productivity and alternative production techniques cannot be treated in this report; this data will be forthcoming in our Phase III survey. Additional information that would be useful in investigating production techniques might include case studies on the physical layout of the plant and its effect on time and motion-related efficiency. Given the available data, problems related to machinery and sources of power will be emphasized here.

5.2.1. Production Line

Specialization in its strictest sense does not exist in the small scale manufacturing sector in Jamaica. Many proprietors produce a diversity of products and also repair old ones. Occasionally some may even carry a retail store on the side. For example, a person who repairs household appliances may also sell new ones; a person who operates a metal work enterprise may produce furniture, construction materials, and car body pieces, and even manage a repair service as well. Similarly, a worker in leather produces bags, sandals, belts, boots, and saddle straps and also repairs many items. Repair services may arise in part because proprietors

face a low level of demand for a given new product, and in part because they are attempting to make more efficient use of scraps or test new products.

5.2.2. Mechanization

It is commonly accepted that small scale manufacturing enterprises are labor intensive. Data are presented in Davies et al. (1979) concerning the kinds of machinery used in the SSE's and their relationship to the work force.

Table 8 of this report shows that problems related to the high cost or unavailability of new machinery and spare parts comprise the fourth most crucial problem nationally. Except for the E.D.'s, most proprietors in the remaining locations rank the problem in third place. The question becomes more serious as one moves to the urban areas, reflecting the intensity of mechanization. The most crucial problem becomes the unavailability of machinery spare parts. The demand for new machines is not as serious as the demand for spare parts. Some of the demand for spare parts comes from using machines which are very old or inefficient by present standards.

5.2.3. Sources of Power

Forty percent of the small scale manufacturing enterprises questioned used only manual power in the production process. Electricity from the Jamaica Public Service Company (JPS) was the next most important power sources, providing power for just under 30% of the enterprises, followed by wood, which was the power sources for one-quarter of the enterprises. The general picture is shown in Table 23.

The data, when disaggregated spatially, provide very interesting variations in the pattern of power sources used. In Kingston, electricity

Table 23

Percentage of Enterprises Using Various Power Sources in Each Location

Power Source	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Electricity	81.1	55.8	52.4	14.7	29.0
Electricity and Gas	----	6.3	4.3	0.8	4.3
Kerosene and/or Diesel	0.6	----	3.0	3.7	2.8
Wood	----	4.2	1.2	33.2	24.4
Others	6.1	8.4	3.1	1.2	2.7
Manual	12.2	25.3	36.0	46.4	39.8
TOTALS	100.0	100.0	100.0	100.0	100.0

Source: Phase II Survey Data, 1979

provides power for over 80% of enterprises, "manual" or "other" account for just under one-fifth of the power used, and wood is not used. Wood is also of limited significance in both the Major and the Rural Towns, where electricity accounts for just about 60% of the power used. The categories "manual" and "other" account for 40% and 46% in the Major and Rural Towns respectively.

The E.D.'s display a totally different picture from the urban areas; wood is the power source for one-third of the establishments and "manual" for nearly one-half. Therefore, the combination of wood and "manual" provides the power for four-fifths of the small scale manufacturing enterprises in the E.D.'s, with electricity, the major power source elsewhere, accounting for only 15% of establishments in these locations. The large number of establishments in the E.D.'s influences the distribution of power usage in that, despite the relative unimportance of electricity as a power source here, E.D.'s still contain as many establishments using electricity as does Kingston. The E.D.'s dominate in all other major categories and account for virtually all establishments using wood.

The fact that less than 30% of all manufacturers utilize power from the public power supply raises interesting questions about the potential role of small scale enterprises in the industrial development of the country. Either the overwhelming majority of small businesses is involved in production activities which are inherently manual, or these businesses are utilizing inefficient technologies where more modern ones exist. In either case, the question of whether the sector should be helped to develop and expand must be raised and justified vis-a-vis other development priorities.

Several problems must be addressed simultaneously. The first is whether public power sources should be made available, if this is the constraint. If

so, the next problem concerns the need to train proprietors and workers in new production techniques, utilizing power machines. Finally, there would be the question of financing the purchase of these machines -- a process which must be justified in terms of increased market sources.

Problems related to electricity (and water) were included in the general problem area labeled "utility" in Table 8. Few of those surveyed regarded sources of power as a major problem. For those citing it, the main complaint was that costs were rising fast. Evidence later showed that many of them were trying to cut electric use. For example, tailors were pedaling their sewing machines instead of using electricity, and working primarily during the day in order to reduce electricity consumption at night.

VI. MANAGERIAL CHARACTERISTICS AND PRACTICES

Management capabilities and techniques is a complex topic and our treatment of it is somewhat cursory. We will first discuss the formal and informal training background of the proprietor, the level of bookkeeping and business performance analysis, and information needs and sources; we will then comment briefly on marketing and personnel management.

6.1. Educational Level

It has been shown that those with higher levels of education are not necessarily better managers in the SSE sector. Chuta and Liedholm (1979) found this to be the case in Sierra Leone. But it is true that the ability to read, write and work out basic mathematical problems enhances one's potential ability to carry out improved managerial practices.

Information by educational level among the different locations is shown in Table 24. Almost all of the proprietors had primary or secondary level education, with about 2% (most of whom are found in the E.D.'s) having no education and another 2%, mostly outside the E.D.'s, having some post-secondary education. The data also show that when only those who have actually finished the highest grade in any level are considered, there is a big difference between the E.D.'s and the other locations. Only about one-third of those who are in primary education finished this level in the E.D.'s as compared with 63% or more for the other locations. Of those who have actually finished the secondary level, the rate is four times as many (about 8%) for the other locations as compared with the E.D.'s.

Table 24

Classification of Proprietors by Highest Level of Education Attended
(Percentage)

Educational Level*	Population Size Strata				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
No Education	0.6	1.0	----	2.7	2.1
Primary	77.2	73.5	70.5	79.2	77.8
Secondary	17.2	25.5	25.3	17.0	18.3
Tertiary	5.0	----	4.2	1.1	1.8
Totals	100.0	100.0	100.0	100.0	100.0

Source: Phase II Survey, 1979

*Note, at the national level more than one-half of the proprietors (53%) have actually finished the highest grade in the primary level although they have not attended any level beyond it. The corresponding figure for those who have finished the highest grade in the secondary level (but are still classified as attending this level) is 3.2%.

Some proprietors had been trained at agricultural and teacher-training colleges and others had gone through the University. For those who had at most only 3 years of education, 4.1% were from Kingston, 5.1% from the Major Towns, 7.0% were from Rural Towns, and 16.0% were from the E.D.'s. Hence, education among proprietors rises as one moves to the more urban areas.

At the individual enterprise level, proprietors in woodworking and auto repairs show a slight edge in higher achievement over tailors, dressmakers, showmakers and craft workers. Among the ten or so major enterprise types, shoemakers have the lowest percentage of proprietors with secondary education while auto repair people have the highest.

With 96% of them having been through the primary or secondary levels, SSE proprietors have a higher level of education than the general public, which has a corresponding figure of 84% (see Department of Statistics, 1978). The difference between the two groups is even greater for those who have finished secondary level education -- 18% for the SSE proprietors and 8% for the general public.

6.2. Participation in Seminars and Vocational Training

Nearly two-thirds of the proprietors said that they had some kind of vocational training (Table 25), a surprisingly high percentage. However, a large number of the proprietors may have been trained under an apprenticeship type of arrangement without pay -- a partial explanation, perhaps, for the high percentage of persons with vocational training. For example, some technical high schools in Jamaica have an arrangement with some businesses whereby students are allowed to work briefly for training before they graduate.

Table 25

Classification of Proprietors by Participation in Vocational Training and Seminars

(Percentage)

Participation	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
1. Vocational Training	79.9	44.9	46.3	64.8	63.9
2. Seminar Attended	14.4	11.2	11.4	6.0	7.9
a. Production Techniques	78.6	81.8	100.0	100.0	96.2
b. Management	17.9	9.1	----	----	2.8
c. Other topics	3.6	9.1	----	----	1.0

Source: Phase II Survey Data, 1979

Table 25 shows that nationally, the percentage of proprietors who attended seminars is about 8%. The level of participation rises as one moves to the more urban areas. Almost all of the proprietors who attended seminars did so to learn something about production techniques in their line of trade. Subjects ranged from learning how a new machine works to getting information on what one should produce for export. It is interesting to note that proprietors in the Rural Towns and the E.D.'s participated in production seminars only, while those in the urban areas (Kingston and the Major Towns) attended seminars dealing with production, management, and other topics as well. Thus, in Kingston more than one-fifth of the proprietors attended seminars which focused on topics other than production techniques. Management seminars, for example, included bookkeeping, personnel management and marketing strategy. The difference in subject emphasis between the urban and rural locations may be due to the size differences among enterprises. The bigger the enterprise, the more important become features other than production techniques.

As the ages of proprietors rise, their level of participation in seminars falls markedly in the two rural areas (and hence at the national level, too). Thus, for those 30 years or younger, the levels of participation in the Rural Towns and E.D.'s were 22.2% and 17.1%, respectively; for those 31 to 40 years old and for those above 40 years, the corresponding proportions were 4.4% and 7.0% and 10.5% and 2.6% respectively. In the two urban locations, however, little difference exists, if any at all; the 31 to 40 year age category has slightly higher rates -- 21.1% for Kingston and 12.9% for the Major Towns. At the national level, about 17% of those 30 years or younger attended seminars, while proprietors in the higher age categories participated at rates of 8.9% and 4.5% respectively.

The data reveal a direct relationship between seminar attendance and the level of education. For example, outside the E.D.'s the percentage of proprietors with post-secondary education who have attended seminars is more than 40%. The relationship is much less marked in the E.D.'s. And except for the proprietors with secondary education in the Rural Towns, higher levels of education in all other locations are directly associated with higher levels of seminar attendance.

At the individual enterprise level, there are some differences. Metal work proprietors show the highest level of attendance followed by proprietors in auto repairs, tailoring, woodworking and dressmaking, in that order. Shoemakers show the poorest attendance.

6.3. Information Needs and Sources

In order to increase proprietors' awareness of improved techniques of production as well as new business trends, it is useful to know not only what types of business information proprietors need but also their present source of this information. Since acquiring information has a cost, providing it to those who can least afford it has an implication for the growth and development of the sector.

In the survey, proprietors were asked to indicate the most vital types of information needed on a continuing basis to run their businesses effectively. This information is shown in Table 26. While proprietors could mention as many types of information as they felt were important, most mentioned only one; the average was less than 1.2 in all the areas.

Proprietors were also asked to indicate their chief source of information; Table 27 shows the results of this inquiry. Again, the average number of sources of information per proprietor was less than 1.2.

Table 26

Classification of Proprietors by Expressed Information Needs
(Percentage)

Information Type*	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Product Market	27.6	13.7	25.0	60.7	50.5
Raw Material	37.4	58.9	43.8	29.8	33.7
Financial Aid	11.5	1.1	12.5	6.1	7.1
Production Type or Technique	2.9	4.2	3.1	7.6	6.4
Machinery/Parts	9.2	6.3	8.8	1.1	3.1
Management	5.2	1.1	1.2	3.0	3.0
Other Topics	2.9	3.2	1.2	1.1	1.5
None	19.0	12.6	13.8	6.5	9.1

Source: Phase II Survey Data, 1979

*The average number of information-type needs per proprietor in Kingston, Major Towns, Rural Towns and the E.D.s were respectively 1.2, 1.0, 1.1 and 1.2.

6.3.1. Information Needs

At the national level, one-half of all proprietors regarded product market information as the single most important need -- a concern consistent with the demand constraints faced by the small industrial enterprise sector (SSE). It was pointed out earlier that close to 40% of the proprietors pinpointed lack of adequate demand for their products as the single most critical problem they faced, and two-thirds of them put it among the top three problems. This problem results primarily, of course, from the declining real income level of the average Jamaican over the last few years. Thus, as consumers' purchasing power shrinks, proprietors must spend more time searching for styles, trends and markets. It is not surprising, therefore, that the small proprietor's chief source of competition comes from other small proprietors (see Table 13).

Information concerning lower prices and/or the availability of raw materials was the second most important need mentioned by one-third of the proprietors. A distant third was information about financial aid or credit, followed closely by information about techniques/types of production. Few proprietors mentioned information about prices, availability of spare parts/ machinery, and management techniques. About 9% of the proprietors stated that they had no particular or pressing information need.

Some differences exist at the locational level. In the E.D.'s 60% of the proprietors mentioned that information about demand is the number one item of importance; the highest corresponding figure in any other locations is only 28% for Kingston. In locations other than the E.D.'s, information about raw materials is the most dominant need.

Information about production techniques/types is again more important in the E.D.'s than in the other locations; yet the reverse is true for

information on machinery and parts availability. The likely explanation is that as one moves to the most rural areas, production is more labor intensive and as a result there may be relatively higher percentages of proprietors who want to know about new techniques of production. In the urban areas, however, proprietors already know or have access to the new techniques of production and thus their interest lies in finding ways to obtain and finance the machines and parts to be used in this technique.

At the enterprise group level, in all the locations except the E.D.'s it is the search for raw materials and obtaining them at a reasonable price which is the most important need. This holds for all the groups in Kingston except crafts and metal works; even in the latter, the problem ranks second. In the Major Towns it holds for all enterprise groups except food, where information on techniques of production is the most important need. It also holds true for all the enterprise groups in the Rural Towns. In the E.D.'s, however, information about demand or product market is the most important need for all enterprise groups -- except auto repair and foods enterprises, which again have the need for information on raw materials in first place.

The age (business experience) and educational background of the proprietor appear unrelated to information needs and level of utilization. Both in the age and education level categories given in Table 1 and 24, the ranking of information needs remains, for the most part, the same as that shown in Table 26. Product market information is the number one need -- with a percentage very close to 50 -- at the national level in all age and educational level categories. Raw material information is second in all categories (except at the tertiary educational level) for both age and education, with a percentage close to 30 -- again as in Table 26.

At the post-secondary or tertiary level of education, production techniques rank second instead of raw materials, which rank third. The locational variation in ranking information needs for both product market and raw materials is almost identical to that shown in Table 26.

Nationally, the relative importance of the information needs listed in Table 26 is dependent on the prevailing economic situation. If the economy were on the upswing, it is likely that the search for new production techniques would dominate product market investigation. But given the economic constraints that Jamaica now faces, it is inevitable that shrinking demand and raw material shortages predominate. It would be interesting to see how information needs on short-term loans, production, and management techniques would be ranked under less restrictive economic situations. These variables are important because, for long-term development policies, they are the variables which are usually given priority attention in the short run in order to enhance the effectiveness of the small enterprises. More than anything else, programs incorporating such variables are chosen because of their cost effectiveness vis-a-vis limited public funds and the relative ease with which they can be administered.

6.3.2. Information Sources

Table 27 shows proprietors' information sources for the types of information needed. Less than 15% of the proprietors indicated more than one chief source for any single need.

Nationally, more than one-third of the proprietors mentioned friends as a source of vital information; friends were especially important in the E.D.'s. The second most important source of information was business people and this source increases in importance as one moves to the less urban areas. These business people are chiefly other small proprietors.

Table 27

Classification of Proprietors' Sources of Information Received
(Percentage)

Information Source	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
Friends	25.5	31.4	18.9	42.5	37.6
Other Proprietors[1]	14.2	15.7	21.0	22.0	20.5
Purchasers[2]	19.9	8.5	20.3	15.1	15.8
Own Effort	8.5	15.7	37.6	13.5	14.2
Suppliers[3]	21.2	30.1	13.0	10.6	13.3
Media	23.4	8.5	8.7	9.0	10.8
Government Organizations	2.8	2.4	2.9	2.5	2.6

Source: Phase II Survey Data, 1979

[1]Small (16.6% at the national level) and large business proprietors (3.9%)

[2]Distributors (3.9%) and individual customers (11.9%)

[3]Including brochures (8.6%)

(In fact, six times as many proprietors mentioned owners of other small businesses rather than large businesses as a major source of information.) The next three major sources of information were customers or distributors, suppliers and the media. Of these, customers were the most significant source (16%), followed by suppliers (13%) and the media (11%). Customers are equally important in all areas. Finally, government agencies or organizations are cited as a source by an insignificant percentage, and about one-seventh of the respondents said they relied mainly on their own efforts and experience for whatever information they needed.

In order to understand the roles of the different sources of information, it is useful to relate different sources to the types of information required. Table 28 shows this information for Kingston and the E.D.'s, the two locations of greatest contrast. Friends, for instance, are sources of information for everything but production techniques in the E.D.'s. In Kingston, they are important for obtaining information on product market and/or prices, and on different techniques of production and types of products.

Who are these friends? They may be people working in bigger enterprises who are willing to share their experience with a small proprietor; they may be people who make frequent (business) visits to other small or large enterprises and thus serve as inter-business carriers of information about sales, trends, styles, and availability of materials. It is very common to walk into a small enterprise workshop in Jamaica and find people ("friends") who, without seriously interrupting the owner from his job, are chatting with him about different topics. In many instances, friends are exchanging views with an eye to their own vested interests as potential small proprietors.

The source "media" refers to newspapers, radio and television. As would be expected, this source is much more important in Kingston than in

Table 28

Classification of Proprietors by Type of Information Needed and Where Information Received -- for Kingston and the E.D.'s (Percentage)

Information Type	Sources of Information						
	Friends	Media	Customers	Suppliers	Other Proprietors	Own Effort	Government Organization
1. Product Market							
Kingston	39.6	27.1	12.5	20.8	8.3	12.5	----
E.Ds.	40.9	5.0	10.1	12.6	23.9	15.1	1.9
2. Raw Materials							
Kingston	7.7	18.5	30.8	26.2	12.3	1.5	1.5
E.Ds.	59.0	12.8	15.4	7.7	17.9	9.0	1.3
3. Credit							
Kingston	20.0	80.0	----	15.0	20.0	5.0	15.0
E.Ds.	56.2	6.2	12.5	37.5	25.0	43.8	18.8
4. Machinery/Parts							
Kingston	----	----	31.2	25.0	31.2	----	----
E.Ds.	33.3	----	33.3	----	33.3	----	----
5. Management							
Kingston	22.2	33.3	22.2	11.1	11.1	----	----
E.Ds.	62.5	12.5	25.0	----	12.5	12.5	----
6. Production Techniques							
Kingston	40.0	60.0	20.0	20.0	20.0	----	----
E.Ds.	10.0	----	5.0	12.0	5.0	10.0	----

Source: Phase II Survey Data, 1979

the E.D.'s. Ownership of any type of media is probably limited by one's income level; however, the practice of sharing use of these services allows greater access to the source than the rate of ownership indicates. In Kingston, media sources are important in providing information about financial aids and production techniques.

Proprietors receive some information from customers, i.e., distributors and individual purchasers, because the latter in many instances bring along their own raw materials, particularly fabrics, and in sub-contract arrangements, distributors often share with the proprietor their own ideas and information concerning the types of products produced and the materials used to produce them.

"Suppliers" refers to those providing or willing to provide materials, parts and machines -- with or without brochures. The high percentage of proprietors applying for credit in the E.D.'s is probably due to the fact that public financial agencies (e.g., SEDCO) advertise themselves through brochures and radio announcements. Otherwise, proprietors in the E.D.'s get very little information from suppliers or from the media, as evidenced by the fact that the E.D.'s consistently show a higher percentage of personal experience and effort as a main source of business information.

More information sharing appears among small proprietors in the rural areas than in the urban areas, particularly information concerning availability (and prices) of machines/parts, credit and product prices. Such sharing of information is not inconsistent with what was said concerning other small business proprietors as the main source of competition, since information sharing takes place primarily among friends.

Table 29

Classification of Proprietors by Record Keeping Practice
(Percentage)

Number (Size) of the Work Force	Percent Keeping Records				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
1 person	9.5	3.8	3.9	1.4	2.8
2-3 people	17.7	13.3	13.6	8.8	10.6
4-5 people	33.3	43.8	30.4	27.3	29.3
6-10 people	58.1	47.1	56.3	0.0	15.3
11-20 people	80.0	85.7	100.0	100.0	96.6
above 20 people	50.0	----	100.0	----	70.0
Over All Sizes	29.4	27.1	18.9	3.8	9.8

Source: Phase II Survey Data, 1979

6.4. Record Keeping and Business Analysis

Keeping systematic business records and using them periodically in business analysis is a vital practice in almost all modern firms. To determine the importance of record keeping in the SSE sector, proprietors were asked what kinds of records they kept and how they used them. (No physical examination of the records was requested, but it was explained to the respondents that "systematic record keeping allows an effective 'profit and loss' analysis of the business." A more in-depth study of managerial practices, including types of records kept, proprietors understanding of costs, business analysis and profit is found in Fisseha [1981].) Table 29 shows that at the national level about one-tenth of the propreitors said they do keep records -- a percentage very close to the 9% found in the initial enumeration of 3,500 manufacturing enterprises in the Phase I study. The level of record keeping over all enterprises rises from 4% in the E.D.'s to 29% in Kingston. However, the most convincing conclusion we can draw from this Table is that in the small scale enterprise sector, the size of the enterprise may be the most important factor determining whether records are kept or not. In the Phase I report at the national level, for example, foods and "other manufacturing" categories show a high proportion (47% and 26% respectively) of record keeping. The proportions for wearing apparel and especially crafts were, of course, very low. Record keeping by enterprise group at the national level and the corresponding enterprise size categories are given also in Tables 6 and 1 respectively of that report.

The information also shows a strong positive correlation between record keeping and level of education, to the extent that in all the locations the rate of record keeping in one level is nearly twice as great as the level

just below it. Within each of the three education levels, i.e., primary secondary, and tertiary, the national percentages of proprietors who keep records are 6.7%, 17.1%, and 40.3% respectively. The rate of record keeping within each level of education goes consistently higher as one moves to the more urban areas. For example, at the primary level, it is 2% for the E.D.'s but 23% for Kingston; the corresponding figures for the secondary and tertiary levels are 8.9% and 45.2% and 33.3% and 77.8% respectively. Fisseha (1981) probes deeper into this issue in his managerial questionnaire.

This high relationship tends to overshadow other important factors besides level of education that determine whether a person keeps records or not.[17] The information shows that younger proprietors are slightly more disposed to keeping records than the older ones, perhaps because younger proprietors are more likely to have higher education. A much higher proportion of the proprietors who borrowed money from the commercial banks to start the business said they keep records. These rates were 69%, 80%, and 85% respectively for the Rural Towns, the Major Towns, and Kingston. The form of business ownership also has an influence on record keeping, with partnerships and limited liability ownership showing higher percentages. Not size alone but the need for equitable sharing of costs and benefits among partners and the legal incorporation requirement (and thus tax liability) are also compelling reasons to keep records in these types of ownership.

In an attempt to gauge the minimum percentage of proprietors who keep some acceptable system of record keeping, we tried to find out if their books

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[17]Obviously, there is almost a one-to-one relationship between the existence of record keeping in a SSE and the proprietor's personal ability to keep such records if the size of the enterprise does not warrant the employment of a professional bookkeeper or accountant. Family members such as children with some education could help but facts indicate that such is not the case.

were formally audited by an outside person. Just over one-third of those who keep records answered yes; this percentage is close to 50% in each of the locations save the E.D.'s, where it is only 30%. This implies that only 3.5% of the small scale enterprises in Jamaica keep records which are audited. In any case, the auditor here is sometimes the income tax assessor, and proprietors would be highly selective about the type and extent of the information recorded.

One important use of records would be to identify areas of business weaknesses and strengths and accordingly take the necessary steps to increase management efficiency. While it is not clear whether the proprietors use their records for this purpose, close to three-fourths of those who keep records said they try to find out periodically whether they are making money or not. The remaining one-fourth said they make no periodic evaluations at all. The frequency varies from once a week to once a year, or only when unusual circumstances require it.

Since a higher degree of business analysis is also associated with higher levels of education, record keeping (among other variables) has to be held constant to see whether education affects frequency of analysis. Hence, the rate of business analysis was examined among only those who keep records. At the national level, the percentages of proprietors who analyzed their business at least once a month for the three levels of education, i.e., primary, secondary and tertiary, were 18.9%, 19.7%, and 14.5% respectively. The corresponding figures among all proprietors were 59%, 68%, and 73%. Thus, it seems that for the rate of business performance analysis, the level of education is not as important as whether a proprietor keeps records or not. In fact, depending on the enterprise size and level of analysis carried out, it is not absolutely necessary for all proprietors

in the small scale enterprises to be educated or even keep records to periodically find out about their business. And it is very important that the value of record keeping or education to the small enterprise proprietor is placed in proper perspective by examining all the economics involved. Fisseha (1981) found that a large majority of the proprietors said that they knew how to keep records of their transactions but did not do so because "it is not worth it."

As a whole, close to 40% of all the enterprises make no periodic evaluation at all. Of those that do, about one-quarter, make an evaluation once a month. The next two important frequencies are once a year and once every two weeks.

At the enterprise type level, close to one-half of those in straw work and upholstery as well as more than 40% of those in dressmaking and shoemaking do not make any periodic analysis. The corresponding figures for tailoring and woodworking is about one-third for each, while for auto repair and woodcarving it is about one-fourth. The lowest figure is for metal works with only 6%.

6.5. Personnel Management

Attempts were made in the survey to find out from those who hire workers what practices they use to encourage worker productivity. The information is given in Table 30. Although one-person establishments dominate the overall picture, there is great variation between the locations. In Kingston and the Major Towns, between one-fourth and one-fifth of the enterprises are one-person establishments, whereas the corresponding figures for the Rural Towns and the E.D.'s, where many of the small enterprises are located, are about 47% and 82% respectively (see Table 6). In fact, the average number

Table 30

Classification of Proprietors by Productivity Enhancement Practices Used
(Percentage)

Practices*	Location				
	Kingston	Major Towns	Rural Towns	E.D.'s	Jamaica
1. Close Supervision	39.6	28.6	33.0	37.0	34.2
2. Job (task) Work	34.7	31.2	30.9	24.1	31.8
3. Financial Remuneration	28.5	26.0	25.5	42.6	28.1
4. Work Study	4.2	6.5	8.5	13.0	6.7
5. Overtime Work	1.4	----	----	----	0.5
6. Other Means	5.6	6.5	10.6	9.0	7.4
7. None	9.7	31.2	18.1	16.7	19.4

Source: Phase II Survey Data, 1979

*Due to multiple practices within the same enterprise, percentages don't add up to 100. The percentages are among those with work force $\geq$ 2 and weights have been accordingly adjusted.

of workers per enterprise is 4 in Kingston and 3 in the Major Towns. Thus worker management is an important concern of many proprietors in the SSE sector. It must be noted, however, that while the topic is presented here in terms of enhancing worker productivity, worker management is much broader than that.

At the national level, the two most important practices employed to enhance productivity are close supervision of the worker and paying him on a piecework or job work basis. Each practice was mentioned by one-third of the proprietors, while financial remuneration such as bonuses was mentioned by 28%. A single enterprise could, of course, use any combination of these practices and, as a result, the percentages do not total to 100.

Thus, workers are not only paid by the amount of items (work) they produce but they are also closely supervised for quality work. For this reason and the need to use the master trademan's tools, almost all workers carry out their jobs on the premises. Given the higher level of competition which currently exists in the SSE product market, close supervision is critically important. For the same reason, workers are most commonly paid on a piecework basis rather than as salaried employees.

Financial remuneration includes regular salary increments and/or conditional take home pay increments ("profit" sharing), which is dependent on the amount of sales transacted for the day or the week. This particular practice is most prevalent in the E.D.'s.

Work study is the fourth most important management practice, at 67%. Under work study the worker is paid to attend formal school for a certain number of hours per week, or a determined effort is made to teach him the trade on the job.

Overtime work payments are very insignificant, which is not surprising given the importance of job work types of arrangement. Finally, there are other means of encouragement such as letting the worker repair his own items or creating a close (almost family-like) relationship between the proprietor and the worker. Close to 17% of the proprietors at the national level also said that they do nothing to encourage productivity among the workers. This response does not seem to follow any given pattern when those answering are placed in various population size categories (locations). Yet the percentage is almost twice as high in the E.D.'s as in Kingston, the two locations of greatest contrast. Such an attitude may not be a sign of weakness or carelessness on the part of the proprietor but may be a measure of the trust he has for the worker.

VII. SUMMARY AND RECOMMENDATIONS

The results of our research indicate that the small scale manufacturing sector in Jamaica employs more than 30,000 people, thus accounting for 40% of the total employment in manufacturing during the 1977-78 period. Furthermore, the share of employment for the small scale sector may have increased since then as a result of the economic difficulties the country has faced and the resultant squeeze on employment opportunities in other sectors more dependent on imported materials and hence less capable of withstanding the foreign exchange shortage.

Although differences can always be attributed to variation in location and enterprise type, the small scale manufacturing sector in Jamaica can be described in the following general terms. The proprietors are evenly divided between females and males and have the following characteristics: the average age is a little over 40 years; those who are "legally" married and those living singly each account for about 40% and the average number of children is 4 and their average number of dependents is 5. As one moves from the Rural E.D.'s to the more urban areas, proprietors are younger, have fewer children, and are more likely to be single and male.

The average enterprise is about 13 years old, was started by the current sole proprietor and has a work force of just over 2. The work force is split, with one-third female and two-thirds male; their respective average ages are about 26 and 29 years. Again as one moves to the more urban areas, the average enterprise is younger, larger, and more capital-intensive. The

average financial investment per enterprise was about J$1,400, 90 % of which came from personal savings and the rest from various loan sources.

Reflecting its interdependence with the remaining sectors in the economy, the small scale manufacturing sector in Jamaica has currently encountered rough times. The most serious problems, in order of importance and as of the beginning of 1979, are inadequate financial resources (cash), depressed product demand, raw material shortages, lack of adequate transportation, shortage of machinery and parts, inadequate and expensive supplies of fuel and utilities and, finally, possible management weaknesses.

These problems vary by location and enterprise type. Shortages of working capital are common to all proprietors except craft makers in rural areas who use raw materials, e.g., straw, sisal and coir, from their immediate surroundings. Proprietors such as dressmakers, tailors, craft workers, shoemakers and in some cases metal workers were all hard hit by shrinking demand. Raw material shortages had not become a serious problem in 1979 except in woodworking, dressmaking and shoe and upholstery production. But in many cases what is termed a financial problem could be a proxy for raw material shortages. By intensive use of second hand parts and old machinery, proprietors have tried to cope with many fixed capital repair and replacement problems. Transportation is a problem for enterprises such as straw work that are located in remote places, and for those involved in woodwork, which requires transportation of bulky materials such as lumber.

7.1. General Policy Approaches to Problem Areas

Before any meaningful attempt is made to tackle some of these problems, it is necessary to put them in their proper context. There are several ways to approach them:

1. They can be examined from a macro (national) or micro (individual enterprise) point of view;

2. They can be considered in terms of short- or long-term solutions;

3. They can be assessed in terms of the proprietor's capabilities and limits in handling them;

4. And finally, they can be viewed in terms of resources and outside expertise available to help in finding solutions.

In reviewing the problems, we see that some are of a macro-type and require long-term solutions, thus placing them pretty well outside the realm of resources and influences of individual agencies. Others are of a short-term nature and require solutions which may be outside the capability of the proprietor but which can be solved with the help of development, financial or administrative agencies. These are the problems where program-oriented approaches may both produce tangible solutions and be cost effective.

In order to identify specific feasible programs of intervention in the major problem areas, we will first look at the possible solutions for each problem and where appropriate we will make some recommendations. We will begin with those problems which are least amenable, and then move on to discuss those which are progressively more suitable for intervention by a department or agency, taking it for granted that, except in an instance of managerial ingenuity and experience, the individual proprietor is incapable of dealing with these problems.

7.2. Short-Term Recommendations

The first problem deals with the lack of an import license, dependable and affordable utility services, and satisfactory supplies of fuel and transportation facilities. These are national problems that are difficult

to treat only in terms of the small scale enterprise sector. Occasionally acute problems of this nature that are encountered in the SSEs could be indirectly handled by means of credit extension. Policy bias against the small scale manufacturing sector in these problem areas should be eliminated, for instance, by lowering the rates at which industry is charged for electricity.

Another problem area where an agency or department may find its contribution minimal is general shortage of product demand. Demand problems arise from a number of causes. A product may be priced out of the reach of the general clientele; the clientele may have a stagnant or declining purchasing power; or the product may be obsolete (or inferior). In all of these cases there is not much an institution can do, except in an isolated case where the high price is caused by a shortage of imports used as key inputs. However, the demand problem differs somewhat from those discussed above in that lack of demand is usually location specific and this situation could be improved by providing entrepreneurs with information on domestic and external markets.

Problems related to shortages of raw materials and machinery or equipment could be offset somewhat by implementing simultaneous programs of research and education that would lead, hopefully to the discovery of substitutes. For example, we have met people who can ingeneously construct all the components, except the motor, of specialized machines. On a more general level, an attempt was made by the National Planning Agency to interest some of the major manufacturing firms in making spare parts for departments in the public sector. These firms, particularly those which had gained experience in the sugar and bauxite/aluminum industries, demonstrated the ability to produce a variety of commonly used parts. But the problem as explained by these firms was that the necessary information flow between them

and potential clients did not exist. If such is the case with major manufacturing organizations, it can be deduced that the ignorance is even greater when we consider small manufacturers in the Rural Areas or E.D.'s.

7.2.1. Issues Related to Management

The next two problem areas that must be examined carefully are those dealing with weaknesses and inefficiency in management and those related to financial constraints. We feel that these two major problem areas are amenable to program-oriented approaches, both as a cost effective measure and perhaps as a way to partially tackle the other problem areas as well.

Proprietors of small scale enterprises (SSE) do not usually perceive their management weaknesses and deficiencies, in which case such inadequacies must carefully be detected and interpreted from the managerial practices, personal attributes or convictions of the managers, and the ultimate financial gains or losses of the business. (The Phase II report contains insufficient information to reveal areas of weakness and strength in management practices. Such information will be forthcoming from the financial and administrative data of the Phase III survey.)

For reasons such as those given above, the task of helping proprietors to improve their management capabilities (practices) is obviously a very difficult and complex one. One has to identify specific weaknesses, find possible solutions for them and then communicate them to the proprietors individually. For example, some easily detectable inefficiencies could be discovered in workshop layout, input purchasing habits, resource usage, marketing policy, etc. Others may be much more complex and require prolonged review of each problem area with each individual proprietor. The improvement of management practices could be undertaken by development (or financial)

agencies willing to do the job. Financial institutions, for example, could be encouraged to provide a more structured program of management advice as a component of credit programs. Potential borrowers would, upon application, undergo a thorough review of management capabilities and practices, and advice would be rendered accordingly. Thus, the credit would not only be objectively rationalized, but certain pitfalls in management could be discovered early. We distinguish between this approach and that of supervised credit, which could end up removing the decision-making role of the proprietor.

Seminars and group meetings can also be useful. But unless specific issues are discussed with the individual proprietors, meetings may be of limited value in that they increase the proprietor's general awareness but may not go very far in terms of solving a concrete problem or adapting a specific technique. For any advice on a specific issue to be effective, it is necessary to have close and continuous interaction between the change agency and the proprietor.

7.2.2. Financial Constraints

The report shows that problems related to shortages of finance, particularly working capital, are the most critical ones. A little over one-third of the proprietors rank it among the top three problems. A number of underlying problems could cause such shortages of financial resources. The most important ones are (1) declining demand, (2) rising costs and shortages of raw materials, and (3) inefficiency in management as it relates to production methods, input procurement habits, marketing policy and investment decisions. We believe the first two problems are the most crucial ones in our case.

Financial agencies could effectively contribute towards alleviating such financial constraints. Their past involvement is worthy of note: twenty percent of all the SSE proprietors applied to these institutions

for credit and 40% of the applications were successful. Such a record is certainly higher than that of many other developing countries. However, given the present situation in which many proprietors find themselves, the financial institutions must become more involved than before. The institutional structure of the credit sector is already in place and what is required is to make it more effective, more accessible to the small enterprises, and more appreciative of the specific problems proprietors face. The best way to do this would be to tackle the problems encountered in credit application and acquisition that were articulated by the proprietors themselves in this report.

In our study, we found that the most critical problem related to finance or credit was the collateral or security requirements of lending agencies. This was followed by the small size of a business, which made it highly unattractive for credit. The third important problem was the expensive process, in time and money, through which a potential borrower has to go, both to make a contact with a credit official and to process the application.

We consider the last problem first. The problem of expense, in time and money, could be partially resolved through an administrative clearing desk, where visits by prospective borrowers, particularly to public agencies, are promptly channeled to relevant personnel and thereafter monitored for any subsequent office or field contacts between a credit representative and a proprietor. Some proprietors have complained of delayed meetings and broken field appointments, a problem whose effects get worse the longer the distance a proprietor has to travel to apply. For this reason, contacts should not entirely be left up to individual credit officials. Another related move which may not so easily lend itself to short-term adjustments is for lending institutions, again the public ones, to open branch offices in a few central places outside Kingston.

The problem of limited business size is a difficult issue to handle. If it refers to genuine lack of business viability rather than physical smallness, then there is not much that one can do except look closely at the managerial aspects for areas of potential improvement that could justify credit worthiness. However, if it refers to a viable but small enterprise size, then one can justifiably argue that such small enterprises deserve some equitable share of the financial services.

Obviously, there are economies of scale to be reaped when a credit agency deals with a relatively large enterprise. For this reason, it is essential to have public credit agencies that would meet the needs of the very small enterprises, in general, and the supply of long-term credit funds, in particular, needs that would probably be by-passed by commercial institutions. While the need for efficient use of credit resources would be mandatory no matter what the credit source, public institutions would be able to handle the small time frame and goals which are different from those of the commercial institutions. From society's point of view, bigger enterprises do not necessarily imply a more efficient use of scarce resources.

Moreover, it is important that public agencies like SIFCO (see page 51) take on more of an extension-type role in order to provide information concerning markets, production techniques and aspects of management practices. Such agencies should also periodically collect information concerning problems, new opportunities and trends, and should then inform the government so that the necessary policy decisions can be taken in response to a changing environment.

As for the financial problems, we have only hinted at the peripheral issues. Giving prompt and careful attention to proprietors' problems and

giving the very small producers equal access to credit do not make the credit any more realizable than before. The basic question is: What can be done to relieve the cash problem proprietors are facing now? In general there are at least five major aspects of the whole problem of credit: (1) the availability of credit, (2) the conditions under which credit is made available, (3) the effectiveness of credit, (4) the servicing of credit and (5) the rationalization of credit.

The availability of credit depends on the loanable funds available, the number of people borrowing, the total amount loaned out and the rate at which old debts are being repaid. We are not aware if there is a shortage in the supply of loanable funds.

The conditionality of credit refers to safeguards taken by the lender to protect the loan; these include the amount and kind of collateral required, the requirement for matching funds, the application of restrictions on loan use and the participation in the use of credit (supervised credit). The most pervasive and critical problem mentioned by proprietors was the collateral requirement. Close to one-seventh of all proprietors and more than 40% of those who applied for credit found it a serious problem. The seriousness of the problem was felt regardless of whether the application was made to a commercial institution, a public one, or even to a private lender. The smaller the enterprise, the worse this problem becomes, which indicates that, at worst, the credit agencies find it unattractive to lend funds to the small proprietors and that at best, even when these agencies are willing to make the loan, the collateral requirements are so restrictive in the applicants' view that they, in turn, find it either impossible to meet the requirement or find it economically unattractive to accept the loan.

It would be unrealistic to ask financial agencies not to require some security for their loan investment. Certainly restricting loan uses and supervising them should be greatly discouraged; we found no instances of these two problems, by the way. We see no problem with requiring matching funds so long as it does not defeat the purpose by requiring unrealistically high proportions. Matching funds may make the applicant more discreet in his request and more careful in administering the funds.

One way of reducing the negative impact of unacceptable collateral structures would be to bring into the picture a third party, such as the central bank, a development bank or other agency that would partially underwrite the loan. Such a third party would lend its weight and resources to make the collateral requirement effectively valid for the creditor and more acceptable to the borrower. The creditor would be required to screen every application or loan as he would do any other financial transaction, carefully examining the economic viability of the credit and, hopefully, the long-term implications for the borrower. In the event of court-declared inability of the borrower to meet his debt obligation, the underwriting agency would pay the creditor a certain percentage of the outstanding balance, a portion that should be agreed upon in advance. Thus the credit agency, too, would have a stake in seeing that a loan is extended and administered in good faith, after a thorough screening of each application. The underwriting agency could reserve the right to ultimately collect the arrears when the borrower is in a position to be able to pay them. Such collection of arrears could be facilitated by using a public agency such as SIFCO, which already has its staff on the field. For this and other reasons, we do not believe any agency should play the dual role of both extending and guaranteeing credit. These two functions should be kept separate.

The long-term benefit of such a guaranteed loan arrangement is that it gives an opportunity for many of the capable SSE proprietors to gradually build and prove their individual credit worthiness, which will in turn result in more confidence being placed in the sector by new entrepreneurs and the financial institutions. On the other hand one would hope, of course, that these institutions would place more emphasis on the economic viability and cash flow potentials of the enterprises (see Chuta and Liedholm, 1979).

Even if a credit agency is guaranteed partial reimbursement of its funds, because it stands to lose the remaining percentage with a higher probability (because of the "riskiness" of the credit) and because of the high investigation cost involved, the agency still may not lend to the small proprietors. Thus it may be necessary to vary the incentives. For instance, the government could lend commercial banks some funds, at less than the going interest rate and stipulated for use by small manufacturing enterprises. (The use of commercial banks is suggested since they already have in place a network of institutions.) The difference between what the bank charges the borrower and what it pays to the government would then help to defray the cost of investigation. The interest rate that the government can charge will depend on the demand for such revolving funds. The purpose of these alternatives is not necessarily to bias credit extension in favor of small manufacturing enterprises and thus distort optimum factor relationships; rather the aim is to correct the bias existing against small enterprises which do not have the same degree of credit accessibility as the larger ones. On the other hand, a loan policy intended to buy capital items may have its potential capital favoring bias mitigated by working capital loans granted to pay or train workers in the same or other enterprises.

The third major aspect related to credit extension was its effectiveness. By this we mean that the loan must be big enough and available on time to accomplish the purpose for which it was intended. For this reason, it is important for a loan agency to investigate the timing and the real loan requirement level. An important fact which must constantly be borne in mind is that there are usually other related expenses which the proprietor must meet in order to make effective use of the loan and so the lending agency should ensure that there is sufficient funding to cover these. A person may need money to buy a machine but if he does not have enough cash to purchase the raw materials for the machine, then obtaining the loan may not have been a positive step; indeed, with loan repayment added to his other costs he may be worse off.

A fourth, and related issue is the servicing of credit, which includes the legal fees charged, the grace period granted and the repayment schedules and amounts agreed upon. In several instances, a potential borrower incurs so much in costs before he has received the loan that his cash position is adversely affected even after he gets the loan. This problem must be considered together with that of credit effectiveness and dealt with similarly. By extending the grace period and spacing repayment schedules carefully, a lending agency could help the proprietor escape a ruinous liquidity problem. It is pointless to burden the borrower with a loan which competes with other equally important obligations. Flexibility should be built into the system such that in times of severe business declines, debt servicing will be delayed or minimized. The initial emphasis should be not on getting the loan repaid, but on getting the enterprise in a position to generate enough income out of which loan repayments will be made. All of this will require a careful individual study of each enterprise to identify its capabilities and constraints.

In order to avoid a high default and arrears rate, credit agencies need to improve their ability to screen each application and examine the projected cash flows. This exercise becomes even more crucial in times when product demand is weak. The survey showed the tendency by the credit agencies to favor the larger enterprises over the smaller ones; with the proper policy measures, these institutions can be encouraged to lend smaller amounts so that they can also accommodate the smaller enterprises. By striking a realistic balance between the proprietor's need and debt servicing capability, banks can make it possible even for small loans to greatly relieve the cash constraint of many enterprises. In order to do so, not only the monthly loan repayment but the grace period, the total number of repayment periods and other terms of the loan must be looked at carefully. For example, a tailor who earns net J$65.00 a week and wants to borrow J$2,000 at 15% interest rate to be paid over 4 years, including a one year grace period, would be paying about $80 per month to settle the debt (including a total of J$871 for interest charge), or almost one-third of his monthly income. Unless there is a reason to believe that income will be greatly enhanced in that period, it won't help him in this case to increase the grace period to 2 years; doing so will increase both his monthly payment and his cummulative interest by 15% and 49% respectively. However, if the loan term is increased to 5 years and the payment period to 4 years, then the monthly payment drops by 20% to J$64 and the total charge increases by only 23%. He may feel a little more comfortable paying one-quarter instead of one-third of his income to service the debt. Note that if the grace period had been increased to 2 years as well, his monthly repayment rate would have dropped by only 8% while the interest charge would have shot up by 76%. Increasing the grace period will be effective if a clear sign exists that there will be a working capital capital shortage in the first few years or that a higher income will be earned later in the period.

The fifth and final topic is the rationalization of credit, that is, the justification of extending credit on the basis of economic and equity criteria. Although the main thrust of our financial policy recommendations has been to mitigate against some inherent obstacles preventing SSE proprietors who are viable potential borrowers from getting loans, once these obstacles are removed, each business (large or small) should be judged for credit worthiness on its economic and social viability. Such a yardstick for measuring assistance needs should also apply in the context of regional, community or specific industry development projects.

There is always the temptation to "go easy" with public funds, both when they are loaned out and when they are to be collected or repaid. In a program like this, there may also be an element of subsidy in favor of the small scale manufacturing enterprise. But such a subsidy, while it could be justifiable as a developmental cost, should not continue indefinitely. We feel that those enterprises that have successfully obtained loans under the alternatives described earlier and have established good credit worthiness should not qualify again for preferential treatment.

Full information on the default rate or the extent of loan repayments in arrears is not available. But in its 1978 preliminary report to the Jamaican Government, a private auditing firm (Capleton Jones and Company) estimated that of J$9,000,000 in outstanding loans, granted mainly by the Small Business Loan Board (SBLB), about 40% of them were deemed uncollectable (our own recent inquiry indicates that the picture is even worse). At this rate, a bank with ten million dollars of revolving funds which it loans out at a rate of 2 million each year would be left after only six years with 50% of its original funds and no interest collected. Such a program certainly cannot be viable.

Sometimes, there is the tendency to give more sympathetic attention to fixed capital loans than working capital needs. It must be remembered, however, that both kinds of loans are equally important for the success of the business, (although we hope the working capital shortage is a temporary problem). In fact, under difficult economic conditions, we have seen that working capital is the most critical need.

The collection of outstanding loans is just as important as screening prospective borrowers. Therefore credit agencies, and particularly public ones, should try to improve their collection rate by enforcing the repayment schedule of those who can afford it. In many cases, those who are in arrears for long periods are the ones who could afford to be up to date. To be sure, some loans will be written off and there will be some subsidies in favor of the small scale manufacturing sector; however, such subsidies are not unique to this sector alone and what is important is that they are compatable with long run national developmental goals.

These programs are not easy to administer and much will depend on the efficiency of the financial institutions and the caliber of their staff. Also, sticky issues yet to be resolved include defining a small scale manufacturing enterprise and target groups to receive such assistance delineating the extent to which small enterprises get such general support deciding what channels to use, and identifying and enhancing the role of the non-manufacturing small enterprises. In order to make an integrated study of linkages and supportive services, the role of the retailing or service sector must be understood, and we hope our Phase III study will partially supply us with the necessary information.

7.3. Long-Term Implications

In the previous sections of this chapter, we have presented recommendations for actions which can be taken in the short-term, utilizing resources and institutions already in existence to assist the small scale sector in a more efficient manner. However, the question of the role of the sector in long-term development effort must also be examined. Phases I and II of the project, although far from providing all the answers, have given enough insight to allow some informed choices.

Long-term questions to be examined must include the potential contribution of the SSE sector to increased employment and production -- two of the most critical issues in development. Related to the question of increased production is that of improved productivity which, in turn, is partially a function of the level and kind of training, production techniques and market promotion being employed. In posing these long-term questions it is first necessary to state some of the basic facts about the sector.

First, even in the absense of specific data, opposing views often arise as to the extent to which the sector is deprived of assistance and needs concrete support to play its real role in the development effort. Clearly, as we have shown, certain areas within the sector have been neglected by the various institutions which were expected to serve it. At the same time, however, when financial assistance has been made available, the record of repayment has been far from desirable. With the formation of SIFCO, the operations of three institutions previously established to serve the needs of the small scale sector were absorbed into one (see p. 52). But the poor repayment record of the borrowers from two of these institutions has allowed SIFCO to assume responsibility for only a small percentage of the loan portfolios.

In the case of SEDCO, SIFCO has assumed responsibility for only J$310,000 out of a total loan portfolio of J$900,000 (i.e., 25 accounts out of a total of 112). As for the SBLB, SIFCO has taken over portfolios with a total value of J$2.2 million out of a loan portfolio of J$7.2 million (i.e., 240 accounts out of 2,400). Such a poor record may be attributed to both the borrowers and the institutions. The borrowers' attitudes toward repayment of funds obtained from state agencies, for instance, are greatly influenced by the efficiency with which the agencies administer the same funds. A more complete picture could be obtained by examining the records of state agencies making loans to other sectors and of commercial banks lending to small proprietors in order to see whether a consistent pattern emerges.

The second fact is that while we have an adequate picture of all the operations employing twenty-five persons or less (including the proprietor), the overwhelming majority (two-thirds) are one person operations. This high percentage is accounted for by its preeminence in the rural areas or E.D.'s, where over 80% of all enterprises are of this type -- a situation contrasting with the urban location, where a significant percentage of the enterprises employ five persons or more. The figures are 30%, 31% and 17% respectively for Kingston, the Major Towns and the Rural Towns.

Several important characteristics related to this size differential have been discussed at length in this report. The implications are significant for the types of policies that should be adopted to aid the sector. It is clear, to begin, that the policies should be differentiated along rural/urban lines as well as between small and larger enterprises.

In the rural areas, the proprietor only produces for his immediate locality; his chief worry is competing with other one-man operations in

the market. He uses hand powered machines or wood as his source of power, he keeps no records and he has been in business in the same enterprise for an average of 13 years.

It is clear that in this situation the ability of proprietors to expand production and employment in the rural areas or E.D.'s is dependent upon both an increase in the level of disposable income available to the population in those areas and upon an increased flow of tourism into the country. But other actions can be taken -- not necessarily by agencies established specifically to aid small scale enterprises -- to help these enterprises in the E.D.'s. Among these are the production process, promotion of adequate imported raw materials essential in the production process, promotion of product development and quality control, and provision of information, particularly that which concerns potential markets outside the immediate vicinity.

While the amount of imported raw materials used in the rural areas may be very small in relative terms, such raw materials are among the essential ingredients in the production process. It is important that shortages of these materials in the local markets be immediately eliminated.

Product development and quality standardization refer particularly to handcrafted work. As the number of people who visit the country will possibly increase from year to year, a wide variety of the market for high quality handcrafted items will also increase. Thus, new product development must be promoted by encouraging and supporting Jamaicans with artistic talent.

In contrast to the rural areas, the urban and semi-urban locations present a different picture and accordingly require different policy measures. The percentages of enterprises employing three or more persons in Kingston,

the Major Towns and the Rural Towns are 57%, 55% and 34% respectively. Given the higher levels of mechanization, more extensive record keeping, underutilization of capacity, and the market orientation found in these enterprises, they offer the greatest potential for increasing production and employment in the sector.

Because there are a number of related policy measures that can be instituted in these urban areas, specific issues become more complex and the undertakings required are more involved. It would be insufficient to provide only credit when assistance is also needed in technical, management, and marketing areas. Yet to determine whether the need exists for technical and management assistance is a difficult task, and to deliver these services is even more difficult, given the complex issues and the prevailing constraints of experts, institutions and funds.

The kind and level of technical assistance will vary by enterprise location, size, and type, as well as by the kind of product produced and the machinery used. For example, enterprises engaged in the production of chemicals, paper products, and food processing require realtively more complex assistance that those involved in garment or furniture production.

Management assistance is a tricky problem with which to deal. It is easy to find faults with what the proprietor is doing without examining why he is doing so. The possibility exists, for instance, that a proprietor does not have some kind of a record keeping system (assuming he knows how to keep one) because he finds the opportunity cost of keeping records too high (Fisseha, 1981).

The need for marketing assistance may be more obvious if not easier to settle. Many small urban enterprises are struggling to enter the export market. While some proprietors have already entered the external market

with high quality products -- some garment and furniture manufacturers, for instance -- the overhead cost is usually so great that most cannot overcome this problem individually. Lack of (funds for) market information research and warehouse facilities to respond to purchaser complaints and the inability to meet potential orders on time and with certain standard and quality specifications are the greatest constraints here. Hence a few big private businessmen realizing the potentiality of such a venture and with the needed financial and administrative resources, are organizing a pool of small producers from whom they buy or receive finished products on consignment, which they in turn sell abroad for profit or commission. Still, the potential of the export market remains to be fully realized.

Jamaica has many other institutional channels through which it can deal squarely with the issues we have discussed. Yet these organizations must streamline their operations and develop clear cut guidelines in order to reach their desired goals. The Scientific Research Council (SRC), the Bureau of Standards, and the Social Development Commission (SDC) should be enlisted to help develop new products and new quality standards, and to promote apprentice training. Even private organizations such as the Private Sector Organization of Jamaica (PSOJ) and the Small Business Administration (SBA) can be called upon to promote apprentice training among their members.

As for the dissemination of market information, organizations such as the Agency for Public Information (API), the Jamaica Movement for the Advancement of Literacy (JAMAL), The Jamaican National Export Commission (JNEC) in collaboration with the news media, and particularly the Jamaica Export Trading Company (JETCO) would be extremely useful.

Management problems seem to receive less institutional support than problems in the areas of technical and marketing assistance. But the Small

Business Development Center (SBDC) has pioneered in the systematic training of personnel for improved management of domestic and export products. The Jamaica Institute of Management (JIM) provides a similar service, usually to slightly bigger enterprises. The Jamaica Industrial Development Corporation (JIDC) also provides management training and other services; a training scheme that has more potential usefulness is its industry specific and on the spot management and technical aid by experts in various fields. Such an approach is much more useful, as we have noted earlier, than the classroom or seminar type approach, which is more suited to discussions of topics of general interest, e.g. management principles, usefulness of record keeping, better customer relations, etc. Finally, the crucial role of financial institutions in pointing out areas of management weaknesses should not be underestimated.

With such a multiplicity of organization, (and we have not mentioned all of them here) there is the obvious danger that in trying to help the SSE, efforts will be duplicated and areas of responsibility will be muddled. It may well be beyond the resources of any section in the Ministry of Industry and Commerce to promote and coordinate such activities pertaining to the SSE in all these organizations. And if the SSE sector is to have a sound base for growth and the opportunity to expand into new products and markets, the assistance programs must not only be flexible and stable, but also committed to supporting long-term programs spanning not just 5 or 7 years but rather 10, 15, or even 20 years.

We would like to conclude with our hope that present commitments to the small scale industries will continue. The Jamaica Labour Party has expressed the need for "providing adequate financial and technical assistance in fields such as business education, production organization, accounting and marketing" for the small business (Jamaica Labour Party, 1980). This

is very encouraging. In the final analysis the shortages of demand, raw materials, spare parts and machinery are problems that must be solved at the national level, for it is there that financial and other kinds of assistance become programs aimed at development rather than attempts to relieve temporary crises. Our Phase III data will further probe many of these problems and analyze them in terms of choice of technique in production, relative efficiency, factor intensity, and constraints to growth.

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