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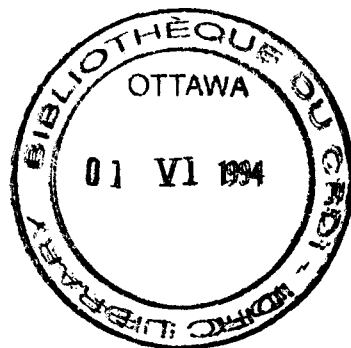
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TRAINING DATA STUDY

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Office of Planning and Evaluation, IDRC

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EXECUTIVE SUMMARY

This report presents the results of a study of Centre training policy-related data which was carried out by the OPE Statistical Support Unit. One of the objectives of the Unit was to identify, through the preparation of policy-related reports, key information the Centre should track over time to monitor its allocation of resources to research in developing countries. This report is a summary of the findings from the first policy-related issue which the Unit tackled. The sample policy issue chosen for the study was **"the evolving trends in Centre support to training"**

The primary purpose of the study was to test the ability of the corporate information systems (PINS & PROMIS in particular) to provide data for policy-related analysis. This report describes the approach and methodology of the study and makes recommendations on ways to improve the Centre's ability to track and analyze policy-related data. Within this context a number of key issues relating to training were examined and the report outlines the findings from an analysis of this training information.

The major findings of the report relate to the limitations of the corporate information systems (as they existed in 1990) for providing policy-related data ready for analysis. A number of recommendations are identified to suggest ways to improve the situation. The experience of this study revealed that accessing training information in the Centre is a labour and database intensive task. The existing corporate systems are not designed to allow quick access to Centre-wide training data. By extrapolation, it is reasonable to assume that it is not possible to readily obtain reliable information on many other policy questions.

In the context of this, some avenues for improving the Centre's data-bases are discussed. These include:

- i) **Database enhancement to facilitate policy-related analyses:** The corporate information systems (PROMIS, PINS, & FINMIS) were originally set up to capture and track project management and administration information. The question posed by the study was, how could the information captured by these data sources be improved or enhanced to allow for use of the databases for regular policy analyses. Concerns relating to this include ensuring consistent data standards and definitions across all the databases and linkage between the databases so as to reduce duplication of effort in recording data;
- ii) **Use of the project summary form as the source of policy-relevant information:** The PS is the key document which initiates the recording of program/project data in the Centre. As a source document, it contains a large amount of information, however much of this is not systematically entered into the databases. In addition, it is not currently designed to capture data relevant for policy analysis. The questions posed in the study relate to analyzing the kind of data available in the PS which has not been systematically transcribed into the databases with a view to assessing if and how this could be improved.
- iii) **Use of centre databases for assessing policy fit of programs:** The study examines a number of questions related to IDRC's current training policy. In effect, it tries to determine what the data analysed demonstrates regarding the fit between policy and practice. The study also examines the data the SSU was able to collect about some training questions that might become increasingly important to reflect upon, such as network-related training, multi-disciplinary training and utilization-focused training.

The data analysed covers a period of six years, 1983/84 to 1988/89. This time frame dovetails with the establishment of the Fellowships and Awards Divisions in 1983 and with the last training study conducted by the Office of Planning and Evaluation.

The SSU was able to obtain answers to such questions about training as listed below, only through the creation of a separate database (developed in DBaseIII+) by downloading from existing automated Centre project management databases (PROMIS, PINS, & FADMIS) and by the extensive manual input of data extracted from project summaries. The OPE / SSU database was developed with a view to being able to answer questions relating to the existing training policies in the Centre such as:

- How much money does the Centre spend on formal and informal training?
- What level of training is being supported (ie. Undergraduate, BA, MA, PhD)?
- Are training funds being targeted to nationals of the least developed countries?
- Is training being conducted in the trainee's own or another developing country?
- What are the patterns for the distribution of training funds between FAD and the program divisions?
- Is training support to LDCs concentrated or widely dispersed?
- What trends can be identified in type of training institution supported by the Centre?
- What is the breakdown of training support by gender?
- What are the major fields of training for which funds are granted?
- What trends can be identified in the purpose for which training is supported?
- How extensively does informal training involve support for network, multi-disciplinary and utilization-focused activities?

MAIN FINDINGS AND RECOMMENDATIONS

The recommendations and findings relate to three main areas of concern. These are: database enhancement to facilitate policy-related analyses, use of the project summary form as the primary source of policy-relevant information in the corporate databases, use of Centre databases for assessing policy fit of programs.

This section summarises the report and relates the recommendations and findings to these areas. Because of the nature of the study, in which data on one particular topic was analyzed in detail, the most concrete recommendations are those which relate specifically to improving the consistency of, and access to training information. The general recommendations are based on the experience with analyzing the training information.

i) DATABASE ENHANCEMENT TO FACILITATE POLICY-RELATED ANALYSES:

The information that is available in the corporate systems is difficult to access because most of the databases are not linked and many are based on different software packages.

In the context of the Study, it was found that conceptually, the databases do not allow one to move systematically from training appropriations to expenditures and from what the Centre planned to accomplish with its training support to what was actually accomplished. There are few data entry standards that cut across the databases. Even within databases, standards for specific fields such as the name of the institution are not available. As a result, it is very difficult to search for certain types of information on a Centre-wide basis. The corporate information systems (PROMIS, PINS, & FINMIS) were originally set up to capture and track project management and administration information. The question posed by the study, was how could the information captured by these data sources be improved or enhanced to allow for use of the databases for regular policy analyses.

RECOMMENDATIONS

General :

Ensure that there are consistent data standards and definitions across all the databases and develop linkages between the databases so as to reduce duplication of effort in recording data.

- 1. Introduce an executive management software package, such as Powerplay, to provide management access to the data residing in PROMIS for use by senior managers.**
- 2. Similar to the work undertaken for this experiment, review the ability of the information systems to address other policy-related issues. If required, make adjustments to the corporate systems to allow them to respond more readily to policy-related questions.**

RECOMMENDATIONS

Specific to Training Data :

- 1. Establish standard training fields for PROMIS and the new financial information system (FIS) to allow Centre-wide reporting.**
- 2. Create the capability in PROMIS to record all Centre-wide training information, both formal and informal.**
- 3. Rationalize the training information currently contained in the corporate systems on the basis of the data needs identified above.**
- 4. Upload the data from FADMIS into PROMIS for those fields that are identified as important to retain. After this is completed, consider discontinuing the use of FADMIS.**

ii) *USE OF THE PROJECT SUMMARY (PS) FORM AS THE SOURCE OF POLICY-RELEVANT INFORMATION:*

The information that is documented on the PS is not consistently or readily available in the corporate databases for several reasons:

- no clear guidelines exist identifying what policy information Centre management wishes to have recorded in the PS;**
- information on policy-related issues that is recorded in the PS is not systematically recorded on the PS Data Sheet and/or entered into PROMIS or PINS.**

The PS is the key document which initiates the recording of program/project data in the Centre. As a source document, it contains a large amount of information, however much of this is not systematically entered into the databases. In addition, it is not currently designed to capture data relevant for policy analysis. The questions posed in the study relate to analyzing the kind of data available in the PS which has not been systematically transcribed into the databases with a view to assessing if and how this could be improved.

In the context of analyzing training-related data, it was found that **guidelines do not exist explaining how to calculate the amount of funds dedicated to project-related training.** As a result, people use their own formulas. Some, for example, only include tuition fees under the training line item on the Data Sheet. Others include all of the costs associated with the training activity, including the cost to hire the trainer, rent the facilities and travel to the courses. In some instances, such as group training activities, the training line item is left blank while the costs are recorded on other line items even though the entire project is dedicated to training. The SSU estimates 10 to 15 percent of the funds being spent on training are not being captured in the current systems.

Similarly, it was found that, information is not collected on the Project Summary Data Sheet about the citizenship of the person receiving training, the level of the training, the country where the training will be conducted and the name of the institution that will do the training. As a result, the current databases cannot report this information because it is not being collected for project-related training. This information can be obtained for degree-related training supported by FAD, and MA and PhD-related training supported by AFNS. However, for informal training activities which comprise 65 percent of the training funds being spent, this information is not available.

RECOMMENDATIONS

General:

Determine what policy-related information the Centre wishes to collect and have recorded systematically on the PS. This information should be categorized according to (1) administrative data and (2) management policy data.

1. Alter the Project Summary, Project Completion Report and Post Project Abstract to capture this information.
2. Establish guidelines defining how to calculate the amount of money that should be recorded under any policy-related items to be recorded on the Data Sheet in the Project Summary.

Specific to Training Data:

1. Establish guidelines defining how to calculate the amount of money that should be recorded under the training line item on the Data Sheet in the Project Summary.
2. Review the training field in the Post Project Abstract to determine the value of recording this information in its current form. This review should also include an examination of the value of this information for people external to IDRC. In a similar fashion, review the value of the training fields in IDRIS.

iii) *USE OF CENTRE DATABASES FOR ASSESSING POLICY FIT OF PROGRAMS:*

The corporate databases are not set up (i.e. do not have defined fields for information) to collect project-related information on many Centre-wide issues for which policies either have been clearly stated or are under general discussion with a view to defining clear policies. As a result, the corporate databases are not very useful for assessing the fit between the practice of the Centre programs and the policies.

Some of the issues included in this are training, institutional support for research institutions, gender of recipients, networks, utilisation of research, etc. Currently the corporate systems are heavily tilted towards administrative data. Some of the fields used in this experiment might be valid to incorporate into the information systems.

The study examined a number of questions related to IDRC's current training policy. In effect, it tried to determine what the data analyzed demonstrates regarding the fit between policy and practice. The study examined the data the SSU was able to collect from both the existing corporate databases and extracted from the PS about some training questions that might become increasingly important to reflect upon, such as network-related training, multi-disciplinary training and utilization-focused training. This information was then input into the SSU database on training data.

The corporate databases do not have data-fields in which to collect project-related training information on the gender of the trainee, the field of study, the type of training and the purpose of the training activity. As a result, one cannot access information about such issues as network-related training, utilization-focused training and the rationale behind the training initiative.

RECOMMENDATIONS

General :

Using the management policy requirements as proposed in the recommendations for item (ii), consider the possibility of identifying data fields to be used in the corporate databases for monitoring the fit between policy and practice.

Training Specific Recommendations :

- 1. Review the possibility of uploading the data collected by the SSU into PROMIS after the required changes have been introduced.**
- 2. For current reporting requirements for the six year period between 1983/84 and 1988/89, review the possibility of using the database established by the SSU.**
- 3. Review the need to retain the events fields in PROMIS that are available to record administrative events associated with training.**

SUMMARY OF TRAINING FINDINGS

I) FUNDING PATTERNS FOR TRAINING AMONG PROGRAM DIVISIONS

OF THE TOTAL TRAINING BUDGET ALLOCATION, FAD CONTRIBUTED APPROXIMATELY 60 PERCENT OF THE TRAINING FUNDS THAT WERE SPENT BETWEEN 1983/84 AND 1988/89. AFNS CONTRIBUTED 16 PERCENT, FOLLOWED DISTANTLY BY IS (8 PERCENT), HS (6 PERCENT), SS (4 PERCENT) AND EES (3 PERCENT).

Over time, HS and IS have increased their contribution to training while AFNS, SS and EES have decreased their contribution. IDRC spent approximately \$58 million on training between 1983/84 and 1988/89. This represented 13 percent of its total program appropriations. Adjusted for inflation, the actual dollar value of funds spent on training declined slightly over the time period in question, from \$9.1 million to \$8.7 million. Accurate comparisons with other research-supporting donors cannot be made due to a lack of comparative data. Out of these training funds, FAD and the program divisions administered about the same amount of funds. FAD administered approximately 50 percent of the funds; AFNS 19 percent of the funds, followed by IS and HS with 9 percent each. SS administered 7 percent of the funds and EES, 3 percent.

II) CONCENTRATION VERSUS DISPERSION

ORIGIN OF TRAINEES

EIGHTY-FOUR PERCENT OF IDRC'S TRAINING FUNDS DURING THE PAST 6 YEARS WENT TO RESEARCHERS LIVING IN LOW AND LOWER-MIDDLE INCOME COUNTRIES.

However, researchers living in the poorest countries did not receive the bulk of IDRC's training dollars, although the Centre's policy stresses the need for this to occur. Only 40 percent of the funds went to trainees from low-income countries. This, to a large degree, reflects the Centre's overall distribution of project funds since most of the training is conducted within the specific context of a project. The trend however is towards greater funding of trainees from low-income countries. Between the time the Centre's training policy was endorsed in 1983/84 and 1988/89, funding of trainees from low income countries jumped from 29 percent of total training support to 45 percent. In dollar terms, the amount increased from \$2.6 million to \$4.4 million.

During the six year period, IDRC supported trainees from 110 countries. Those from the top 10 countries accounted for 35 percent of the total training funds. Together, they received \$20.8 million. The bulk of the funds, however, were widely dispersed among a large number of countries.

III) LOCATION OF TRAINING INSTITUTIONS

THE LARGEST PERCENT OF IDRC TRAINING WAS CONDUCTED IN INSTITUTIONS LOCATED IN HIGH INCOME COUNTRIES.

Slightly more than 40 percent of the funds, \$23,840,500, went to trainees studying at these institutions, with trainees at Canadian institutions receiving 33 percent of the funds. Institutions located in upper-middle income countries accounted for 7 percent of the funds, and those located in lower-middle income countries accounted for approximately 30 percent of the training funds. Trainees attending institutions in low-income countries received 17 percent of the funds.

The concentration of training support to select institutions is practically non-existent. Over the six year period, training was conducted by 812 different institutions. Support was provided only one time to 522 of these institutions.

COMPARED TO OTHER DONOR ORGANIZATIONS, IDRC STANDS ALONE IN ITS COMMITMENT TO TRAINING IN DEVELOPING COUNTRY INSTITUTIONS. In 1986, for example, other donors spent 82 percent of their training dollars in institutions located in their own country. IDRC spent 31 percent (\$2,707,070). WHILE OTHER DONORS SPENT 8 PERCENT OF THEIR TRAINING FUNDS IN DEVELOPING COUNTRIES, IDRC SPENT 57 PERCENT (\$4,986,450).

IV) TRAINING INSTITUTION TYPE

ALMOST 80 PERCENT OF THE TRAINING FUNDS WERE SPENT ON TRAINING ACTIVITIES CONDUCTED AT UNIVERSITIES AND IN GOVERNMENT DEPARTMENTS AND MINISTRIES. Approximately 50 percent of the training funds went to universities (\$29.7 million) and 30 percent went to government ministries and departments (\$15.8 million). Private organizations accounted for 12 percent (\$7.1 million). Ten percent of the training funds could not be identified according to the type of institution that provided the training.

V) GENDER OF TRAINEES

AS WITH INSTITUTION TYPE, THE MOST STRIKING FINDING RELATED TO GENDER IS THE VOLUME OF MISSING INFORMATION. SIXTY-SIX PERCENT (66%) OF THE TRAINING FUNDS COULD NOT BE ATTRIBUTED TO MEN OR WOMEN BECAUSE THIS INFORMATION IS NOT RECORDED AT THE TIME THE FUNDS ARE APPROPRIATED OR SPENT.

Of the funds that could be accounted for, 25 percent went to men and 9 percent went to women. Between 1983/84 and 1988/89, the percent that went to men decreased from 28 to 21 while the percent that went to women increased from 7 to 10 percent.

TWENTY-THREE PERCENT (23%) OF THE FORMAL, DEGREE-RELATED TRAINING AWARDS WENT TO WOMEN. Comparable statistics for other donors in 1986 indicate that 14 percent of their scholarships were awarded to women. Although IDRC has a better record than most donors and although there is an indication of increasing support for women, there is little to suggest significant strides are being made. Perhaps IDRC's record is better than the statistics indicate. However, in the absence of the systematic collection of gender information, this cannot be substantiated.

VI) FORMAL VERSUS INFORMAL TRAINING

SIXTY-FIVE PERCENT (65%) OF THE CENTRE'S TRAINING DOLLARS WERE SPENT ON INFORMAL TRAINING ACTIVITIES (IE. SHORT COURSES, SEMINARS, GROUP TRAINING, NETWORK TRAINING AND COMMUNITY-BASED TRAINING).

The Centre's databases are not set up to capture detailed information about these activities or to identify them according to these categories. As noted earlier, this information was obtained, when possible, from Project Summaries for the purpose of this study.

FORMAL, DEGREE-RELATED TRAINING ACCOUNTED FOR THIRTY-FOUR PERCENT (34%) OF THE CENTRE'S TRAINING FUNDS. Despite the Centre's policy to move increasingly to informal training activities, formal training accounted for an increasing share of the training budget between 1983/84 and 1988/89. It rose from 32 to 44 percent of the total. At the same time, however, the number of informal training activities increased. It is likely, therefore, that the increase in funds going to formal training is a reflection of the higher cost involved.

VIII) FIELD OF TRAINING

During the six year period, 28 percent of the training dollars were used to study issues related to agriculture, fish, forestry and biology. Slightly less, 27 percent were used to study issues commonly captured under the umbrella of the social sciences, including economics, science and technology, demography, education, urbanization, sociology, psychology, anthropology, architecture, arts, energy, environment and political science.

A further 15 percent went to health, including medicine, nursing and epidemiology. Information science, computer studies and library studies received 10 percent of the funds. Training in the fields of engineering, chemistry, geology and geography accounted for 6 percent of the funds. Five percent went to business, public administration, law, accounting and management-related training. An additional 4 percent went to communication and journalism. The remaining funds, 5 percent, could not be identified by field of study.

Between 1983/84 and 1988/89 the largest change occurred in information-related training. A major decline occurred in social-sciences training, which fell from 40 percent of the total training budget in 1983/84 to 24 percent in 1988/89.

IX) PURPOSE OF TRAINING

Data on this is not formally required on the PS form although it is normally identifiable in the text of the project description. An effort was made to classify each training activity by purpose by annualizing the contents of the text of each PS. For this purpose definitions of "purpose" were developed using the following questions. Was the training undertaken for the researcher to **obtain additional skills** related to the subject matter of the research? Was it done to **improve the basic research skills** of the researcher in areas such as data collection and analysis? Or, was the training part of an effort to **strengthen the capabilities of an institution**? If so, was this training aimed at strengthening the institution's ability to deliver training programs, improve its information management systems or upgrade the research management skills of its staff?

ABOUT 40 PERCENT OF THE TRAINING FUNDS BETWEEN 1983/84 AND 1988/89 WERE USED TO OBTAIN THE SUBJECT-RELATED SKILLS THE RESEARCHER NEEDED TO COMPLETE THE RESEARCH. ALMOST 30 PERCENT WERE USED TO ENHANCE BASIC RESEARCH SKILLS, SUCH AS DATA COLLECTION AND ANALYSIS. ALMOST 25 PERCENT WENT TO TRAINING ORIENTED TO IMPROVING THE CAPABILITY OF THE INSTITUTION. OF THIS, ALMOST 60 PERCENT WENT TO STRENGTHENING THE CAPACITY OF THE INSTITUTION TO DELIVER TRAINING PROGRAMS.

Approximately 30 percent went to strengthening the institution's information management systems, 7 percent went to strengthening the research management skills of the staff and 2 percent went to strengthening the institution's financial and administrative systems. The remaining training funds, 10 percent, were used for other purposes, such as special fellowships and research positions.

X) NETWORK, MULTI-DISCIPLINARY AND UTILIZATION-FOCUSED TRAINING

As an experiment, an attempt was made to determine whether training information related to networks, multi-disciplinary research and utilization of research results could be obtained from existing information sources. These issues, identified from the MINUTES database, were selected because they are currently the subject of a great deal of debate in the Centre. Data on these issues is not systematically or formally collected in any of the corporate databases or project documents.

Using proxy variables (explained in the text) it was found that network-related training appears to be on the rise. From 3 percent (\$359,760) of the total amount that went to training in 1983/84, it increased steadily to 11 percent (\$1,394,765) in 1988/89. Over the six year period, network training accounted for 8 percent of the total training budget (\$4,765,610).

SUGGESTIONS FOR FOLLOW-UP

1. The statistical information of the study indicates that support to training institutions is widely dispersed among many institutions - a reflection of the Centre's project support. Also, there has been a significant increase in the percentage of training funds for projects for the purpose of improving an institution's ability to create or manage a research program.

Recently, FAD initiated the first of a series of projects to examine the role of training in institution building (3-P-90-0114, Appui Institutionnel en Matiere de Formation: Afrique Sud Sahara). Hopefully, the data compiled for this study can be used by FAD for studies examining the Centre's support to select institutions.

2. With the shift in support from formal to informal training, less information is available about the types of institutions doing the majority of training than previously. Given the large numbers of individuals affected (16,000 trained informally vs 1400 trained formally between 1983/4 - 1989/90), the Centre may wish to evaluate its informal training activities more extensively.
3. As noted, the largest part of training support goes to informal training and little data relating to this training is captured in readily accessible form. Many of these projects involve training for networks, community-based research, multi-disciplinary or utilization-focused research. Network training in particular appears to be on the rise. Given that IDRC has supported more than 300 networks, the Centre may wish to consider examining this style of training in more depth. It might also wish to more carefully examine the role of community-based training and utilization-focused training, if these issues are to be of ongoing significance.
4. IDRC spends more on training at developing country institutions than other donor agencies. It might be worthwhile to consider how IDRC might capitalise on this style of operation and promote it among other donors.

I. INTRODUCTION

1. BACKGROUND

In September 1989, OPE established a Statistical Support Unit. One of the objectives of the Unit was to identify, through the preparation of policy-related reports, key information the Centre should track over time to monitor its allocation of resources to research in developing countries. This report is a summary of the findings from the first policy-related issue the Unit tackled. The sample policy issue chosen for the study was ***"the evolving trends in Centre support to training"***

2. PURPOSE

The primary purpose of the study was to test the ability of the corporate information systems (PINS & PROMIS in particular) to provide data for policy-related analysis. This report describes the approach and methodology of the study and makes recommendations on ways to improve the Centre's ability to track and analyze data. Within this context a number of key issues relating to training were examined and the report outlines the findings from an analysis of this training information.

The data analysed covers a period of six years, 1983/84 to 1988/89. This time frame dovetails with the establishment of the Fellowships and Awards Divisions in 1983 and with the last training study conducted by the Office of Planning and Evaluation. In the context of this, some avenues for improving the Centre's data-bases are suggested:

- i) **DATABASE ENHANCEMENT TO FACILITATE POLICY-RELATED ANALYSES:** The corporate information systems (PROMIS, PINS, & FINMIS) were originally set up to capture and track project management and administration information. The question posed by the study, was how could the information captured by these data sources be improved or enhanced to allow for use of the databases for regular policy analyses. Concerns relating to this include ensuring consistent data standards and definitions across all the databases and linkage between the databases so as to reduce duplication of effort in recording data¹;
- ii) **USE OF THE PROJECT SUMMARY FORM AS THE SOURCE OF POLICY-RELEVANT INFORMATION:** The PS is the key document which initiates the recording of program/project data in the Centre. As a source document, it contains a large amount of information, however much of this is not systematically entered into the

¹ The EDP Data Administration Project and the establishment of a data administration manager has already begun to address some of the issues identified in this study.

databases. In addition, it is not currently designed to capture data relevant for policy analysis². The questions posed in the study relate to analyzing the kind of data available in the PS which has not been systematically transcribed into the databases with a view to assessing if and how this could be improved.

- iii) **USE OF CENTRE DATABASES FOR ASSESSING POLICY FIT OF PROGRAMS:** The study examines a number of questions related to IDRC's current training policy. In effect, it tries to determine what the data analysed demonstrates regarding the fit between policy and practice. The study also examines the data the SSU was able to collect about some training questions that might become increasingly important to reflect upon, such as network-related training, multi-disciplinary training and utilization-focused training.

3. DEFINITIONS

As an organisation, the Centre identifies "research capacity building" as an important aspect of its work that arises as much out of **how** it does its work as of specific/discrete project activities supported. In this context, being involved with an IDRC-supported research activity can be considered as one form of training. It is one that involves "learning by doing". For the purposes of this study, "training activities" will include only the more formally structured training activities, such as participating in degree programs, exchanges, short courses, seminars and workshops (where training is a primary objective).

4. FORMAT OF THE REPORT

The report is organized in three major sections. The first describes the experience of the study team in accessing policy-related information from the variety of sources available in the Centre and outlines, or maps, the training information the Centre has at its disposal. This section explains some of the major strengths and limitations of the information currently available, and documents how it was used to examine some key policy questions.

The second section provides an overview of the specific findings related to IDRC's support to training. It presents these findings within the context of a number of policy questions. From relatively standard questions about where the Centre spends its training

² The PS automation project is underway and it may be appropriate at this time to propose inclusion of a limited number of fields to capture policy information

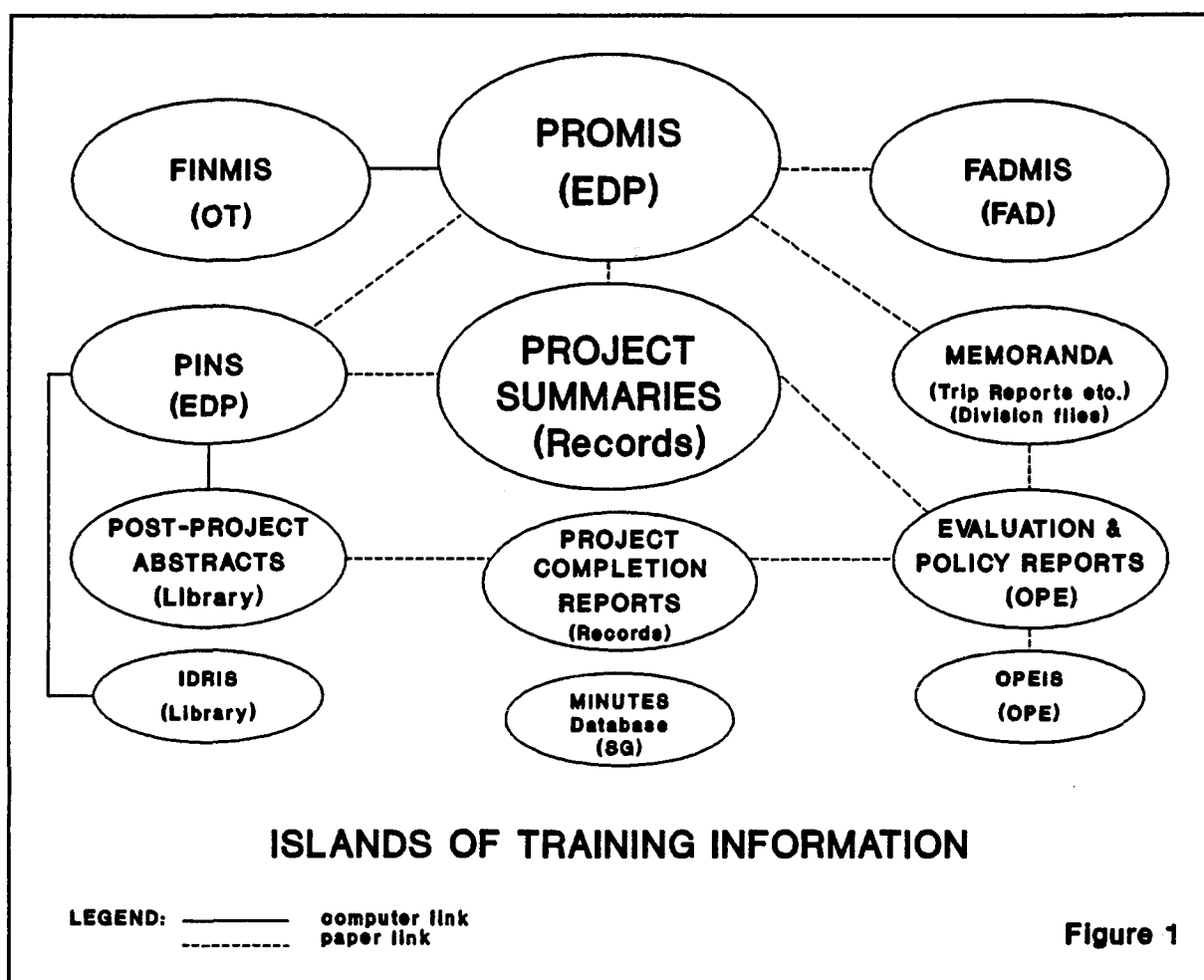
funds, the discussion in this section moves to increasingly complex questions, such as trying to determine how much the Centre spends on network and multi-disciplinary training.

The final section summarizes the major findings, presents some ideas about possible ways to streamline this process of collecting and analyzing policy-related data, and raises some questions about the type of training information the Centre might wish to collect.

II. ACCESSING POLICY-RELATED INFORMATION: THE CASE OF TRAINING

i) ISLANDS OF TRAINING INFORMATION

IDRC-related training information resides in 12 locations in the Centre (Figure 1). It is found in 8 different databases and 4 non-automated source documents.



These databases and source documents can be grouped into three broad categories. (detailed information can be found in parts iii to v of this section). The **first** category contains **policy-related** information. This includes the MINUTES Database maintained by the Secretariat and various memorandums and reports on the history of the Centre's training policies.

The **second** contains **administrative and financial** information. This includes the Project Summaries(PS), PROMIS, PINS, FINMIS and FADMIS. The PSs are produced by the divisions as the primary source document for all detailed project information; and the information management databases. At present it is a paper document kept on the division files or in Records but a new system to automate them is being tested and will be implemented in the near future. PROMIS and PINS are automated project monitoring and reporting information systems. They are maintained by the divisions (which input project data) and EDP (which maintain the system). FINMIS is the Centre's financial information system in which is recorded all relevant data pertaining to actual expenditures on project and project support activities. It is maintained by the Office of the Treasurer (OT). FADMIS is the database for Fellowship and Awards. It contains detailed information on the individuals receiving awards funded by the Centre which are managed by FAD.

The **third** category contains **evaluation-related** information. The main sources for this information are the Evaluation Reports Inventory maintained by the Office of Planning and Evaluation (OPE); OPEIS the database on evaluation information (based on summaries of the evaluation reports); Project Completion Reports (PCR) which are supposed to be produced by the divisions six months following the completion of each project; and the Post-project abstracts (PPA) produced by the Library.

ii) CREATING LINKS AND ANALYZING THE DATA : DATABASE FINDINGS

These various data sources that contain training-related information presented a number of challenges to the SSU. The first challenge was trying to identify projects that had a training component. Some projects solely dedicated to training have zero entered as the training amount in the Budget Breakdown of the Project Summary.

The second challenge, after the projects were identified, was trying to ensure all training costs were calculated using the same formula.

The third challenge was trying to capture detailed training information from source documents, like the Project Summary, that currently do not ask people to uniformly provide certain types of training information, such as the gender of the trainee, the name and location of the training institution and the objective of the training activity.

The fourth challenge was determining how to link training information that resides in different databases written in different software packages. Of particular concern, was linking PINS and FADMIS, the two databases that contain the bulk of the existing training information. Although they both reside in MINISIS, PINS contains information related to

projects and FADMIS contains information related to individual award holders. FADMIS, therefore, records information on a person by person basis, while PINS groups all training activities together. In addition the FADMIS data relates to funds already committed while PINS data relates to planned expenditures.

The fifth challenge was trying to weave a path through a host of automated and non-automated information sources that do not systematically progress from information collected at the Project Summary stage to that collected at the evaluation stage.

To address some of these challenges, the SSU designed a temporary database in DBASE III+ to use as a working tool for the purpose of the study. The database was not designed with the intent of adding yet another database in another software language to the current compliment. It was designed as a temporary "home" to experiment with combining data from different systems and adding additional training-related information that cannot be found in the existing systems.

The database contains 37 fields to record information about:

- ⊗ the project or award number,
- ⊗ the amount of training money involved,
- ⊗ the year the money was appropriated,
- ⊗ the name of the division that funded the training activity,
- ⊗ the amount of money other donors contributed,
- ⊗ the amount of formal degree training and informal training,
- ⊗ the level of degree training,
- ⊗ the type of informal training,
- ⊗ the objective of the training activity,
- ⊗ the region and country where the trainee was from,
- ⊗ the region, country, name and type of institution where the training was conducted,

- ⊗ the field of study,
- ⊗ the number of participants,
- ⊗ the gender of the trainee, and
- ⊗ the amount of network training.

The reason for selecting these fields, as opposed to others, is discussed in the next section of the report.

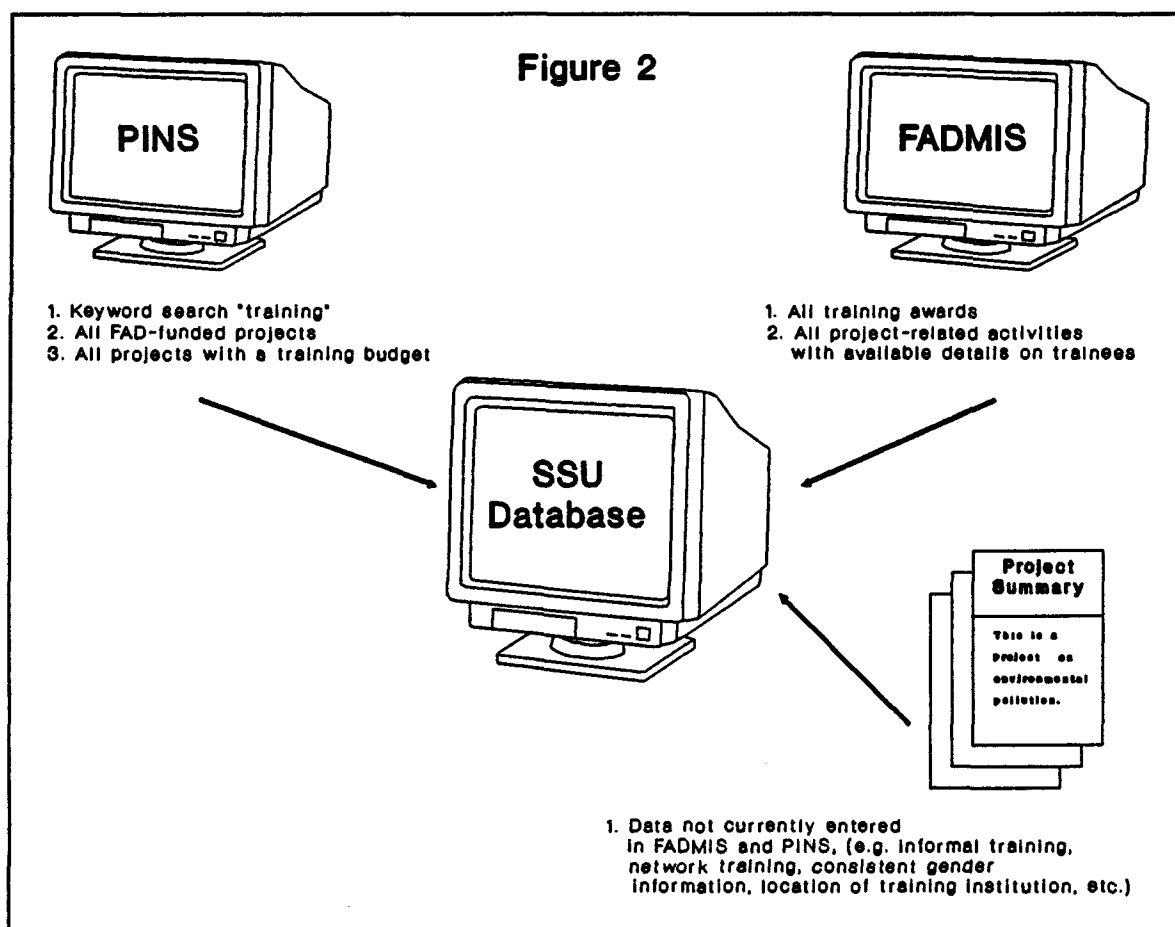
With assistance from EDP Services, PINS was searched to identify projects that were funded between 1983/84 and 1988/89 with the word "training" in the title or keyword listing. Projects with an amount in the training line item in the Budget Breakdown were also identified. Using both approaches, projects with a training component, but without any money recorded in the training line item, were identified.

Projects that met these two criteria were extracted from PINS and set aside in a small file. EDP Services then searched FADMIS and extracted all awards-related information for the time period in question. This information was added to the file.

Using the local area network, the SSU retrieved the file from EDP Services and downloaded this information into its temporary database. This database was designed to correspond as closely as possible to FADMIS to ensure consistency in structure and content. Although a number of fields could not be filled in with data from either PINS or FADMIS, parallel structures were retained to ensure any missing data that was collected could be uploaded into the corporate systems, if required. Figure 2 illustrates this data transfer process.

A total of 2,564 records were downloaded, 1,134 from PINS and 1,430 from FADMIS. The SSU read the Project Summaries associated with the data in PINS. In the process, it removed 110 records that were not oriented to the objectives of the study, although the title or keyword listing contained the word "training". It also removed training information from AFNS that had been entered in FADMIS in order to prevent double-counting.³ To the remaining 1,024 records, additional data from the Project Summaries were added by hand. Additional data were also added by hand to the 1,430 records from FADMIS. The

³ AFNS is the only division that enters training data into FADMIS. However, only degree training is entered. Training conducted through workshops, seminars and short courses is not entered. As a result, the SSU captured only non-degree training for AFNS in its temporary database.



final number of records in the SSU database was 2,454. The data that was added by hand represents approximately 70 percent of the information in the database.

After the data was entered, which took two people 3 months, it was analyzed using SPSS. This analysis took another 2 months. Including the work done by EDP Services, the study took a total of 10 PY months to complete.

iii) POLICY-RELATED INFORMATION

The MINUTES Database

The Secretariat maintains a database called MINUTES. As its name implies, it contains the minutes of meetings held by the President's Committee (PC), the Program Committee (PRO) and the Personnel and Administrative Policy Committee (PAPC). In the

very near future, it will also contain a complete set of the minutes from meetings held by the Board of Governors. The Secretariat has entered minutes from the earliest meetings it could locate.

The database was established in 1989 using a software package called ZYINDEX. One of the key features of this package is its ability to search the complete set of minutes using key-words. Using keywords such as "*training*", "*network training*" and "*interdisciplinary training*", the SSU searched the database to review comments made by staff and management about these topics and to identify policy-related decisions.

Memoranda and Reports

The SSU also read memos and reports explaining the history of the Centre's training policies. This information was used, primarily, as background information for the study.

The SSU also used written documents, such as the 1988 IDRC/CIDA-funded study of donor support for training and human resource development, to document trends in donor support and to compare IDRC's training support to other donors.

iv) ADMINISTRATIVE AND FINANCIAL INFORMATION

The Project Summary

The PS is the document that sets the stage for tracking much of the information the Centre collects about its research activities. The Data Sheet in the Project Summary has a line item under the Budget Breakdown for training. There is also a full section on the Data Sheet to record more detailed training information, including the type of training, the number of trainees, the duration of the training activity and the amount of money involved.⁴ The Data Sheet in the Project Summary has a line item under the Budget Breakdown for training. There is also a full section on the Data Sheet to record more detailed training information, including the type of training, the number of trainees, the duration of the training activity and the amount of money involved.⁵

⁴ The categories under type of training are PhD degree, Masters degree, Diploma, Short Courses, Postdoctoral Training, Student Field Work and Other Training.

⁵ The categories under type of training are PhD degree, Masters degree, Diploma, Short Courses, Postdoctoral Training, Student Field Work and Other Training.

In the written text of the Project Summary, the information provided about training is very much left to the discretion of the program officer who writes it. Some program officers provide additional information about the rationale for the training, where it will be conducted and the expected benefits. Others do not provide any additional information.

The SSU read the project summaries and recalculated the training amount based on the associated costs it could identify from the more detailed budget, which is also part of the Project Summary, and from the written text. In its calculations, the SSU included the costs it could identify for the full range of training-related activities, including tuition fees and stipends, course materials, trainers, room rentals and travel costs. If these costs were not articulated in the more detailed budget or the text of the Project Summary, they could not be identified and, as a result, could not be included in the analyses. However, for the majority of projects and for all of the training awards, these costs could be identified from a careful review of the detailed budget.

The training information from the Project Summary that does get automated is found in a database called PINS. EDP enters the information found in the Budget Breakdown section of the PS Data Sheet under the line item called training. Although more detailed information is also found on the Data Sheet, this information is, presently, not entered in PINS.⁶ Other information, such as the details about the type of training and where it will be held, is not automated. The SSU read 1,024 Project Summaries to collect this additional information.

The Project Summaries were also read to try to collect other data, such as the gender of the trainee, the location and name of the training institution, the field of study, the objective of the training activity, the method of delivering the training and the number of participants. In some instances, this information was not found in the Project Summary. Where this was the case, it is indicated in the results of the analyses.

PROMIS

PROMIS is the Centre's main database for tracking project-related information. It contains numerous fields for recording information about the timing of events associated with monitoring a project. The initial source of information for PROMIS is the PS, however its primary purpose is to be the repository of project monitoring and tracking information gathered during the life of each project. Although it contains a number of training-related fields, only AFNS uses them.

⁶ The PROMIS Users Group (PUG) is automating the Project Summary. When their work is implemented, this detailed training information from the Data Sheet will be captured in the database.

PROMIS also contains information about Division Activity Projects (DAPs). DAPs can be used to fund small projects and training activities, as well as other initiatives.

The SSU did not use training information from PROMIS for this particular study because project-related data is only available for one division and it is not oriented to the type of policy-related questions the study examines.

The DAP-related training information was not used either. Currently, DAPs are not coded by purpose. Unless they contain the keyword "*training*", they must be read individually to identify those with a training component.⁷ A decision was made not to do this, considering 5,338 DAPs were funded over the study period. The amount of training money that is excluded in the analyses, as a result of this decision, is not estimated to be large - approximately \$350,000 a year.⁸ Most of these funds come from the Information Sciences Division, which uses DAPs more than the other divisions to support training activities. The results of the study, therefore, slightly underestimate the contribution IS makes to training.

PINS

The training information entered in PINS is not as accurate as one would wish. Although the amount recorded under the training line item is faithfully entered by EDP Services, there is some question about how it is calculated at the level of the program division. In the absence of guidelines, people calculate it differently. Some projects, which are solely training in nature, have zero recorded in the training line item. The costs are recorded in other line items. Some people only record tuition fees under the training line item. Others include all of the costs associated with the training activity, including the cost to hire the trainer, rent the facilities and travel to the course. In fact, it is very difficult for people to know where to record these associated expenses because line items also exist on the Project Summary Data Sheet for travel, support services and consultants.

⁷ The Human Resources Division, as part of its efforts to streamline policies and procedures relating to project administration, has reviewed DAPs and proposed changes which should help address this problem.

⁸ This figure was estimated from existing information calculated by Information Sciences Division and submitted to FAD in a memorandum dated July 22, 1988.

FINMIS

FINMIS also contains training information, however, the same definitional problems that are found in PINS are mirrored in FINMIS. It is difficult to confidently determine the amount of money spent on training because it can fall under three or four different line items. As well, the numbering system for entering data in FINMIS creates an additional hitch. For project-related financial data, budgeted amounts are entered sequentially and assigned a number accordingly. Training-related line items do not always appear in the same sequence in the budget from the Project Summary and, therefore, they do not get assigned the same number in FINMIS. As a result, it is difficult to search the database for this information.

Due to these difficulties, the SSU did not use FINMIS in its analysis, although the database contains useful training information. This information, if it could be retrieved, would allow one to determine the amount actually spent on training versus the planned amount, which is found in the other databases. Because it was not possible to obtain this information, the study uses planned as opposed to actual appropriations. An assumption is made that these appropriations accurately reflect the amount spent on training.

FADMIS

The Fellowships and Awards Division (FAD) maintains a database called FADMIS that contains detailed information about the fellowships and awards they sponsor.⁹ The Agriculture, Food and Nutrition Sciences Division (AFNS) also uses this database to record information about the degree-related training activities it supports at the PhD and Masters level. FADMIS contains detailed information about the individuals who receive fellowships and awards, including their citizenship, previous educational background and place of work. It also contains detailed information about where they will be doing their degree and the field of study.

The difference between FADMIS and PINS is the former contains primarily formal, awards-related training information and the latter contains both formal and informal training funded within the context of project-related activities. A second difference is the quality of training information contained in the two databases. FADMIS contains more consistent and detailed training information than PINS. However, this information is limited to

⁹ These awards include all MSc and PhD awards normally supported by the Division plus the Young Canadian Researcher's Award, the Pearson Fellowship, Energy Awards, Epidemiology Awards, Gender and Development Research Intern Awards, Environmental Interns Awards and the Gemini Award.

awards-related training, which does not account for the bulk of the Centre's training support. As well, the two databases are not linked, making it very difficult to obtain comprehensive information about the Centre's support to training.

The SSU used data from FADMIS to track changing patterns of awards-related support to training.

v) EVALUATION-RELATED INFORMATION

Evaluation Reports Inventory

A number of training-related evaluations have been conducted by the Centre that address a series of projects or training initiatives. Most of them are evaluations of FAD-funded scholarships and awards, such as the Young Canadian Researchers Program and the Pearson Fellowships. There are also some that evaluate different aspects of training, such as support for PhDs.

These evaluation reports are housed in the Office of Planning and Evaluation (OPE), and were used by the SSU as another source for identifying training-related outcomes and lessons learned. It is intended that all evaluation reports kept in the Inventory will be available in summary form in OPEIS.

OPEIS

OPE is developing a database, with assistance from EDP Services, called OPEIS that will contain training-related information, along with other data. It is being developed using Powerhouse software, and will be maintained by OPE. It is designed as a tool to facilitate the rapid analysis of many evaluation reports on a selected number of issues including the planning, operations and results of Centre programs and projects.

OPEIS will contain information from all Centre-funded evaluations and, perhaps in time, information from evaluations conducted by other donors as well. The database will allow one to search for answers to the following training-related questions, along with answers to other questions:

♦ Was the donor's technical support adequate?

Interpretation: Is there any discussion on the frequency, duration and value of technical consultancy services? of staff monitoring visits?

Was technical assistance appropriate? Were the necessary scholarly publications, research equipment, training opportunities, information services, etc. provided?

- ◆ Were the donor's procedures in support of training activities adequate?

Interpretation: Did the training procedures facilitate the achievement of training objectives? Was there any discussion on the selection of trainee(s)? the training institution? the training content? the level of training? the administration of the training program? of support that was offered to the trainee? **NOTE:** The term "training" refers to a multitude of different types such as post-graduate degree and diploma, on-the-job, study tours, workshops (where training is a prime objective), etc.

- ◆ Were training objectives met?

Interpretation: Was there any discussion on the extent to which training objectives of the initiative were achieved? How many people received training? Was the training relevant to the overall project objectives? Did trainees continue to be involved in research work after completing their studies?

It will also allow one to search for answers to other questions that might be related to strengthening the institution hosting the training activity and improving the method of delivering training. These questions include the following:

- ◆ Were **linkages** between national, regional and/or international **researchers** enhanced?

Interpretation: Did the initiative result in more collaboration, coordination and cooperation **between researchers and research institutions**. Specifically:

- A. North-South: between MDCs and LDCs
- B. South-South: between LDCs
- C. Within the host country

◆ Generally, was **Institutional capacity** improved?

Interpretation: Was the institutional capacity enhanced as a result of the initiative? Specifically:

- A. **Research Capacity:** What are the cumulative effects of the initiative on building research capacity? What effects have specific components of the intervention had on building overall research capacity. Did training, equipment supply, networking, enhanced academic credibility, the generation of new technology have a measurable impact on the research capacity of the host institution(s)?
- B. **Managerial Capacity:** Did the initiative have any effect on improving the ability of the host institution to manage research? to set priorities? to allocate resources? to make longer term plans, etc.?

The database is not yet fully functional and it currently contains summaries to only a small number of evaluation reports - 56.

These training-related questions are certainly more direct than those found in the PCR. As well, the evaluations often cover a range of projects or issues. As a result it will be possible to assess the training activities on a broader basis than in the PCRs.

The SSU used a print-out from the database to identify lessons learned about training activities. The limitation of this data for this study was the small number of evaluation reports available in summary form in the database.

Project Completion Reports (PCR)

PCRs are supposed to be written for each completed project the Centre funds. The objective of the PCR is to obtain information, on a project-by-project basis, shortly after the project is completed to identify, where possible, outputs and lessons learned. They are kept by the Library and used in the preparation of the Post-Project Abstracts (PPA). When writing the PCR, divisions are asked to answer the following six questions.

1. *What project results were achieved and did project activities and results follow project objectives and methodology?*
2. *Did the project result in building institutional, managerial or individual scientific capability?*
3. *What publication or dissemination of results have been achieved?*
4. *What lessons were learned which would allow IDRC to develop better projects in the future or to improve its policies and practices?*
5. *What follow-up action, if any, is required?*
6. *Was the project worthwhile?¹⁰*

The SSU read a sample of the PCRs for the time period in question to obtain information about training outcomes and lessons learned. Particular attention was paid to the response generated from question number two, which is more oriented to training than the other questions. Question number two, however, does not specifically request the author to comment on the training component of the project. In fact, none of the questions request specific information about any training activities that were included in the project.

A number of difficulties were encountered. The first was the limited number of completed PCRs. Of the 1,371 projects that had a training component, only 142 (10 percent) had PCRs. Only 1 percent of the projects funded by FAD had a PCR. Similarly, only 5 percent of those funded by Health Sciences, 6 percent of those funded by AFNS and 10 percent of those funded by Communications Division had a PCR. Information Sciences and Social Sciences had a larger number of projects with a PCR. Seventeen percent of IS projects with a training component and 37 percent of Social Science's projects with a training component had a PCR.

The SSU reviewed 28 of the 142 completed PCRs for the study. A larger number would have been reviewed, but problems were encountered locating the completed PCRs in the Centre. This was another difficulty that was encountered.

¹⁰ The PCR System: A Review. Office of Planning and Evaluation, March 12, 1987.

Probably the most significant difficulty was the type of training information contained in the completed PCRs. This information, in the vast majority of cases, was limited to a statement about the number of people that received training. There was very little information about the strengths and weaknesses of the approach to training, the training institution and the overall benefits of the training. As a result, very little could be gleaned from the PCRs about "lessons learned". This difficulty, of course, can be traced to the fact that none of the questions in the PCR specifically request training-related information.

Some of the information contained in the PCR is automated. It is contained in the Post-Project Abstract. However, the information in the PCR that is related to lessons learned is not automated, due to the non-evaluative nature of the Post-Project Abstract.

Post-Project Abstract

In 1987, OPE, with the Library's help, initiated the Post-Project Abstract. These abstracts document the actual outcomes, and can be compared to the original abstract in the Project Summary to determine whether the planned activities actually occurred. They also contain a list of publications resulting from the project, a short statement about training and a list of other phases or activities associated with the project. They do not evaluate the project but simply state what happened. The Post-Project Abstract is part of the PINS database system. It is maintained by the Library.

The Library obtains the information for the Post-Project Abstracts from Project Completion Reports (PCRs), discussed later, and from the Final Report the recipient submits. The information at the disposal of the library, therefore, depends on the training information contained in these documents.

The SSU read the training information in the Post-Project Abstracts to determine whether planned training had taken place. However, the abstracts had been recently initiated, and, as a result, the SSU was only able to obtain training information for two of the six years the study covers. As well, the training information is often a statement about the number of people trained. In some instances, this is supplemented with information about the location of the training, the topic and the citizenship of the trainee. There is no cross-referencing with the Project Summary to ensure the training referred to in the PCR and the recipient's final report were funded by IDRC.

The information is not uniform and it cannot be summarized, except by hand, because the data is entered into text rather than numeric fields. Another issue concerns the sources used to record training information. The SSU did not use the information provided in the Post-Project Abstracts for these reasons.

III. TRAINING FINDINGS

i) IDRC's Training Policy

The goal for providing training support is to assist research institutions of developing regions of the world to create the capacity for high-quality research; and to assist with the development of training institutions in these regions to the point where they can meet their own research-related needs.

FAD 1990

The IDRC Training Policy, prepared by FAD in 1988, stresses a commitment to the development of the human resources needed to undertake research into the problems of international development.

The policy states the Centre will provide training to support project and program objectives and will seek every opportunity to place the major thrust of its training efforts on the strengthening of indigenous institutions in the developing world.

It also states training decisions will be guided by the Centre's principles of responding to developing country needs and of maximizing the involvement of developing countries in designing, managing and implementing their research programs.

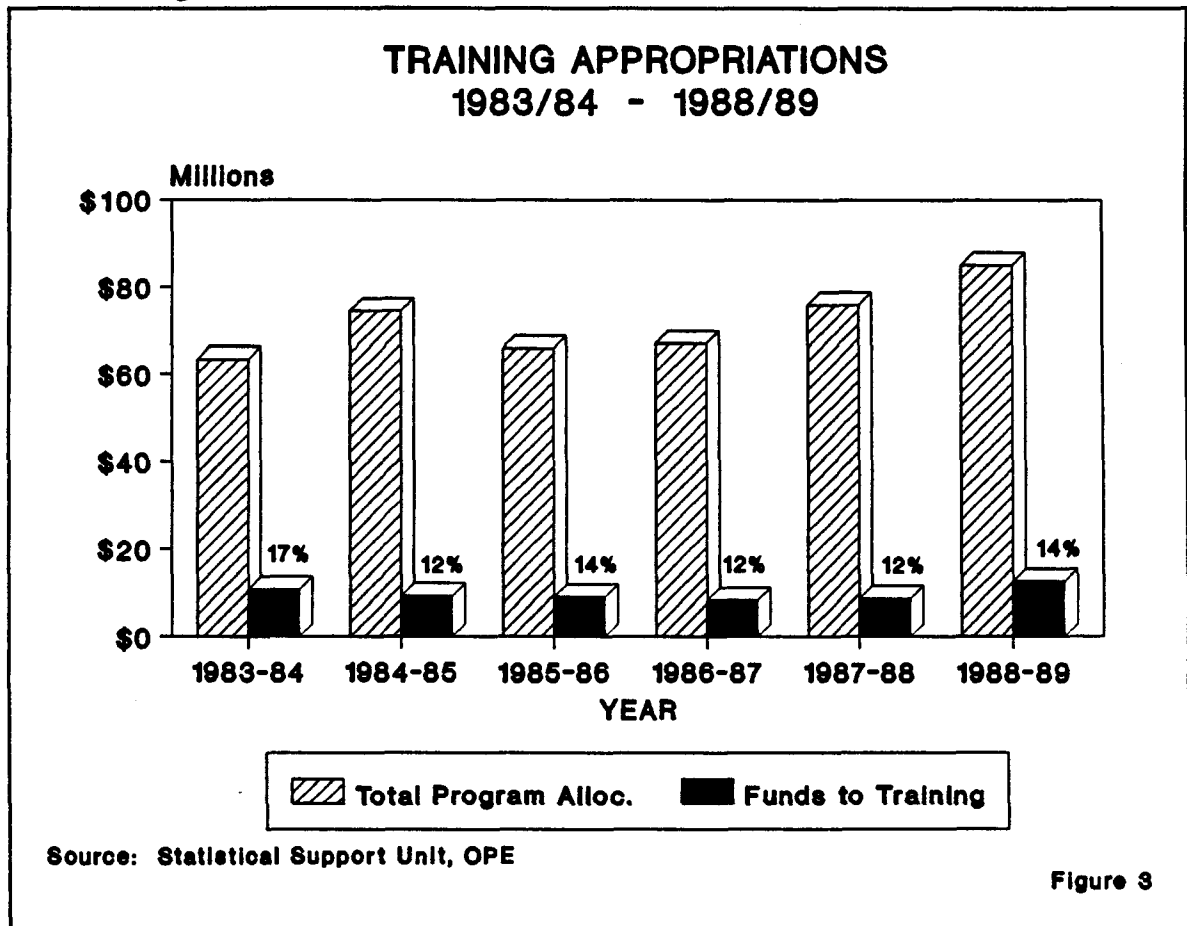
The policy states the major share of the Centre's training resources will be used to train nationals of the least developed countries. Priority will be given to training in a trainee's own or other developing country.

The policy also states the Centre will not support formal undergraduate studies. It will give preference to training at the Master's level, while recognizing the need to consider PhD training.

The Centre's first Training Study was conducted in 1981 by OPE. The study proposed a number of guidelines that were accepted by the Board of Governors. These guidelines are now reflected in the Centre's formal 1988 Training Policy. Although many of the policies are direct reflections of the 1981 recommendations, the 1988 Training Policy

places a much greater emphasis on the strengthening of indigenous institutions than the Centre was willing to endorse in 1981.

ii) Funding Patterns



IDRC spent approximately \$58 million on training between 1983/84 and 1988/89. This represented 13 percent of its total program appropriations. As Figure 3 illustrates, the percent ranged from a high of 17 in 1983/84 to a low of 12 percent in three of the subsequent years.

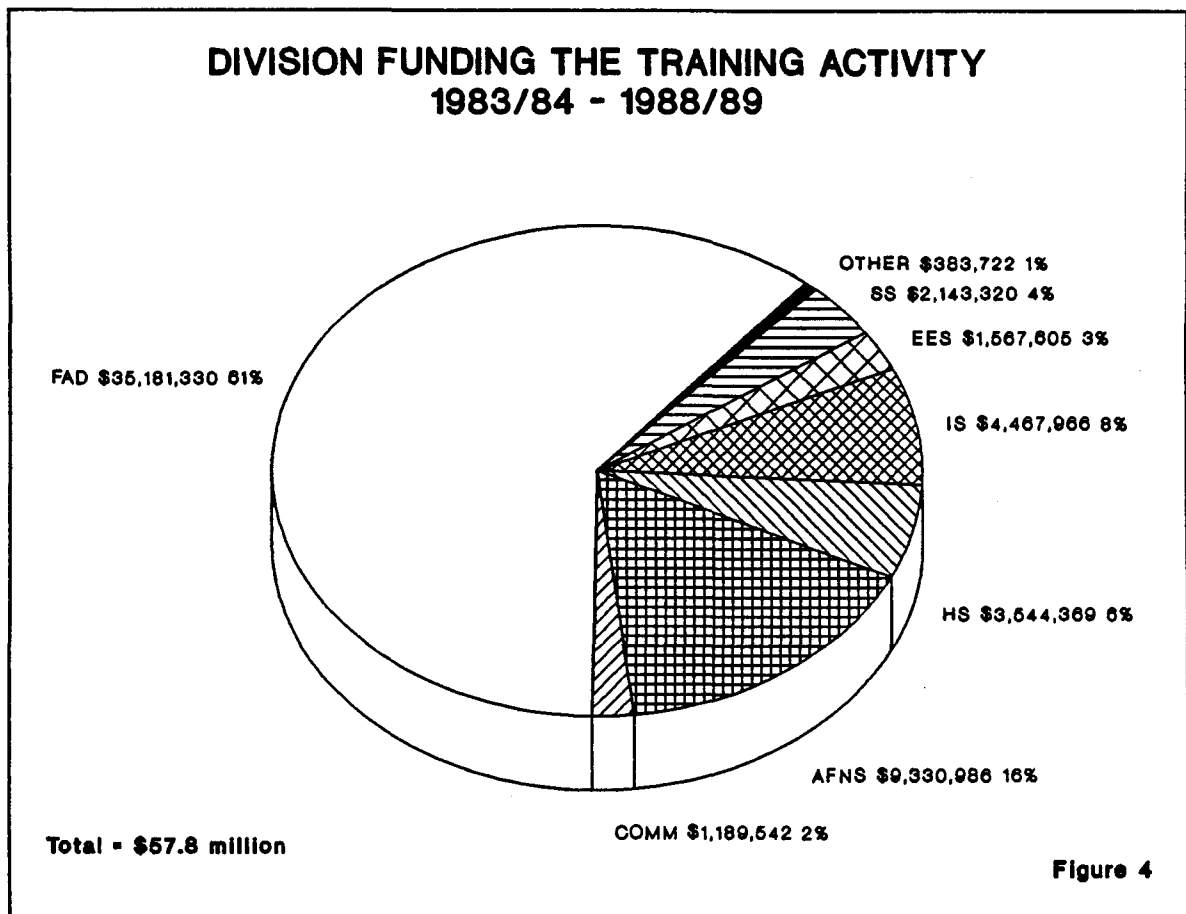
Adjusted for inflation, the actual dollar value of funds spent on training declined slightly over the time period in question, from \$9.1 million to \$8.7 million. The overall trend,

however, was somewhat uneven. During the six year period, it ranged from a high of \$9.1 million in 1983/84 to a low of \$5.8 million in 1987/88 ¹¹.

The Training Policy Study that was conducted in 1981 estimated the Centre spent \$20 million or 10 percent of its program appropriations on training during its first ten years. A rough estimate of the total amount spent on training up to 1989/90, was around \$78 million. The percent of total program appropriations targeted for training has increased slightly, from 10 to 13 percent.

Accurate comparisons with other research-supporting donors cannot be made due to a lack of comparative data.

¹¹ This pattern was influenced in part by management decisions to allocate training funds to FAD in the year preceding their appropriation.

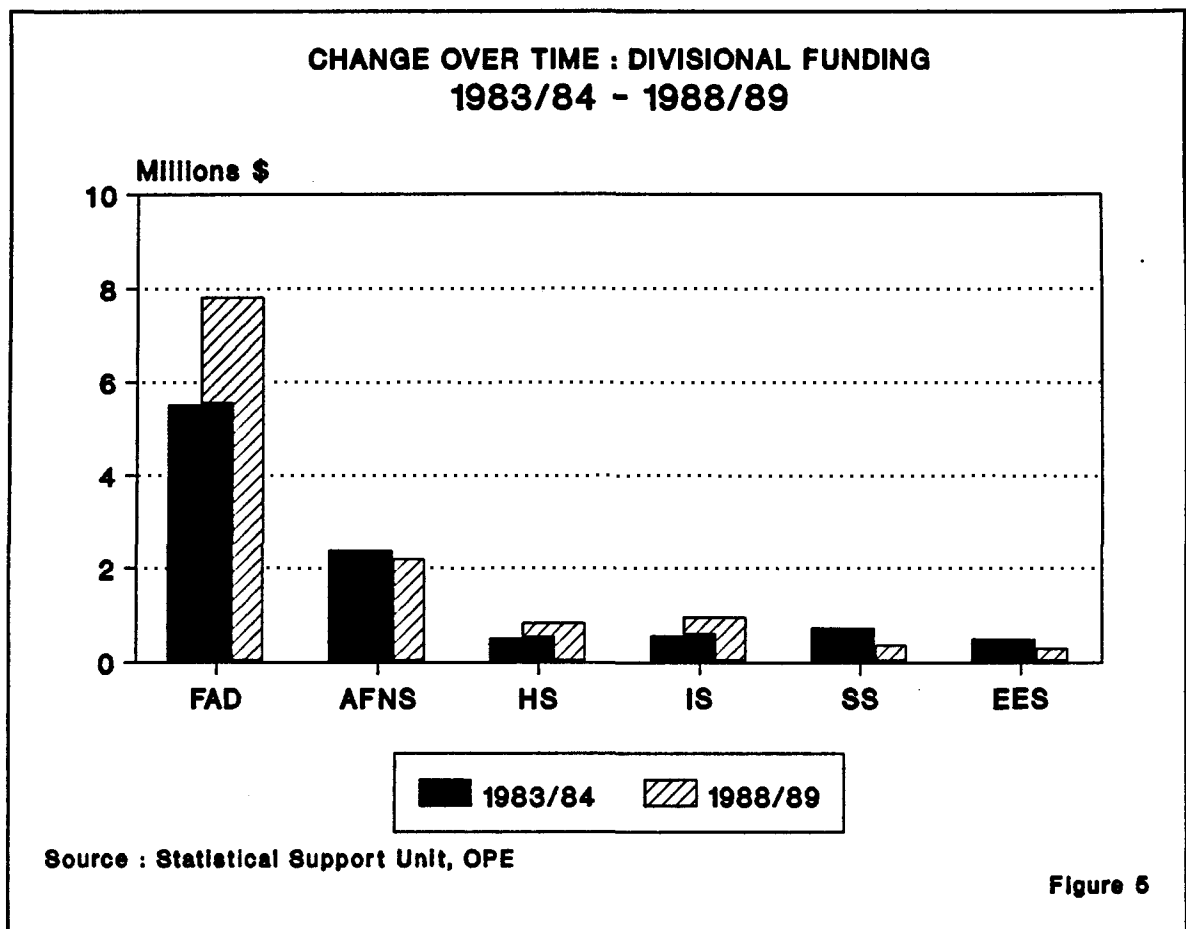


As figure 4 illustrates, FAD contributed approximately 60 percent of the training funds that were spent between 1983/84 and 1988/89.¹² AFNS contributed 16 percent, followed distantly by IS (8 percent), HS (6 percent), SS (4 percent) and EES (3 percent).

Over time, HS and IS have increased their contribution to training while AFNS, SS and EES have decreased their contribution (Figure 5).

A somewhat different picture emerges with respect to the divisions administering the training funds. FAD and the divisions administered about the same amount of funds. FAD administered approximately 50 percent of the funds. AFNS administered 19 percent

¹² If FAD co-funded a project with a division, all training funds were attributed to FAD. With few exceptions, this practice accurately reflected FAD's contribution. In some cases, however, the division also contributed training funds. The amount of funds overall, however, were not large enough to significantly skew the data.



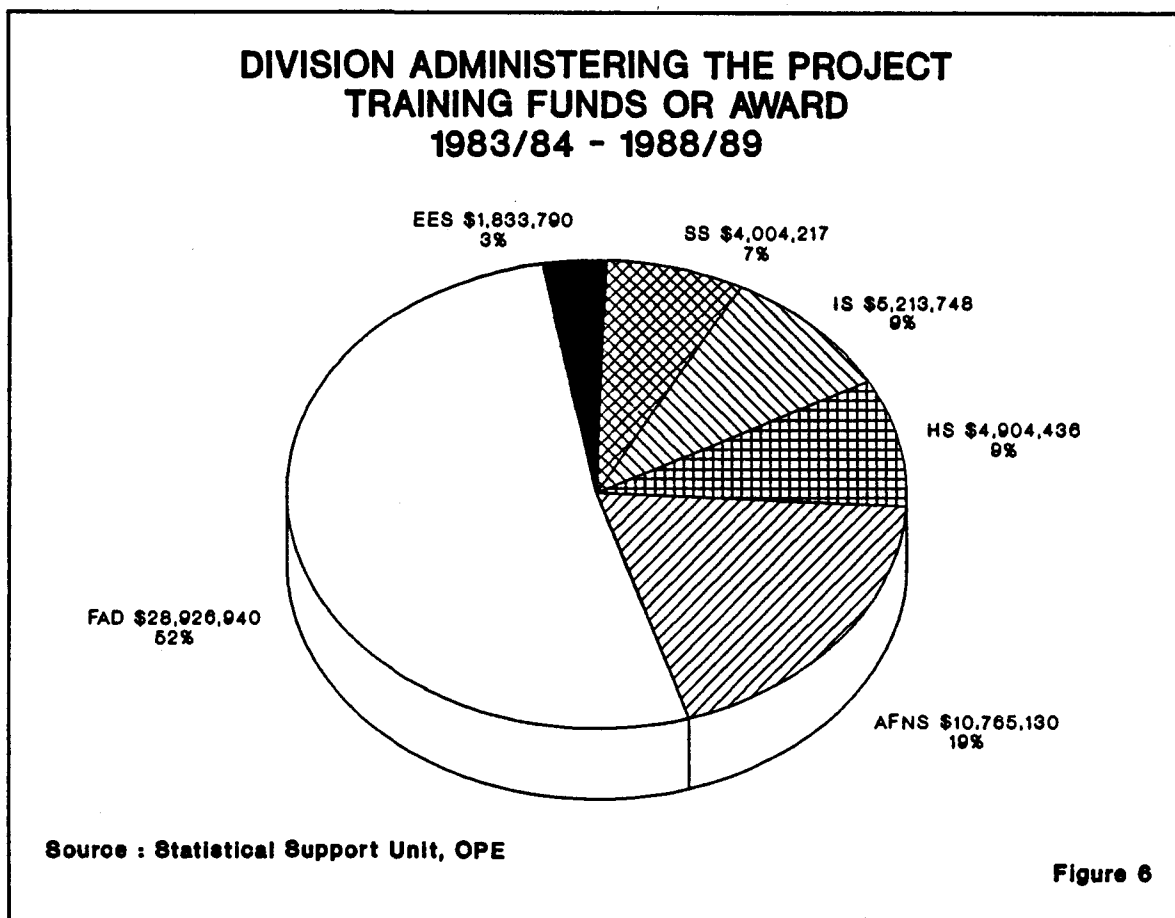
of the funds, followed by IS¹³ and HS who administered 9 percent each. SS administered 7 percent of the funds and EES, 3 percent (Figure 6).¹⁴

All divisions, with the exception of EES, are administering a larger amount of the total training funds than they were in 1983/84.¹⁵ FAD is administering the same amount as it was in 1983/84 (Figure 7).

¹³ Much of IS spending on training is done by means of DAPs. Since DAPs are not coded in a way amenable to extracting information on training for analysis, this figure for IS is an under-estimation.

¹⁴ The training funds for jointly-funded projects (where FAD was not involved) were attributed to the division whose name first appeared on the project summary. This was done because the training funds in these projects are not identified by division. Jointly-funded projects with a training component represented \$2.7 million or 4 percent of the total training funds.

¹⁵ If a division co-funded a training activity with FAD, an assumption was made that the division administered the activity. The slight decline in the volume of training funds administered by EES might be attributed to the role it played in the administration of some of the earlier training awards when it was called the Co-operative program.

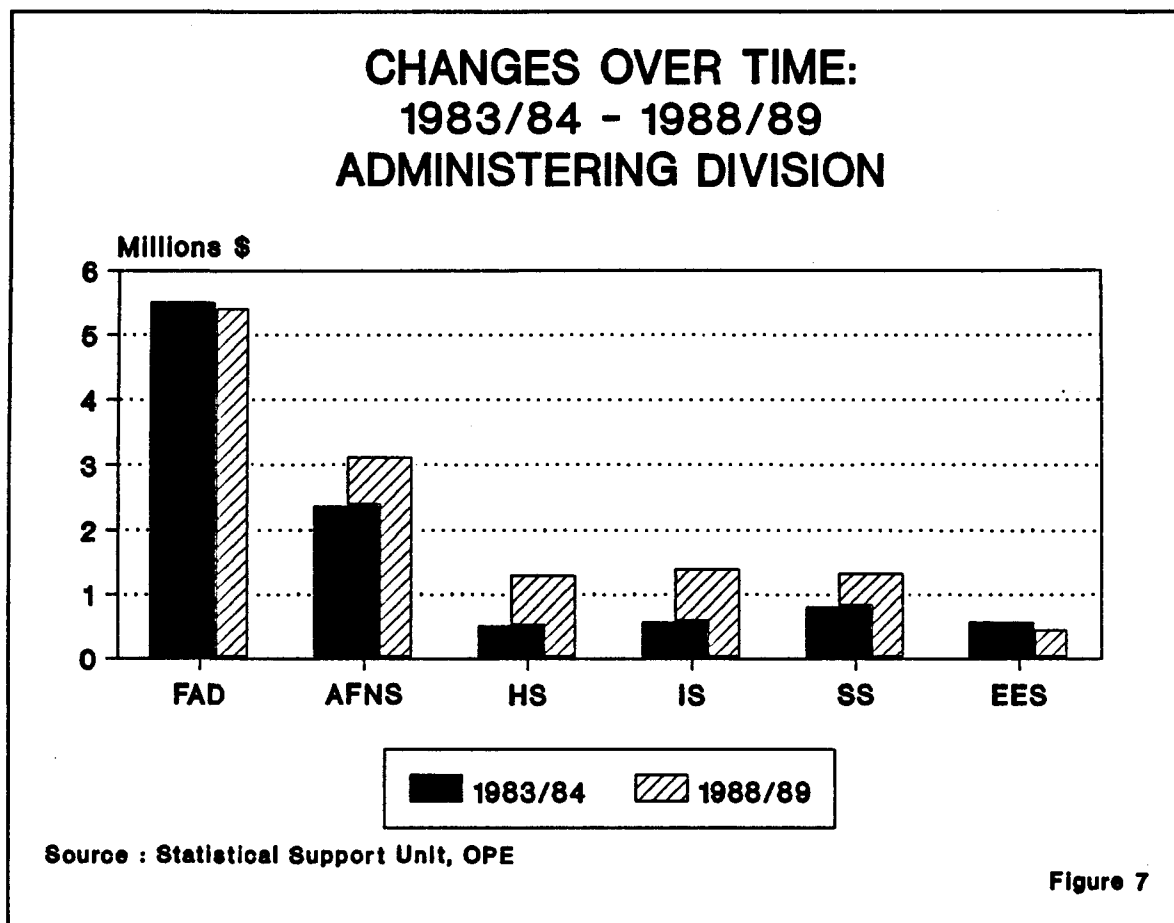


In total, the divisions spent approximately 15 percent of their project funds on training. The percent of their project funds targeted to training has fallen from 10 percent in 1983/84 to 6 percent in 1988/89. One-third of their projects had a training component.

Other donors, when they are involved with an IDRC project, do not contribute very much money to training.

The number of people who benefited from various types of training activities during the six year period was 20,472. These people either received awards or fellowships, were sent on courses, participated in group training activities or were trained in activities related to the utilization of research results.¹⁶ Compared to the period between 1970

¹⁶ Utilization focused training, for example, included training about new cropping techniques, fish harvesting procedures and handpump maintenance and repair.



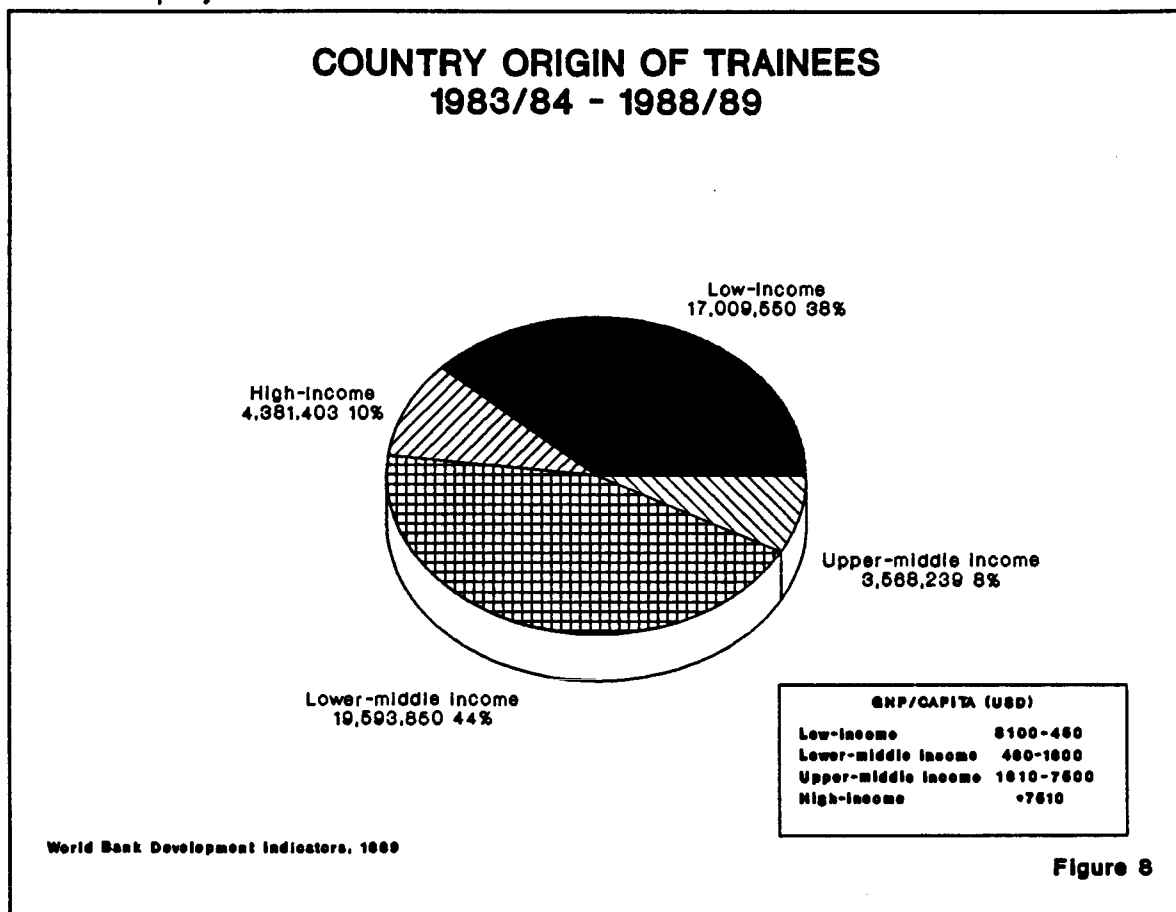
and 1980 when it was estimated that 3,000 people received training, the number of people receiving training has increased dramatically. This large increase, for the most part, can be attributed to the shift away from individual awards to a greater focus on group training and community-based training. These courses and training initiatives typically involve a large number of people.

iii) Concentration versus Dispersion

Origin of Trainees

Eighty-four percent of IDRC's training funds during the past 6 years went to researchers living in low and lower-middle income countries (Figure 8). However, researchers living in the poorest countries did not receive the bulk of IDRC's training dollars, although the Centre's policy stresses the need for this to occur. Only 40 percent of the funds went to

trainees from low-income countries. This, to a large degree, reflects the Centre's overall distribution of project funds since most of the training is conducted within the specific context of a project.



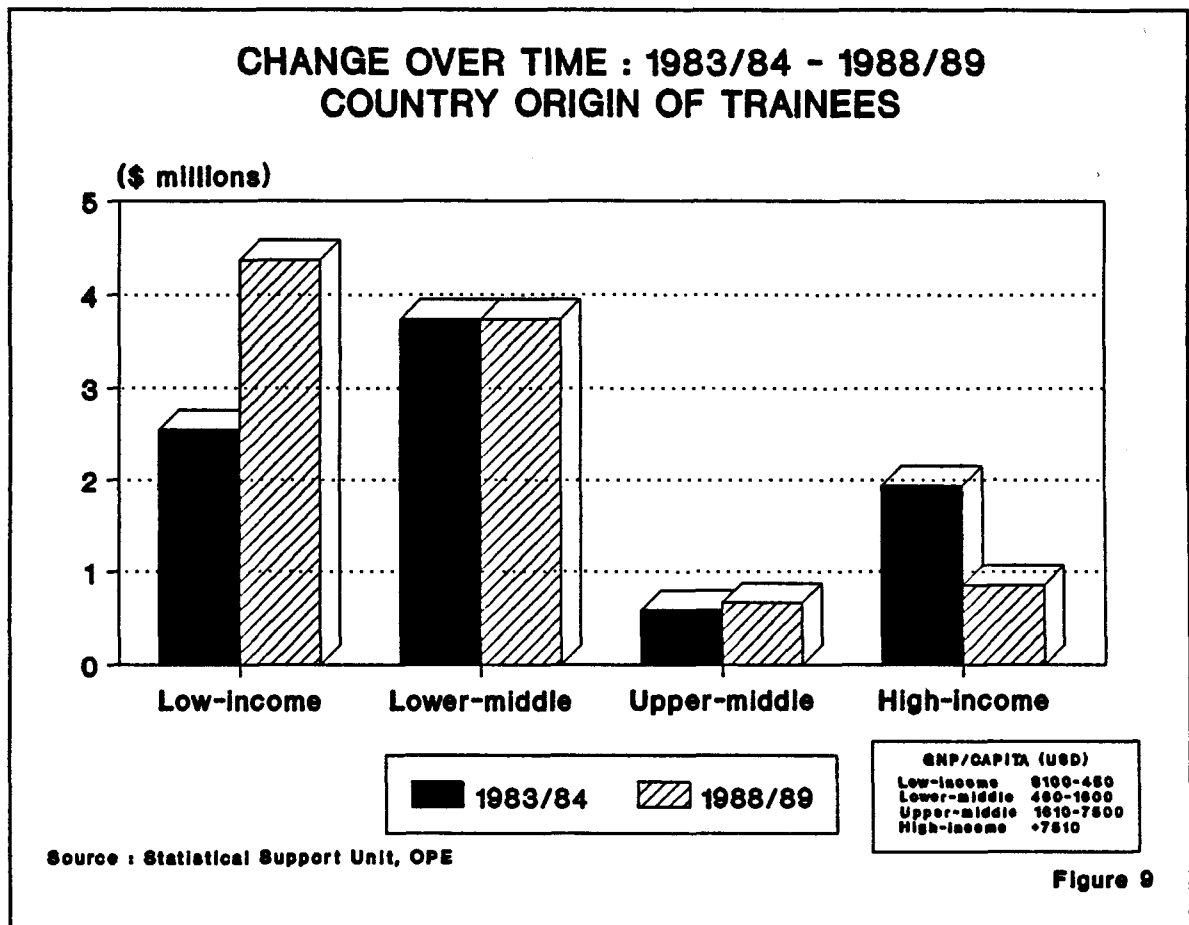
It is important to note, however, that the trend is towards greater funding of trainees from low-income countries. Between the time the Centre's training policy was endorsed in 1983/84 and 1988/89, funding of trainees from low income countries jumped from 29 percent of total training support to 45 percent. In dollar terms, the amount increased from \$2.6 million to \$4.4 million. This, as Figure 9 illustrates, has been the most radical shift in support amongst the various income groups. Over the time period in question,

support to lower-income and upper-income countries has remained relatively steady, while support to high-income countries, including Canada, has declined significantly.¹⁷

The Centre's policy, therefore, has had an impact on the direction of training support, although continued effort is required to shift the bulk of the funds to trainees from the poorest countries. Appendix B provides a listing of the countries falling in the different income categories according to World Bank statistics.

African trainees received the bulk of the training funds, 31 percent. Asian trainees received 26 percent, followed by Latin Americans, 21 percent, Canadians, 6 percent and trainees from various locations, 2 percent. The remaining funds could not be identified by the country of origin of the trainee (Figure 10). In dollar terms, the amount of funds that went to African trainees was \$18.2 million. Asians received \$15.2 million and Latin Americans received \$12.3 million.

¹⁷ The figure also illustrates a decline in the amount of funds going to trainees from other developed countries. It is not clear why IDRC would be funding trainees from other developed countries in the first place. FAD has indicated this might be a data entry problem. In some instances, the point of origin of a trainee has been entered instead of the citizenship of a trainee. If a developing country trainee was studying in Europe and was given a fellowship or award, the entry in the database might be the location in Europe. In other cases, training support went to an organization based in Europe that, in turn, distributed the funds to developing country researchers. In the database, however, the location of the organization instead of the citizenship of the trainees was entered. This data entry problem needs to be corrected.

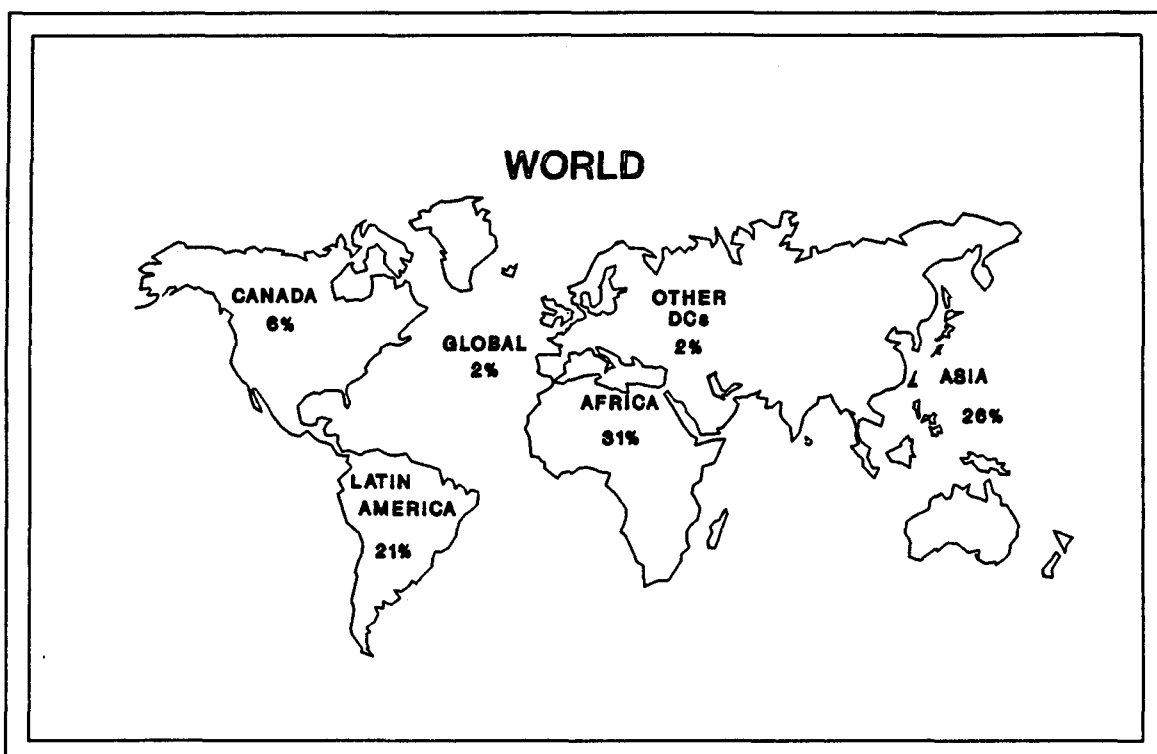


The most dramatic shift over time was in the amount of money that went to African trainees. In 1983/84, they received 21 percent of the total training funds (\$2.7 million). In 1988/89, this percent increased to 39 percent (\$4.9 million), almost double the 1983/84 percent. Funds to Asian trainees increased slightly from 20 to 21 percent of the total, while funds to Latin Americans declined from 22 to 20 percent of the total (Figure 11).

In 1986, bilateral organizations reported that 50 percent of their human resource development expenditures went to Africa, 32 percent went to Asia and 18 percent went to Latin America and the Caribbean¹⁸. While not entirely comparable to training expenditures alone, these figures indicate other donors are also providing considerable support to Africa. Compared to IDRC, these donors provided more support to Africa in 1986, less to Latin America and the Caribbean and about the same to Asia. It is fair to

¹⁸ Human Resource Development: Results of a 1988 International survey by IDRC and CIDA. IDRC Manuscript Report 236e. September, 1989.

REGION OF ORIGIN OF TRAINEES 1983/84 - 1988/89



Missing Information = 12% of Total

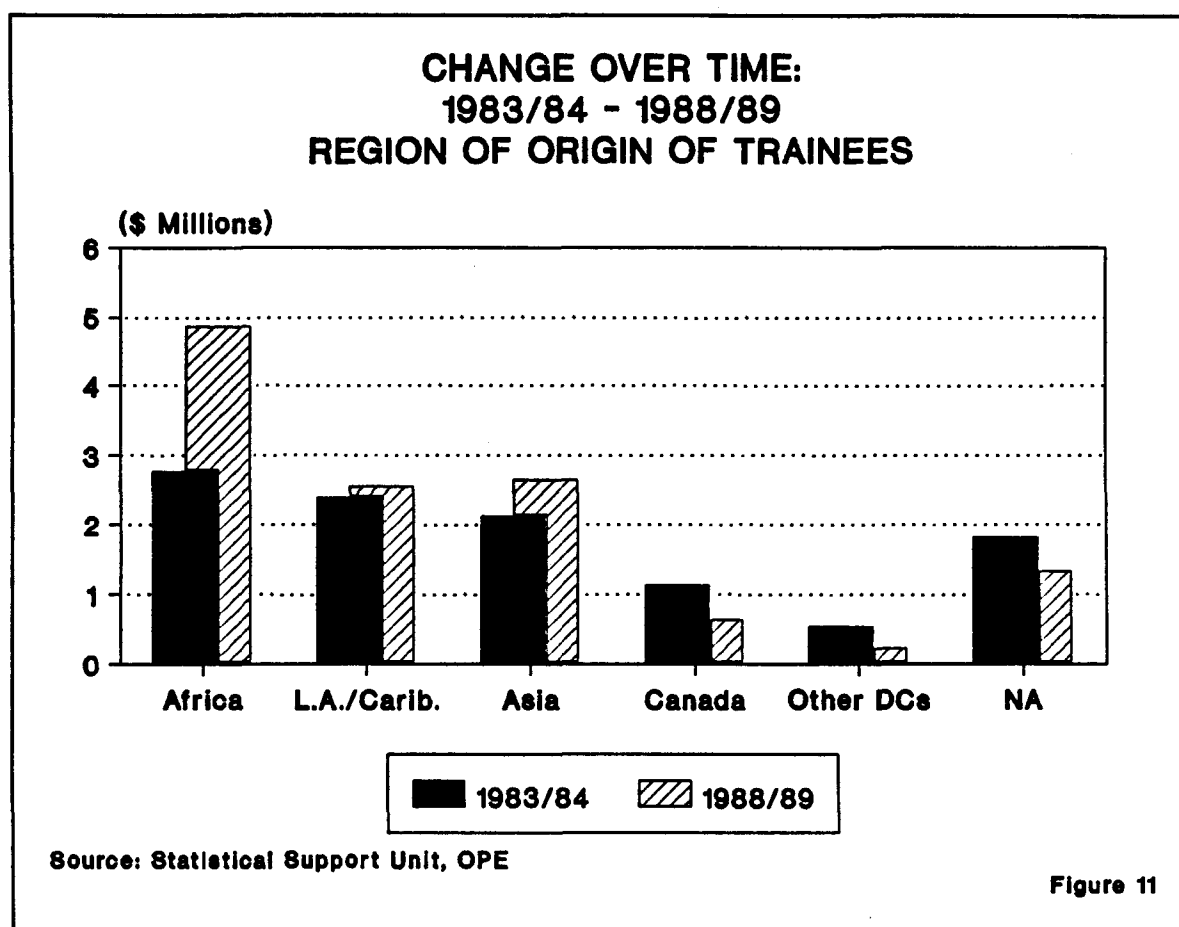
Figure 10

say, overall, that donors appear to be increasingly concentrating their support in Africa.

During the six year period, IDRC supported trainees from 110 countries. Those from the top ten countries accounted for 35 percent of the total training funds. Together, they received \$20.8 million. The bulk of the funds, however, were widely dispersed among a large number of countries. This, of course, is a reflection of project support which also covers a large number of countries. The ten countries that received the largest amount of money, ranked from highest to lowest, are illustrated in Figure 12.¹⁹ Of the top ten

¹⁹

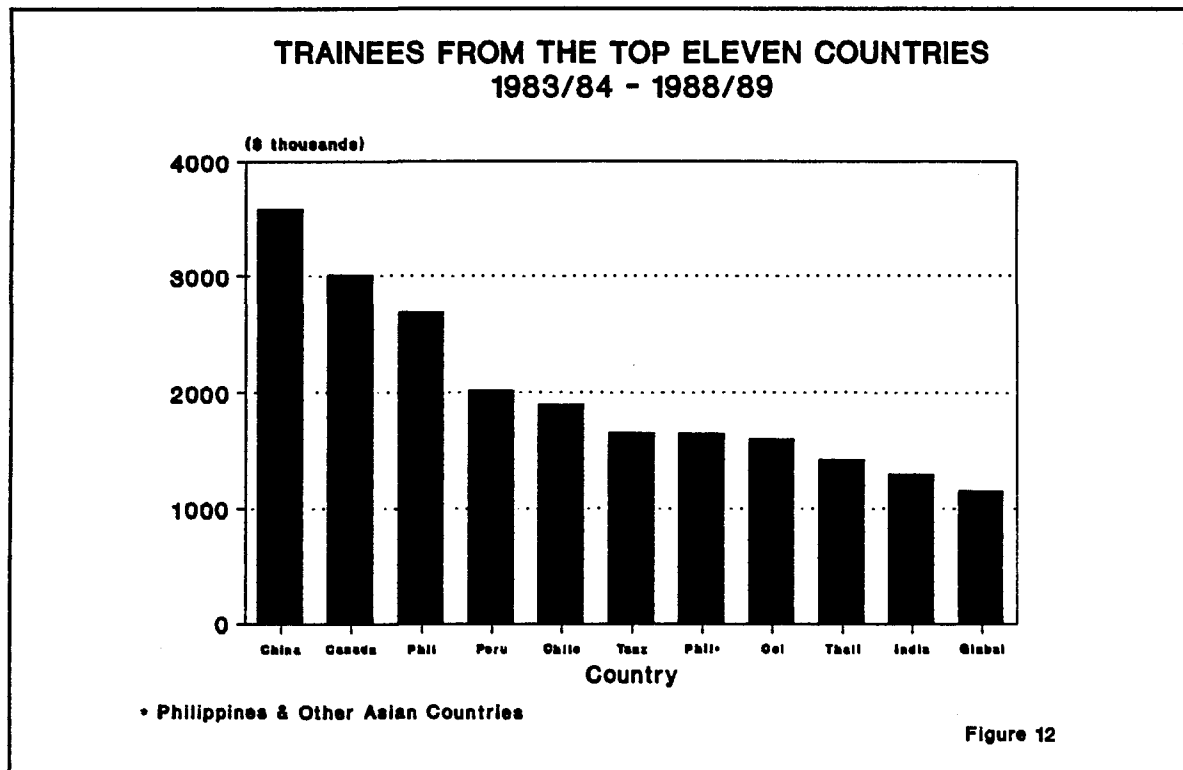
It has been noted in other studies that funds are often directed to one country that, in turn, redirects them to trainees in other surrounding countries. As well, it is sometimes the case that people come from a number of countries in the region or from elsewhere to attend a course. In this study, if people came from more than one country or if the funds were redistributed, it was noted. As a result, the Philippines shows up twice in this Figure. The first time, funds went to the Philippine citizens alone. In the second instance, funds went to Philippine citizens and others in the region. From the information available in the Project Summary, however, it was not possible to allocate the training funds among the various countries.



countries, three were low-income, six were lower-middle income and one, Canada, was a high-income country.

When examined over time, it is evident that a number of changes have occurred. In the first place, funds have become more dispersed. In 1983/84, the top ten countries accounted for 50 percent of the training funds. In 1988/89, they accounted for 41 percent.

In the second place, 6 of the 10 countries that received the most funds in 1983/84 did not make the list in 1988/89. Only Canada, the Philippines, Chile and Tanzania appeared on both lists. Canada dropped from second to fifth place. The Philippines stayed in fourth place, while Chile dropped from sixth to ninth and Tanzania moved up from seventh to eighth place. Between 1983/84 and 1988/89, the number of African countries increased by two, while the number of Latin American and Asian countries each decreased by one. At the same time, the number of low-income countries increased from 3 to 5.



Perhaps the most interesting finding is the increase in the number of people coming from various countries in a region to attend a group training course, workshop or seminar. Topping the list in 1988/89 were trainees coming from the Philippines and various other countries in the region and Senegal and various other countries in the region. Those coming from Ethiopia and surrounding countries also made the list of the top 10 countries. In 1983/84, there were no multi-country listings. The strong presence of these inter-regional training activities in 1988/89 indicates IDRC has altered its approach and is bringing more researchers together from various countries than in the past. It is also interesting to note that people coming from multiple regions (ie. global) also appears on the 1988/89 list.

The final change that is evident is the decrease in the amount of funds going to the top 10 countries or group of countries.

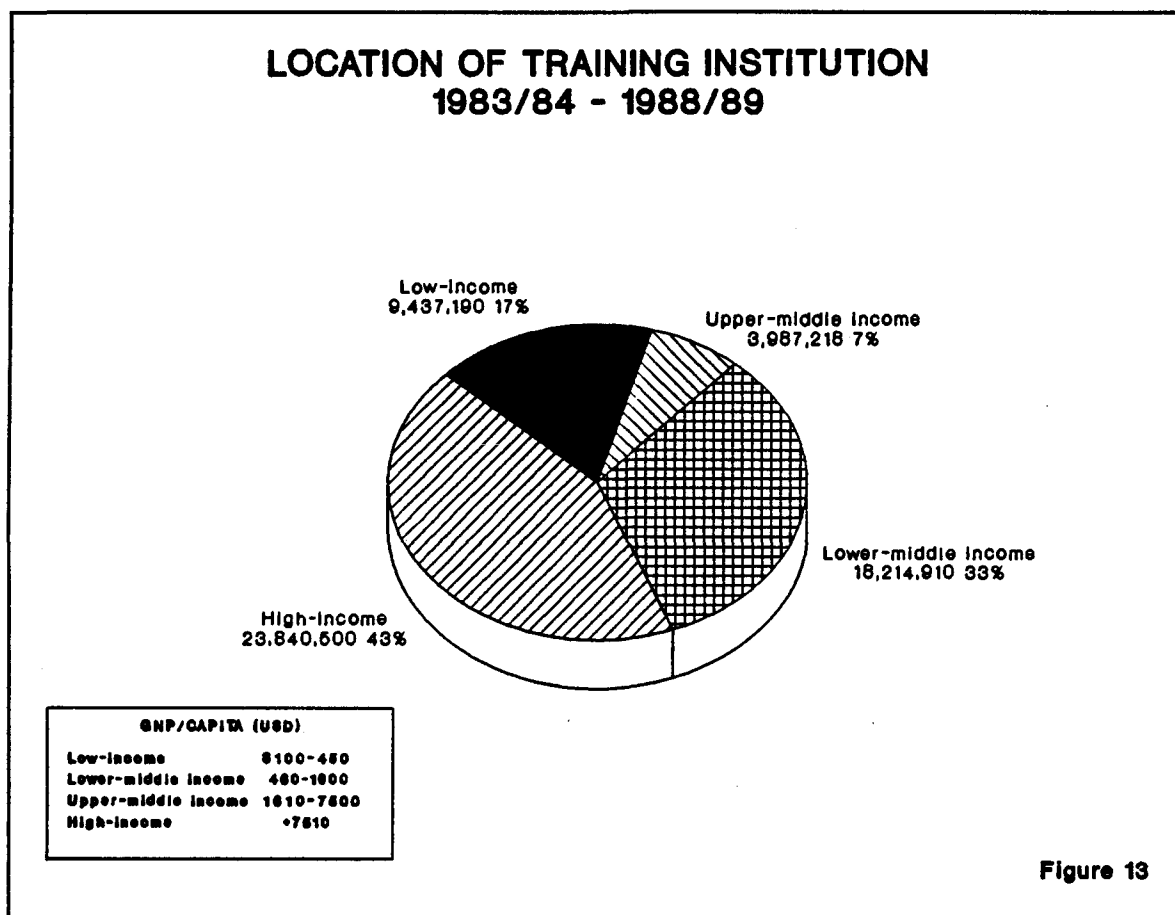
The countries and the amount of training funds involved in 1983/84 and 1988/89 are listed in Table 1.

Table 1 CHANGE OVER TIME : THE TOP 10 COUNTRIES			
1983/84	Amount \$	1988/89	Amount
Peru	1,350,900	Philippines & Other Countries in Region	833,900
Canada	1,129,271	Senegal & Other Countries in Region	807,000
China	679,000	Jamaica	619,150
Philippines	423,700	Philippines	577,700
Cameroon	415,000	Canada & Other Countries	441,200
Chile	302,500	Benin	438,400
India	300,900	Tanzania	434,990
Tanzania	267,100	Ethiopia & Other Countries in Region	411,100
Malaysia	244,792	Chile	310,700
Colombia	203,250	Global	302,000

iv) Location of Training Institution

The largest percent of IDRC training was conducted in institutions located in high income countries. Slightly more than 40 percent of the funds, \$23,840,500, went to trainees studying at these institutions, with trainees at Canadian institutions receiving 33 percent of the funds. Institutions located in upper-middle income countries accounted for 7 percent of the funds, and those located in lower-middle income countries accounted for approximately 30 percent of the training funds. Trainees attending institutions in low-income countries received 17 percent of the funds. (Figure 13).

Over time the amount of training money spent in institutions in low-income and lower-middle income countries has increased. At the same time, the amount going to upper-middle and high-income countries has decreased (Figure 14). The largest increase, percentage-wise, has been to lower middle-income countries. It appears, therefore, that lower-middle income countries are conducting more training than before. Low-income

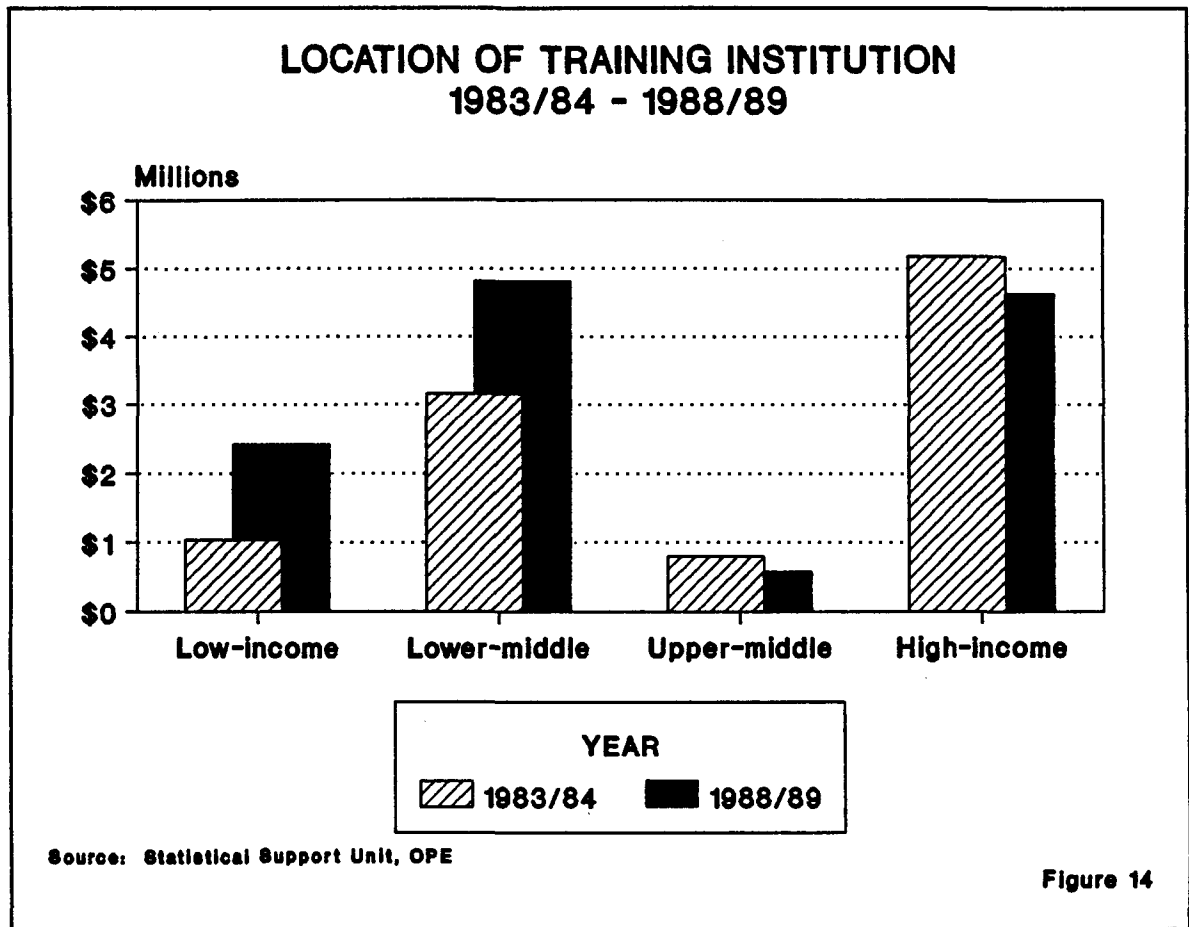


countries, on the other hand, have increased the amount of training they are doing, but only marginally, by 1 percent of the total. Overall, IDRC's policy of providing training in developing countries is being followed, and in fact, is being enhanced over time.

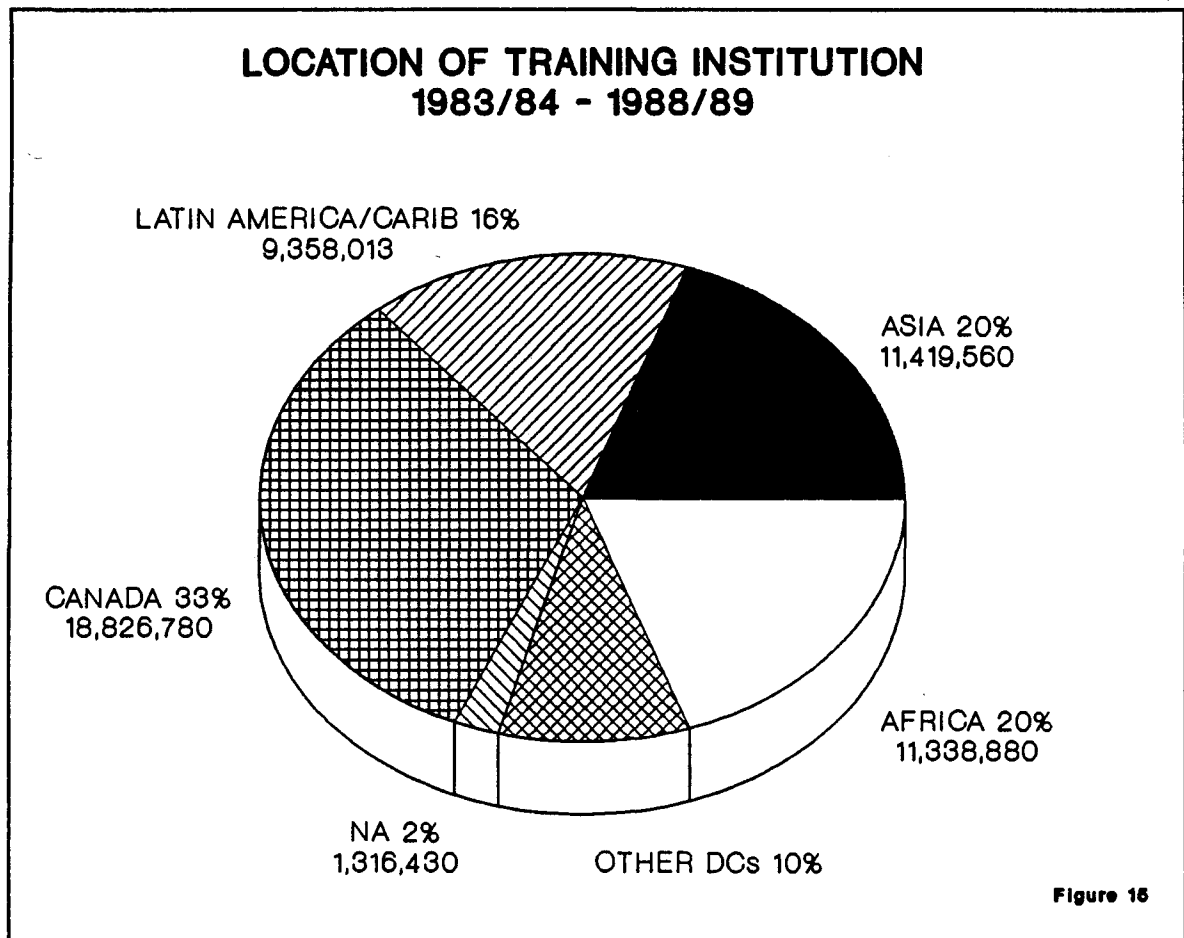
Compared to other donor organizations, IDRC stands alone in its commitment to training in developing country institutions. In 1986, for example, other donors spent 82 percent of their training dollars in institutions located in their own country. IDRC spent 31 percent (\$2,707,070). While other donors spent 8 percent of their training funds in developing countries, IDRC spent 57 percent (\$4,986,450).

Regionally, training conducted in institutions in Africa and Asia each received 20 percent of IDRC's training dollars. Latin American and Caribbean institutions received 16 percent. Canadian institutions received 33 percent of the training funds. The remaining funds went to other developed country institutions (Figure 15).

Over time, however, changes have occurred. The most significant change has been a



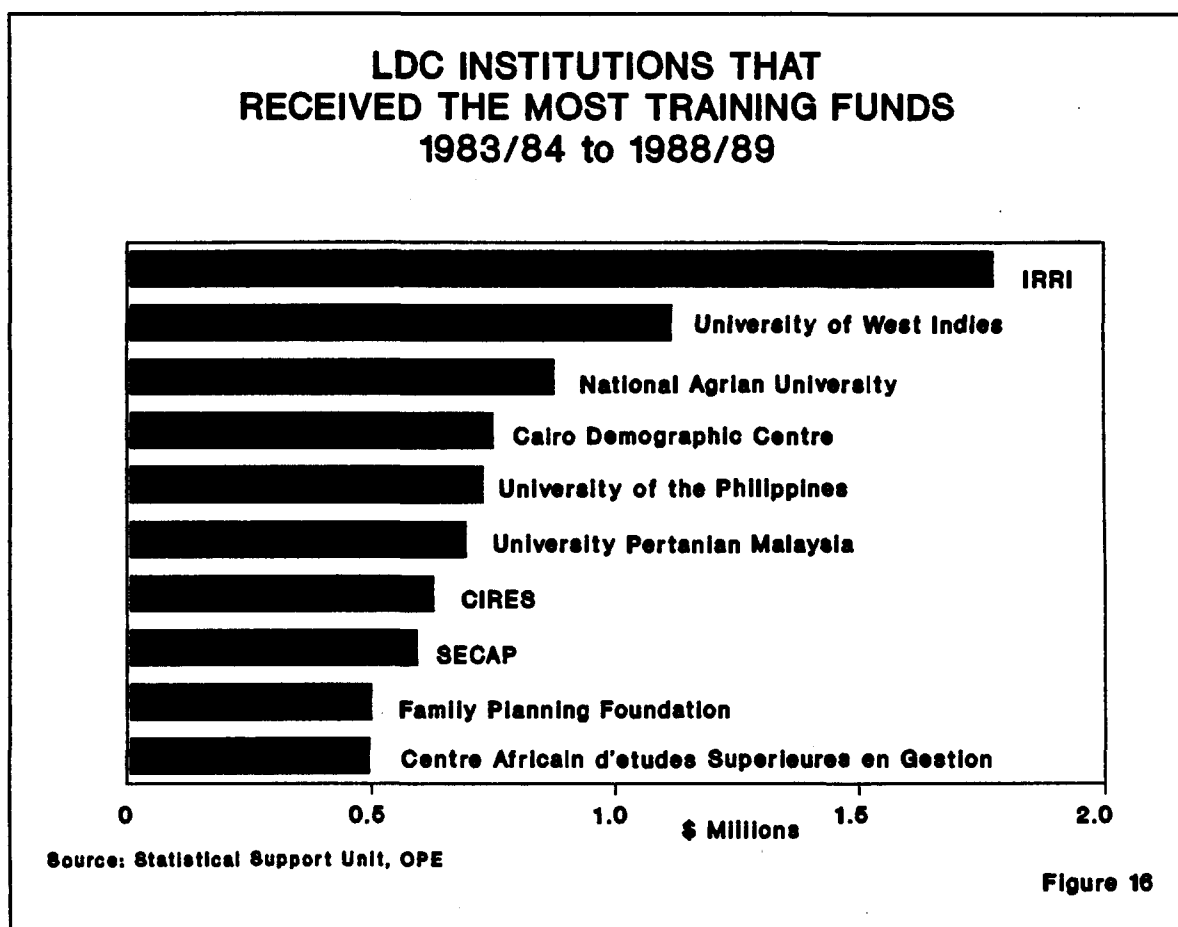
large increase in the percent of training conducted by institutions located in Africa. The percent has almost doubled, from 15 in 1983/84 to 27 in 1988/89. Institutions in Asia increased slightly, from 15 percent to 17 percent, while institutions in Latin America and the Caribbean have continued to receive 19 percent of the total training funds. The percent of training dollars spent at Canadian institutions declined significantly, from 38 to 30 percent of the total.



During the six year period, institutions located in 10 countries conducted almost 65 percent of the training that was funded.²⁰ The countries were Canada (\$19.8 million), the Philippines (\$3.9 million), the United States (\$2.2 million), the United Kingdom (\$2.0 million), Peru (\$1.9 million), Senegal (\$1.8 million), Colombia (\$1.7 million), Kenya (\$1.6 million) and Thailand (\$1.5 million). It is surprising to note the amount of training that was conducted by institutions located in the US and the UK.

However, by 1988/89, this amount had dropped considerably. The US did not appear on the list of the top 10 countries. The UK did, but its rank dropped from fourth to eighth place.

²⁰ Three percent of the training funds (\$1.8 million) could not be allocated to a country because this information was not available in the Project Summary.



The developing country institutions that conducted the most training were located in the Philippines, Peru, Senegal, Colombia, Kenya, Thailand, Chile, Jamaica, India and China.

In 1983/84, 75 percent of the training funds were concentrated in the top 10 countries. In 1988/89, this had dropped to 64 percent, indicating a less concentrated country focus. Given IDRC's focus on development issues as opposed to countries, this finding is not particularly surprising. What is important to note is the increased dispersion of training funds.

The concentration of training support to select institutions is practically non-existent. Over the six year period, training was conducted by 812 different institutions. Support was provided once to 522 of these institutions. Therefore, 65 percent of the institutions conducted IDRC-supported training once. Eleven percent (93) of the institutions conducted training twice, 7 percent (53) three times, 3 percent (22) four times and 2 percent (14) five times. On the other hand, 32 institutions have been supported at least 10 times. Another 8 have been supported at least 20 times and 9 institutions have been

supported at least 30 times. This lack of concentration reflects, to a large degree, IDRC's project focus and the lack of concentration of project support to select institutions.

The top 15 institutions that received the most support to conduct training activities were (1) the International Rice Research Institute (IRRI) in the Philippines, (2) the University of Toronto, (3) the University of Montreal, (4) the University of the West Indies, (5) the University of Guelph, (6) the International Foundation for Science, (7) the University of Laval, (8) the National Agrarian University at La Molina in Peru, (9) Dalhousie University, (10) the Cairo Demographic Centre (CDC), (11) the University of the Philippines at Los Banos, (12) the Universiti Pertanian Malaysia, (13) Carleton and the University of Ottawa, (14) Simon Fraser and (15) the Centre Ivoirien de Recherche Economique et Sociales in Cote de Ivoire. It is important to note, however, that training conducted at these institutions only accounted for 26 percent of the total funds.

The developing country institutions that conducted the most training are illustrated in Figure 16. IRRI tops the list followed by the University of the West Indies, the National Agrarian University, the CDC, the University of the Philippines at Los Banos, the Universiti Pertanian Malaysia, CIRES, the Secretariat of the Education, Science and Cultural branch of the Organization of American States (SECAP), the Family Planning Foundation in India and the Centre Africain d'Etudes Superieures en Gestion in Senegal.²¹

Regional variations occurred in the level of concentration of support to select institutions. In Asia, the top 10 institutions conducted almost 70 percent of the training. In Africa, the top 10 institutions conducted approximately 55 percent of the training, and in Latin America and the Caribbean they conducted 45 percent. Appendix C provides a list of the top 10 institutions in each region and the amount of training funds involved.

As noted earlier, IDRC has only recently stated its intention to consider more concentrated support to select training institutions. This statistical information, therefore, is more relevant for future policy discussions than it is for reviewing past performance.

v) Institution Type

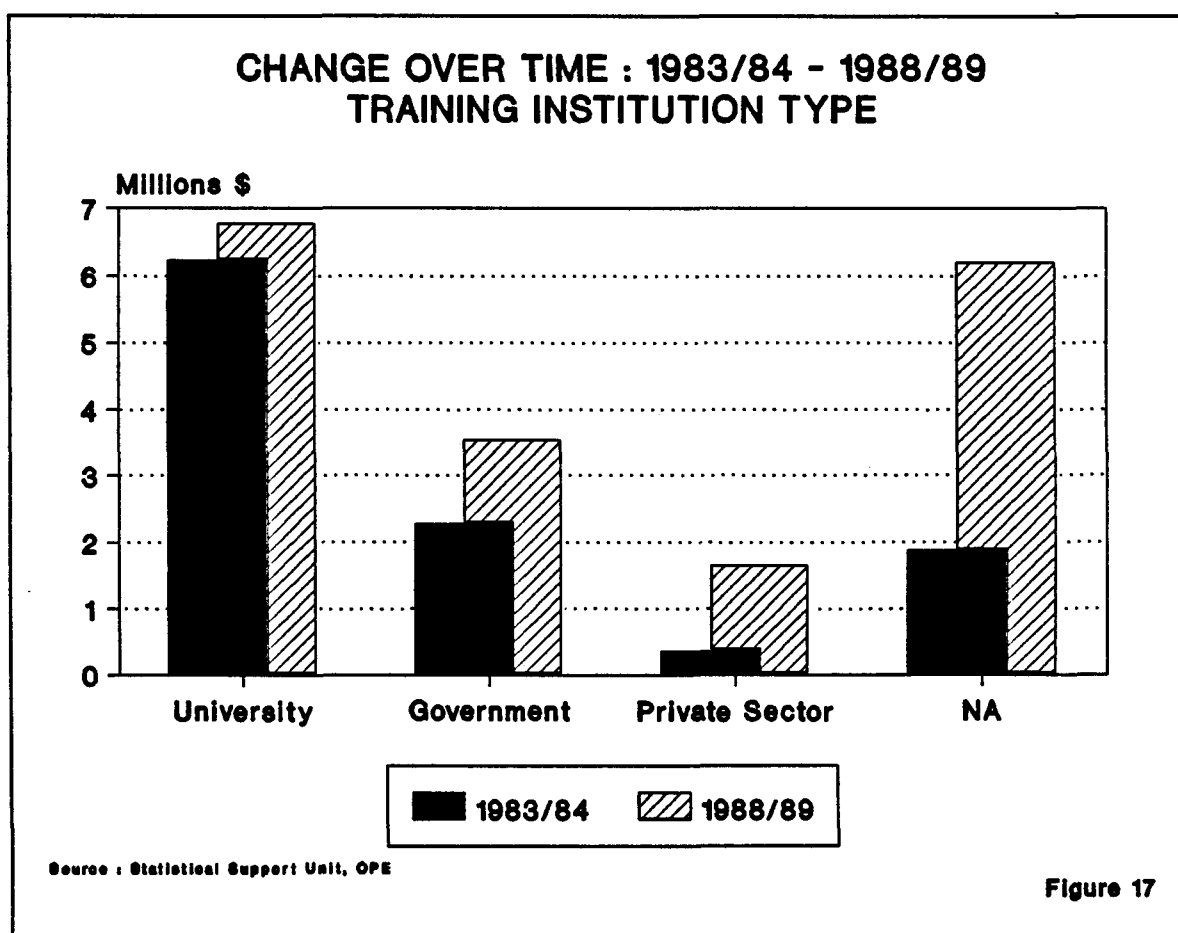
Almost 80 percent of the training funds were spent on training activities conducted at universities and in government departments and ministries. Approximately 50 percent of the training funds went to universities (\$29.7 million) and 30 percent went to government ministries and departments (\$15.8 million). Private organizations accounted for 12

²¹ Funds sent to SECAP are, in turn, dispersed to other regional training centres.

percent (\$7.1 million). Ten percent of the training funds could not be identified according to the type of institution that provided the training.

With respect to changes over time, the most dramatic one has been the increasing inability of our information systems to provide information about the type of institution where the training activity is being conducted. Over time, the Centre is funding fewer scholarships and awards and more short courses and group training initiatives. And yet, details about these initiatives are not currently being captured in the information systems.

The information that is available, however, indicates an increase in training being conducted by private organizations and governments. University-based training, on the other hand, has increased only slightly (Figure 17). As a percent of total training funds, university-based training actually decreased from 58 percent of the total in 1983/84 to 54 percent in 1988/89.



vi) Gender

As with institution type, the most striking finding related to gender is the volume of missing information. Sixty-six percent of the training funds could not be attributed to men or women because this information is not recorded at the time the funds are appropriated or spent. Of the funds that could be accounted for, 25 percent went to men and 9 percent went to women. Between 1983/84 and 1988/89, the percent that went to men decreased from 28 to 21 while the percent that went to women increased from 7 to 10 percent.

Twenty-three percent of the formal, degree-related training awards went to women. Comparable statistics for other donors in 1986 indicate that 14 percent of their scholarships were awarded to women. Although IDRC has a better record than most donors and although there is an indication of increasing support for women, there is little to suggest significant strides are being made. Perhaps IDRC's record is better than the statistics indicate. However, in the absence of the systematic collection of gender information, this cannot be substantiated.

Some donors have raised the question of whether the formal degree approach is the best channel for providing training funds to women. CIDA, for example, questions whether training needs might be met better through informal training channels and NGOs.

Regionally, a larger percent of the training funds from Canada (37%), Latin America (31%) and Asia (28%) went to women than in Africa (16%).

vii) Formal versus Informal Training

Fully 65 percent of the Centre's training dollars were spent on informal training activities (ie. short courses, seminars, group training, network training and community-based training).²² The Centre's databases are not set up to capture detailed information about these activities or to identify them according to these categories.²³ As noted earlier, this information was obtained, when possible, from Project Summaries for the purpose of this study.

²² Training funds were identified as network-related if the project had two or more non-Canadian recipients and the Project Summary noted that training funds were being used to train recipients from more than one institution or country. This definition was used in the absence of a Centre-wide definition.

²³ These categories of informal training might not be the most useful ones for tracking changing patterns of support. They are offered here as possibilities in light of current policy discussions about different approaches to delivering project and training support.

Within the context of informal training, approximately 50 percent of the funds were spent sending people that were working on projects to short courses, seminars and workshops. Approximately 45 percent of the funds, a comparable amount, was spent on group and network training activities. The remaining funds, 3 percent, were spent on community-based training to instruct people about the use of a product or service that resulted from an IDRC-funded project. Over time, the percentage of funds spent on individual short courses, seminars and workshops remained relatively stable, although it dipped slightly from 48 to 45 percent of total funding. During the same time, the percentage spent on group and network-related training increased from 49 to 59 percent. Network training increased from 3 to 11 percent.

Asia and Latin America accounted for a larger share of this group and network-related training than Africa. In Asia, these activities accounted for 60 percent of the training funds. In Latin America they accounted for 52 percent, while in Africa, they accounted for 48 percent of the funds.

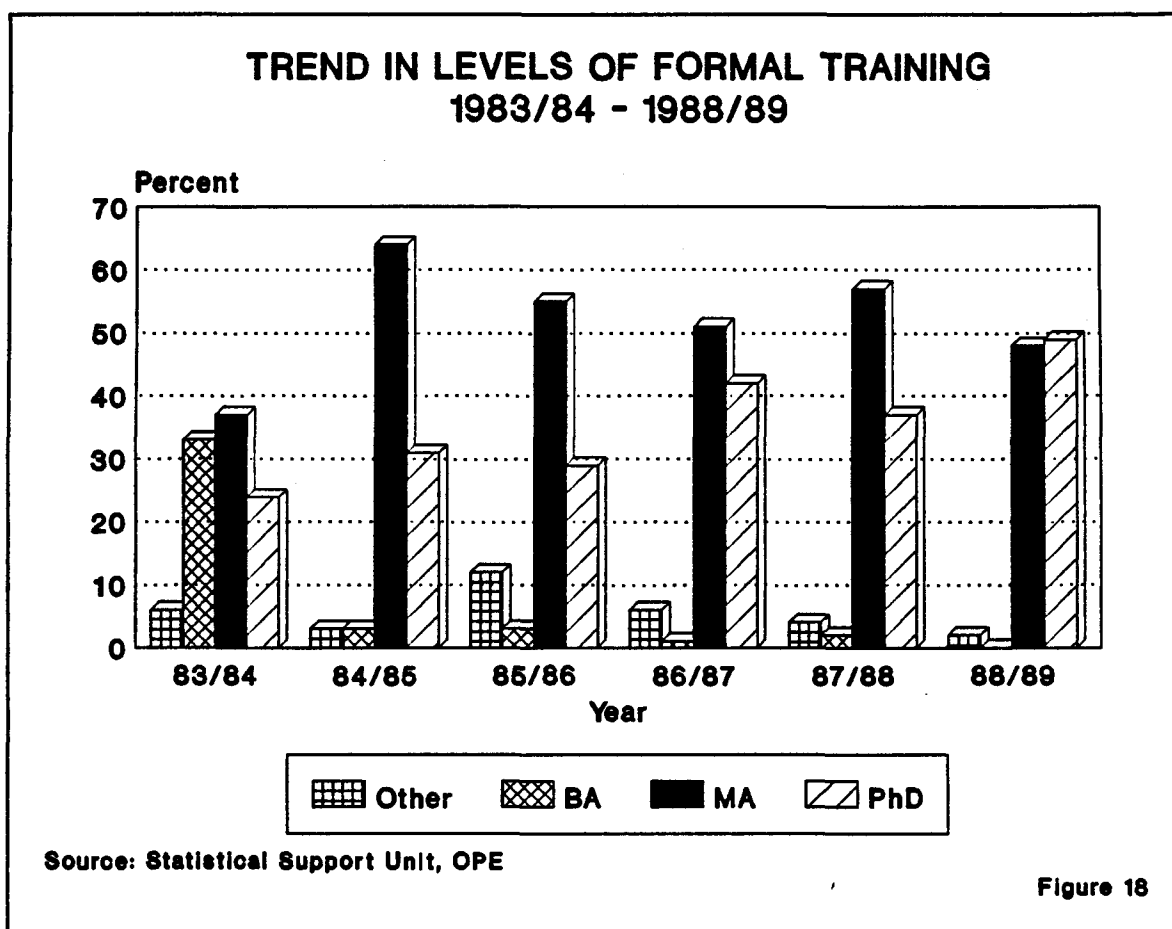
Formal, degree-related training accounted for 34 percent of the Centre's training funds. Despite the Centre's policy to move increasingly to informal training activities, formal training accounted for an increasing share of the training budget between 1983/84 and 1988/89. It rose from 32 to 44 percent of the total. At the same time, however, the number of informal training activities increased. It is likely, therefore, that the increase in funds going to formal training is a reflection of the higher cost involved.

Fifty-two percent of the funds went to Master's degrees, 37 percent to PhDs, 7 percent to Bachelor's degrees and 4 percent to various diploma and certificate programs.

The Centre's policy of providing the bulk of its formal training support at the Master's degree level is evident in the statistics. As well, the decision to limit support for Bachelor's degrees is evident. Figure 18, for example, shows the sharp drop in support for this level of training following the policy decision in 1983/84.

However, the number and percent of funds that went to PhDs increased steadily, contrary to Centre policy. Fifty-six PhDs were funded in 1983/84 and 97 in 1988/89. During the six year period, 346 PhDs were funded in whole or in part.

The question of whether IDRC should reconsider support for PhD training has been raised a number of times. An argument has been made that IDRC should consider increasing its support for PhDs in light of increased attention to institutional development. "If training is to be done by some of these institutions, they require people with a PhD to train middle level researchers, administrators and teachers up to the Masters degree level." As well, people with PhDs are required in developing country institutions to conduct research of high quality. Others claim that while PhD-level training might not be



required in some regions, it is required in others. The statistics indicate, in fact, the number of PhDs from Africa is almost double those from Asia. The debate is further intensified by others who point out that training researchers at any level, PhD or Masters, is a questionable activity if the infrastructure and funds to carry out research are not available after they complete their training.²⁴

A study conducted by FAD in 1987 recommended establishing a cap on the percent of funds for PhDs, perhaps 10 percent. It was also recommended that greater emphasis be placed on the institutional connection of the individual since investment in the award is, from the Centre's point of view, not an investment in the individual but an investment in the institution.

²⁴ Recent figures presented by OPE indicate that a key problem in the field of agricultural research in Sub-Saharan Africa, for example, is the limited availability of funds for existing researchers to conduct research and pay their operational expenses. The question is asked whether the priority should continue to be in training more persons for research or in getting the best product from those in research by supporting operational expenses. (Notes from a seminar on External Support to Developmental Research: The Case of Sub-Saharan Africa. February, 1990).

In terms of the region of origin of the trainee, the largest number that could be identified from the Project Summaries and from FADMIS came from West Africa (49), followed closely by East Africa (46). Forty PhDs were funded from Latin America and the Caribbean and 36 from Asia. A large number, 110, could not be identified by region.

The general trend in the donor community appears to be away from extensive formal training to more informal training complemented with a very tightly delivered program of MA and PhD training targeted to specific regional and project-related issues.

viii) Field of Training

During the six year period, 28 percent of the training dollars were used to study issues related to agriculture, fish, forestry and biology. Slightly less, 27 percent were used to study issues commonly captured under the umbrella of the social sciences, including economics, science and technology, demography, education, urbanization, sociology, psychology, anthropology, architecture, arts, energy, environment and political science. Fifty-five percent of the training funds were directed at these fields of study. A further 15 percent went to health, including medicine, nursing and epidemiology. Information science, computer studies and library studies received 10 percent of the funds. Training in the fields of engineering, chemistry, geology and geography accounted for 6 percent of the funds. Five percent went to business, public administration, law, accounting and management-related training. An additional 4 percent went to communication and journalism. The remaining funds, 5 percent, could not be identified by field of study.²⁵

Between 1983/84 and 1988/89 the largest change occurred in information-related training. Support for this topic increased 13 percent. Support for agriculture, fish, forestry and biology increased 12 percent, followed by a 7 percent increase in health-related training. A small change occurred in engineering-related training, which went from 5 to 7 percent of the total training budget. A major decline occurred in social-sciences training, which fell from 40 percent of the total training budget in 1983/84 to 24 percent in 1988/89. A small decline occurred in communications and journalism, from 3 to 2 percent of the total training budget. In 1988/89, business-related training was not funded. The most important changes were the increase in information-related training and the large decrease in social sciences-related training.

²⁵ The fields of study used in FADMIS were adopted for the purpose of recording information from the Project Summaries into the temporary SSU database. This was done to ensure consistency between the two databases for the purpose of this analysis.

ix) Purpose of Training

An effort was made to classify each training activity by purpose. Was the training undertaken, for example, because the researcher needed to obtain additional skills related to the subject matter of the research? Was it done to improve the basic research skills of the researcher in areas such as data collection and analysis? Or, was the training part of an effort to strengthen the capabilities of an institution? If so, was this training aimed at strengthening the institution's ability to deliver training programs, improve its information management systems or upgrade the research management skills of its staff?

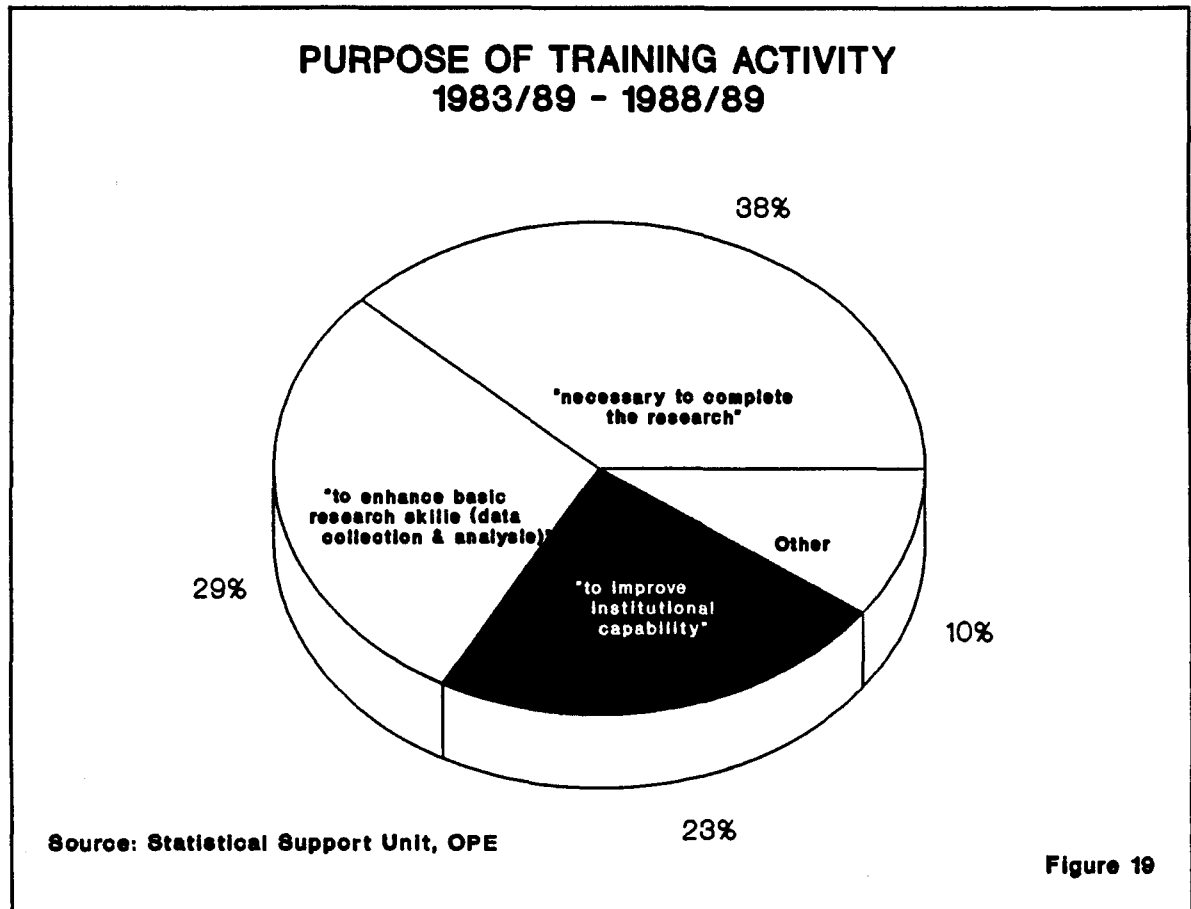
In some cases, training was undertaken for two or more purposes. Most of the time, the Project Summary or nature of the fellowship or award placed more emphasis on one of the purposes. It was this purpose that was recorded in the database. The data, therefore, have to be interpreted with this in mind.

Almost 40 percent of the training funds between 1983/84 and 1988/89 were used to obtain the subject-related skills the researcher needed to complete the research. Almost 30 percent were used to enhance basic research skills, such as data collection and analysis. Almost 25 percent went to training oriented to improving the capability of the institution. Of this, almost 60 percent went to strengthening the capacity of the institution to deliver training programs. Approximately 30 percent went to strengthening the institution's information management systems, 7 percent went to strengthening the research management skills of the staff and 2 percent went to strengthening the institution's financial and administrative systems. The remaining training funds, 10 percent, were used for other purposes, such as special fellowships and research positions (Figures 19 and 20).

Over time, the trend has been towards an increase in training tied more tightly to projects. This has resulted in an increase in funds being tied to the specific subject matter of the research project at hand. From 27 percent of the total training funds, the amount of money directed to subject-related research increased to 40 percent in 1988/89. This is a positive reflection of the Centre's policy to tie training funds more tightly to specific research activities. Other donors, incidently, are following the same pattern, preferring to tie their training dollars to their specific project initiatives.

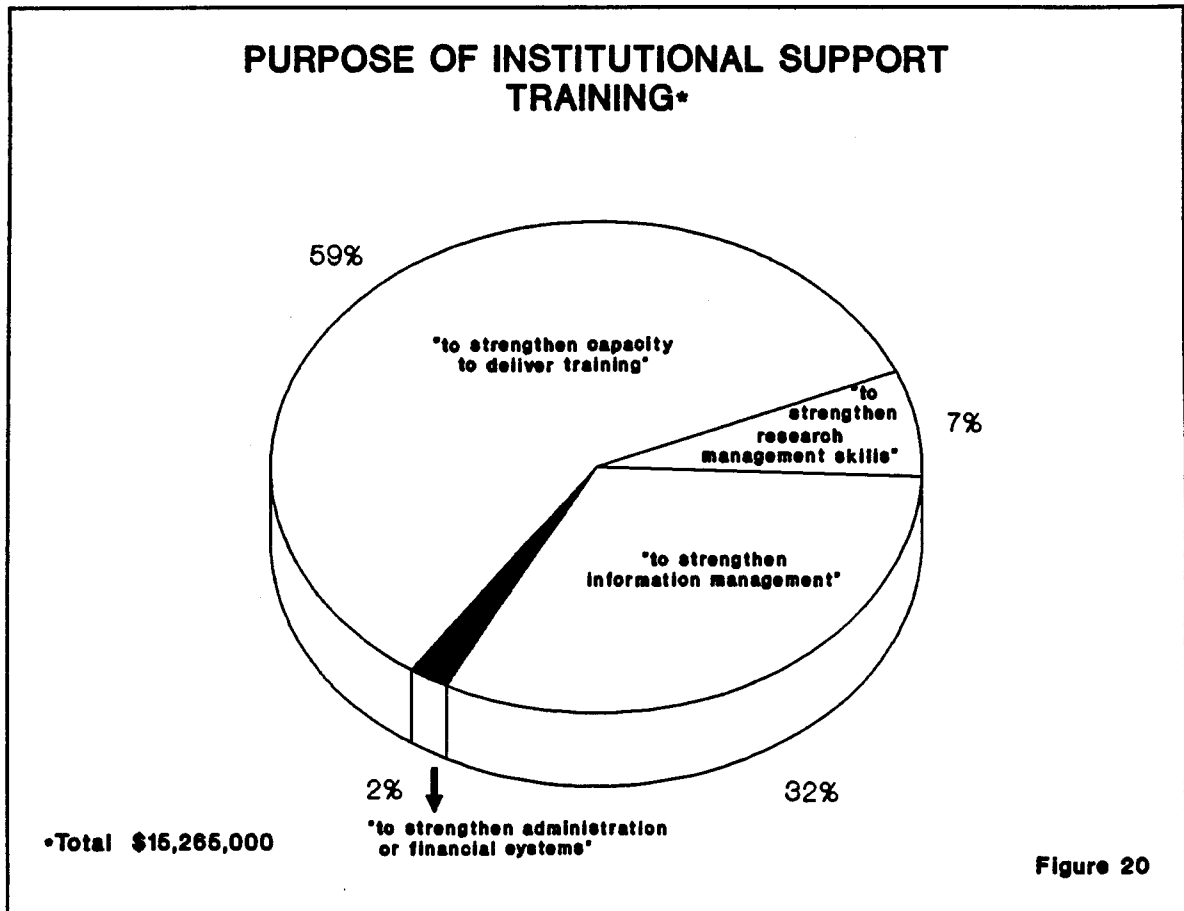
The other trend at IDRC has been a very significant increase in the percentage of funds aimed at improving the institution's ability to create or manage a research program. This institutional support component increased from 13 to 27 percent of the total funds between 1983/84 and 1988/89. From the earlier finding about the lack of concentration on select institutions, it is possible to conclude that institutional support is increasing, but it is not being directed at certain institutions. Given IDRC's broad involvement in many

countries and institutions, it is fair to suggest that institutional strengthening is being tackled the same way project funding is tackled. The question, therefore, is whether different approaches are required.



x) Network, multi-disciplinary and utilization-focused training

An attempt was made to determine whether training information related to networks, multi-disciplinary research and utilization of research results could be obtained from existing information sources. These issues, identified from the MINUTES database, were selected because they are currently the subject of a great deal of debate in the Centre. Embracing an experimental approach to these topics, and not expecting to find too much in the databases and Project Summaries due to the evolving nature of the issues, the SSU set out to extract what it could from the existing data sources.



As noted earlier, network-related training was discovered to be on the rise. From 3 percent (\$359,760) of the total amount that went to training in 1983/84, it increased steadily to 11 percent (\$1,394,765) in 1988/89. Over the six year period, network training accounted for 8 percent of the total training budget (\$4,765,610).

The quest for multi-disciplinary training information resulted in empty hands. From the Project Summaries, existing databases and other source documents, no direct information could be gleaned.

The only indirect information was the value of training in projects that were funded by more than one division, excluding FAD. Projects with a training component that were jointly funded by divisions accounted for 5 percent (\$2.7 million) of the total training budget. In the Health Sciences Division they accounted for 30 percent of the total training budget, Information Sciences 15 percent, Social Sciences 6 percent and AFNS 5 percent. Over time, the number of jointly-funded projects has increased. Assuming,

however, that joint-funding at the level of IDRC's organizational structure translates into multi-disciplinary training in the field is a correlation that could not be substantiated.

Perhaps more rewarding avenues for exploring this question would involve an examination of whether different institutions (ie. NGOs, governments, universities) are being linked in IDRC-supported research activities, whether researchers with a range of disciplinary skills are working together on a project and whether network training has anything to offer to a multi-disciplinary approach to training.²⁶

Utilization-focused training often takes the form of training people in communities how to use the results of an IDRC-supported project. It also takes the form of training journalists how to disseminate information about IDRC-supported projects and about science and technology issues in general. Between 1983/84 and 1988/89, IDRC spent \$1.2 million, 2 percent of its training budget, on this type of utilization-focused training. Specific activities included training farmers about new cropping techniques, villagers about handpump maintenance and journalists about writing techniques and developing countries issues.

Overall, very little information is available on network-related training, inter-disciplinary training and utilization-focused training. The SSU really had to dig to find any information at all. As well, it had to enter any data it could find by hand into the database because nothing, at this point in time, is available in the corporate systems or standard documents in the Centre.

xi) Training evaluations

Information about the strengths and weaknesses of training programs is a relatively scarce commodity in the Centre. The most frequently conducted evaluations focus on follow-ups of past scholarship and award holders. Even these, some maintain, are not plentiful enough. Other information is contained in PCRs and OPEIS. Unfortunately, the training information in the PCRs is not consistent or detailed, in large measure because people are not asked to comment directly on the training that was undertaken within the context of a project. The limited number of PCRs completed by some divisions and FAD create further difficulties. Information in OPEIS, while more informative, is also limited because of the small number of entries in the database.

IDRC is not alone when it comes to the priority it places on training evaluations. "Participants in an IDRC-CIDA study were asked about their examination of the successes

²⁶ Only one project was found, 3-P-83-1003, that identified the various skills of the research team.

and failures of training programs and their subsequent review of program goals and trainee selection criteria. In general, development organizations responding to the survey do not appear to place a strong emphasis on monitoring and evaluation of their training programs. While a number of organizations reported that they conduct trainee follow-ups and examine the program success, relatively few (ie. less than 25 percent) reported that they formally review program goals and objectives in light of the evaluations... Fewer again specifically reported that a review of trainee selection criteria is a part of the follow-up process." One of the overall findings of the study was the need, identified by all donors, to more systematically evaluate their training programs.

In IDRC, the findings from the data in this study and the evaluations that have been conducted appear to emphasize the following:

- ◆ Support for fellowship and award programs, in general, have had positive impacts on the number of trained researchers and their continued involvement in research and administrative work upon return to their home country. The vast majority return home after studying abroad. The major problems they face when they return home is a chronic lack of research funds, an abrupt end to ongoing contact with other trainees and the research community at large and a serious lack of operating funds to continue their research endeavours. The donor community is beginning to strongly endorse the notion that human resource development and training involves a long-term commitment. Training, without subsequent support, is an issue increasingly noted in IDRC evaluations. Suggestions for addressing some of the problems include the provision of ongoing support and the development of networks linking past trainees who are working on topics of mutual interest. Following up on the later suggestion, FAD initiated a newsletter for past Pearson award holders in early 1990.
- ◆ There is some question whether the Young Canadian Research Award (YCR) is enticing young Canadians to become interested in international development, one of its stated intentions. An evaluation also concluded that the award was under subscribed and over funded. As a result of the evaluation the program was modified considerably. In addition as a direct result of the 1989-90 budget reduction, there has been a cutback in the number of YCR Awards.
- ◆ Trainer-trainee programs have been quite successful, and are increasingly perceived as an important tool for developing individual and institutional capacity.
- ◆ Some evaluations are recommending more program grants be given to select institutions to allow them to develop the capacity to become regional training centres. Others are suggesting that linkages be established between training centres to encourage the exchange of expertise. In IDRC, FAD has been

providing mechanisms for improving inter-regional and inter-country interaction among several institutions.

- ◆ The need for differentiated support by regions is increasingly evident. Some evaluations suggest the need to redirect support for fellowships and awards to specific groups, such as women, while others suggest the need to redirect certain types of degree training from certain regions, such as Southeast Asia, to Sub-Saharan Africa. Improved information about the demand for trained personnel in different regions is required prior to adopting unilateral policies, according to some evaluations. Towards this end, IDRC has embarked on a number of recent evaluations to identify the main problems concerning the training of researchers and to formulate recommendations concerning training and the utilization of human resources for research in different regions.²⁷
- ◆ Informal, non-degree training continues to be perceived as the most appropriate way to provide training oriented to specific development issues. And yet, most evaluations focus on formal, degree training. Follow-ups of award recipients is the most common type of training evaluation in IDRC, and yet the findings from this study indicate that more than 60 percent of the training funds are spent on informal training initiatives.
- ◆ Finally, the evaluations stress that little is known about the institutions that conduct IDRC-supported training. Evaluations typically focus on individuals, not institutions. With a new policy oriented more towards institutional support than in the past, the importance of improving this information base is evident.

²⁷ The 1990/91 TYROP of the Fellowship and Awards Division outlines these regional priorities.

APPENDIX A

TRAINING DATA IN IDRC INFORMATION SYSTEMS AND DOCUMENTS

APPENDIX A

TRAINING INFORMATION FOUND IN VARIOUS SOURCE DOCUMENTS

[illegible]

Information Source	Type of Training Institution	Name of Advisor	Name of Sending Institution	Type of Sending Institution	Name of Trainee	Marital Status of Trainee	Educational Background of Trainee	Work History of Trainee	Language Abilities of Trainee	Work Address of Trainee	Home Address of Trainee	Purpose of Training
MINUTES												
PROJECT SUMMARY	X		X									X
PINS												
FADMIS	X	X	X	X	X	X	X	X	X	X	X	X
PROMIS												
FINMIS												
IDRIS												
POST-PROJECT ABSTRACT												
PROJECT COMPLETION REPORTS												
EVALUATION REPORTS												
OPEIS												
SSU TRAINING DATABASE	X		X	X								X

Information Source	Type of Institutional Support Training	Type of Degree Training	Level of Degree Training	Type of Informal Training Mechanism	Phase Number	Number of Participants	Gender	Field of Study	Networks Administrative Detail about Training Events	Actual Amount of Training Conducted	Evaluation of Training
MINUTES											
PROJECT SUMMARY	X										
PINS		X	X	X	X	X	X	X			
FADMIS					X						
PROMIS		X	X								
FINMIS						X	X	X			
IDRIS					X				X		
POST-PROJECT ABSTRACT									X		
OBJECT COMPLETION REPORTS											
EVALUATION REPORTS											
OPEIS										X	
NU TRAINING DATABASE	X	X	X	X	X	X	X	X			X
											X

APPENDIX B

DONOR TRAINING PROGRAMS: POLICIES AND LESSONS LEARNED

**African Development Bank
01 B.P. 1387
Abidjan 01
Ivory Coast**

Contact-- Mr. E.K. Andah.

Background-- Founded in 1963, The African Development Bank (ADB) is a financial institution which places a great deal of emphasis on HRD. The Bank's participation with other international donors and agencies includes cost-sharing agreements with the World Bank, UNDP, UNICEF, and ILO; funding from USAID, CIDA, NORAD, and SIDA; and technical assistance from France and the United States.

Goals--The Bank is involved in further encouraging HRD in Africa through programs available at the training centre of the Bank.

Training Programs--Programs include seminars, courses and fellowships for trained personnel in evaluation, analysis, implementation and management of projects. English and French language training is provided at the Bank's training centre.

Selection Process--Nomination of candidates is done by organizations and government agencies, although a special application form must be completed and submitted for screening by the selection committee. The most effective method of information dissemination is through direct mail. The Bank keeps a comprehensive list of all organisations and government agencies responsible for the nomination of candidates.

Monitoring Mechanisms--Monitoring involves performance improvement programming and occasional follow-up of past participants.

Insights and Priorities-- HRD is crucial in Africa; the Bank will continue to assist member countries through training.

Source: HRD Questionnaire and Information Brochure "1988 Training Programs".

**Asian Development Bank
2330 Roxas Boulevard
Metropolitan Manila
Philippines**

Contact--Mr. Amador F. Astudillo, Senior Project Specialist (Seminar Coordinator), Central Project Services Office (Central Loan Administration Services Division).

Background--This international financial institution, owned by an international partnership of 47 member countries, was founded in 1966. In the 1986/87 fiscal year, a technical assistance grant of US\$ 350,000 was allotted to HRD. The major geographic focus of financial assistance is on Asia.

Goals--The Bank's definition of HRD is the development and improvement of knowledge and skills used in undertaking development activities. Their mandate is to provide central advisory services with respect to project administration and to conduct training programs to improve the knowledge and skills of project agencies in implementing Bank-financed projects.

Training Programs--The Bank provides training to professionals from member countries in the techniques and methods of policy and project analysis. Formal training is offered at the training centre, and focusses on the main phases of the project cycle. The courses and seminars are carried out in short periods of ten weeks and courses are organized around sessions devoted to case studies, practical exercises and role playing simulations. The seminars cover important areas of policy for both the Bank and member countries. The Bank supports project-related training through three regional seminars on project implementation and management, and five country seminars on procurement.

Selection Process--Selection is based on the relevance of individuals' qualifications and practical experience to the course material. Care is taken to maintain training groups as homogeneous as possible in their background and experience, while taking into account the geographical balance and the acute shortage of trained professionals in any given country. Consultations are made with the Project Division in the Bank responsible for specific projects to ensure that individuals chosen are qualified. Collaboration also occurs with the central government concerned.

Candidates must be nominated by an institution to which the Bank has sent the appropriate announcement. The candidates' present position must be related to the purpose of the training activity, of a level of responsibility appropriate to the use of the training received. The effectiveness of the agency involved in the sector covered by the training must be established. The individual must also have a university education and a command of the language in which the training activity is conducted. In addition, the government or nominating agency must assure the Bank that a leave of absence will be granted on full pay for the duration of the training, that no assignment preventing the candidate from fully participating in the training activities will be given, and that the candidate will be able to return, upon completion of the training, either to the current position or to one of equal or greater responsibility, for which the training will prove useful.

Information about scholarships to potential recipients is communicated through course announcements addressed to government agencies, through information provided by the Bank staff during field missions, and through news releases.

Monitoring Mechanisms--Trainee questionnaires, consultant observations and recommendations are all used to monitor and evaluate the progress of projects.

Insights and Priorities--The Bank's experience in providing financial and technical assistance to its member countries has shown that systematic training is needed in order to improve the capability of member countries in handling development projects. It is recognised that the limited capacity of most countries to formulate viable investment project proposals and to implement them effectively is an impediment to the efficient utilization of their resources. There is a need for project staff to learn how to deal with the complexities and intricacies of project-related tasks and activities, particularly in planning work, and in identifying and solving problems.

Source: HRD Questionnaire, Information Brochure, and "What It Is, What It Does, and How It Works", 1983.

**Inter-American Development Bank
1300 New York Ave.
Washington D.C. 20577
U.S.A.**

Contact--Mr. Juan Pablo Perez Castillo, Deputy Manager, Technical Cooperation Division.

Background--This multilateral development bank consists of 41-member countries and was founded in 1959. The lending loan for 1986 was approximately US\$ 3 million. Most training is undertaken through the Bank's technical cooperation activities. During the period from 1961 to 1983, the Bank approved US\$ 134.4 million in technical cooperation for training programs. Ordinarily, the Borrowing country of IDB funds contributes local counterpart funds for each operation.

Goals--The Bank's mandate is to assist the Borrowing member countries to help train personnel. This involves supporting training of personnel in the project cycle in response to the needs of the member countries as reflected in specific requests. The Bank's actions are aimed at the institution-strengthening of the agencies that implemented the respective training programs.

Training Programs--The Bank arranges technical cooperation operations designed to develop courses, seminars, in-service training and other domestic training activities as well as to provide the necessary equipment and at times fellowships for study abroad. The Bank is active in the training field at two levels: first, at the investment project level when training is directly linked with the objectives and goals pursued in a specific project, and secondly, at the independent training program level, which covers specific needs at the national, sub-regional and regional levels. These programs are often coupled with advisory and research components, supplemental to the training. The project cycle, policy and planning, as well as organization and administration are the three areas of major focus in the Bank's programs.

A direct, in-service training program for officials from the public sector, aimed at bringing them together and familiarising them with IDB operating policies and practices, is in place at present. Training programs are also provided for management, technical and professional levels. Most of these are accomplished through short, practical courses or seminars. Some training programs are directed towards higher levels of education, including postgraduate courses.

Insights and Priorities--In Latin America and Caribbean countries, shortcomings have been found, attributable to inadequate personnel training that impair the programming and implementation of projects, programs and policies. There is more of a demand for quality in the level of training. Training Programs must be carefully designed and must make substantial qualitative contributions in comparison with those of the past. In order to meet its objectives, the Bank has decided as a general rule to act through existing national, regional and sub-regional institutions and programs, and in limited cases, to support the formation of new programs. This recommendation discards an earlier proposal of setting up a training institute or centre for lack of sufficient technical, financial or institutional justification and because it is inconsistent with current trends towards decentralisation in a number of areas, particularly training, as well as with the Bank's own policy of institution-strengthening of Latin-American institutes and agencies. This is a policy based on the training needs of personnel, currently in service. The Bank feels that it would also be advisable, however, to support programs designed to meet the longer-term needs at the postgraduate level in order to prepare professionals likely to hold leadership positions in the respective countries in the future.

The World Bank
1818 H Street, NW
Washington, D.C. 20433
U.S.A.

Contact--Mr. W.D. Haddad, Chief, Education and Employment Division, Population and Human Resources Department.

Background--This International Financial Institution was founded in 1947, and reported loans and credits totalling US\$ 17,674 million in the fiscal year of 1987 to projects in developing countries. Of this total, US\$ 987 million was dedicated to HRD. Lending for education and training currently averages between five and six per cent of the Bank's annual lending. The largest source of co-financing continues to be the official bilateral aid agencies and multilateral development institutions.

Goals--The World Bank recognises the contribution of education and training to sustained economic growth. Activities range from basic education and the development of general skills that enable individuals to function effectively in society, to training and the provision of more specialised learning, necessary for entry into the labour market and for increased productivity in the existing work force. The mandate of this particular department is to assist borrower countries in the formation and utilisation of human capital. This must occur within the constraints of the financial and managerial capabilities of individual developing countries, and should be achieved through the development of policies and procedures applicable to all Bank staff working on education and training project components, as well as through specific research in which the Bank has a comparative advantage.

Training Programs--Loans and credits are available to borrower countries for: i) education and training projects in formal and informal education systems (typically through projects implemented by the Ministries of Education and Labour); and ii) through project-specific training components. The Bank also aids development through the seminars sponsored by its Economic Development Institute which help build development capacities and institutions through organised training and discussions. Fellowships at universities and technical training institutions are funded as part of the Bank's projects implemented by individual Borrower countries. The level of training involved is contingent on the nature of the project itself.

Insights and Priorities--Although education accounts for a relatively small portion of total lending, the Bank is now one of the largest providers of assistance for educational development and training. Investment in people is of key importance in developing countries, yielding, high returns for long-term economic development.

Source: HRD Questionnaire and Annual Report 1986.

Carnegie Corporation of New York
437 Madison Ave.
New York, N.Y. 10022
U.S.A.

Contact-- Mr. David Hamburg, President; Adetokunbo Lucas, Program Chair, Strengthening Human Resources in Developing Countries Program.

Background--This American NGO reported expenditures of US\$ 29.2 million in 1986.

Goals--A major objective of the Strengthening Human Resources in Developing Countries program is to contribute towards a healthier, better educated, and more productive citizenry in English-speaking Africa and the Caribbean. The program is based upon a multidisciplinary approach to developmental issues, drawing on the knowledge, skills, and resources of the behavioural, social, biological, and biomedical sciences and also on the technical and policymaking communities in this country and abroad. A second major objective is to encourage the application of science and technology for development through the support of projects to strengthen indigenous capacities and by encouraging cooperation among leading professionals and scientists in developing and technically advanced countries.

Training Programs--Carnegie does not have a scholarship program. Projects are supported in the application of science and technology for development, maternal and child health care, and the communication of lessons learned through development experience to American audiences, policy-makers and scientists, as well as the general public.

Source: HRD Questionnaire

**Ford Foundation
320 East 43rd Street
New York, NY 10017
U.S.A.**

Contact--Mr. William D. Carmichael, Vice President, Developing Countries Program.

Background--This private, non-profit organization was founded in 1936, became a national organization in 1950, and had an annual budget of US\$ 80 million in 1987. HRD is the single major theme in the Foundation's work. The Foundation is largely involved in educational, developmental, research and experimental efforts. Up until 1987, the Foundation has made commitments totalling US\$ 6.6 billion. Inter-agency cooperation includes the formation of partnerships with other organizations, both public and private, national and local.

Goals--This organization's mandate broadly covers all development work in the developing countries. The Foundation uses a broad definition of human resource development, including scholarships, fellowships, travel and study awards, research activities, and the development of education programs and institutions.

Training Programs--Programs involve the development of indigenous educational institutions and policies as well as research capacities and institutions. Training within active projects and government programs is also supported. Higher-level training is supported both inside and outside the developing countries. This may involve short-term travel, study, research or conference opportunities. Language training is provided only rarely, as most grant recipients already possess adequate competence.

Selection Process--This varies widely from program to program. Ford, to a great extent, relies on the recipient country, the institutions themselves, peer reviews, selection panels and their own staff appraisals to ensure that individuals are adequately qualified and motivated for training. Activities supported by Foundation grants must be charitable, educational or scientific. Most of the Foundation's grant funds are given to organizations. The Foundation does not award undergraduate scholarships, and support for graduate fellowships is generally funneled through grants to universities and other organizations responsible for the selection of recipients. In all cases, recipients are selected on the basis of the merits of their proposals and their potential contribution to the advancement of the Foundation's program objectives.

Monitoring Process--All grants are evaluated by the grantee as well as the Foundation. Occasionally, broader issue-oriented reviews are also conducted.

Insights and Priorities--Prime objectives involve "institution building" by establishing self-sustaining organizations staffed by qualified personnel in the fields of education, public administration, economic planning, agriculture and population. Focus is on human rights, civil liberties, the reduction of rural poverty and dependency, and the promotion of greater international understanding.

Source: HRD Questionnaire, Ford Foundation - International Programs (July 1979) and Current Interests 1988 and 1989 (January 1988). Annual Report (1986).

**Canadian International Development Agency (CIDA)
200 Promenade du Portage
Hull, Quebec K1A 0G4
Canada**

Contact--Mr. Pierre Beemans, Director General, Social and Human Resource Development Division.

Background--CIDA is the federal agency responsible for Canada's Official Development Assistance (ODA) Program. It was founded in 1969 and reported an annual budget of US\$2.17 billion in 1986, for which 22 per cent is dedicated to HRD.

Goals--The mandate of the Social and Human Resource Development division is to develop policies and procedures, provide technical and professional advice and expertise, to provide operational and administrative support services to facilitate HRD program delivery, and to provide briefings and cross-cultural training programs. HRD is defined as the development of individual, group and institutional capacities for self-sustained learning generation of technology and implementation of development activity.

CIDA and the World Bank have jointly financed several projects involving HRD in developing countries. CIDA has participated with many NGOs in the direct provision of HRD activities in Third World countries and in Canada. CIDA is also involved in the institutional development of Third World NGOs. Private sector/NGO consortia to manage or administer training and scholarship programs are also used. CIDA is also involved with private and public sectors involved in providing institutional development, project-related training and practical attachments.

Training Programs--CIDA supports three types of HRD, involving general capacity building, project-related training and institutional/organisational development. General intellectual and academic formation, mainly at the post-secondary level, are supported. Technical, professional and vocational, task-oriented skills development and research are also supported. Organisational analysis, design and strengthening of structures, systems and knowledge are supported to increase the efficiency and effectiveness of the management and administration of organisations and institutions in developing countries. The analysis and shaping of social attitudes and values required to mobilise individuals, groups and community efforts towards development is also supported. CIDA extends academic and technical scholarships from the post-secondary to post graduate levels. Study tours, attachments, internships and apprenticeships, and workshops and seminars are also part of the training program. Institutional linkages and distance education are covered as well. CIDA provides language training, when needed, to trainers and trainees. Interpreters can be provided for short-term training and study tours.

Selection Process--Some CIDA desks (eg., China, Indonesia) have joint Canada/recipient selection committees. These include representatives of Canadian training institutions to assist in needs identification, review of applications and to determine if the candidate is suitably qualified for the training.

Bilateral discussions are utilised to communicate information in the context of country program planning process. CIDA receives specific requests for training and scholarship-related information. Marketing missions led by Canadian consulting firms and professional associations managing CIDA's Scholarship and Training Projects often result in the communication of information. Some information is distributed in response to inquiries to Canadian NGOs or universities or through information provided by the Canadian Embassies abroad.

Monitoring Mechanisms--CIDA is making more use of HRD monitoring to provide current information on projects. Evaluations are conducted using base line studies, mid-project, end projects (3 months after the project), and follow-up (impact) studies 1-5

years after the completion of the project. Corporate evaluations of CIDA's support of post-academic and some technical institutions are underway. The Latin American Division is undertaking a study of the effects of Brazilian training and Canadian study tours on Brazilian trainees and their local institutions. Tracer studies and trainee questionnaires are used as follow-up methods. Programs are upgraded and new mechanisms are adapted to ensure that newly acquired skills are maintained.

Support Services--CIDA offers pre-departure and in-country cross-cultural briefings and de-briefings. The institution is presently developing mechanisms to ensure that CIDA-funded students receive adequate support services. CIDA Headquarters houses a briefing and de-briefing centre. Language training takes place in-country and/or in Regional centres in Canada attached to Canadian universities.

Insights and Priorities--Human resource development requires long-term and comprehensive commitments to development of managerial skills, flexible systems of HRD programming and the linking of programming with the planning of development in other sectors. There is a need to focus development efforts on the critical role of women in the Third World. A re-emphasis on the primary schooling and basic education for functional literacy and numeracy is also necessary. CIDA is placing more emphasis on the development of local capacity to make comprehensive but practical assessments of manpower, training resources, and future needs.

Source: HRD Questionnaire and Discussion Paper on Human Resource Development, Human Resource Development Activities of the Canadian International Development Agency, Education and Training Section, Social and Human Resource Development Division.

International Development Research Centre (IDRC)
250 Albert St.
P.O. Box 8500
Ottawa, Ontario, Canada
K1G 3H9

Contact--Mr. G.R. Bourrier, Director, Fellowships and Awards Division (FAD).

Background--This public corporation was created by the Parliament of Canada in 1970 to stimulate and support scientific and technical research by developing countries for their own benefit. Although IDRC is financed solely by the Government of Canada, policies are set by an independent 21-member international Board of Governors. IDRC reported an annual budget of US\$ 86.5 million in 1986, with US\$ 7.4 million dedicated to HRD. The Fellowship and Awards Division is the entity within IDRC responsible for human resource development and training for research for development.

Goals--The goal for providing training support is to create the capacity for high-quality research in developing-country research institutions and to develop Third World training institutions to the point where they can meet their own research-related needs. In this way, FAD contributes to IDRC's objective of establishing autonomous, independent research and training institutions in the Third World. Ultimately, the people of the developing world will benefit from a supply of highly trained scientists and administrators capable of researching and solving problems crucial to the future of the Third World.

Training Programs--FAD's approach to building research capacity is based on the trainer/trainee approach to training in the Third World. This approach strives to ensure that an investment in training links and strengthens both the institutions that provides the training and the institution whose personnel will receive the training. Trainee institutions are those identified as having valuable potential in specific areas of research of priority to IDRC and the country or region concerned.

There are five main types of training programs: Project Development, Program Development, Institutional Development, Specialised Training and Training for Careers in Development for Canadians. IDRC supports academic training at the graduate level of both the Masters and Ph.D. degrees, as well as short-term specifically designed project-related training. Group training activities in the form of training workshops and seminars on a particular theme are also organized to improve technical research and administrative skills of researchers from the different regions of the developing world.

Selection Process--The majority of awards are not open to competition but are given to Third World researchers directly linked to IDRC supported projects and programs. Individuals must be recommended by their home institution and endorsed by the sponsoring IDRC program division. Selection is also based on the applicants present and potential role within their organization.

Monitoring Mechanisms--Awardees are required to provide periodic reports every four months with comments from supervisors. IDRC staff make regular visits to graduate facilities. Tracer studies have been conducted of PhD and Canadian candidates. Future plans to develop a strategy that incorporates elements of the evaluations into the work plan are presently being discussed.

Support Services--Awardees are briefed in either the Central or regional offices where feasible. Trainees are given information on the Centre as well as the administration of awards. Staff members routinely visit all universities. Awards cover the expenses of spouses, but not of dependents.

**Ministry for Development Cooperation
P.O. Box 20061
2500 EB The Hague
Netherlands**

Contact--G. Storm, Chief of Division, Training, Education and Research

Background--This national organization reported an annual budget of US\$ 2,719.3 million in 1988, of which US\$ 83 million is dedicated to HRD.

Goals--The Training, Education and Research Division is responsible for the HRD policy and budget. The organization defines HRD as the development of human resources through institution building and manpower development in developing countries.

Training Programs--Netherlands Fellowship Programme (NFP) is intended to deepen and broaden the specialised knowledge and professional skills of persons in mid-career, enabling them to make a greater contribution to the development of their countries and the work of their organizations. Fellowships are granted for short vocational or professional "post experience" training and not for academic studies or for the primary purpose of getting a degree. This fellowship program encompasses 25 per cent of the HRD budget. A twinning arrangement exists between universities and organizations of international education in the Netherlands and similar institutions in the Third World. Thirty-five per cent of the HRD budget is allotted for this program. Fifteen per cent goes toward direct assistance to these institutions in the Third World. The remaining 25 per cent of the funds are allotted to the Research and Technology program. There is a limited number of fellowships available for Master's level work and PhD-level work by exception only. All other support is given for short-term practical courses. English and Dutch language training is also available, if required.

Selection Process--Candidates must be backed by their employer who also pledges to continue payment of salaries and hold the same position for the candidate until their return. They must be working in a developing country in a development-related position. They must also have an educational background, practical experience, and a position relevant to the course material. An adequate command of the language (in which the course is held) is also required.

Source: HRD Questionnaire

**United States Agency for International Development (USAID)
Department of State
Washington, D.C. 20523
U.S.A.**

Contact--Ms. Barbara Otis, Acting Director, Office of International Training.

Background--The Agency for International Development is a U.S. government agency which provides economic assistance to over 70 developing countries. Unlike other large bilateral donors, USAID is unusual in that it is a very decentralised operation. The bulk of its funding is earmarked on a country-by-country basis. Individual missions have responsibility for the determination of project activities and for the commitment of resources. The major components of the 1987 fiscal year AID budget are Development Assistance, US\$ 2.10 billion and the Economic Support Fund, US\$ 3.55 billion.

Goals--The objective of Development Assistance (DA) is to improve the quality of life of the poorest people in developing countries. Areas of emphasis include agriculture, nutrition, family planning, health, child survival, education, private sector development and science and technology. DA includes bilateral assistance, centrally administered programs, and other activities such as international disaster assistance. Central programs include collaborative research efforts with universities, support for international agricultural centres, matching grant programs with private voluntary organisations, and medical research. The 1987 DA budget included bilateral assistance for countries in Africa, Asia/Near East, Latin America and the Caribbean. The Economic Support Fund (ESF), while an important part of the security assistance program, provides considerable development-related balance-of-payments support and short-term economic stabilisation assistance. These funds permit developing countries to initiate policy reforms, allowing longer-term development efforts to take hold. It also finances development projects.

Training Programs--The Office of Education has a mandate to improve education and education systems by focusing on three crucial areas:

- o comprehensive research, analysis, and planning to improve the efficiency of existing educational systems;
- o the development and application of educational technologies to improve the quality of education, and to extend access to education; and
- o the use of development communications to extend education technologies and telecommunications to deal with problems in other sectors.

The education and research projects depend upon innovative efforts in the technology area. Every project in the Office is a research and development activity with a concentration on field application. The intent is to test new ideas, improve upon them, and disseminate potentially effective interventions through field support activities by staff contractors as well as written materials.

Last year, AID funded nearly 15,000 individuals for short and long-term training. In Latin America and the Caribbean, most of the funds are invested in scientific/professional education while in Asia/Near East the largest percentage of funds go towards elementary education. In Africa, the largest investments are in vocational/technical education and in scientific/professional education.

Swedish International Development Authority (SIDA)
Birger Jarlsgatan 61
S-105 25 Stockholm
Sweden

Contact--Dr. Ingemar Gustafsson, Head of Division, Education Division.

Background--This federal government agency was founded in 1962. The annual budget for the 1986/87 fiscal year was US\$ 777.5 million, of which US\$ 37.9 million was dedicated to HRD. SIDA has an extensive program for supporting 80 per cent of the total budget of national NGO projects.

Goals--This organization concentrates its HRD efforts on education channelled through the ordinary school system. The mandate of the Education Division is to give assistance by supporting primary, secondary, tertiary, and adult education and vocational training.

Training Programs--SIDA does not have a scholarship program as such; however, some short-term scholarships are awarded in project-related areas of study. This is largely specialised, vocational training. Some of the activities supported by SIDA include the training and up-grading of teachers, support to innovative and possibly cost-saving methods, and financing of education materials, including chalks, pencils, etc.. SIDA gives priority to institutional vocational training, apprentice training, maintenance matters, educational planning, natural science and technical subjects, public service training, education for handicapped, teacher training, and the production of teaching materials and aids.

Monitoring Mechanisms--Sector reviews and reports from the sector analyses are used in the continuous planning, follow-up and evaluation of individual programs and projects. In addition, special evaluations are conducted, comparing the results of projects with developments in the sector overall.

Insights and Priorities--In the poorest countries, it has become essential to consolidate existing programs. SIDA's experience shows that education is a means to reach other material or social objectives. If the education offered is of poor quality and is unable to meet the expectations of students and parents, it is rejected.

The demand for vocational training is growing. For the individual, it is attractive since it provides the possibility of obtaining a well-paid job, and for recipient countries, it lessens dependance on foreign personnel.

It has been shown that institutional education should be fairly broad in order to allow for changes in technological and production methods. It is essential, then, that training and education activities within projects be strengthened. Too little attention was paid to this aspect of SIDA-financed projects and programs in the past.

Great consideration should be taken of the special characteristics and varying conditions of recipient countries. In principle, the economic, social and cultural situation in each country is unique. Therefore, educational conditions and needs can vary widely from country to country. Demands on the analysis of needs and external conditions should be intensified. Educational programs should be problem-oriented and geared to meet long-term goals.

Insights and Priorities--The Agency's education program reflects the awareness that assistance is most effective when implemented through a broad systematic approach on a sustained basis. The program responds to the need to undertake development efforts, not only where economic need is greatest, but where analysis has indicated those countries which will indeed take steps to implement education policy reforms.

Source: HRD Questionnaire

United Nations Development Program (UNDP)
1 UN Plaza
New York, N.Y. 10017
U.S.A.

Contact-- Frederic C. Thomas, Principal Technical Advisor, Technical Advisory Division of the Bureau of Program Policy and Evaluation.

Background--The United Nations Development Program is a UN agency for technical cooperation. Its annual budget for 1987 was US\$ 874.6 million, of which an estimated 30% was spent in economic subsectors having a clear HRD focus. In the context of the broad definition of HRD (i.e., activities relating to the education, training and utilisation of human potential for social and economic progress), virtually all UNDP-supported projects have a human resource dimension. The emphasis is inevitably on education, training and manpower planning. Training is focussed on sectors such as health, agriculture and industry as well as on highly technical areas such as civil aviation, telecommunications, and maritime development.

Participation with other agencies and organizations is increasingly prevalent. Of the total cost of projects in operation at any particular time, approximately 44 per cent is contributed by UNDP, 50 per cent by the recipient government to meet local costs and services, and 6 per cent by a third party or other government. The cost-sharing amount is included as part of the UNDP budget (i.e., in the total annual budget) and is administered as an integral part of the project to meet consultancy, training, equipment and other direct project costs.

Most projects are executed by UN specialised agencies. Increasingly, however, projects are being executed by governments in association with the UN agency having specialised technical knowledge. As of the end of 1986, about 5 per cent of total budgets of approved projects were executed by the government of developing countries. Increasingly, UNDP programs at the country level are being executed in collaboration with international and national NGO's, with host government agreement.

Goals--To appraise and evaluate projects having an HRD dimension; to provide cross-sectoral policy and evaluation guidance in order to improve UNDP performance with respect to HRD.

Training Programs--These programs involve three broad areas of activity:

- o Project-related training in all development sectors (including agriculture, health, industry, telecommunications, civil aviation, tourism, maritime development, population, employment promotion); cross-sectoral training in such fields as economic and social planning, public administration, informatics, etc..
- o Technical assistance in educational reform, curriculum development, education facilities, educational technologies, teacher training, and literacy programs.
- o Projects of technical assistance, training and training-related equipment to help strengthen institutions and enhance their capacity to utilise trained personnel.

Training mechanisms include short-term overseas fellowships for national project staff, study tours for national project directors, and in-country training courses, seminars, etc.. UNDP facilitates and helps in financing technical cooperation among developing countries (TCDC) which has direct training benefits. Geographic areas of activity are widespread and include projects in Europe, Latin America and the Caribbean, Arab States (including North Africa), Asia and the Pacific, Africa and additional global and interregional projects. Language training is not provided in the context of the projects. Academic scholarships are not applicable since UNDP only funds short-term project-related training. In 1987, of a total budget of US\$ 874 million, US\$ 146 million

was spent on the training component of projects (including overseas and in-country, group and individual training).

Selection Process--Trainees are selected by the national project authorities in conjunction with the international experts assigned by the UN executing agency. The agency usually identifies the appropriate training institution and arranges placement. UNDP finances travel and other training costs. Increasingly, emphasis is given to training in other developing countries.

Monitoring Mechanisms--Monitoring mechanisms include 6-month reports prepared by experts and annual tripartite reviews (by government, specialised UN executing agency, UNDP) are conducted on most projects for monitoring purposes. Also, large-scale projects (usually with a multi-year budget exceeding \$1 million) are evaluated by a joint UNDP/executing agency mission in the course of implementation, prior to approving any major extension of funding beyond the usual 2-5 year initial period. Thematic evaluations of experience are done with specialised agencies on such subjects as educational innovation, industrial training and women in development, to identify common weaknesses and strengths in projects in a particular sector in a number of countries. A general evaluation of HRD experience since 1970 is currently being done for submission to the UNDP Governing Council in June 1988.

Insights and Priorities--UNDP responds to priorities established by the recipient governments. In general, priority is being placed on strengthening institutions which make best use of professionally-trained human resources; on using UNDP resources to fill technology gaps and to strengthen national research and development capabilities; and to give more attention to mobilising the under-utilised potential of women and the private sector for purposes of development.

Source: HRD Questionnaire, "UNDP Experience in HRD," Addendum to Programme Implementation of Decisions Adopted by the Governing Council Review of Thematic Programmes Established by Decisions of the Council, 1988 and the Unique Role of The United Nation's Development Programme in Human Resources Development and Development Cooperation in the 1980's.

The Overseas Economic Cooperation Fund (OECF) of Japan
4-1, Ohtemachi 1-chome, Chiyoda-ku
Tokyo 100 Japan

Contact--S. Komine, Director, Technical Appraisal Coordination and Planning Division, Technical and Economic Research Department.

Background--The ODA delivery apparatus of the Japanese government consists of several specialised organizations. Each of these separate agencies has its own functional responsibilities for particular components of Japanese ODA. OECF, functioning under ministerial jurisdiction, functions as an executing agency for ODA lending. OECF manages project appraisal and implementation, including loan disbursement and repayment. This organisation reported an annual budget of US\$ 5.5 billion during the 1987 fiscal year. OECF is involved both in co-financing arrangements with multilateral agencies (e.g., World Bank, Asian Development Bank, etc.,) and bilateral agencies.

Goals--OECF defines HRD as the development of institutional capacities of related agencies for sustainable development. The mandate outlined involves the planning and coordination of technical appraisal activities of OECF and the coordination of OECF project lending with other related agencies.

Training Programs--Although OECF does not have a scholarship program as such, it does support three types of training activities: technical training, involving the transfer of technologies for implementation and cooperation of development projects; organizational/institutional development to support agencies sponsoring development projects; and, the strengthening of research/development agencies in developing countries.

Source: HRD Questionnaire

**Overseas Development Administration
Eland House Administration, Stag Place
London, SW1E 5DH**

or

**Overseas Development Administration
Abercrombie House, Eaglesham Road
Glasgow, G75 8EA
England**

Contact--Dr. R. O. Iredale, Chief Executive Adviser, Education Department.

Background--The Overseas Development Administration is a UK Government Department, founded in 1961. The annual budget is US\$ 2,294.4 million, with US\$ 231.3 million dedicated to HRD.

Goals--The mandate of the education department, responsible for HRD, is to give advice on education development in Third World countries as part of their aid program, to generally oversee training programs and to uphold relations with other educational bodies in the UK, including the British Council. HRD, as defined by the Overseas Development Administration, involves overseas student support schemes for training in the UK and third countries, as well as training overseas through the provision of manpower. Any participation with other donor agencies is bilateral in nature.

Training Programs--Training programs may be project-related or in other areas of agreed priority. Both involve a variety of subject areas according to previously identified needs to strengthen the manpower base in overseas countries and to assist in institutional development. Fully funded training programs are offered largely at the post-graduate level in the UK. A small number are also offered in-country. This type of program may span from three months to three years. Industrial training is made possible through attachment to industrial bodies. Practical training is also available to local counterparts through provision of manpower advice, and in-country training. English language assessment is required in the case of all applicants from countries where English is not the language of educational work. Language training can be given either in-country or on arrival in the UK.

Selection Process--Individuals are nominated by overseas governments following discussion with the British post or a British Council representative. The nomination process takes into account future employment proposals and the student's capacity to successfully complete the course.

Monitoring Mechanisms--Receiving UK institutions are visited by ODA and British Council Advisers to ensure that courses are effectively run, that there is sufficient overseas experience within the staff, and that there is an effective service to meet the special needs of overseas students. These visits involve discussions with both the tutor and students. Monitoring also takes place in the form of general oversight by the British Council. Follow-up is conducted through the British Post, British Council representative and project staff in-country. Overall evaluation is conducted through ODA training and manpower reviews and the evaluation unit of the British Council.

Support Services--Welfare support is provided by the British Council. All students and trainees receive a briefing on arrival by the British Council and further advice and support from welfare services at the institution of study. Although no benefits are provided for spouses or dependents, a paid fare home to visit families is provided at the end of the second year of study to those in a three-year program.

Passage is provided to spouses and dependents to accompany those going overseas on long-term assignments. In the case of families whose children remain in UK schools, passage is provided to visit parents during school holidays.

Insights and Priorities--The Overseas Development Administration believes that a continued and concentrated effort towards maximum project-related training is a future priority. The encouragement of governments of developing countries to nominate an increased number of women candidates is also of central focus.

Source: HRD Questionnaire and Annual Report 1986.

**Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)
Postfach 5180
6236 Eschborn
Federal Republic of Germany**

Contact--Mr. Peter Conze, Head of Division 66, All Project Managing Divisions and Counterpart Training Division.

Background--This national organization is responsible for the implementation of the Technical Assistance Program for the Federal Republic of Germany. It was founded in 1974 and had an annual budget of US\$ 692.6 million in 1986. HRD is a part of almost all their activities. GTZ has been involved in cooperative efforts with the German Foundation for Developing Countries(DSE), Carl-Duisberg-Gesellschaft(CDG), and the German Academic Exchange Service(DAAD).

Goals--GTZ views HRD as the development of individual, group and institutional capacities for self-sustained learning generation of technology and implementation of development activities. Their mandate is to develop and advise on policies and procedures for Counterpart Training and to coordinate training programs in general.

Training Programs--Programs include on-the-job training, the conduct of internal project training programs (off-the-job) and external project training. Language training is provided in connection with training courses in the donor country only.

Selection Process--Selection is the responsibility of the project group themselves although it is done in close cooperation with DSE, CDG and DAAD. Project staff are believed to be in the best position to ensure that those chosen have the required qualifications and motivation because they know the applicants personally.

Monitoring Mechanisms--Monitoring is built-in as part of the normal project work, although specific training-directed evaluation has not yet been systematically implemented.

Support Services--Cross-cultural briefings are given to trainees as well as language instruction to those taking courses in Germany.

Insights and Priorities--HRD is decisive for the success of a project. GTZ plans to enforce its implementation in all future project work.

Source: HRD Questionnaire

APPENDIX C

COUNTRY GNP PER CAPITA

COUNTRY GNP PER CAPITA

Low-income economies	GNP per capita (1986 USD)	Low-income economies	GNP per capita (1986 USD)
Ethiopia	120	Bhutan	150
Burkina Faso	150	Nepal	150
Bangladesh	160	Malawi	160
Zaire	160	Mali	180
Burma	200	Mozambique	210
Madagascar	230	Uganda	230
Burundi	240	Tanzania	250
Togo	250	Niger	260
Benin	270	Somalia	280
Central African Rep.	290	India	290
Rwanda	290	China	300
Kenya	300	Zambia	300
Sierra Leone	310	Sudan	320
Haiti	330	Pakistan	350
Lesotho	370	Ghana	390
Sri Lanka	400	Mauritania	420
Senegal	420	Afghanistan	..
Chad	..	Guinea	..
Kampuchea, Dem.	..	Lao PDR	..
Viet Nam	..		

Lower middle-income	GNP per capita (1986 USD)	Lower middle-income	GNP per capita (1986 USD)
Liberia	460	Yemen, PDR	470
Indonesia	490	Yemen Arab Rep.	550
Philippines	560	Morocco	590
Bolivia	600	Zimbabwe	620
Nigeria	640	Dominican Rep.	710
Papua New Guinea	720	Côte d'Ivoire	730
Honduras	740	Egypt, Arab Rep.	760
Nicaragua	790	Thailand	810
El Salvador	820	Botswana	840
Jamaica	840	Cameroon	910
Guatemala	930	Gongo, People's Rep.	990
Paraguay	1,000	Peru	1,090
Turkey	1,110	Tunisia	1,140
Ecuador	1,160	Mauritius	1,200
Colombia	1,230	Chile	1,320
Costa Rica	1,480	Jordan	1,540
Syrian Arab Rep.	1,570	Lebanon	..

Country GNP

-2-

Upper middle-income	GNP per capita (1986 USD)	Upper middle-income	GNP per capita (1986 USD)
Brazil	1,810	Malaysia	1,830
South Africa	1,850	Mexico	1,860
Uruguay	1,900	Hungary	2,020
Poland	2,070	Portugal	2,250
Yugoslavia	2,300	Panama	2,330
Argentina	2,350	Korea, Rep. of	2,370
Algeria	2,590	Venezuela	2,920
Gabon	3,080	Greece	3,680
Oman	4,980	Trinidad and Tobago	5,360
Israel	6,210	Hong Kong	6,910
Singapore	7,410	Iran, Islamic Rep.	..
Iraq	..	Romania	..
High-income	GNP per capita (1986 USD)	High-income	GNP per capita (1986 USD)
Saudi Arabia	6,950	Kuwait	13,890
United Arab Emirates	14,680	Libya	..
Spain	4,860	Ireland	5,070
New Zealand	7,460	Italy	8,550
United Kingdom	8,870	Belgium	9,230
Austria	9,990	Netherlands	10,020
France	10,720	Australia	11,920
Germany, Fed. Rep.	12,080	Finland	12,160
Denmark	12,600	Japan	12,840
Sweden	13,160	Canada	14,120
Norway	15,400	United States	17,480
Switzerland	17,680		

APPENDIX D

TRAINING CONDUCTED AT THE TOP 10 INSTITUTIONS IN EACH REGION 1983/84 - 1988/89

ASRO \$9,490,921

1.	International Rice Research Institute	\$1,776,096
2.	University of the Philippines	731,420
3.	Universiti Pertanian Malaysia	695,289
4.	Southeast Asian Fisheries Development Centre	453,840
5.	Asian Institute of Technology	347,070
6.	University of the South Pacific	327,282
7.	Pig and Poultry Research and Training Institute	320,682
8.	Visayas State College of Agriculture	307,944
9.	Asian-Pacific Regional Research and Training Centre	238,000
10.	Regional Lead Centre	213,197
		/= 57%
		of training funds

SARO \$2,233,624

1.	Family Planning Foundation	\$ 500,042
2.	Ministry of Health	332,618
3.	Department of Agriculture	292,600
4.	Int'l Crop Research Institute for the Semi-Arid Tropics	154,870
5.	Bangladesh Agricultural Research Council	90,000
6.	Tribhuvan University	78,490
7.	Centre for Agricultural Research Institute	71,000
8.	Bharatiya Agro-Industries Foundation	66,100
9.	University of Roorkee	64,104
10.	Systems Research Institute	38,800
		/76%
		of training funds

MERO \$2,347,671

1.	Cairo Demographic Centre	\$	751,714
2.	Int'l Centre for Agriculture Research in Dry Areas		342,126
3.	The Rahad Corporation		89,750
4.	Organiz. Arabe des Ressources Minières		89,100
5.	Princess Sumaya College for Informatics		70,000
6.	Ministry of Agriculture		65,450
7.	University of Jordan		63,655
8.	Centre Africain de Formation et de Recherche		52,745
9.	National Institute of Administration		47,100
10.	American University of Cairo		39,015
			/=69%
			of training funds

EARO \$6,084,438

1.	University of Addis Ababa	\$	489,700
2.	University of Nairobi		487,612
3.	Int'l Centre of Insect Physiology and Ecology		299,426
4.	East and Southern African Management Inst.		247,045
5.	University of Zimbabwe		225,240
6.	Int'l Livestock Centre for Africa		176,435
7.	Int'l Council for Research in Agroforestry		154,800
8.	African Regional Organiz. for Standardization		134,270
9.	Institute of Agricultural Research		100,000
10.	Ministry of Health		91,000
			/=40%
			of training funds