SURVEY OF IDRC COMPLETED PROJECTS IN SOUTHERN AFRICA

FINAL SYNTHESIS REPORT

November 1997

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DRAFT FINAL SYNTHESIS REPORT

LIST OF ACRONYMS

CASS	Centre for Applied Social Sciences, University of Zimbabwe
CFTC	Commonwealth Foundation for Technical Cooperation
DPRU	Development Policy Research Unit, University of Cape Town
ICT	Information and communication technology
IDRC	International Development Research Centre
IT	Information technology
NGO	Non-Governmental Organisation
PC	Personal computer
PO	Program Officer
ROSA	IDRC Regional Office for Southern Africa

BACKGROUND

It is important for IDRC to understand the impact of the research it supports - to know better the kinds of influences it is having on the development agenda and research capacity of developing countries; to understand better how impact assessment can be done for development research; to use the accumulating knowledge to improve its own practice; and to justify the validity, confirm the quality and raise the profile of its work with the Canadian public.

The Evaluation Unit of the International Development Research Centre (IDRC) therefore initiated a study to determine the impact of Centre-funded research projects over the past decade. This assessment was conducted in four areas: commercialisation, information and communication technology (ICT), policy, and public good/quality of life. (Definitions of these, and other, concepts are contained in Appendix 1.) A Survey of Completed Projects was to be conducted on each area on a global scale. A separate series of case studies was to be conducted in the Southern African region, coordinated by the Regional Office for Southern Africa (ROSA).

The overall objective of the Survey was to assess the outcome of IDRC's investment. Specific objectives were:

> To identify research outputs resulting from IDRC funding which have led to or could lead to significant impact on target beneficiaries and other communities; and
> To identify factors that have facilitated or hindered the application of relevant results.

To a lesser extent, the Survey was also to:

> Generate specific proposals for application and/or commercialisation of specific research outputs; and in some cases to recommend further IDRC funding to assist in making it happen; and
> Identify and document IDRC projects whose results enhance the credibility of development research and lend themselves to IDRC's public information strategies.

The ROSA Survey (refer to Terms of Reference in Appendix 2) was to identify up to twenty-five IDRC-funded projects that could be the object of case studies in commercialisation, public good, policy and ICT. An Evaluation Coordinator was contracted to oversee the delivery of the six case studies and to carry out one of the studies herself. Each case study was to cover two to five projects. The ROSA Survey was conducted over the period of January 1997 to August 1997.

PROJECT SELECTION

Basic criteria for the initial screening of projects were developed which included size, location, status, sector, impact areas, recipient, etc. Summary descriptions of a total of 190 projects which had been funded by IDRC over the past decade were reviewed and a preliminary list of over thirty projects was selected. Efforts were made to make this preliminary list of projects as representative as possible of the breakdown of IDRC funding in Southern Africa in terms of

countries, sectors, and the nature of the recipient institutions (government, non-governmental organisations, universities, trade unions, etc).

Feedback on these projects was then sought from the relevant IDRC Program Officer (PO). This feedback attempted to find out whether the projects had been successfully completed and whether sufficient information and contact people would be available to carry out an assessment. Unfortunately in many cases the IDRC PO was no longer with IDRC and the feedback from this vetting was limited. As a result, some of the projects which were retained in the case studies had not actually been completed, or successfully completed, and for many of the projects sufficient information and contact people were not available.

A final list of twenty-seven projects was then developed and grouped into the different case studies (Appendix 3). This grouping was based on an initial understanding of what the impact of the project was intended to be, drawn from a brief summary. This was not always easy to determine since IDRC's recording system for project descriptions is not based on the four impact areas of the Survey. In addition, many of the projects could have fitted into more than one of the impact areas.

Given the number of projects in the area of commercialisation and in the area of public good, these case studies were further divided into commercialisation related to agricultural production systems and methodologies and commercialisation related to the adoption of an agricultural technology; and into public good related to agriculture and natural resource management and public good related to health. Regional consultants were then recruited to carry out each of the case studies. These consultants were selected on the basis of their sectoral expertise (agricultural economics, natural resource management, ICT's, health, and policy) and their previous consulting experience.

METHODOLOGY

An Evaluation Framework for the Global Survey was developed by the Evaluation Unit and provided to the consultants working on the Southern African Survey. This framework is attached. It provided a guideline to the different consultants on the assessment and analysis of different project components, the environment within which the project was planned and implemented, and the outcomes (outputs, reach and impact) which resulted.

A Concept Paper was also provided to the consultants by the Evaluation Unit. This paper provided the context within IDRC under which the Global Survey had been commissioned, and outlined some of the concepts related to conducting impact assessments of development research. A range of factors which might affect the impact of development research projects were discussed including the research itself, research environments, and the design and management of research projects. The measurement of impact and utilisation was also discussed and a model presented. For the Southern African Survey, an Issues Paper was prepared by the Evaluation Coordinator defining what commercialisation, ICT, policy and public good meant and indicating what the issues related to each area might be.

Framework for the Evaluation of Use and Impact of IDRC Projects

Evaluation Areas	Data Collection Areas	Assessment and Analysis
Objectives	what were the objectives?	Were the objectives achieved?
Inputs / Activities	amount of resources? cost? intangible donor / recipient / beneficiary inputs? types of activities? types of implementation mechanisms (e.g. research network)? any innovative inputs or activities? any information or communication technology inputs? (e.g. PCS, management information systems, internet access, electronic networking, etc.)	How did the inputs,...
Outputs	what outputs were planned (products, services, and processes)? what outputs, intended or unintended, were produced or provided? amount of outputs? attributes of output? . quality . relevance / importance . innovativeness . timeliness . availability . accessibility	...outputs, and ...
Context / Environment	capacity and performance of partner institution(s) political support by IDRC and other donors and their reputation supportive and complementary environment from government and other players	...context... ... help or hinder reach and impact?

Outcomes *outcomes = outputs + reach + impact* *within and beyond direct sphere of influence of project or activity*

Reach *beneficiaries (positive / negative; actual / potential; direct / indirect; short / longer term)*
categories of reach - different types of beneficiaries and users, e.g.:
- . beneficiaries (e.g. villagers whose health improved due to better nutrition)
- . users (e.g. farmers use developed technology)
- . delivery agents (e.g. research team, agricultural extension workers)
- . complementary agents (e.g. government programmes and policies)

how were the outputs used or not used (use / non-use)?
who used the outputs or benefited from them?
who was touched by the project? (people, agencies, etc.)
who was touched directly, who indirectly?
who was touched immediately, in the medium term, in the long term?
who was affected negatively?
who did not benefit but should have?
are there other potential users or beneficiaries?
were other players or stakeholders involved and how?
who should have been involved but was not?

Impact *consequences or influences of use and non-use*
what were the positive consequences or influences of the use?
e.g. results were or could be applied leading to:
- . policy changes
- . capacity building
- . commercial product or service marketed
- . income generation (for beneficiaries)
- . income generation (for IDRC; e.g. royalties)
- . quality of life improved

has it been replicated elsewhere? (e.g. uptake by other agencies, communities, countries)
were there any negative consequences or influences?
what were the consequences or influences of the non-use?

Was intended reach achieved?
Which unintended reach occurred?
Were the relevant players necessary and complementary to achieving objectives drawn into the project?

What were the factors affecting reach?
e.g. relevant stakeholders involved in project?
reputation of the delivery agents?
risk perception of beneficiaries?
complementary government actions?
commitment?

What were the factors affecting use and non-use?
e.g. outputs in useable format or state?
purpose of use?
relevance / importance?
awareness?
perceptions?
satisfaction with attributes (quality, timeliness)?
ease and cost of use?
availability and accessibility?

Was intended impact achieved?
Which unintended impact occurred?

What were the factors helping or hindering impact or outcomes?
e.g. client-orientation of research?
involvement of relevant players?

What role did IDRC have in bringing about or mitigating helpful or hindering factors?

Enhancement of Outcomes

could the outcomes be enhanced?
is there potential for, e.g.:

- replication
- income generation
- commercialisation

Material for Public Relations *potential material for public relations* ('Bambi Effect')

What conditions or inputs would strengthen the determinants (factors) or contributors (facilitators) of beneficial outcomes?
What mechanisms would be the most effective?
What support could be provided to enhance outcomes?
What role could IDRC best play?

Can the impact or outcomes be easily communicated to the public?

The consultants used these evaluation instruments to design their workplans and data collection instruments in accordance with their terms of reference. The methodology used by all of the consultants was to interview key stakeholders involved or affected by the project, and to review the available project and other relevant documentation. The evaluation framework provided the basis for most interview protocols, with some refinement based on the impact area or the project to be reviewed. During the course of the evaluation, the consultants pursued particular evaluation areas more fully depending on the feedback that they were receiving.

An initial package of project information was provided to each consultant. The consultants used this in the preparation of their workplans, together with an initial conversation with the relevant IDRC PO and the recipient Project Leader. Unfortunately, in most cases project files or the information extracted from them were incomplete, in many cases key personnel were no longer available - particularly within IDRC, and financial information was incomplete. It is to be expected that in a survey which extends back by a decade or more, there will be difficulties in obtaining information and tracing people. This problem is further compounded by the fact that an impact evaluation of the type undertaken was not planned or designed into the projects and therefore relevant information was not always captured.

Because the survey was carried out in Southern Africa, the emphasis of the case studies was primarily on information collected and views expressed by the recipient organisations and other key stakeholders (i.e. government ministries, other donors, potential beneficiaries, etc.) in the relevant country. The consultants had limited access to information on the different policies, strategies and approaches of IDRC which evolved over the past decade. The Survey was also carried out within certain time and budget constraints which affected the extent of the inquiry. There are, in addition, difficulties working in Southern Africa related to communications, transportation, and language.

Despite all of these difficulties, the consultants did manage to obtain some very useful and insightful information and to formulate certain conclusions which were presented in a preliminary report. These reports were circulated and discussed at a workshop held in July 1997 and a synthesis of issues related to impact was developed.

Overview of Case Study Reports

Each case study report is written in the individual style of each consultant, but in a common format. This format is outlined below:

Highlights	a summary description of the projects included in the case study, their impact, the key factors enhancing or inhibiting their success.
Background	a background to the projects and the case study
Methodology	comments on particular methodological issues related to the conduct of the case study.

Projects	a report on each project including a brief description; the context within which it was implemented; the project objectives, strategies, inputs, activities, outputs, reach and impact; and the enhancement of outcomes.
Summary	a synthesis of the key factors affecting the outcomes of the different projects in the case study - generally; by the particular impact area under review; and/or related to the different sectors, countries or recipient organisations covered.

The case study reports are presented in the following order: the case study on commercialisation as it relates to agriculture and natural resource management; the case study on commercialisation as it relates to agricultural technology; the case study on information and communication technologies; the case study on policy; the case study on public good as it relates to agriculture and natural resource management; and the case study on public good as it related to health. Following is a synthesis of these case study reports.

SUMMARY OF IMPACT

Introduction

As discussed in the Concept Paper, the search for research impact is problematic in several ways. The nature of research itself makes impact uncertain. No matter how focused on concrete problems, how applied, or how participatory, its role is to investigate, analyse, test and describe - not to implement change (except in the narrow context of pilots). While research can therefore create the awareness, understanding and sense of critical doubt which lead to changes in practice, it does not actually make those changes.

The decision to act lies elsewhere - in the user community - and the link between research and that community is not automatic or direct. Even successful products have impact only when someone sees the potential; connects it to a need (not necessarily one initially intended); and has the capacity, inclination and resources to use the products (also not necessarily in ways intended). A wide range of factors will influence whether and how this occurs - available champions, facilitative processes and risk-reducing resources; competition and conflict from other policies; capable institutional and human resources; leadership commitment and bureaucratic flexibility. Any of these will limit, impede or facilitate application and research has to be modest in considering the degree of change it can, or should, try to effect. In most instances, it will be a minor part of a complex array of other, often competing, institutional and national agenda.

Impact is also tricky to measure - it happens at times, in places, and in ways which are often beyond the scope of the project to know about, influence, predict or track. It may happen at micro or macro levels; it can be more or less tangible; and it may only partially be recognised by those involved. Measurement is not a neutral or straightforward activity. It implies looking at a series of outcomes or influences linked one to the other - a chain that is rarely linear, the logic of which is more likely to be evident in hindsight than foresight and to be a function of perspective.

All of these, and other, considerations and constraints are applicable to the identification and measurement of impact in the projects in the six case studies. The project outcomes which are identified are a function of the information and people which were available during the case studies; the particular perspective of the consultant carrying out the evaluation; the different impact areas which were defined for the different case studies; and the issues which were highlighted in the Evaluation Framework. The links between project outputs, and reach and impact were not clear and direct and many other factors influenced the adoption and application of the research results. Quantification was restricted at best to reporting on the numbers of people in different user or beneficiary groups potentially affected - without being able to measure whether and to what degree the impact had actually taken place.

It should be recalled at this stage that the purpose of the Survey is not to criticise or find fault with individual projects or recipients or IDRC. The purpose is rather to improve knowledge of how things can be done better in the future. It is also important to note that the consultants had the benefit of hindsight in reviewing the projects which is always better than foresight; and that the projects were being reviewed against criteria which were not established when they were originally designed.

Synthesis of Impact

The findings of the consultants in relation to the impact of the projects which they assessed are presented in detail and in summary tables in their individual case studies. A synthesis of these findings is presented in Appendix 4 and summarised in the table below.

Summary of Project Impact

Impact Assessment	High	Medium	Low/Negligible or Unknown
Knowledge pool	9	10	4
Individual capacity building	11	7	5
Institutional capacity building	10	6	7
Policy formulation	6	4	13
Improved quality of life	3	2	18
Increased income	3	2	18

Notes:
Where projects assessed included a number of phases, the impact assessment relates to all of the phases.
The assessment is subjective and qualitative rather than objective and quantitative.
Impact includes potential as well as actual impact, and represents a summary across a number of beneficiaries.
The impact of the IDRC-funded component is not distinguished from the overall project in cases where there are multiple donors.
The impact of the research component is not distinguished from the overall project in cases where there were multiple components to a project.

Overview of Impact

An initial analysis of the impact table indicates that increasing the pool of knowledge and capacity building on an individual and institutional basis are the easiest impacts to achieve. It is more difficult to have an impact with a research project on the formulation of policy, improving the quality of life, or increasing income. This is as would be expected since the latter impact assessment areas require a longer time period, are influenced more by external factors, and are furthest removed from the actual research process.

There were four projects for which little impact resulted in any of the impact assessment areas. These projects were either not successfully completed because the recipient institution was weak, the required inputs were not provided, or the funds were seized in a bureaucratic process; or the research methodology was inappropriately designed. The **Industrial and Technological Information System in Zambia (91-1004)** had little impact because it was terminated before the database was put into effect, and the individuals who were trained left the recipient organisation. The **Chambers of Commerce Trade Information Systems in Zimbabwe (91-0270)** did not receive the input of an information technology consultant and therefore the trade information database was not set up and operated. The **Pasture Improvement Project in Zimbabwe (87-0022)** was delayed by three years because of government seizure of the IDRC funds and by the time it was implemented, key staff had left the recipient organisation. The **Schistosomiasis Control Project in Zimbabwe (88-0397)** which carried out research on community-based approaches with inconclusive results had little impact because of inadequate baseline and control data which affected the ability to interpret and utilise the results.

In terms of increasing the knowledge pool, all of the projects except for the above four had a moderate to high impact. Although in some cases research results were not finalised or written up, the knowledge of the researchers, the communities which they were researching, and others involved in the project was still improved. A higher impact was more likely, however, where results were accessible, popularised, relevant, and part of ongoing work.

In terms of individual capacity building, it is likely to take place because of short-term training and long-term training provided for under the projects, and the application of acquired knowledge and skills to the research undertaken. All of the projects except for the four mentioned previously and the **Grain Storage Project in Zimbabwe (85-0286)** had a moderate to high impact. In the case of the Grain Storage Project, individual capacity building could not be assessed because of incomplete information on who was involved in the project, what training was provided, and where those individuals are today.

In terms of institutional capacity building, there were two additional projects which had little impact - **Gender, Health and Structural Adjustment in Zimbabwe (91-0043)** and **Constitutional Initiatives for Gender Equity in South Africa (92-0902)**. Although individual capacity had been developed under these projects, the individuals did not remain with the recipient institution and therefore the opportunity for institutional capacity was lost. In addition, these two projects did not build up the capacity of other institutions such as the trade unions or

women's organisations.

Those ten projects which led to the formulation of policy at a governmental or institutional level were executed in an environment and at a time which was conducive to policy change, involved organisations with strong links to the relevant policy makers, or involved organisations who were the principal policymakers. For example, the **Workers' Participation Project in Zimbabwe (90-0080)** contributed to the formulation of policy on occupational health and safety within the government and within the Zimbabwe Congress of Trade Unions, and was enhanced by the links between the recipient trade union organisation and the new government agency for social security. The **Natural Resource Management in Communal Lands Project (91-0040)** carried out social research related to the community management of natural resources and was closely linked to a government initiative in that area.

In terms of improving the quality of life and increasing income, the three projects with a high impact relate to the potential, rather than the actual, impact, and would require the successful application of the technology concerned. The **Phosphate Rock Blends Project in Zimbabwe (92-1007)** has researched a production process for fertilisers which could be applied by rural entrepreneurs and reduce the cost of fertiliser for small farmers - but has still to develop a methodology for achieving these results. The **Grain Dehulling Project in Malawi (90-0267)** has tested a method for dehulling hybrid maize which could be adopted by rural entrepreneurs and increase maize production, but its successful adoption requires that a number of other factors (extension, credit, storage and transport) be addressed and that an institution be found to promote it. The primary output of the **Namaqualand: Land Claims and the Future of the Reserve Project in South Africa (92-8452)** was the creation and strengthening of local land claims negotiating committees which then pressed for the successful redistribution of land which has the potential to increase the income and quality of life of those communities affected.

The two projects with a medium impact on improving the quality of life and increasing incomes were carried out by the Centre for Applied Social Studies (CASS) in Zimbabwe and involved research on community-based natural resource management and communal cattle management. The potential over the longer-term may be very high since the research is still relevant and accessible. The quality of the research, and the interaction at the community and policy-making level, led to this impact.

Detailed Analysis of Impact

An analysis was conducted of the relationship between impact and a number of factors: country, the type of recipient, sector, and size.

By Country

In terms of the countries in which the projects were implemented, the sample was not large enough in most cases to draw any definitive conclusions. The country breakdown of the twenty-three projects was as follows:

Botswana - 3
Malawi - 2
Mozambique - 3
South Africa - 4
Zambia - 1
Zimbabwe 10

It is interesting to note, however, the impact of projects in South Africa and Mozambique - representing somewhat opposing ends of a spectrum in terms of the national context. Projects implemented in South Africa tended to have a high impact - perhaps as a reflection of the higher level of development in the country, or as a reflection of the benefit of improved programming since the projects were relatively recent, or as a reflection of a country in transition and therefore more open to research-induced policy influences, or a combination of these factors.

By contrast, the environment in Mozambique is less developed and difficult due to the aftermath of the war which ravaged the country, and yet projects in Mozambique also had a high degree of impact, particularly in terms of knowledge creation, capacity building and the building of networks. It may be that if one starts from a low base, any intervention is bound to have a substantial effect.

By Recipient

An analysis by the different type of recipient organisation is more informative. The recipients were grouped into three categories: government, non-governmental organisations (which included trade unions), and universities. There were five projects which were implemented by government, nine implemented by NGO's, and nine implemented by universities. One might have assumed that government projects would have had a higher impact on policy formulation and improving the quality of life since governments are more directly responsible for these aspects. This does not however appear to be the case in the sample - all of the government-implemented projects had little or no impact on policy formulation, and most also had little or no impact on improving the quality of life. These projects were affected by staff turnover, the failure to link research to delivery, difficulties accessing funds from central treasuries, and flaws in the reserach design and assumptions.

In contrast, most university-implemented projects had a high impact - not only in terms of knowledge creation and capacity building (which one might expect), but also in terms of policy formulation. The universities involved, such as CASS at the University of Zimbabwe and the Development Policy Research Unit at the University of Cape Town, tended to have strong links to policy makers and the communities which were the targets or beneficiaries of their research, which helped to enhance the impact of the projects they implemented.

The success of NGO-implemented projects was mixed, probably reflecting the mixed strengths of the NGO recipients. One would have to look at the individual NGO, the research design, and the connections to beneficiaries and policymakers in order to determine whether the project was likely to have a substantial impact.

By Sector

An analysis by sector is less conclusive - again because of the size of the sample. The projects were grouped broadly into the following sectors:

Agriculture/forestry - 6
Agro-industry - 3
Health - 5
Information and communication technology - 5
Other - 4

The impact of projects in each sector was mixed, with no clear trends emerging.

By Size

Finally, an analysis was done according to the size of the projects. As might be expected, the larger projects showed a trend towards a higher impact, but were not guaranteed of success. This trend is understandable if one considers that more money can fund more research, generate more research reports, train more people, and involve more communities. Smaller projects can, however, also have a high impact.

Conclusion

The case studies have indicated that IDRC's funding for research over the past decade has had a considerable impact overall - particularly in terms of creating knowledge and building capacity. It has been more difficult to have a direct impact on policy formulation, improving the quality of life and increasing incomes. A detailed analysis of impact in terms of the countries, recipients, sectors and size of the projects reveals some interesting trends, but the sample size and methodology of the case studies are not sufficient to permit any substantive conclusions. Of more interest is the analysis of the factors which facilitated or hindered the success of the projects and these will be discussed in more detail in a subsequent section.

ENHANCEMENT OF OUTCOMES

Successful projects usually received further funding - either from IDRC or from other donors. If the relationship had gone well between the recipient and IDRC, and further research funding was required, then IDRC was approached for funding first. If funds were required for implementation, then other donors might be approached. In cases where there had been problems over reporting or funding between the recipient and IDRC, it was usually not worthwhile

pursuing subsequent collaboration. If the recipient was not able to formulate and present a proposal for follow-up, then it would be risky and difficult for IDRC to promote such follow-up.

There were at least two instances, however, where the consultants were of the view that further funding would enhance the impact of the IDRC-funded project, and where this funding was not immediately forthcoming. These instances were the **Workers Participation Project in Zimbabwe** where additional funding is needed to accelerate the training on occupational health and safety; and the **Grain Dehulling Project in Malawi** where the potential of the technology to expand smallholder food production in tandem with measures to address support factors such as extension, credit, storage and transport is not being exploited. In both cases, IDRC need not necessarily get involved in the actual funding, but could publicise the results more widely, bring interested parties together, and encourage the development of a joint approach. There was also a case presented for further IDRC support to the library network and related ICT input as an enhancement to the **Strengthening Health Research Capability Project.**

There were other cases where IDRC could enhance the project outcomes by making the research results more accessible to non-academic users and on a regional or international basis (**Natural Resource Management in Communal Lands, Communal Cattle Management, Information Provision for Rural Development**).

With specific reference to ICT's, there were a few cases where inclusion of an ICT component could enhance the outcomes. The **Information Provision for Rural Development Project** could include an ICT component in one of the pilot sites in Botswana to make the project more interesting to the local population. The Ministry of Agriculture in the Northern Cape has proposed a pilot project to provide information on land use and mineral policy to **Namaqualand**. The **Blair Research Laboratory** in Zimbabwe would benefit from improvement in the use of ICT's for research purposes.

SYNTHESIS OF KEY FACTORS

The key factors which facilitated or hindered the project outcomes (outputs, reach and impact) have been analysed in each of the case study reports. These factors will be discussed according to the headings under which the projects were analysed (context, objectives, strategies, inputs, activities, outputs, reach and impact) and by the different case study areas (commercialisation, ICT, policy formulation, and public good). In conclusion, a synthesis will be drawn, highlighting the most important factors in terms of success.

By Project Component

Context

Each of the consultants examined the context within which the projects were implemented - both in terms of the external context and in terms of the recipient and other key institutions. In all of the case studies, the context was very important to the eventual success of the project. As a

result, those designing and funding a project need to understand the particular country or sectoral context well - the constraints which need to be overcome, the key stakeholders who need to be involved, the key influences on those players, the linkages and processes which are required, other related work being carried out, etc. In addition, because the context changes over the course of implementation of a project and unforeseen occurrences such as war or restructuring arise, there is a need for flexibility and adaptability in implementation.

It should be said, however, that while occurrences such as war or drought might be unforeseen, in the Southern African context they can be taken into account to some extent. For example, both the **Fuelwood Plantations Project** and the **Pasture Improvement Project** were implemented during a period when drought occurred and therefore their field trials were affected. This could have been anticipated as a significant risk and a longer period of time planned for the field trials. Similarly the war in Mozambique affected the pace and ease of implementation of the **Groundnut Improvement Programme** but fortunately the project was extended through three phases over more than a decade so that the objective of strengthening the Faculty of Agronomy was achieved.

Other external factors are more easily predicted and planned for. For example, implementation of the **National Health Document and Information Network** was impeded by the inflexibility of the university administration with regard to hiring and procurement procedures and alternative channels of funding could have been sought. The success of the **Pasture Improvement Project** was seriously affected by the withholding of funds for three years by the Government Treasury and again alternative channels for funding could have been sought.

In the case of the **Fuelwood Plantations Project** the impact of the research on the most appropriate tree species was limited because the nature and extent of local demand for fuelwood had not been properly assessed prior to project implementation. As a result, tree species were recommended for planting on the basis of their high growth potential, without consideration being given of their burning qualities or of the competition within the marketplace. In contrast, the **Constitutional Initiatives for Gender Equity Project** correctly analysed the potential for influencing constitutional debates at the time and secured the support from a broad spectrum of political parties in order to further their aims.

Flexibility in the use of funds in the case of the **Natural Resources Management in Communal Lands Project** meant that the recipient, CASS, was able to juggle the different donor funds it received in order to meet all of its requirements. Flexibility in the time provided within which to achieve the project objectives in terms of the **National Health Documentation and Information Network** meant that the Medical Library was able to successfully set up an operating database on health research. Adaptability in the case of the **Phosphate Rock Blends Project** allowed the recipients to re-direct their research once a promising process emerged - that of adding phosphate to traditional manure-based compost - which provides the greatest possible future impact.

Institutional Context

In terms of the institutional context, important factors identified were:

- the leadership of the institutions - its vision, capability, commitment and continuity
- the staff of the institution - their reputation, competence, motivation, and continuing involvement with the organisation
- the history and reputation of the institution
- the institution's ability to follow up on the research
- connections to related institutions and policy makers
- connections to the ultimate beneficiaries
- financial and administrative capability.

Both the **Natural Resource Management in Communal Lands Project** and the **Communal Cattle Management Project** in Zimbabwe benefited from the intellectual leadership of the former Director of CASS, Professor Marshall Murphree. The **Industrial Strategy Project Phase I** in South Africa benefited from the leadership of four individuals in the DPRU with their own particular strengths and connections. The institutions involved in these projects - CASS and the DPRU - were able to attract high calibre researchers to conduct the research and a variety of donors to fund the research. They remain involved in the issues of natural resource management, communal cattle management, or industrial policy to this day and have continued to extend the IDRC-funded research into further areas. Their connections to NGO's, the communities they serve, government, or the trade unions facilitated the research process, the dissemination of the results and follow-up. And finally, their administrative and financial capability has ensured that any funds received were utilised for the purposes of the projects in a timely manner.

In contrast to these institutions are organisations such as the Small Industries Development Organisation in Zambia (funded under the **Industrial and Technological Information System Project)** and the Department of Research and Specialist Services in Zimbabwe (funded under the **Pasture Improvement Project**). Both have had a high turnover in their management and staff; were not able to complete the projects that IDRC funded; have weak connections to key stakeholders; and have limited financial and administrative capability. The longer-term impact of projects funded with these organisations has been negligible.

Objectives

The objectives of a project should provide direction so that there is a common understanding of what the project is trying to achieve, and should set measurable targets to enable an evaluation of that achievement. The objectives are related to the purpose or goal of the project, and are therefore directly related to the impact of a project. The discussion on objectives in the case studies therefore focused on how to define and measure the achievement of objectives, rather than on the relationship between objectives and impact.

In many of the projects which were studied, the objectives were not well-defined. In some cases, they related to the research process and its outputs, making it difficult to assess impact. In other cases, they were too broad or ambitious and therefore not achievable. Where subsequent phases of a project were funded, the objectives of each phase were not clearly distinguished making it difficult to assess the impact of each phase. And in every case, the objectives were not quantified making it impossible to measure achievement in an objective way.

In order to be of use in future impact assessments, objectives should be concise, clear, realistic within the budget and time scale of the project, and measurable. The strategies and activities to be used in achieving the objectives should also be clearly defined. A multi-disciplinary team should ideally screen the objectives before funding for any flawed assumptions that might hinder project impact. Mid-term and between-phase evaluations should also be integrated into the project design in order to adjust the direction of the project and ensure that the objectives are met.

Strategies

Strategies refer to the overall approach of how the objectives are to be achieved. Because of the nature of the projects funded by IDRC, the general strategy in most of the projects was to conduct research on a particular issue. The exception was the group of projects in the ICT case study where the principal strategy was primarily the introduction of a database to collect and manage certain kinds of information.

The key factors in a successful strategy were the identification of a key issue for research with the potential for broad impact and tangible benefits; the involvement of the ultimate beneficiaries in all stages of the research; the involvement of other key stakeholders in various institutions at various levels (local, provincial, national and/or regional); and implementation through the appropriate recipient institutions.

The **Communal Cattle Management Project** had identified an issue - communal cattle management - which affected most communal farmers in Zimbabwe and which if improved could tangibly increase their livelihoods. The project also formed linkages from the local to the regional level, and had the potential to link up with existing programs and networks (i.e. the Communal Areas Management Programme for Indigenous Resources).

Where the ultimate beneficiaries or communities were involved in the design of the research, the selection of the researchers, carrying out the research, receiving feedback on the results, and discussion of the conclusions, the reach and impact was extensive. For example, the **Constitutional Initiatives for Gender Equity Project in South Africa** involved women in many communities in defining what their needs were and how they would like them to be addressed, fed this information into a Women's Charter which was adopted by representatives of national and regional organisations, and reported back to the women who had participated. As a result, the project increased the awareness of thousands of women, men and children in the country - not just the policy makers responsible for drafting a new Constitution. The **Workers' Participation Project in Zimbabwe** collected information on the prevalence of occupational

injury and disease in the workplace through trained union health and safety representatives, the results were fed back to the unions, and a plan of action resulted to change the situation.

In contrast, the **Dairy Beef Production Systems Project in Botswana** developed a cross breed of cattle and a new forage crop to increase milk production among small farmers without sufficient involvement of those farmers in defining what their needs and markets were. The end result was that few farmers benefited. The **Grain Storage Project in Zimbabwe** tested particular storage structures in terms of grain losses, without considering other issues of relevance to small farmers such as cost, input requirements, etc. The structures were not subsequently adopted by the farmers despite the positive research results.

In addition to the ultimate beneficiaries, other key stakeholders need to be involved including relevant government ministries, labour, business, non-governmental organisation, etc. The **Industrial Strategy Project in South Africa** was engaged throughout its research process in a dialogue with the trade unions, the African National Congress, business, and international donors and other organisations. As a result, there is a broad-based awareness and acceptance of most of the recommendations of the research within these diverse communities. The **Agrochemicals and Farmworkers Project in South Africa** similarly engaged farmworkers, labour unions, farmowners and policy makers throughout their research and influenced the development of a policy on agrochemicals in the provincial government.

In addition to the above considerations, strategies need to be clear and sustainable, with a view to what happens after the research is concluded. In the **Grain Dehulling Project,** the project failed to come up with a strategy for introducing the dehullers to rural Malawi once they had been tested. In the **Starch Adhesives Project,** there was also no post-research implementation strategy with the result that the a commercial company is now being considered to exploit the technology.

Inputs and Activities

The inputs provided by IDRC to the projects were primarily financial. Where technical expertise or advice was also provided, this was generally appreciated by the recipient. Often IDRC was the only donor with experience in funding research on similar issues in other parts of the world, as was the case of the **Industrial Strategy Project.** During implementation, infrequent involvement of IDRC in some cases was seen by the recipients to be politically and culturally positive, but operationally potentially problematic. Issues which arose during implementation which required a decision were often not dealt with quickly - as in the case of the **Fuelwood Plantations Project** in terms of funding a third phase, or the **Information Provision for Rural Development Project** in terms of overcoming institutional constraints to implementation within Botswana.

The financial resources provided by IDRC have acted as seed money in some cases, helping a government ministry or an NGO to establish a research programme (i.e. the **Dairy Beef Production Systems Project in Botswana** which initiated a dairy beef research programme

which is now entirely funded by the Government of Botswana; or the **Strengthening Capability of Essential Health Research in Mozambique** which established a health research programme which now receives other donor funding). IDRC's contribution has also often helped in securing other donor funds for the same project or programme (i.e. the **Constitutional Initiatives for Gender Equity in South Africa** where IDRC also convened a donor conference to secure donor funding for the Women's National Coalition).

The mechanism for the transfer of funds from IDRC was an important consideration. In a couple of instances, funds were caught up in bureaucratic red tape. The **Pasture Improvement Project** has already been mentioned in terms of government delays. University administrations could also delay the transfer of funds, and recipients suggested alternative mechanisms such as trust funds be explored. This has been done by CASS at the University of Zimbabwe which has set up its own trust fund, and in the case of the **Gender, Health and Structural Adjustment Project** funds were administered by a well-established NGO rather than the administratively weak recipient trade union. Where a number of institutions are involved in a project (i.e. the **Grain Storage Project**), there is a need to ensure that the funds are allocated equitably to the partners in recognition of their contribution to the project. It was also thought to be important to provide regular financial position reports - not only from the recipient to IDRC, but also from IDRC to the recipient since recipients often were not aware of how the amounts they received in local currency translated into the Canadian dollar amounts in the original agreement.

Recipient inputs were also important to the success of a project, and an indication of the strength and commitment of the recipient. The ability of the recipient institution to provide its intended inputs was overestimated in some cases, i.e. with the Small Industries Development Organisation in Zambia, the Zimbabwe National Chamber of Commerce, and the Medical Library of the University of Zimbabwe. This relates back to the point made under the section on Context with regard to the importance of the recipient institution.

The need for flexibility and adaptability in the application and use of funds has already been noted . Most of the funds were used for research itself. It is important to ensure that sufficient time and money is allocated so that the research can be properly planned, carried out, disseminated and followed up. This includes a sufficient range of expertise within the project team (whether provided locally or from abroad), training to all levels and well-designed, institutional support to the recipient, publication and dissemination, and sufficient administrative support.

The provision of international experts and international exposure was an important component of projects. This international expertise came through linkages with Canadian or other organisations, as in the case of the **Phosphate Rock Blends Projects**, the **Starch Adhesives Project**, the **Industrial and Technological Information System Project**, and the **Industrial Strategy Project Phase I**; or through the provision of international experts short-term or long-term - as in the case of the **Dairy Beef Production Systems**, the **Groundnut Improvement Programme**, the **Grant and Debt Recording and Management System**, and the **Strengthening Capability of Essential Health Research**. The **Chambers of Commerce**

Trade Information Systems Project was hampered by the failure to provide the IT consultant to help the recipient set up and implement the information system; whereas the success of the **National Health Documentation and Information Network** was assisted by the provision of such expertise. It was also important, however, to ensure that international expertise was combined with local expertise and connections, and that local capacity was developed. International exposure through study tours were another means used to provide an international perspective.

In some cases, the expertise available within the project needed to be more multi-disciplinary. In the commercialisation projects, financial and marketing expertise was lacking. In the agricultural projects, sometimes social expertise was lacking. Where the recipient institution did not have the required range of expertise, it was sometimes brought in from outside - i.e. from a university department or another NGO.

Training inputs were provided for long-term, degree-granting programmes and for short-term, skills-oriented programmes. In some cases, the degree training was an important part of achieving the objectives - i.e. the **Groundnut Improvement Programme** whereby the degree training substantially increased the local expertise within the Faculty of Agronomy at Eduardo Mondlane University and their capacity to carry out agricultural research. In other cases, the combination of staff development and research created some problems - dynamic and perceptive research and critical analysis are not easily achieved by junior research workers engaged in the pursuit of degree courses or undertaking dissertation. The length of time to produce an output in the form of a dissertation may also not be consistent with the need to present preliminary findings, especially when they offer important insights. These problems which arose in the **Dairy Beef Production Systems Project** and the **Fuelwood Plantations Project** can be overcome if there is a project leader guiding the research of juniors and drawing conclusions and applying the research in advance of publication, as was done in the **Natural Resource Management in Communal Lands Project.**

Similar problems were experienced in terms of short-term training. Where the training programme had its own objectives and was a separate component of the project, there were difficulties for research project staff to implement the programme and achieve the training objectives at the same time as they were implementing the research programme and achieving the research objectives. The **Industrial Strategy Project Phase I** and the **Agrochemicals and Farmworkers Project** both had the objective of increasing the capacity of black researchers, but had difficulties in identifying suitable trainees and designing and delivering a suitable training programme within the overall research programme. Short-term training programmes for those actually involved in conducting the research were far more successful in building individual capacity, as was done in the above projects, and in the **Workers' Participation Project.**

Most projects included a component for publication, seminars and workshops, but in many cases a dissemination plan was not carefully thought out. Popularised versions of research were produced (i.e. by the **Constitutional Initiatives for Gender Equity, the Industrial Strategy Project, the Namaqualand: Land Claims and the Future of the Reserve**) but in other cases

the research outputs were restricted to academic publications with limited circulation and accessibility (i.e. **Natural Resource Management in Communal Lands, Communal Cattle Management, Dairy Beef Production Systems**) - although the CASS publications have been used by other organisations to produce material directed at policymakers and practitioners.

Procurement was not a major feature in any of the projects - except for information and communication technologies which are discussed below. Difficulties were encountered in terms of the importation of goods which led to delays (i.e. the **Chambers of Commerce Trade Information System**), and which relate back to the need to understand the context within which the project will be implemented and to the need to review the financial mechanisms for the transfer of funds.

Information and communication technologies were not a major component of projects outside of the ICT case study but with advances in technology today, ICT's could be used more to speed up processes, widen consultation, and disseminate results. A functional and computer literate research culture would be needed in the recipient organisation in order to make these inputs effective.

In the ICT case study, the software packages which were provided were considered suitable at the time, but have been replaced by more appropriate and user-friendly packages. Problems were experienced in the implementation of the ICT projects in terms of the turnover of staff which had been trained since their newly-acquired skills made them more marketable (the **Industrial and Technological Information System Project**); in terms of the lack of technical back-up and support (the **Chambers of Commerce Trade Information Systems Project**); and in terms of the lack of further monitoring input and support by IDRC or other partner institutions (the **Industrial and Technological Information System Project**). Attention also needed to be paid to the supporting infrastructure such as the telecommunications network (i.e. **Strengthening Capability of Health Research Project**).

Outputs

The outputs from the projects include research reports, trained staff, collaborative networks, conceptual models, research tools, etc. Databases and technologies may also be outputs depending on the nature of the project. In terms of reach and impact, however, the research process was as important, or more important than the actual output. For example, the outputs from the **Namaqualand: Land Claims and Future of the Reserves** provided useful reference documents for NGO's and researchers working in the area, but of more importance was the impact that the participatory research process had on the communities who were involved. The process brought these communities together to work for common goals and helped to establish negotiating fora which could then press for land distribution claims.

The quality of the research report depends on the research methodology which was used. If the methodology was not rigorous or well-planned, then the report which results has limited application. Availability of the research report itself is not critical if the information is to be used

internally by the recipient organisation, but if the information is to be used by a wider audience (and therefore have a broader reach and impact), then the results need to be well communicated in a form relevant to the particular audience - starting with writing up a report based on the data collected, which may appear obvious but did not always happen. This point has been discussed under the section on Inputs and Activities and can be addressed by having a dissemination plan which covers whether or not to publish, to whom to distribute, and how to distribute. Since complex research is often difficult to translate in writing into ideas and concepts which become part of mainstream thinking, the most important aspect of dissemination is ongoing consultations, research, lobbying, participation in key fora, and continuing involvement of the researchers in one way or another.

In terms of trained staff, it is important in terms of reach and impact that they remain involved in the issue being researched or related issues, although not necessarily from within the recipient organisation. In the **Dairy Beef Production Systems Project** graduate trainees have remained within the Animal Production Research Unit and created a competent and qualified unit able to carry out research in animal production generally, not just dairy production. In the **Industrial Strategy Project Phase I** the trained researchers have gone on to assume higher positions within government, the trade unions and other organisations. While they no longer work for the Development Policy Research Unit, their skills are being used to further develop and implement industrial policy in South Africa. In the **Communal Cattle Management Project** the principal researcher left the Centre for Applied Social Studies, but is using his knowledge and skills in similar work in South Africa and within the region - expanding the impact to a regional basis.

The creation or strengthening of networks is another important output which was not always planned for in the project design. The **Strengthening Capability of Essential Health Research Project** brought together the key players in the health delivery system and has fostered a collaboration which hopefully can be applied in the future to streamline and prioritise health research and make it more relevant to the needs of the country. Other outputs which have resulted are conceptual models (i.e. **Communal Cattle Management** and the **Industrial Strategy Project**) or surveillance tools which have a lasting impact on the institutions and individuals associated with the project.

Databases are more problematic outputs to maintain over the long term. They are difficult to set up and operate, and tend to become dated within a short space of time. Without the creation of an institutional capacity (in terms of both financial and human resources) to continually upgrade these systems, their impact is limited.

Technologies as outputs are also problematic. In the four projects with a technology focus (**Starch Adhesives, Phosphate Rock Blends, Grain Dehulling, and Grain Storage**) the technical aspects of the project were well-catered for, but inadequate consideration was given to the needs of the users, and the systems within which the technology would be utilised. Therefore, while the technology itself might have considerable potential, the appropriate processes and mechanisms for the adoption and application of the technology still need to be identified.

By Specific Impact Areas

The impact areas which were used for the purposes of the Survey were commercialisation, ICT's, policy, and public good. An analysis of the case studies in these areas in terms of the factors inhibiting or enhancing success does not yield much in addition to what has already been stated above. A few points can however be emphasised.

Commercialisation

In terms of projects which are designed to have a commercial benefit, the factors which are particularly important are to conduct a market analysis and develop a business plan which address the needs of the potential consumers, the actual market forces which prevail in the area, and the financial viability of the project. In order to do this, a broad-based multidisciplinary team is required which includes social, economic and commercial, and not just technical, expertise.

ICT's

The group of projects which were included in the ICT case study were information technology projects - in other words, the communication aspect was not dealt with. The exception was the **Information Provision for Rural Development Project** which has focused on information without using information technology, and on communication of information. The success, or lack of success, of the IT projects did not ultimately depend on the IT component, but on human and institutional factors. In this respect, therefore, IT's are merely a tool for communication and information exchange and not a solution to a problem. It is important to understand how and why people communicate and what information is of importance to them in order to design a technology that can be a useful tool and not a barrier.

Two issues which are of particular importance in IT projects are: the provision of sufficient technical back-up to ensure that the technology can be developed and adopted; and adequate training in the use of IT's - not only to first level users, but also to decision and policy makers to ensure that institutional resources are provided to capitalise on the effectiveness of the technology.

Policy Formulation

Having an impact on the formulation of policy is difficult to achieve through research. It requires significant involvement of the key policy makers in the research process, follow-up by the recipient organisation, and a thorough understanding of the policy context. It also needs to be recognised that there will be other influences on policy outside of the research context, and therefore the impact of the research may be indirect. One of the important factors is also the strengthening of individuals and institutions through the research process who subsequently become involved in policy-making, albeit with a somewhat different direction than that indicated by the research.

Public Good

The impact of projects on improved livelihoods and public good was usually indirect and long-term. Despite the broad objectives set for these projects, initially the main beneficiaries of the research were the researchers themselves and their institutions. In the long-term, increased capacity building, networking and dissemination of knowledge led to improved livelihoods indirectly. In order to have an impact on the public good, policies and programmes first needed to be influenced.

Summary of Key Factors

Factors Enhancing Success	Factors Inhibiting Success
Institutional capacity - strong leadership, good research capacity, positive interaction with government policies, management and administration capacity, commitment and follow-up	Weak institutions - weak planning capacity, shortage of staff, staff turnover, limited capacity to implement findings, ineffective administration
Analysis of external context - holistic understanding of environment within which project was to be implemented, identification and taking advantage of opportunities, planning for occurrences such as drought or war,	Poor project design - overly ambitious objectives, technology-oriented, lack of social science analysis, flawed assumptions, lack of market or financial analysis, no detailed research protocol prior to implementation, no consideration of post-research implementation or follow-up, lack of impact measurement tools
Collaboration and networking with key stakeholders - beneficiaries, government, other organisations - at local, provincial, national and regional levels - during design, research, dissemination and follow-up	Unprioritised or unfocussed research - not linked to community needs, not linked to a prioritised government or institutional research programme
Individual capacity - intellectual capacity, research skills, communication skills, ability to interact with communities, commitment	Insufficient IDRC support - inflexibility, poor monitoring, downsizing, short time horizons
Adequate funding and support - from IDRC, the recipient, other donors, the government - financial, technical and human	

LESSONS LEARNED

As result of the analysis of impact and the key factors influencing project outcomes, the consultants highlighted the following as lessons to be learned.

1. Pre-project analysis.

   An adequate analysis needs to be undertaken prior to project design of the needs of the intended beneficiaries and their value system; the appropriateness of new technologies or processes in the particular socio-cultural context; institutional strengths and weaknesses and how these can be utilised or overcome; and the risk inherent in certain macro-political and socio-economic factors. From the perspective of the donor, guidelines for external, institutional and project assessment should be established, and the recipient needs to have a clear understanding of the strategies, policies, priorities and

focus of the donor. It is possible that a pre-feasibility study or contextual analysis would need to be funded first before designing and funding a full-scale research project.

2. Capability of the research team.

   The recipient and donor should ensure that the skills and knowledge profile of the research team is appropriate for the objectives and strategies of the research. Where institutional or individual capacity is limited (which is most likely to be the case in the environments within which IDRC is working in Southern Africa), innovative ways of overcoming these constraints should be explored. These could include a capacity-building component within the project design; the definition of linkages, networks and collaboration strategies with other institutions or individuals who can provide the missing expertise; or a more incremental approach to funding and implementation which gradually builds up the expertise required.

3. Participatory approach

   The approach taken to the research should be participatory in as far as possible. This would involve the intended beneficiaries not only in the research itself, but also in the design of the research, reviewing the output, and suggesting follow-up. It should also involve all of the other key stakeholders.

4. Evaluation design and monitoring

   Impact evaluation criteria and measurements should be designed into projects at the initiation stage. During implementation, regular monitoring is necessary - both by the recipient and by the donor. Regional consultants could be used more to provide this monitoring and design expertise.

DEFINITION OF KEY CONCEPTS

IMPACT AREAS

Commmercialisation

In the impact area of commercialisation, the study is looking at outcomes from IDRC-funded projects which were or could be commercialised. These outcomes could be products, processes or services which were developed, tested, disseminated and transferred through the project.

Commercialisation refers to wealth creation - either in the form of increased profits or in the form of increased income. The generation of profits is more likely to be associated with outcomes which are transferred to private enterprises. It may also be associated with outcomes which could be transferred to IDRC's Business Development Division in order to generate a profit for use in IDRC's other development activities.

Income generation is more likely to be associated with outcomes which are transferred to disadvantaged groups of individuals (i.e. small-scale farmers). To be commercial, the project should lead to an increase in the disposable income of those it reaches - i.e. through the sale of increased crop production, - not just an improvement in the quality of life - i.e. improved nutrition through increased consumption.

Information and Communication Technologies

The world is rapidly becoming an information society and information is becoming globalised. New technologies and applications in information and communication are continually being developed and improved. There is a risk, however, that the information gap which already exists between developed and developing countries, and between rural and urban elites within developing countries, will be widened unless countries and communities are empowered with the ability to apply information and communication technologies (ICT's) for their own social and economic development.

The premise is that the appropriate use of ICT's can address development problems and make a qualitative impact on not only slowing the processes of marginalisation, but also reversing them. These technologies can allow people to collect, store, process and access information or communicate with each other. Technology is, however, only a tool. Access to technology is not an end in itself, rather it is the impact of the technology in terms of addressing development problems and making improvements in people's lives which is important.

Initiatives related to ICT's can involve:

- Policy - telecommunication policy reform, policy governing the growth and development of ICT industry and services, and policies that relate to ICT support for the delivery of public goods (education, health, etc.)
- Infrastructure - technologies related to the delivery of telecommunications and ICT infrastructure (radio, satellite, cellular telephone-computer linkages, etc).
- ICT technologies and tools - innovative, technical solutions to problems of ICT use by marginalised populations (decision support systems, graphic and touch-screen interfaces, data and information collection and management systems, computer-assisted translation, etc).
- Applications, services and networks - the development of locally defined applications, services and networks to address specific development problems at the community level.

Policy

Policy refers to the stated intentions of a government or institution as they relate to a particular issue. Policies should be developed after broad consultation with relevant stakeholders and gaining an understanding of the context and environment surrounding the particular issue being addressed. Policies are outlined in discussion papers, in legislation, in strategies, etc. Once adopted, the implementation of policies then takes place through programmes and projects.

Research can assist in the policy-making process at a number of stages. In the policy development stage, research can provide information on the current situation, on the development of scenarios or prognoses, and on the testing of various interventions which might be proposed. If the research is participatory, it can also assist in bringing in the key stakeholders and in getting them to express their needs and wants in terms of the issue under study. Research can also assist in the policy formulation stage by testing assumptions, assessing responses from stakeholders, and clarifying the relationship among inter-related factors. In the policy implementation stage, research can be used to monitor and evaluate the achievement of policy in the programmes and projects which result.

Public Good

Public good is a benefit which is provided to a broad group of people without fully recovering the cost. It is generally associated with an improvement in the quality of life - access to clean water and sanitation, primary health care, food security, shelter, etc. And it is normally provided by government or non-governmental organisations. In the case of research projects, the outcome of the research may be intended to benefit the general public or certain communities or groups by improving their quality of life. It may be research which led to a better understanding of a problem or to a better solution to the problem. In order to have an impact, this research needs to be applied by those responsible for addressing the problem through public policy, programmes or projects.

EVALUATION AREAS

Context	the institutional environment, and the political, social, and economic environment within which the project was implemented.
Outcomes	the project's overall influences - the effects of the project's "being there", both positive and negative, intended and unintended, tangible as products and less tangible as knowledge and skills or processes. Outcomes are a combination of outputs + reach + impact
Outputs	products, services and processes which result from the project intervention.
Reach	the groups touched by the project or its activities in some way. This may include clients, beneficiaries, users, delivery agents, or complementary agents.
Impact	Consequences or influences of use and non-use. It may be negative, positive, or lacking.

Appendix 2

TERMS OF REFERENCE
Survey of IDRC Completed Projects in Southern Africa
(94-0821-02287)

1 Background

1.1 Over the past twenty-five years, IDRC has support over five thousand research projects throughout the developing world. While the Centre has invested on an ongoing basis in evaluating the impact of activities it has funded, there is a need now for IDRC to expand its knowledge base on the results and benefits that have emerged from IDRC supported projects.

1.2 More specifically, IDRC wishes to determine the impact of Centre funded research projects in the following four areas: commercialisation; public good/ quality of life; policy; and information and communication technology. The last area is of particular importance to IDRC as the Centre is in the process of launching a major Sub-Saharan African initiative on the use of Information Communications Technologies (ICTs) that will seek to draw on past IDRC project investments (see overview of the Acacia Initiative).

1.3 The Evaluation Unit of IDRC is undertaking a Survey of Completed Projects, encompassing studies from IDRC's programming across the regions. As one component of this Survey, IDRC's Regional Office for Southern Africa (ROSA) will undertake a series of case studies evaluating completed projects in the Southern African region.

1.4 In order to assist in the effective execution of the ROSA portion of the Survey, a Co-ordinator will be contracted with responsibility for overseeing the delivery of six case studies.

2. Objectives of the Survey

2.1 The overall objective of the Completed Projects Survey is to demonstrate more effectively the results of IDRC's investment over the years and to enable the Centre to fulfil more efficiently its role as a knowledge broker and a results oriented institution.

2.2 Specifically, the objectives are:

2.2.1 to identify research outputs resulting from IDRC funding which have led to or could lead to significant impact on target beneficiaries;

2.2.2 to identify factors that have facilitated or hindered the application of relevant results;

2.2.3 to generate specific proposals for application and/or commercialisation of specific research outputs, and in some cases to recommend further IDRC funding to assist in making it happen; and,

2.2.4 to identify and document IDRC projects whose results enhance the credibility of development research and lend themselves to IDRC's public information strategies.

3. Terms of Reference For ROSA Survey

3.1 To identify with the Evaluation Unit up to twenty-five IDRC funded projects that could be the object of case studies in the areas of commercialisation; public/good; policy; and, information/communication technology. Each study will cover two to five projects and will be categorised in an appropriate manner depending on the sector or geographical coverage.

3.2 In general terms, each study will seek to: identify research outputs leading to an impact on target beneficiaries; identify factors that have facilitated or hindered the application of research results; determine if there exist any proposals emerging from projects relating to the application/or commercialisation of research outputs; and identify any particular success stories that could be used by IDRC as part of its public information strategy.

3.3 Identify projects that have used ICTs in an innovative manner to address development problems in the region and/or projects that could benefit from an investment by IDRC in ICTs. With respect to the latter, this could include: investments in policy; applications; infrastructure; and ICT tools (these are described in detail in documentation on the ACACIA initiative).

3.4. Contract up to five consultants within the Southern African region to conduct the studies as well as a part-time Coordinator who will identify the consultants, ensure delivery of the studies (as well as undertaking one study herself) and prepare a Summary Report of the findings (see Section 5 below).

4. General Survey Approach To Completed Projects

4.1 The nature of the projects to be selected in the Southern Africa region will require an approach that begins by generally taking stock of project impact as well as identifying and exploring areas of particular interest in that project (e.g. aspects of utilisation of research, commercialisation, information and communication systems or technologies, etc.) which would be pursued in more detail. The starting point for the overall evaluation will be: what impact did or did not the project activities have and what factors contributed to or hindered the impacts?

4.2 Based on a preliminary file review, a review of IDRC Project Completion Reports and existing evaluations, interviews with Program Officers (if POs are still available), the consultants will identify an outline of impact and reach, and the most interesting avenues for some more in-depth probing, as well as related key contacts. Field work will follow to reveal other, unexpected facets of impact with the methodology allowing for flexibility in data collection.

4.3 In addition to seeking findings on the individual projects and case studies, also sought is a synthesis of experience with different types of impact and factors that help or hindered. The project level information will be aggregated into a larger picture by the Coordinator, and will be assisted through the holding of a workshop to verify data interpretation, and to share and clarify findings.

4.4 Further details on approach, methodology and activities will be scoped out with the relevant ROSA staff together with the Evaluation Unit.

Appendix 3

SUMMARY LIST OF PROJECTS BY IMPACT AREA

Project No.	Title	Country	Recipient	Dates	Amount
Comm#1	**Kevin Billing - Zimbabwe**				
87-0225	Dairy Beef Production Systems	Botswana	Ministry of Agriculture, Botswana	88/92	$395,300
85-0118	Fuelwood Plantations Phase I	Botswana	Forestry Association of Botswana	86/88	$333,100
89-0068	Fuelwood Plantations Phase II	Botswana	Forestry Association of Botswana	89/91	$334,100
88-0026	Natural Resource Management in Communal Lands	Zimbabwe	Centre for Applied Social Studies, University of Zimbabwe	88/90	$303,740
91-0040	Natural Resource Management in Communal Lands	Zimbabwe	Centre for Applied Social Studies, University of Zimbabwe	92/95	$312,332
Comm#2	**Michael Murray - Johannesburg**				
92-1451	Starch Adhesives	Malawi	FORINTEK Canada, University of Malawi	92/93	$244,800
85-0223	Grain Dehulling Phase I	Malawi	Ministry of Agriculture, Malawi	86/88	$166,000
90-0267	Grain Dehulling Phase II	Malawi	Ministry of Agriculture, Malawi	91/94	$166,000
92-1007	Phosphate Rock Blends: Developing Local Alternatives	Zimbabwe	University of Guelph, University of Zimbabwe	92/95	$388,950

ICT	**Shirley Giggey - Botswana**				
88-0197	Information Provision for Rural Development, Phase I	Botswana	University of Botswana	89/91	$50,465
93-8488	Information Provision for Rural Development, Phase II	Botswana	University of Botswana	94/97	$145,951
91-0270	Chambers of Commerce Trade Information Systems	Lesotho, Zimbabwe, Kenya	National Chambers of Commerce	91/92	$220,275
89-0230	Grant and Debt Recording & Mgt System	Mozambique	CFTC	90/92	$101,100
91-1004	Industrial and Technological Information System	Zambia	Centre de Recherche Industrielle, Small Industry Development Organisation	91/94	$249,775
89-0033	National Health Documentation and Information Network	Zimbabwe	Medical Library, University of Zimbabwe	89/92	$141,115
Policy	**Gail Motsi -Pretoria**				
92-0902	Constitutional Initiatives for Gender Equity	South Africa	Women's National Coalition	93/94	$500,000
91-0036	Industrial Strategy Project, Phase I	South Africa	Development Policy Research Unit, University of Cape Town	92/93	$350,000
92-8452	Namaqualand: Land Claims & the Future of the Reserve	South Africa	Surplus People's Project	92/95	$147,500
91-0043	Gender, Health and Structural Adjustment	Zimbabwe	National Union of the Clothing Industry	91/93	$144,626

PG#1	**Richard Hasler - Cape Town**				
87-0038	Groundnut Improvement Phase III	Mozambique	Univ Eduardo Mondlane	87/90	$501,600
86-0188	Communal Cattle Management	Zimbabwe	Centre for Applied Social Studies, University of Zimbabwe	87/93	$111,500
85-0286	Grain Storage	Zimbabwe	Environment and Development Activities	86/91	$203,500
87-0022	Pasture Improvement	Zimbabwe	Dept of Research & Specialist Services	87/92	$188,600
PG#2	**Tony Daly - Swaziland**				
90-0095	Strengthening Capability of Essential Health Research	Mozambique	Ministry of Health, National Institute of Health	91/95	$875,000
91-0275	Agrochemicals and Farmworkers	South Africa	Dept of Community Health, University of Cape Town	92/95	$246,750
88-0397	Schistosomiasis Control: A Community-Based Approach Phase II	Zimbabwe	Ministry of Health and Child Welfare, Blair Research Laboratory	89/96	$193,030
90-0080	Workers' Participation	Zimbabwe	Zimbabwe Congress of Trade Unions	90/95	$209,421

Appendix 4

IMPACT TABLE

Impact Assessment	High	Medium	Low/Negligible or Not Known
Knowledge pool	91-0036 91-0040 92-8452 91-0275 92-0902 87-0038 88-0197 89-0230 86-0188	91-0043 92-1451 87-0225 90-0080 92-1007 89-0068 90-0095 90-0267 89-0033 85-0286	87-0022 91-0270 91-1004 88-0397
Individual capacity building	92-8452 92-1007 91-0043 87-0225 92-0902 91-0040 91-0036 90-0080 86-0188 87-0038 88-0197	91-0275 92-1451 89-0230 90-0095 90-0267 89-0033 89-0068	88-0397 91-0270 85-0286 91-1004 87-0022
Institutional capacity building	92-8452 92-1007 90-0080 91-0036 87-0225 91-0275 86-0188 91-0040 89-0230 87-0038	90-0095 89-0068 88-0197 89-0033 90-0267 92-1451	88-0397 91-0270 91-0043 92-0902 91-1004 87-0022 85-0286
Policy formulation	88-0197 91-0040 91-0275 90-0080 89-0230 86-0188	92-0902 89-0033 91-0036 87-0038	89-0068 92-1451 91-0270 90-0095 92-1007 85-0286 90-0267 87-0225 88-0397 91-1004 92-8452 91-0043 87-0022
Improved quality of life	92-8452 92-1007 90-0267	86-0188 91-0040	90-0080 88-0197 91-0270 91-0275 87-0225 85-0286 90-0095 89-0068 92-1451 89-0230 91-1004 89-0033 92-0902 91-0036 91-0043 87-0022 88-0397 87-0038

Increased income	92-8452 92-1007 90-0267	86-0188 91-0040	90-0080 88-0197 91-0270 91-0275 87-0225 85-0286 90-0095 89-0068 92-1451 89-0230 91-1004 89-0033 92-0902 91-0036 91-0043 87-0022 88-0397 87-0038