

International Development Research Centre

MANUSCRIPT REPORT

Agricultural Information: Experiences and Emerging Issues

**Record of a One-Day Meeting of
IDRC-Supported Projects held in
Ottawa, Canada, 7 June 1985**

October 1985



The International Development Research Centre is a public corporation created by the Parliament of Canada in 1970 to support research designed to adapt science and technology to the needs of developing countries. The Centre's activity is concentrated in six sectors: agriculture, food and nutrition sciences; health sciences; information sciences; social sciences; earth and engineering sciences; and communications. IDRC is financed solely by the Parliament of Canada; its policies, however, are set by an international Board of Governors. The Centre's headquarters are in Ottawa, Canada. Regional offices are located in Africa, Asia, Latin America, and the Middle East.

Le Centre de recherches pour le développement international, société publique créée en 1970 par une loi du Parlement canadien, a pour mission d'appuyer des recherches visant à adapter la science et la technologie aux besoins des pays en développement; il concentre son activité dans six secteurs : agriculture, alimentation et nutrition; information; santé; sciences sociales; sciences de la terre et du génie et communications. Le CRDI est financé entièrement par le Parlement canadien, mais c'est un Conseil des gouverneurs international qui en détermine l'orientation et les politiques. Établi à Ottawa (Canada), il a des bureaux régionaux en Afrique, en Asie, en Amérique latine et au Moyen-Orient.

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This series includes meeting documents, internal reports, and preliminary technical documents that may later form the basis of a formal publication. A Manuscript Report is given a small distribution to a highly specialized audience.

La présente série est réservée aux documents issus de colloques, aux rapports internes et aux documents techniques susceptibles d'être publiés plus tard dans une série de publications plus soignées. D'un tirage restreint, le rapport manuscrit est destiné à un public très spécialisé.

Esta serie incluye ponencias de reuniones, informes internos y documentos técnicos que pueden posteriormente conformar la base de una publicación formal. El informe recibe distribución limitada entre una audiencia altamente especializada.

Agricultural Information:
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Edited by K.P. Broadbent

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Foreword

The Information Sciences Division of the International Development Research Centre (IDRC) works primarily by supporting projects, each representing a grant of money to aid an activity in a recipient institution. Altogether in developing countries, the Division has now supported 250 projects totalling \$50 million in grants. These grants go to assist in the establishment of better information services. The pressing need for such support stems from the fact that in many developing countries the demand for information is increasing faster than local resources can respond. New research literature grows at a rapid rate and the pressure to adapt new and improved technologies means that the capacity to handle information at the national level needs urgent attention.

Agricultural information is a basic component of agricultural research and development. It is very important in the overall development process in developing countries because dissemination of research results is essential to bring about a change towards a more balanced economy. Agriculture is the way of life of more than 85 percent of people in developing countries. It is the biggest employment sector and the most crucial earner of foreign exchange. For more than a decade, the IDRC has been supporting a variety of agricultural information projects in developing countries which have made significant contributions to overall development.

The Seventh Congress of the International Association of Agricultural Librarians and Documentalists (IAALD), held in Ottawa June 6 - 8, 1985, presented an ideal opportunity to bring together the project leaders from the majority of on-going projects in agricultural information supported by the Information Science Division, IDRC. As a post-congress activity, a one-day meeting was held in IDRC which, for the first time, enabled project leaders from 33 projects and related activities to meet, exchange ideas and talk over various important project matters with IDRC staff. Obviously, one day is a very short time on which to plan such a forum and the meeting necessarily had to handle issues in a very light manner. Nevertheless, much came out of this session that was worth recording, if only as a pointer for the need to elaborate further discussion on some issues.

(ii)

IDRC is fairly unique amongst donor organizations in that it maintains a major program to support information sciences in developing countries. The money available is quite limited but, nevertheless, much progress has been accomplished over the past decade. Of the total appropriation budget available for the whole of IDRC, roughly 4.5 per cent is assigned to agricultural information. Within the Information Sciences Division, agricultural information projects account for approximately 34 per cent of projects, or 35 per cent of the Division's total appropriation budget. The relatively small amount of money available each year has been able to generate a great deal of activity worldwide. It would be easy to spend much more than the financial resources that are available each year in support of various national and regional agricultural libraries and information centres. We have to be very selective in the projects we support to ensure that there is a rationalization of effort, that linkages are bonded and a multiplier effect is enhanced.

Summary of Discussions

In the past, much of our effort in terms of agricultural information has gone into strengthening national capability to control agricultural literature in concert with international co-operative systems, the prime example being the national AGRIS centres in conjunction with FAO. The AGRIS system developed almost in tandem with IDRC's information science program in the seventies, and the emerging pattern of each country being responsible for and nominating its national agricultural focal point fell in line with IDRC's concept of supporting national endeavours to handle their own growing scientific literature problems. As developing country participation grew with some help from IDRC, so did the AGRIS data base to more than 500,000 items. So far we have supported some twenty AGRIS centres and two regional centres: The Interamerican Institute for Agricultural Sciences in Costa Rica and the Southeast Asian Regional Centre for Graduate Study and Research in Agriculture in the Philippines. Co-operative information systems of this sort provide a good framework within which IDRC can make grants with a high degree of confidence because they signify political agreement, stability, commitment and co-operation.

A further substantial part of the Information Science program has been support for tertiary information services. In the field of agriculture this has been a most active area where the International Agricultural Research Centers set up under the auspices of the Consultative Group on International Agricultural Research (CGIAR) have been pre-eminent in providing special units to handle the dissemination of research results on specific crops. A good example has been the Cassava Information Centre at the Centro Internacional de Agricultura Tropical (CIAT), which IDRC has supported since its earliest days in 1972 to the present. Many CGIAR institutes have good library and scientific facilities and are

thus able to provide the necessary structure on which to build long-term information projects. The specialized information service concept has also been demonstrated at the national level and the Coconuts Information service in Sri Lanka and the Root Crops Information Service in the Philippines are good examples. The need to share experiences amongst such centers, which together represent a repository of knowledge on information handling, has been expressed many times and in 1982 the Information Sciences Division organized a meeting in Montebello, Quebec, to review experiences and identify those topics that have proved important, common concerns over the life of particular projects. The results of this meeting were published in 1984.*

The range and diversity of the projects we now support in agricultural information has included in addition to the essentially bibliographic systems: extension projects, non-bibliographic services, ongoing research inventories and management systems. More and more we are finding that information needs of users in developing countries are many faceted and in order to respond in an effective manner, libraries and information staffs must be prepared to provide more useable information packages. Information must have a value, must help in solving particular problems, and must be relevant to a particular user's needs at a given time. In order to be effective and provide a credible service, information centres must stress selectivity and validity. A

* Specialized Information Analysis Centres in International Development Ottawa. Report of a meeting sponsored by the International Developmental Research Centre held at the Chateau Montebello, Montebello, Quebec, Canada, 4 to 8 October 1982. Ottawa, Ontario, IDRC, 1984. 60p. IDRC-MR94e.

good information centre should be able to help identify the gaps in information so that new research can be undertaken to fill them.

Also, for the R and D process to function efficiently, the production of information by the scientist and the handling of information by the information specialist should not be considered as distinct activities. The work of the information centre should not be considered outside the scientific domain.

Common Problems

The operation of agricultural information centres with IDRC support presents us with an ideal opportunity to monitor major issues which are common throughout the world. Analysis of the correspondence on file has highlighted some of the concerns and three were picked out as special topics for discussion at this meeting, namely mechanization, funding and training.

Mechanization

It is being recognized that most information centres begin operation in a very simplistic mode according to circumstances at that time. If they are to be able to handle the ever-increasing amounts of literature and achieve realistic productivity levels over time, modern methods of information processing eventually have to be considered. Most centres now look to computers to assist them in their work. The price of computers has now fallen to realistic levels so that they are within range of even the smallest centres. The main problem project leaders face is the availability of suitable software. The cost of software, the difficulties in adapting it from one make of computer to another, and the training of staff in its use are problems to which IDRC has found no easy solutions.

The marketplace has no universal software for bibliographic purposes. The availability of MINISIS, by courtesy of IDRC, has not been a broad solution because it is specific to Hewlett-Packard hardware. Most project leaders of IDRC-supported agricultural information projects report that parent institutions make widely different choices of computer hardware which is not based on library priorities. Several project leaders at this meeting highlighted this issue. Many of the CGIAR-supported IARCs had the VAX series of computer manufactured by Digital. Stephen Lawani (IITA) gave his experiences on the application of BASIS software to the VAX computer at IITA which had been purchased through the IDRC grant. He was willing to make IITA experiences available to any other participants. IDRC maintains a simple inventory of various software packages and these were available to those who needed to consult them.

Considerable interest was shown in microcomputers but project leaders had very little to go on when selecting equipment. The rule of thumb offered by IDRC was to ensure any equipment purchased should be IBM compatible. But where a fair amount of money has to be earmarked for peripheral equipment, cost savings might not be so attractive. It was pointed out that, while there may be many good reasons for purchasing a microcomputer, there are also many bad reasons to be considered. For larger, well-endowed centres, project staff may find it appropriate to use a mini-computer and so much the better if a dedicated machine can be purchased for library use. But for smaller, less well-off projects, manual methods and small calculators may still be the best alternative. The introduction of a microcomputer into an environment where it is inappropriate will be wasteful. Entire books have been written on the topic of microcomputers to help purchasers select the best one for their purpose. It was recognized, however, that project leaders in some centres

do not have access to such texts and, therefore, turn to IDRC for advice. The Division is always willing to assist and advise where it can and the computer section is usually happy to do so. This should be done through the regional representative or the program officer responsible. Requests for basic information could also be made to other organizations, e.g. Michigan State University, East Lansing, Michigan, U.S.A., who maintain advisory files on the appropriate hardware and software for use in developing countries.

Funding

Many project leaders were eager to express their concerns about the issue of long-term funding. Esther Williams (Pacific Information Centre) was anxious to know just how self-sufficient an information centre should be, and asked for guidelines. Other participants thought that financial management was the most serious problem of all. This fell into two categories:

- (1) long-term financial security; and
- (2) budgetary control

Information processing, especially for a new centre, is a very complex business. It must be recognized that even with thorough pre-project planning and negotiation, the objectives often cannot be met without future manipulation of the budget. Time is an important constraint. Staff often cannot be hired. Staff leave and inflation can eat up capital equipment cost, or start-up costs can be under-estimated. The main point to consider is user expectation. A good service produces results. These results create expectations and new services begin to emerge. During the life of any project, we can expect costs to increase, not diminish. The major concern has to be with long-term funding. Given the fact that most

target users in developing countries cannot afford to pay cost recovery prices for information products, most information projects cannot hope to become self-sufficient. IDRC does not provide guidelines, but it does offer advice on how to approach self-sufficiency. Revenue from sales has to be considered. An example was given from the Lentil News and Information Services project jointly sponsored by the University of Saskatchewan and the International Centre for Information Services project jointly sponsored by the University of Saskatchewan and the International Centre for Agricultural Research in the Dry Areas (ICARDA), where the major output - the newsletter LENS - has always been charged for and the clientele are willing to pay. It was recognized that this was an ideal case and that the average user in developing countries often does not have the necessary cash or access to foreign exchange to purchase information products or pay subscriptions for services. The carrying of advertising for local industrial or agricultural enterprises may help augment costs and donations from corporate industry and the private sector also might be explored.

It was felt that this type of problem is so basic to project leaders that IDRC should help with advice and provide greater communication between projects where some progress had been made. The catchword from all the discussion was "self-help". In order to avoid increasing costs, the project must always keep in sight of its target clientele, resist the urge to proliferate and broaden the subject scope and examine ways of operating a tightly run, cost-effective service.

Training

A major problem facing project leaders is the shortage of experienced staff. An attractive idea that was put to the meeting was more use of exchange visits. IDRC-supported projects represent in themselves a major repository of knowledge. However, some centres supported by IDRC are not well equipped to accept working visitors or trainees and many projects do not like the practice of "parachuting" candidates in for ad hoc training. Where it has proved possible, IDRC has capitalized on experience by selecting advanced centres such as CIAT and AIBA to carry out training. Pat Thompson (Caribbean Research and Development Institute) felt that IDRC projects represented a wide range of experience in various aspects of information work and projects might be able to make their expertise more available to others. There was definitely a multiplier effect to be obtained in tapping the expertise of lead centres such as CIAT, but more formalized courses are very often necessary to build up skills. The forthcoming course at the International Livestock Centre for Africa (ILCA) was discussed as an example of using an institution to train others through the development of its very unique skills. Michael Hailu (ILCA) has had so many requests for training in basic information work that it was decided to offer a formal course in August 1985 for regional participants. Other centres such as ICARDA are contemplating similar activities. Consideration should be given to duplication and overlap. Focused courses of short duration are obviously attractive to most project leaders. Something also should be considered in terms of pre-project training to enable the project to begin to tackle the objective within a reasonable time scale. Thiendou Niang (AGRIS-Senegal) thought

that IDRC should:

1. emphasize pre-project training to increase management capacity;
2. develop programs for training of trainers, taking into consideration regional differences, language and skills; and
3. identify, within IDRC projects, potential problems and address these in specific short courses.

Equipment

The major item of equipment that was common to all projects was micrographics. One of the major issues raised was the cost of acquiring documents and delivering them to users cheaply. Microfiching offers practical advantages, though some discussion focussed on user resistance. Mr. Ibrahim Zaki (EDICA, Egypt) wanted to know if microfiching was really economical. It was felt that this was a management decision that had to be made at the outset of a project. The running of a particular system needed to be based on investigations of the system proposed and its use. Despite some reservations about costs and user aversion, most project leaders agreed that microfiches are the most expedient way to deliver copies of documents. Reference was made to the IDRC in-house experience and the advice IDRC gives to potential users. It was asked if IDRC "recommends" certain brands of equipment, e.g., Bell and Howell. Some companies like Bell and Howell hold a monopoly in some countries. In this case there is no alternative to dealing with them. It is IDRC policy to advise project leaders to deal with the company that is most accessible and can provide the necessary maintenance.

Conclusions and Recommendations

1. The meeting recognized the resource value of such a large number of related projects, that the combined experience and skills represent an important source of information in itself. In consideration of this, a greater attempt should be made to improve communication between projects so that each could learn remotely from what others in similar situations were doing.
2. The orthodox approach of developing projects in relative isolation should be eschewed in favour of more definite trends to link productivity with common technology.

There was consensus that every effort be made to enable the group of agricultural information projects supported by IDRC to meet again in a larger session to discuss in more depth some of the common issues raised in this all-day meeting. Such a meeting could be linked to some other international conference, such as AGRIS, to which most participants could travel out of project funds.

Implicit in this motion was the premise that human experience is our most precious resource and IDRC-supported projects are uniquely placed in the specialized field of information science in developing countries. The long association of some project leaders with common problems, which, in some cases, they are actively solving, provides an indispensable tool for self-improvement which all could share. Wise utilization of what has already been created is known to work or has potential, places in our hands a fitting tool for improving the management of science and technology information.

Some Issues on Micrographics

by Ronald Archer

"micrographics"
"reprographics"
"microfiche"

These words sound impressive and sometimes have a mystical ring to them but what is the true and basic meaning of these words? "Micro" means small or little and "graphics" means pictures. "Repro" - according to Webster's Dictionary, means "a clear sharp proof made from a letterpress printing surface to serve as a photographic copy for a printing plate." Graphics, as I said before, is a picture. Common usage of the word reprographics is "making copies from originals".

So to remove the mystique from this subject, we are looking at ways and means of "making little pictures". Now you must admit that the term Micrographics Advisor has a much more impressive ring to it than - "Advisor on little pictures". This confusion of terminology and embellishment of the language, however, is continued and encouraged by the industry which makes and sells the equipment for "making little pictures". They use terms like:

<u>Micrographic Laboratory</u>	What is really meant is a room or a series of rooms, where pictures are taken and film is processed.
<u>Microfiche</u>	A 4x6 inch (or 105x148 mm) piece of film with photographically reduced pictures on it.
<u>Microform</u>	A generic term covering the whole family of microfilm.
<u>Resolution</u>	The sharpness and clarity of a picture.
<u>Density</u>	The opacity or darkness of the background.
<u>60 frames or 98 frames</u>	The total number of pictures which can be contained on a microfiche. Generally, the pictures are arranged either in 12 rows and 6 channels or in 14 rows and 7 channels.

The following terms are used when referring to film: archival or silver halide, diazo and vesicular. These terms refer to film type or to the processing of the film.

Essentially micrographics is a simple, inexpensive method of document delivery or the moving of information from a repository to a user, in an efficient and inexpensive manner. Why is it that a photocopy is usually considered a one-time only, throw away copy but a microfiche must be considered as a sacred piece of art-work to be handled with extreme care and stored under ideal conditions?

Principally, you are representatives of Documentation Centres and your objective is to get information to the institution or user in the most efficient and inexpensive manner. If you were representing an Archives, whose objective it was to collect and share a Nation's heritage, and you possessed the one and only copy of Livingston's Diary, or something of similar value, then yes you would be concerned that the film you produced was going to last forever. You would have to take the necessary (and expensive) steps to ensure that your film process and storage facility is "Archival". However your objective should be to produce an inexpensive alternative to a photocopy.

Before a micrographics program is launched, one must be very clear on two major points:

- A. What is the ultimate purpose of the product? Is it to replace a photocopy and therefore a "throw away" item? Or is it to replace a source document which means it has to have an indefinite lifespan?
- B. What is the volume of material to be microfiched or microfilmed? (This includes the current backlog of material to be filmed as well as the anticipated annual throughput.)

Let us take a moment to look at some statistics. Following a recent enquiry, I was able to ascertain that the cost of a complete small laboratory that produces jacket microfiche in Canada is about 20,000 CAD.

If we consider a backlog of 5,000 documents, and an annual through-put of 1,000 documents, with each document representing an average of 25 to 30 pages; then we need to produce one microfiche per document or 5,000 microfiche to take care of the backlog and 1,000 microfiche for the annual through-put.

If jacket microfiche are used, filming must be done on 16mm roll film which comes in 100 ft. rolls. Each 100 ft. roll contains roughly 2,500 frames. So for the backlog we will have 5,000 documents X 30 pages = 150,000 frames divided by 2,500 frames/100 ft. roll = 60 rolls of film.

The same calculation can be used for the annual through-put. 1,000 documents x 30 pages = 30,000 frames divided by 2,500 frames/100 ft. roll = 12 rolls of film. So to do the backlog and one year's throughput requires 72 rolls of film.

This figure, divided by 47 weeks in the year (allowing for holidays, sick leave, etc.) means using roughly $1\frac{1}{2}$ rolls of film per week and, in following years, it will be one roll of film per month. In relation to investment cost, we are looking at 20,000 CAD as the capital investment for the equipment, divided by 72 rolls of film or 6000 microfiche. This works out to 278 CAD per roll of film or 3.33 CAD per microfiche. What does this prove?

When you are asking IDRC, or another donor, or your own administration, to purchase a complete micrographic laboratory you are asking for a major capital investment - in many countries the 20,000 CAD figure is unrealistic and the real cost is much greater - and you are asking for this investment to process a small number of documents.

To some degree, I am playing devil's advocate in stating these points because I still believe that microfiche can be an efficient and inexpensive form of document delivery. There are some alternatives however, which could reduce the capital cost and which should be considered before launching a full microfiche program:

1. Use of a local service bureau to do all or some of the work - for instance to do the processing.
2. Sharing equipment with other institutions in the same city.

Now, let us consider normal operating costs. If the equipment has been obtained in the form of a gift, and the question of capital cost is no longer a concern. Essentially, operating costs involve supplies -- film, chemistry and microfiche jackets -- and labour. Since labour costs are so variable around the world, I will disregard this and simply look at operating costs in relation to supplies. Using the same basic statistics as above and using Canadian supplies costs, the operating costs are as follows. Seventy-two rolls of film at 8 CAD per 100 ft. roll and 2 CAD/roll for chemistry or the equivalent of 10 CAD per roll for film and chemistry. This totals 720 CAD.

To make microfiche you need 6000 microfiche envelopes at 30 CAD per 1000 or 180 CAD for the total. To make 6000 microfiche costs a total of 900 CAD or .15 CAD per microfiche. The cost of .15 CAD to duplicate 98 pages is quite different to the cost of photocopying 98 pages with the additional benefit of being able to send it in a first class envelope.

With regard to the question of user aversion to microform, it is said that some 85 percent of users don't like to use microfiche. I agree. If you ask me which I prefer, I would choose a photocopy anytime. But I would not choose a photocopy if:

- a) I do not have a choice;
- b) I can get the information in a week instead of a month;
- c) I get charged more for a photocopy (by manyfold) than a microfiche; or
- d) I know I can get a good quality paper print from the microform.

The Canon Company has recently brought out a new plain paper reader-printer at a very reasonable price -- in Canada about 3,500 CAD -- very reliable and relatively maintenance free. This is the Canon PC 70 reader-printer. Other companies are beginning to follow Canon's lead in this area and, in the near future, I expect we will see many more reasonably priced, low volume, plain paper reader/printers on the market.

IDRC SUPPORT OF TRAINING

by Olga Lendvay

Since most of IDRC's agricultural information projects - which you represent here - have training components, we thought this meeting would provide a good opportunity to discuss matters related to training of projects' staff.

Training has been provided for projects in order to build-up the capacity of their staff for handling information activities in the areas proposed by projects.

It is important that during the planning stage of a project the training which will be needed is clearly identified (level, specialty, duration, an idea where it should take place, etc.) and is adequately budgeted for. Because the training will take place during the life of the project and all expenses will be covered by the funds provided for the project, we call this category "in-project training" or "training within project".

Assistance for training in information sciences has also been provided by IDRC through its Fellowships and Awards Division (FAD) in cases when there has been a strong possibility that the Information Sciences Division in the future will have a project at a given institution and qualified personnel will be needed to start and develop information activities. This category is called "pre-project training".

Still another category is available with FAD's financial support, which is called "post-project training" and is used when, after completion of a project, there is still a need to improve the knowledge and upgrade qualifications of the staff in order to ensure continuity and good performance of the activities developed by the project.

Besides pre- and post-project training, on the recommendation of the Information Sciences Division, FAD will occasionally agree to support training for someone who is not part of a future or past project but who is an information staff member at an institution which relates to the programs of the Information Sciences Division of IDRC. This category is called "program-related" training.

Proposals for training support by FAD in the three above-mentioned categories have to be well justified and recommended by the Information Sciences Division, which is competing with other IDRC divisions for the limited funds available at FAD for support of training.

Types of Training

The types of training supported by IDRC vary according to the needs of particular projects and can be:

1. Short training

- (a) in-service training
- (b) short specialized or general courses
- (c) study tours

2. Full-time academic training

1. Short training

- (a) In-service training has been the type of training used most frequently for projects. Well-run libraries and documentation centres, mostly in developing countries, have been used to provide instruction in specific subject matters or on general functions and administration. More recently, some institutions have been making efforts to provide guided and supervised training tailored to the needs of trainees.
- (b) Short courses are offered sometimes by international or national organizations, or in cooperation between the two. They may be on a narrow, specialized subject, e.g. thesaurus development, or on a comprehensive subject, e.g. management of information centres. Both types of training have been supported by IDRC for projects that needed the subject expertise.
- (c) Study tours have been supported occasionally for projects' staff who already have a sound theoretical and practical background in information sciences and need to enlarge their horizon by observing operations in other documentation/information centres and to establish contacts with their staff.

2. Academic training

Most of the academic training has been supported at the Master's level. Studies at the Ph.D. level have been supported only in special cases, mainly when there has been a need to develop teaching staff for university postgraduate programs in information sciences which are being assisted by IS/IDRC in their establishment.

Master's level usually requires 36 credit hours and in many universities can be completed in one year if the candidate fulfills all requirements. Master's level with a field specialization (agricultural information) requires more credit hours (usually 39), in which case the course is extended beyond one year.

Presenting application for admission is the candidate's responsibility. We may help him/her to identify an appropriate university and, on his/her behalf, request information on the program and an application for admission. Both are forwarded to him/her and from that point on he/she corresponds with the university on his/her admission.

Processing of an award by FAD also requires time for receiving all necessary documentation from the trainee and from the training institution and for dealing with formalities. When all documentation, and especially proof of admission from the university, are received, it will take FAD at least two months to complete formalities for an award.

Handling of Training

The whole procedure of sending people from projects for training involves several persons at different stages and is usually done in the following steps:

- (a) Definition of training needs according to what needs to be accomplished in projects.
- (b) Identification and selection of candidate.
- (c) Definition of training program and suggestion of dates of training.
- (d) Inquiries with institutions on acceptance of candidates, proposed training program, suitability of suggested training dates, fees, etc.
- (e) Changes and adjustments if proposed elements have not been accepted by training institutions.
- (f) Trip scheduling, administrative arrangements.
- (g) Requesting trainee and training institution to provide brief report on the activity.

All the above-mentioned steps require time and effective communications between the people involved. According to past experiences, at least three months are needed to deal with points (c) through (f), especially in cases of study tours. In most instances this is not realized by Project Leaders, who sometimes insist that the training should start the next week or month. It would help if, during the early conversations about specific training, Project Leaders would consider the time requirements, and also the geographical preferences of location of training (as outlined in the IS training policy) and would provide their ideas about the institutions in which the training could take place.

As far as release of funds for training is concerned, if the training is administered by the project, it is the responsibility the project to take care of bookings and air tickets and to pay the trainee a per diem advance before he/she embarks on the trip.

If the training is Centre (IDRC)-administered, it means that the funds are in Ottawa and have to be released to cover all expenses related to the training. In that case, our Travel Office usually takes care of the bookings and sends a prepaid ticket to an airline office at the location of the trainee, who simply picks it up.

Before starting the trip, the trainee is also entitled to receive a per diem advance. As a rule, this should be deposited in his/her account in a bank at his/her location. The transfer of money has to be done from Ottawa ahead of time.

A problem arises when the trainee's bank cannot accept hard currency. In that case, we have to be informed well in advance where the money should be deposited so that it will be available to the trainee before the start of the trip. In some cases, when the banks in the country of the trainee do not handle hard currencies, we have to ask institutions in other countries, which will provide the training, whether we could deposit the trainee's per diem advance at their bank. If they agree, they pay the per diem advance to the trainee upon his/her arrival. This arrangement can be time-consuming and therefore it is important that we receive the banking information well ahead of time.

Arrangements for some approved training can be done directly with training institutions by the Project Leader, by the appropriate IDRC Regional Office, or by cooperation between the two. This is usually done when the trainee's and the training institutions are geographically close. In that case, copies of the correspondence related to the training and a report on the training experience should be sent to the Training Coordinator in Ottawa.

All institutions accepting trainees require their curriculum vitae. This should be sent to them directly (with a copy to the Training Coordinator) by projects when approaching those institutions with an inquiry about providing training. If the training is being arranged from Ottawa, the curriculum vitae should be sent to the Training Coordinator.

Training institutions also need to know what subject areas are of interest to the trainee in order to enable them to prepare a suitable training program. Projects should comply with the requirement by specifying clearly the information areas in which training should take place.

Location of Training

The Information Sciences Division policy on training, which is similar to policies of other IDRC divisions, specifies preferences of geographical locations in which IDRC-supported training should take place. In order of preference, the training should be carried out:

- (a) In the country of the candidate.
- (b) In the region of the candidate (if not available in his/her country).
- (c) In other developing regions (if not available in the region of the candidate).
- (d) in Canada.
- (e) in other industrialized countries (if not available in Canada).

This requirement has to be considered seriously by projects and Divisional program staff when planning training for projects. In many cases, beneficial training can be provided in the region, in an environment similar of the trainee's home environment where he or she may have more chance to learn about common problems and ways of solving them.

Comment

Handling of training is a complex activity which requires good communications and rapid action by all concerned in dealing with formalities and deadlines imposed by institutions.

As information on training, especially short training opportunities in the regions is not readily available to staff in Ottawa, we would appreciate your cooperation in letting us know about planned training which comes to your attention.

A REVIEW OF IDRC'S FINANCIAL REPORTING AND POLICIES

by Antoine Hawara

The two major financial requirements for any project to be financed by the Centre are budget development and financial reporting.

Budgeting

On the surface, it seems that there are no major concerns at this level. In fact, except for some problems in adding and multiplying, CGT has no serious remarks for recipients, but I personally feel that the seed of all the major problems that will be encountered during the life of the project will be found here. This is because if the budget is prepared and developed by the researcher without any help from his accounting department he might end up with an acceptable budget for IDRC purposes but a nightmare for his own finance department. Why? Because:

1. The line items used in the budget, will always be useful for IDRC purposes because our system is very flexible and will accept them. But the accounting system and Chart of Accounts of the recipient institution may be unable to capture and report on the information under these line items.
2. The fiscal year of a project is an important issue to discuss beforehand with the accountant because some accounting systems are not flexible enough and will not provide, (readily) the financial information if the fiscal year of a project is different from the one used by the institution. The result, of course, will be a major delay in providing the annual financial statement.

To eliminate all these potential problems, the importance of working closely with the accounting personnel should be stressed in order to develop a budget that is compatible with the chart of accounts and fiscal year of the institution and, of course, use the expertise of the finance department in projecting realistic cost estimates.

Financial Reporting

The second major requirement is the financial reporting and monitoring of a project during its life. As I have already explained, some of the major problems faced by IDRC are a direct result of the budget exercise. For example:

1. We may receive a financial statement that is built on a new set of line items that don't resemble at all the ones used in the original budget. Or we may receive a statement with the line items as budgeted but with all the actual expenses grouped under a couple lines only, creating a rather favorable and/or unfavourable set of variances.
2. Very often, despite the reminders that are sent concerning the financial statements, these very often arrive months after they are due. In the meantime, the project can fall behind schedule because of lack of cash flow and IDRC will be requested to advance funds before it receives a satisfactory financial report. We are very reluctant to accept this type of situation.
3. Projections for the next fiscal year are very often not reported or, if they are reported, tend to represent not the actual needs according to the program of work for the coming year, but rather, a listing of the original budget for that year plus any leftovers from the previous one.
4. The financial statement sometimes does not identify the reporting period which is a basic requirement if we are to do an intelligent analysis.
5. Reporting all the payments received from IDRC and the equivalent in local currency is sometime missing which makes it impossible for us to determine cash requirements.

Minor problems which often arise with the project's financial statements can be grouped as follows:

- not providing a list of equipment purchased during the period;
- unsigned reports or reports signed by only one person;
- income received, like bank interest, is not reported;
and
- no explanation for major variances between actual and budgeted expenses.

The benefits of recipients working closely with their own accounting department was stressed.

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