# An Evaluation of Cooperative Projects Supported by the International Development Research Centre

### May 1995

A report of the Evaluation Unit based on research conducted by Marcel Zollinger\*

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<sup>\*</sup> The initial idea for this research was developed by Andrew Asibey. The research plan was revised by Marcel Zollinger, who also conducted the research and produced the original report and accompanying annexes. Michael Graham summarized and edited this synthesis report for final submission.

An Evaluation of Cooperative Projects Supported by IDRC

- Project Initiation
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# **Executive Summary**

This evaluation was designed to assess the relevance, effectiveness, performance, and impact of IDRCfunded partnerships between Canadian and developing country research institutions and research scientists. Data were collected from researchers who had participated in IDRC partnership arrangements involving Canadian scientists and Third World researchers to answer questions related to four key issues:

- The nature of the partnerships formed between Canadian and developing country research scientists and institutions;
- The impact of cooperative projects on capacity-building in developing countries;
- The likelihood of the utilization of research results; and
- The influence of the projects on subsequent research initiatives and activities of the Canadian partner.

The study demonstrated that, from the perspective of the participants, cooperative research projects involving Canadian scientists and their peers in the South produced useful results, strengthened research capacity in Third World institutions, and raised the level of understanding of development issues among Canadian scientists.

This report makes recommendations on ways to improve cooperative projects to meet current economic

realities and the changing conditions in developing countries. The key recommendations are grouped here according to the four issues addressed by the research.

# Nature of the Research Partnerships

Feedback from Third World scientists stressed the need to continue and expand cooperation with Canadian scientists. However, suggestions were made to improve the process of linking Third

World scientists and Canadians. Developing country scientists suggested the need for a more formal and organized basis on which to choose the most suitable partner in terms of both professional capacity and personality. Therefore:

- The cooperative project mechanism should continue and be linked to current programs.
- Efforts should be made to refine methods of selecting appropriate partners to ensure the development of relevant and effective cooperative projects.
- A database of former Canadian project leaders and Canadian research capacity should be established. This database would include an inventory of Canadian research institutions along with their capability, interest, and speciality as well as an inventory of researchers with development research skills or an interest in starting a career in development research.

The responses from Canadian project leaders suggest that several different viewpoints exist on the role of the Canadian partner in the project and the rationale for undertaking a cooperative research project. In addition, a number of the project leaders felt they were not properly prepared to undertake a cooperative research project and that the lack of opportunities to cooperate fully in project design may have had a negative influence on the performance of their projects. Therefore:

- IDRC should clearly define its objectives for cooperative projects and give clear directives on the priorities and approaches to be used in future cooperative projects.
- Some cooperative projects may require a longer or more intensive development phase in which workshops may be needed to develop proposals. When this mechanism is required, the partners, and perhaps resource persons, would require adequate funding.

Respondents felt that Canadian scientists have the potential to continue to play an important, and possibly increasing, role in development research. IDRC could identify Canadian centres of excellence and work to link Third World researchers with the best scientific development resources Canada has to offer. Therefore:

• To define the specific areas where Canada can make an outstanding contribution to development, IDRC should identify Canadian institutions that are leaders in research fields relevant to its programs. These institutions would become the focus for Canadian contributions to future cooperative research initiatives.

# **Enhancing Research Capacity**

Canadian researchers expressed concern about the sustainability of research capability beyond the IDRCsponsored project. Several Third World researchers also indicated that their institution was not in a position to maintain the facilities and equipment that were purchased through the IDRC project. Therefore:

• Additional attention must be given to increasing the probability that Third World researchers are able to continue their work without further IDRC involvement. Future cooperative projects should establish sustainability as a key goal and identify, where appropriate, ways to ensure that sustainability is achieved.

# **Research Utilization**

When asked about the areas that their research results affected, respondents gave the lowest ranking to social parameters such as increased equity, improved situation of women and children, and environmental issues. Because these are important factors in its programs, IDRC may wish to establish stronger policies and guidelines for the type of research that it will support and the areas of potential impact:

• Clear guidelines should be developed for future cooperative research projects in relation to the social and environment aspects of applied research.

Project leaders showed a very strong preference for horizontal dissemination of their results within the scientific community. There was little effort toward broader dissemination of research findings. Therefore:

- Greater effort is needed to disseminate the results of cooperative projects to broaden audiences as well as to target groups and end users. Future cooperative projects should have a clear dissemination plan, adequate funding for dissemination, and access to comMunications specialists to advise and help manage dissemination activities.
- As IDRC moves toward greater emphasis on measuring and documenting results, projects should clearly identify the beneficiaries, how the research will generate benefits, and how the research results will be used to produce these benefits. The needs of the beneficiary must be built into the design of the project, and the potential impact of the project must be realistically assessed and understood by all parties involved in the project.
- Cooperative projects should be managed using a system that concentrates on clearly stated goals and the measurement of performance and results. This approach will allow the program to become more flexible and responsive in terms of duration, task sharing, number and type of partners, and utilization of research results.

# **Subsequent Research Activities**

Some misgivings were expressed about the recent changes at IDRC: the loss of good program officers who had contributed to IDRC's excellent reputation; reservations about the professional profile of present IDRC staff; and a feeling of disillusionment with the changes that had taken place at IDRC. It was also suggested that there was now increased bureaucracy and increased adherence to rules and regulations at the expense of scientific performance and results. Therefore:

• The management structure for cooperative projects should be reviewed to ensure that future projects are appropriately developed and monitored using a flexible results- oriented management system and that policies and guidelines are clearly communicated.

A number of Canadian and Third World respondents advocated evaluations to assess project achievements, especially when decisions must be made about future project support. As well, some concerns were expressed about the perceived power of the program officers to make decisions on a project. Therefore:

- The lack of evaluations in cooperative projects is a serious shortcoming of the IDRC project system. Future cooperative projects should include an evaluation process that can be used on a routine basis and when specific circumstances or difficulties arise. These evaluations should include the perspectives of independent evaluators.
- IDRC should establish a mechanism to allow project leaders to appeal should problems arise that cannot be resolved by the normal system.

Many Third World and Canadian scientists were unaware of the exact nature of the changes that had taken place at IDRC. Some were upset because changes in policy and priority had excluded their research field from funding, although they had proven the value of their research in past projects. There is confusion about IDRC, its present priorities, and future direction. Therefore:

• To overcome the communication gap that exists about the changes that have taken place at IDRC, project leaders and scientists in Canada and the Third World must be informed of new policies and priorities to enable them to relate to the new system and to continue their relationships with IDRC.

The environment for cooperative projects has drastically changed because of the state of the Canadian economy. Overall funding for development has decreased, and financial restrictions on Canadian research establishments have caused them to make fundamental changes to their approach to development research. Therefore:

• Given present economic constraints, IDRC should negotiate specific financial agreements with selected Canadian institutions. IDRC must be flexible enough to offer an acceptable level of financial compensation for researchers to ensure that lack of funds no longer acts as a disincentive to participation in cooperative projects.

This evaluation found that cooperative projects have had an impact in many research areas over the last

12 years. Projects should continue to develop links between the best Canadian and Third World researchers, and the research that is supported should be designed to generate directly useful results.

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# Background

# Purpose

The purpose of this evaluation was to assess the relevance, effectiveness, performance, and impact of IDRC-funded partnerships between Canadian and developing country research institutions and research scientists. In the evaluation, a cooperative project was defined as:

Joint research funded by IDRC between one (or several) Canadian scientist(s) at a Canadian research institution undertaken in collaboration with one (or several) Third World scientist(s) at a Third World research institution and in which there was a reasonably equal level of involvement in research on a development-related topic.

## Issues

Data were collected from researchers who had participated in IDRC partnership arrangements involving Canadian scientists and Third World researchers. Mailed questionnaires and in-depth interviews were used to gather the data to questions related to four key issues:

- The nature of the partnerships formed between Canadian and developing country research scientists and institutions;
- The impact of cooperative projects on capacity-building in developing countries;
- The likelihood of the utilization of research results; and
- The influence of the projects on subsequent research initiatives and activities of the Canadian partner.

# **Nature of the Research Partnerships**

The fundamental assumption of the cooperative approach was that the needs of Third World participants could be appropriately addressed through their linkages with Canadian research institutions and universities. It was assumed that cooperative relationships would result in cross- fertilization of research ideas and knowledge, sharing of resources, and enhancement of the capacities and credibility of the Southern participants. However, it was realized that differences in attitudes, skills, and resources could undermine this philosophy if the Canadian participants assumed a greater role in the initiation, planning, and implementation of the research projects and related activities. It was important that the needs and interests of the Southern partner should prevail and that the collaborative relationships evolved so that the level of influence and responsibility between the partners become balanced.

# **Enhancing Research Capacity**

The evaluation addressed three issues that were directly related to the enhancement of research capacity:

- Building scientific and technological research capacity at the individual and institutional level;
- Building sustainable research institutions in the Third World; and
- Fostering lasting collaborative relationships between Canadian and Third World research institutions. (This issue was difficult to assess from the responses to the survey. More research would be needed to adequately address the impact of cooperative projects on lasting collaboration.)

# **Research Utilization**

Links between scientific achievements and "development" are difficult to establish because many factors influence how, often over extended periods, research results and outputs are translated into concrete economic, industrial, or social gains. Efforts were made to identify the ways in which the project leaders disseminated the results of their research.

# **Subsequent Research Activities**

Canadian participants were asked about their sensitivity to development problems, how this influenced their decision to participate in cooperative projects, and their understanding of development research issues. The goal was to determine whether these researchers would continue to carry out further development research and maintain links with their Third World colleagues.

The outputs of the evaluation were expected to be of value to IDRC and its Canadian and Third World research partners. IDRC could use this information to guide future policy, to allocate resources, or to define new program directions. Third World recipients could use the evaluation to modify or strengthen existing or planned partnership arrangements with Canadian counterparts. The Canadian participants could use the results to build on existing partnerships, to define new activities, and to obtain realistic expectations about working with Southern researchers.

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# History of Cooperative Projects (1980–1992)

Increased globalization of science and technology has meant that many developing countries have fallen behind in acquiring scientific and technological know-how. Since its inception, IDRC has fostered working alliances among researchers in different countries to allow for the generation and dissemination of scientific knowledge and the development and application of innovations in developing countries. Since the early 1980s, as a result of an explicit IDRC strategy, Canadian researchers have participated in these relationships through cooperative projects. This strategy was designed to enable developing countries to: accelerate the acquisition of knowledge and research skills; accelerate the rate of adoption and adaptation of innovations; become acquainted with state of the art technologies; and develop a critical mass of researchers capable of finding solutions to national problems.

The IDRC Cooperative Program was established in 1980 following the 1979 United Nations Conference on Science and Technology for Development (UNCSTD), which emphasized the importance of *building up indigenous research and development capabilities in science and technology as part of the development process*. The Cooperative Program Division was established to *develop a funding program which would serve the Vienna program of action on science and technology and which would be compatible with Centre policies and modes of operation*. At the same time, the other program divisions in IDRC undertook both cooperative projects and projects involving mainly Southern researchers.

In 1987, a review panel of the Board of Governors recommended an expanded role for the Cooperative Division and it became known as the Earth and Engineering Sciences (EES) Division. This new division had three principal subprograms: Earth Sciences, Technology for Local Enterprises, and Building Industry, Materials, and Technology. These changes further confirmed that cooperative projects were a Centre-wide responsibility that involved all divisions.

The objectives of the cooperative program were broadly defined as:

- To develop the scientific and technological capacity of participating Third World institutions or groups by improving their opportunities for collaboration with the Canadian part of the international scientific community;
- To create channels of communication among scientists through which the results of successful research in Canada could be transferred to researchers in the Third World; and
- To influence the direction of Canadian research toward Third World concerns.

# Profile

Of the 710 recipients of cooperative projects between 1980 and 1992, six were "forerunners," i.e., cooperative projects that were initiated by different IDRC divisions before the concept was formally adopted in 1980. From 1980 to 1992, about CAD75.6 million was directed toward cooperative projects

(Table 1). Funding was, on average, shared almost equally between the Canadian (43%) and the Third World partners (53%).

|                              | Number of Recipients | Funding (CAD) |
|------------------------------|----------------------|---------------|
| Third World recipients       | 339                  | 40,054,659    |
| Canadian recipients          | 295                  | 32,569,357    |
| IDRC*                        | 76                   | 2,856,869     |
| Total                        | 710                  | 75,570,885    |
| Average grant per recipient: |                      |               |
| Third World                  |                      | 118,155       |
| Canada                       |                      | 109,661       |
| Average grant per project    |                      | 258,805       |

### Table 1. Overview of cooperative funding (1980–1992).

\* Certain items in project budgets, for example some equipment purchases and travel, were administered by IDRC. These items are recorded as having IDRC as the recipient.

# Timeframe

Although the Centre adopted a cooperative project policy in 1980, the program effectively started in 1982– 1983 when the amount of cooperative funding exceeded CAD 2 million. After that, the average level of annual expenditure rose to about CAD 12 million and was maintained at this level through 1994. The reduction in cooperative funding after 1988–1989 reflected in Table 2 is the result of incomplete data being available at the time this research was conducted. (For more complete figures on yearly cooperative program appropriations based on slightly different criteria, please refer to *Report on Cooperative Programs: A Review of Definitions, Past Performance, and Reporting Principles,* which was submitted to Senior Management Committee on 25 Novermeber 1994 by Rachel Des Rosiers.) The Centre still aims to allocate 18% of its funding to cooperative projects and has maintained the trend toward this target.

### Table 2. Summary of cooperative projects by year.

|             | Amount (CAD) |
|-------------|--------------|
| 1980–1982   | 1,816,106*   |
| 1982–1983   | 2,667,249    |
| 1983–1984   | 6,315,513    |
| 1984–1985   | 11,506,555   |
| 1985–1986   | 12,069,639   |
| 1986–1987   | 10,921,041   |
| 1987–1988   | 12,747,654   |
| 1988–1989   | 12,251,985   |
| 1989–1990** | 3,353,024    |
| 1990–1991** | 1,003,037    |
| 1991–1992** | 919,082      |
| Total       | 75,570,885   |
|             |              |

\* Total includes 6 projects funded prior to 1980. \*\* Data incomplete.

# **Divisional Distribution**

The Cooperative Division and EES accounted for just under 50% of total IDRC cooperative funding between 1980 and 1992. Other divisions made varying levels of use of cooperative projects (Table 3).

Table 3. Summary of cooperative project funding by division (1980–1992).

Amount (CAD)

Cooperative Projects: History

| CP/EES | 37,084,681 |
|--------|------------|
| AFNS   | 19,483,568 |
| SS     | 10,387,949 |
| HS     | 4,243,255  |
| IS     | 3,544,989  |
| COMM   | 671,052    |
| FAD    | 155,291    |
| Total  | 75,570,885 |
|        |            |

## **Canadian Distribution**

The allocation of funding to Canadian research institutions, universities, and government research organizations reflects national patterns of population concentrations and the locations of research institutions (Table 4). Institutions in Ontario and Quebec received 57% of overall Canadian funding.

|                  | Number of<br>Recipients | Funding<br>(CAD) |
|------------------|-------------------------|------------------|
| Ontario          | 103                     | 11,421,097       |
| Quebec           | 75                      | 8,791,349        |
| British Columbia | 37                      | 3,418,745        |
| Manitoba         | 14                      | 2,254,346        |
| Alberta          | 24                      | 2,243,946        |
| Nova Scotia      | 13                      | 1,925,369        |
| Saskatchewan     | 20                      | 1,409,634        |
|                  |                         |                  |

#### Table 4. Geographic distribution of cooperative funding in Canada.

Cooperative Projects: History

| New Brunswick              | 6   | 760,256    |
|----------------------------|-----|------------|
| Newfoundland               | 3   | 343,025    |
| Total Canadian Recipients* | 295 | 32,660,357 |
| IDRC as Recipient          | 76  | 2,856,869  |
| Grand Total                | 371 | 35,516,226 |
|                            |     |            |

\* The number of recipients and dollar values vary slightly between tables because different sources and databases were used to collect different kinds of information.

Universities received 76% (almost CAD 25 million over the 12-year period) of cooperative funding; whereas, private businesses, community colleges, and provincial research councils received 14% and government research institutions 10% (Table 5). Agriculture Canada and the National Research Council of Canada were the major government recipients. Table 6 lists Canadian institutions that received more than CAD1 million in cooperative funding. A relatively small group of Canadian institutions received over 55% of total cooperative funding.

|             | Universities     | Governments    | Others         |
|-------------|------------------|----------------|----------------|
| Ontario     | 8,075,902 (71)   | 2,411,099 (19) | 934,096 (12)   |
| Quebec      | 6,702,983 (61)   | 101,740 (1)    | 1,986,626 (12) |
| BC          | 3,227,296 (32)   | _              | 191,449 (4)    |
| Man/Sask    | 2,565,950 (21)   | 227,850 (2)    | 870,180 (11)   |
| Alberta     | 1,736,164 (18)   | 223,780 (1)    | 284,002 (5)    |
| Maritimes   | 2,384,689 (17)   | 358,412 (1)    | 285,549 (4)    |
| Total       | 24,692,984 (220) | 3,322,881 (24) | 4,551,902 (48) |
| Funding (%) | 75.8             | 10.2           | 14.0           |

# Table 5. Distribution of cooperative funding by region and type of recipient institution. Numbersin parentheses are number of recipients.

Cooperative Projects: History

| Projects (%)  | 75.3    | 8.2     | 16.4   |
|---------------|---------|---------|--------|
| Average (CAD) | 112,242 | 138,453 | 94,831 |

# Table 6. Canadian institutions that received more than CAD1 million in cooperative projectfunds.

| Recipient Institution                | Number of<br>Projects | Funding<br>(CAD) |
|--------------------------------------|-----------------------|------------------|
| University of Manitoba, Winnipeg     | 10                    | 1,748,924        |
| Université de Montreal, Montreal     | 12                    | 1,723,628        |
| McGill University, Montreal          | 19                    | 1,677,982        |
| University of British Columbia       | 20                    | 1,677,150        |
| Université de Laval, Quebec          | 13                    | 1,623,248        |
| University of Guelph, Guelph         | 11                    | 1,600,438        |
| University of Toronto, Toronto       | 11                    | 1,289,470        |
| University of Alberta, Edmonton      | 12                    | 1,243,454        |
| Agriculture Canada, Ottawa           | 6                     | 1,150,077        |
| Queens University, Kingston          | 11                    | 1,114,535        |
| University of Waterloo, Waterloo     | 13                    | 1,097,320        |
| Université de Sherbrooke, Sherbrooke | 9                     | 1,081,494        |
| Dalhousie University, Halifax        | 7                     | 1,012,721        |
| Top 13 Recipients                    | 154                   | 18,040,441       |
| All Other Recipients                 | 137                   | 14,424,760       |
| Total                                | 291                   | 32,660,357       |

# **Global Distribution**

Table 7 shows the distribution of funding on the basis of the countries covered by each IDRC Regional Office. Because the LARO region received the largest amount of cooperative projects and funding, it was divided into three components: LARO South (South America); LARO Central (from Mexico to Panama); and LARO Carib (the Caribbean area that includes Belize, Guyana, and Trinidad). Of total cooperative funding, 40% was directed to LARO and 24% was spent in ASRO. The less developed regions of Africa and South Asia shared the remaining 36% fairly evenly. Individual countries with the largest amounts of cooperative funding (over CAD1 million) are listed in Table 8.

|              | Number of<br>Recipients | Funding<br>(CAD) |
|--------------|-------------------------|------------------|
| Total LARO   | 127                     | 16,012,589       |
| LARO South   | 71                      | 9,761,568        |
| LARO Carib   | 30                      | 3,014,249        |
| LARO Central | 26                      | 3,236,772        |
| Total ASRO   | 84                      | 9,585,044        |
| Total SARO   | 25                      | 3,220,598        |
| Total MERO   | 33                      | 4,389,042        |
| Total EARO   | 39                      | 3,763,414        |
| Total WARO   | 31                      | 3,183,972        |
| Third World  | 339                     | 40,054,659       |
| Canada       | 371                     | 35,516,226       |
| Total        | 710                     | 75,570,885       |

#### Table 7. Distribution of cooperative projects by region.

|                            | Number of<br>Recipients | Funding<br>(CAD) |
|----------------------------|-------------------------|------------------|
| China                      | 30                      | 3,978,718        |
| Chile                      | 20                      | 2,675,997        |
| Thailand                   | 13                      | 1,959,681        |
| Peru                       | 20                      | 2,675,997        |
| India                      | 14                      | 1,665,806        |
| Brazil                     | 15                      | 1,434,146        |
| Mexico                     | 14                      | 1,400,687        |
| Egypt                      | 7                       | 1,314,872        |
| Colombia                   | 5                       | 1,310,549        |
| Philippines                | 11                      | 1,274,571        |
| Tanzania                   | 11                      | 1,267,194        |
| Argentina                  | 9                       | 1,108,387        |
| Malaysia                   | 17                      | 1,039,801        |
| Top 13 Recipient Countries | 178                     | 22,151,927       |
| Total Third World          | 339                     | 40,054,659       |

#### Table 8. Third World countries that received more than CAD 1 million in cooperative funding.

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# **Evaluation Methodology**

A list of cooperative projects was generated from computer searches of IDRC databases. This list was then manually sorted based on the type of recipient institution:

- IDRC as sole recipient;
- Sole Canadian recipient;
- Canadian learned institutions;
- Networks with IDRC as a recipient; and
- Multinational and industrialized country recipients.

Projects with Canadian recipients that did not fall within these five groups were considered to be cooperative projects if they had at least one Canadian and one Third World partner. In the analysis, some groups of projects were eliminated. One such group was the Scholarships and Awards category. As well, some recipient countries (e.g., Hong Kong, Israel, and Singapore) were not considered as developing countries and the projects in these countries were excluded from the analysis. Projects were also grouped by time: those starting before 1980, and those starting between 1 January 1980 and 31 December 1992.

# **Data Collection**

Efforts were made to verify all Canadian addresses before the survey questionnaires were mailed. A total of 217 questionnaires were sent to Canadian cooperative project leaders and 111 were returned. The Regional Offices helped verify the addresses of Third World recipients. Of the 219 questionnaires sent to cooperative project leaders in Third World countries, 57 were returned. In addition, in-depth interviews were conducted with 28 project leaders both in Canada and in the developing world. Regional staff in ASRO, SARO, and LARO helped organize these interviews. Some interviews were carried out by program officers and Evaluation Unit staff, who were guided by a detailed briefing and a set of interview guidelines. The balance of the interviews were conducted by the consultant. The in-depth interviews gave personal insights and are an important part of the evaluation, but they are not representative of the views of cooperative recipients in general. Therefore, they were used only to illustrate and interpret information from the questionnaires. A control group of projects were also surveyed to provide a basis for comparison. Of the 196 questionnaires sent to this control group, 51 were returned.

The difficulty of finding the names and addresses of former project leaders of cooperative projects should be noted. These researchers and former project leaders are potentially a valuable resource for IDRC's present and future operations. Consideration should be given to maintaining this resource, which if lost, cannot be easily and quickly recovered.

# **Comparison Between Cooperative and Regular Projects**

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A group of regular projects was compared with the cooperative projects. Table 10 shows that the overall level of funding for the two groups of projects was comparable (i.e., CAD40 million for cooperative projects compared with CAD44.6 million for regular projects). The average budget for the cooperative projects was larger than for the regular projects by about 60%. When funding amounts were expressed as a percentage of total funding, the allocations among regions were similar and there were only minor variations between the two groups of projects.

| Table 10. | Comparison | between | funding t | o cooperativ | e and regula | ar projects in | each region |
|-----------|------------|---------|-----------|--------------|--------------|----------------|-------------|
|           | <b>1</b>   |         | 0         | <b>1</b>     | 0            | 1 0            | 0           |

|                   | Cooperati<br>Projects | Cooperative<br>Projects |            | Regular Projects |  |
|-------------------|-----------------------|-------------------------|------------|------------------|--|
|                   | CAD                   | %                       | CAD        | %                |  |
| LARO              | 16,012,589            | 40.0                    | 15,527,213 | 34.8             |  |
| LARO South        | 9,761,568             | 24.4                    | 11,668,371 | 26.2             |  |
| LARO Carib        | 3,014,249             | 7.5                     | 1,678,466  | 3.8              |  |
| LARO Central      | 3,236,772             | 8.1                     | 2,180,376  | 4.9              |  |
| ASRO              | 9,585,044             | 23.9                    | 9,807,143  | 22.0             |  |
| MERO              | 4,389,042             | 11.0                    | 2,530,373  | 5.7              |  |
| EARO              | 3,763,414             | 9.4                     | 6,242,015  | 14.0             |  |
| SARO              | 3,220,598             | 8.0                     | 5,160,065  | 11.6             |  |
| WARO              | 3,183,972             | 7.9                     | 5,320,158  | 11.9             |  |
| Total Third World | 40,054,659            | 100.0                   | 44,586,967 | 100.0            |  |
| Canada            | 35,516,226            |                         | _          |                  |  |
| Total             | 75,570,885            |                         | 44,586,967 |                  |  |
| Average Project   | 229,671               |                         | 141,997    |                  |  |

Although the differences between regions were small, there were large differences between countries

within a given region. Table 11 shows several countries in which there were considerable differences between funding levels for cooperative and regular projects. These differences likely reflected country policies, IDRC programming choices, and collaborative research potential.

There were also differences within divisions. Considerable prominence was given to cooperative projects by the Fisheries Program in AFNS, by the Economics and Rural Development Program in the Social Sciences Division, and by the Tropical and Infectious Diseases Program in Health Sciences. The cooperative approach was not used as often in Forestry in AFNS, Water Supply and Sanitation in the Health Division, and Population and Development in the SS Division.

|            | Cooperative Projects |             | Regular Projects |             |
|------------|----------------------|-------------|------------------|-------------|
|            | No.                  | CAD million | No.              | CAD million |
| ASRO       |                      |             |                  |             |
| China      | 30                   | 3.98        | 4                | 0.72        |
| Indonesia  | 4                    | 0.48        | 11               | 1.35        |
| SARO       |                      |             |                  |             |
| Nepal      | 2                    | 0.28        | 7                | 1.79        |
| Sri Lanka  | 4                    | 0.30        | 8                | 1.01        |
| EARO       |                      |             |                  |             |
| Kenya      | 5                    | 0.54        | 10               | 1.09        |
| Tanzania   | 11                   | 1.27        | 6                | 0.52        |
| LARO South |                      |             |                  |             |
| Brazil     | 15                   | 1.43        | 9                | 0.69        |
| Colombia   | 5                    | 1.31        | 18               | 2.54        |

#### Table 11. Differences between cooperative and regular projects by country.

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# Analysis

This analysis is organized by the major topics addressed by the evaluation. Information from all sources has been combined to synthesize the results.

# **Nature of the Research Partnerships**

To describe and access the nature of the relationship that developed between the Canadian and Southern researchers, the study looked at four areas of project development. The rationale for engaging in the project reflects the intentions and expectations of the participants and could significantly shape the partnership. The ways in which the project was initiated, designed, and implemented were also explored to determine the relative influence, contribution, and satisfaction of the research partners.

**Rationale:** The three most important reasons for undertaking a cooperative project for the Canadian project leaders were:

- *To contribute to development* (78%)
- To contribute to building institutional and research capacity in developing countries (70%)
- To train researchers from developing countries (69%)

Third World leaders of cooperative projects most often undertook projects:

- To build institutional and research capacity (68%)
- To have access to new scientific techniques (67%)

The rationale for both Canadian and Third World scientists were similar. Each group sought to improve the research environment and to enhance skills. Scientists in the Third World consider professional development to be very important. Upgrading of skills (60%) and learning new methods (55%) were both priorities. Cooperation with a Canadian scientist was evidently seen as a way to improve personal skills.

Both groups of researchers gave lowest importance to securing funds. In Canada, 20% of project leaders cited funding as important; whereas, 37% of Third World researchers rated funding as important. Canadian scientists do not depend on IDRC as a major funding source. Their main motivation is to contribute to development through institutional development and training. The results show that, in general, the Canadian researchers reported having motives that are consistent with the role and philosophy of IDRC.

The relatively low rating of research funds by Third World project leaders was a little surprising and suggests the relative importance of other considerations. It may also indicate that while some funding is available from other sources, there are benefits to IDRC-funded projects that are not found elsewhere.

The Third World responses also suggested that access to equipment was not very important and that modern communications methods have improved access to documentation. Overall, scientists in the developing world seem eager to establish links with better funded and more advanced research systems in order to develop on a personal level and to increase the research capacity of their team and their institution. Access to finance, materials, equipment, and training were reported as less important.

**Project Initiation:** An important part of the evaluation was to determine whether cooperative projects had responded to needs in developing countries. Part of the answer relates to the degree of cooperation between the two project leaders in the conceptualization and initiation of the project and to the role of the IDRC program officer in this process.

The Canadian partners suggested that the initial idea for the research came from the Third World partner in 32% of the projects and that it was a joint idea in 40% of the cases. The IDRC program officer was given as the initiator of the project in 12% of the responses and the Canadian partner in 16%. In comparison, Third World project leaders suggested that the initial research idea was theirs 39% of the time and was a joint effort between the two partners 35% of the time. From a Southern perspective, few projects were initiated by either the Canadian partner (11%), the IDRC program officer (7%), or from another another source (8%). These responses confirm the responsive nature of the IDRC approach.

**Project Design:** Partnership was also evident in the design of the research project. The developing country partners (79%) saw themselves as having a slightly more important role than the Canadian partner. In their view, the program officer played a secondary role (42%), and about 54% saw their role in the design of the project to be about equal to the Canadian partner. Only 11% indicated that the Canadian took a leading role.

However, Canadian scientists saw themselves as major participants in project design: 81% judged their role to be very important; and 62% indicated that the role of Third World scientists was very important. The IDRC program officer was also seen to have played a moderately important role. Fifty-two percent of Canadian scientists indicated they had a greater role in the design of the project than their Third World partner; whereas, 37% thought that the roles of the two project leaders were equal.

A high degree of satisfaction was reported by both groups of project leaders to the outcome of the project planning process. In addition, developing country respondents reported that the research project was also consistent with the priorities of both their government (58%) and their research institution (79%).

Overall, the initial phases of the project process appear to have worked well and to be consistent with IDRC philosophy. Feedback from Southern scientists indicated that the projects conformed to Third World priorities, were initiated in the majority of cases by the developing country scientist, and were planned jointly with a Canadian partner. Canadian researchers were not perceived to impose project ideas or to take a dominant role in their design. The data demonstrate the strength of the cooperative approach and the commonality in the goals of the main participants. It appears that the IDRC program officers, although not playing a primary role, were able to steer the process in the desired direction.

**Project Implementation:** The implementation of a true partnership project would be expected to reflect a fairly equal distribution of work, and 45% of Canadian respondents thought that the implementation roles had been about equal. However, 36% of Canadians judged their role as more important, and only 19% thought the Third World partner's role was more important. This is consistent with the expectation that, while working on the overall task is perceived as an equal partnership, the Canadian expertise may have to take the lead.

Because the projects normally took place primarily in a developing country, not surprisingly only 11% of the Third World respondents claimed that the Canadian partner had played a larger role. More than half the Third World project leaders judged their roles as about equal (53%); whereas, 33% saw themselves as having played the major role. It appears that the Canadian scientists played a supportive and advisory role, and there were few indications that projects were dominated by the Canadian partner.

Canadians judged that the main factors that had a positive influence on the success of the project were:

- Release of funds from IDRC (68%)
- Task sharing with developing country partner (54%)
- Communication with developing country partner (53%)

Third World project leaders also rated release of funds from IDRC (78%) as having the most positive impact on project implementation. Funding itself was not reported to be an important motivation for undertaking an IDRC project. However, this high ranking for release of funds indicates the importance the respondents placed on the timely availability of funds.

Similar to the Canadians, the Third World project leaders rated factors related to the interaction between the two partners as next highest in importance:

- Communications with Canadian partner (72%)
- *Monitoring and exchange of information* (68%)
- Reaching common conclusions with Canadian partner (65%)

These responses confirm the high level of cooperation between the partners and show that the interactions were positive — whether in the exchange of information, the sharing of a common viewpoint, or in working closely together. There were good working relationships and a high degree of satisfaction with the quality of the Canadian partner on both a professional and personal level.

Aspects of workload and management differences between partners on the other hand were considered by the Canadians to be the most negative aspects of project implementation. Time devoted to administrative tasks on behalf of the Third World partner, and demands on the time of the Canadian scientist, were cited as concerns by some Canadian project leaders.

Two factors that suggest potential differences between partners were reported by the Third World

respondents:

- Differences in organizational methods (46%)
- Differences with Canadian researcher in the conceptualization of the research (42%)

Nonetheless, it appears that there were not large differences between the partners and that they had similar approaches to research management. If differences existed, they were not a major concern, and were not a frequent influence on project outcome.

In some cases, Canadian project leaders were initially unaware of some of the factors that hinder the achievement of research objectives in Third World countries (be they administration, bureaucracy, security, or the supply of electricity). Canadian researchers, in these cases, had to make extra administrative effort, which required personal dedication and additional time. Third

World project leaders also found that aspects of work load and demands on time had the greatest negative influence on project outcomes.

An open-ended question sought information on the five most important factors that aided project implementation. The greatest importance was given to the partnership itself. The two highest ranking themes were both mentioned by 66% of the Canadian respondents:

- Competent Canadian scientists and personnel, with knowledge and understanding of developing country conditions
- Enthusiastic, competent, and dedicated developing country partners

When partnerships were successful, the factors that had the most beneficial effects on the outcome of the research were related to the degree of cooperation between the partners, one of the strongest assets of a cooperative project.

Third World project leaders also gave strong endorsement to the cooperative aspect: *common interest and common goals, joint research effort* was rated as first or second priority by 72% of Southern respondents. Sample responses illustrate this sense of collaboration:

- Warm relationship based on equality, mutual trust and respect among partners
- L'accord entre les partenaires sur les valeurs fondamentales qui orientent le projet
- Recognition that the developing country partner had a worthwhile contribution to make and that both partners could learn from each other

Canadians often felt that their own ability was a key ingredient to the success of the project:

• Canadian scientists of high calibre and with a willingness to painstakingly work with developing country scientists, often with additional expenditure of time

Cooperative Projects: Analysis

### • La collaboration entre les chercheurs à l'intérieur de l'institution canadienne

The relevance of Canadian involvement was seen as essential, but not necessarily in a technical sense. Many researchers saw their role as assuring the quality of the work, as a driving force for the project, and as providing confidence and motivation to their Third World counterparts. However, others were convinced that in their field, the knowledge they had to offer was in great demand in the developing countries and, in some cases, that Canadian progress had been so fast that the knowledge gap was increasing.

However, the Canadian partners also gave credit to the Southern partners and stated that the work could not have been successfully carried out without their cooperation and dedication:

- Enthusiastic developing country project leaders: a dedicated researcher surrounded with competent and dedicated workers
- Intéret des chercheurs critiques pour la problématique de la recherche

Responses to the questionnaire made it clear that the developing country partners valued working with Canadian scientists very highly, found them very easy to work with, and appreciated both their technical knowledge and their personal attributes of openness and willingness to cooperate on the basis of equality. Nevertheless, a question can be raised about the view that Canadian scientists have of their role. The most common theme was technology transfer, i.e., a process in which the Canadian researcher had something to pass on to their research partner. This approach could lead the Canadians to take a top-down or North to South perspective and to view their position in the partnership as superior.

Overall, however, the Third World scientists expressed the view that there was sound cooperation between the partners:

- Mature scientists of the Canadian partner, who worked harmoniously with the Chinese partners, and concentrated on their scientific contribution, on technology transfer, and student training
- La flexibilité des formes de collaborations comme l'intégration de chercheurs non-Canadiens dans les projets
- Identifying the problem, and finding the most practical route to solve it, while keeping in view the specific local conditions

Developing country researchers showed a high degree of satisfaction with the technical knowledge made available from Canada, and expressed appreciation for the level of cooperation they experienced. A number of these researchers praised their local colleagues and the support they received from their own institutions or governments. Access to facilities, material, and equipment was valued least.

The importance of funding for honoraria, travel, and equipment was expressed by the developing country recipients in this way:

- Without the availability of funds in time the project activities could not have been implemented
- IDRC support to provide the advanced instruments, which has improved our scientific research level

Funding and technical and administrative support from IDRC was also important to the Canadian partners:

- Facilities: most of the equipment and personnel were available as a result of IDRC funding
- Financial support from IDRC for substantial travel and for electronic linkage
- Interest and enthusiasm of IDRC program officers encouragement for the project came from the program managers in several regions

The overall response pattern points to a strong and vibrant relationship between the two partners, a relationship considered key to the success of the project. There was a clear endorsement of the cooperative approach by Third World scientists. The provision of facilities and equipment were ranked lower than these cooperative aspects, which suggests that higher value is placed on learning and cooperation rather than on the material benefits of these projects.

# **Capacity Building**

Cooperative projects were examined from the perspective of strengthening research capacity at both the individual and institutional level.

**Individual Research Skills:** The acquisition of new research skills is an important output of an IDRC project. More than 60% of Canadian scientists indicated that their participation in a cooperative project had given them skills that they could not have acquired elsewhere. These skills included: the ability to undertake development research; the ability to prepare proposals for donor agencies; and the ability to make policy recommendations.

When the Canadian project leaders were asked to assign values to the importance of building research skills, responses fell into two distinct groups of about equal size that reflected different attitudes to acquisition of skills:

First Group:

- I was brought into the project because of my research skills
- I am a senior researcher so it is difficult to identify easily what I have learned specifically in terms of skills
- My institution was the source of the technology that had to be transferred to the developing country partner

Second Group:

- On a personal level, I and my family have benefitted enormously from the interchanges between families
- The project provided the insight into the need to understand cultural and institutional factors in order to determine appropriate marketing arrangements
- I have learned a lot about comparative cross-country studies, and I thoroughly enjoyed managing a 7-country project

Further research would be necessary to determine whether these responses come from two groups with different professional positions: one of older, experienced, well-accomplished senior scientists; and a second of mainly younger scientists who are looking for new challenges that will expand their horizon and offer the opportunity to learn new approaches.

These two groups also appear to be reflected in the responses obtained about project implementation. The first group may be more likely to take a top-down approach; whereas, members of the second group may see themselves as genuine partners and emphasize the sharing of knowledge with their developing country research partner.

Third World scientists ranked all aspects of skill development very highly. It was difficult to determine the most and least important aspects, but the overall ratings were positive. The most positive aspects of skills development were:

- Ability to design research, including the conceptualization and definition of research objectives and methodologies (58%)
- Ability to prepare proposals for donor agencies (56%)
- Ability to prepare research reports (56%)
- Ability to undertake development research (54%)

The themes with the highest ranking related to execution and documentation of a successful research program. What Third World scientists seemed to have appreciated most, was exposure to: sound processes for conceptualization of the research and defining research objectives; well defined and appropriate methodologies; and detailed workplans. Equally important were learning how to prepare proposals and write research reports. These skills are very important for the sustainability of their research activities after funding from IDRC ends. Acquiring the skills to design proposals for funding may, in the long term, be as important as the technical ability to carry out the research itself. Having the skill to obtain future support and to satisfy donors, both national and international, with the quality of the work, helps ensure continued financial support.

Some developing country scientists indicated that, if left to their own institutional influences, they tended to concentrate on theoretical and academic types of research. IDRC-funded cooperative projects, through the influence of IDRC program staff, and because of the orientation and capability of the Canadian partner, were directed toward applied research. Multidisciplinary and community-based or on-farm research were among the approaches mentioned by Third World scientists in this context.

When asked how their research skills could have been further improved, 31% of Third World researchers suggested that the concept of cooperation be expanded and that increased interactions with scientists from neighbouring developing countries and the participation of other Canadians would be beneficial. Other suggested improvements for the cooperative project mode: *better preparation, training, and support by the partners; and better linkages during the execution of the project.* 

The preferred modality for future research for 61% of the respondents was a cooperative project with IDRC. A further 9% also chose this option, specifying the inclusion of additional partners. Very few were unhappy with IDRC, not in favour of the cooperative approach, or would prefer to undertake their own research.

When Canadian project leaders were asked what could have been done to further enhance their research skills, 29% answered *nothing*; whereas, *better preparation, training and support by the partner* was the most frequently mentioned aspect that needed improvement (15.3%).

Of the Canadian project leaders, 54% chose the cooperative approach as their preferred mode of future work with IDRC. An additional 30% suggested an expanded partnership concept that would include more developed country participants. Only 12% felt that, in future, they would rather carry out their own research.

**Institutional Research Capacity:** The role of cooperative projects in building institutional research capacity was explored. Feedback on institution building in developing countries was sought as was feedback on institution building in Canada. The answers to questions about institution building in Canada indicated limited benefits.

Among the 14 potential areas of institutional benefits, the highest ratings by Canadians were given to *intellectual stimulation and training of researchers*. Once again there were two distinct groups of responses. On many topics there were almost equal groups who indicated *no benefit and moderate to considerable benefits*. An increase in research capacity of Canadian institutions was not an important project goal for Canadians involved in IDRC-funded cooperative projects.

Seventy-one percent of Third World respondents indicated that their institution benefited from new facilities and equipment made available through the cooperative project, and more than half reported that links with Canadian institutions were beneficial. Training opportunities were rated highly, not just for the project leader, but for colleagues and students. High scores were also given to the personal reputation of the researcher, which in turn may have been seen as enhancing the status of the institution.

As a whole, however, the responses to institutional strengthening by the Third World scientists were inconclusive. Their answers did not give the impression that institutional capacity building was a priority. The project leaders focused more on personally acquired benefits. Perhaps this reflects the fact that projects may have tended to focus more on cooperation between individuals rather than institutions.

# **Research Utilization**

According to IDRC's mandate, the funds allocated to research are expected to have an impact on social and economic development. Maximizing the utilization of IDRC-funded research remains an important policy issue; however, it is beyond the scope of this study. This evaluation focused on the first of the steps toward utilization — publication of research results, which is of considerable importance to the scientific community. It also sought to determine the impact that the publishing activities of IDRC-funded cooperative research projects had had on various target audiences.

**Dissemination of Results:** Data were collected on how participation in a cooperative project had influenced the rate of publishing. A comparison was made between the number of publications by Canadians during the 2 years prior to the cooperative project and the number published during the cooperative project. The results were:

- Before: 77% of 111 Canadian scientists published 920 publications.
- During the Cooperative Project: 65% of 111 Canadian scientists published 403 publications.

Canadian scientists reported that they published fewer research results associated with cooperative projects. The average number of publications declined from 10.7 to 6.0. A reduction in the number of publications could be a disincentive to participation of Canadian scientists in these projects.

It was also found that the number of publications produced by Third World scientists decreased during cooperative projects:

- Before: 72% of 57 Third World scientists published 464 publications.
- During the Cooperative Project: 77% of 57 Third World scientists published 307 publications.

The same number of scientists continued to publish during the cooperative project, but the number of publications decreased by 34%. Two thirds of the scientists published jointly with their Canadian partner, and about half the publications were produced jointly.

Information was also collected on the number of publications and presentations that resulted from cooperative projects. The focus was on the different ways of disseminating research information (Table 12). The most popular ways for Canadian scientists to publish and disseminate their research findings from cooperative projects were at international meetings and in international journals. Third World scientists followed a dissemination pattern that was similar to their Canadian counterparts; although Canadians published more in international fora and developing country scientists placed more emphasis on national scientific journals and national seminars and workshops. This concentration on the use of scientific journals and international conferences to disseminate information essentially keeps the research results within the scientific community and does little to get the knowledge to policymakers, extension workers, farmers, and other potential users.

#### Canadian Third World Total Researchers Total Researchers **Publications** Who Published **Publications** Who Published Papers at scientific meetings International scientific journals International scientific conferences International seminars/ workshops National scientific conferences National seminars/ workshops Regional/LDC scientific journals National scientific journals Newspapers Magazines **Brochures** Radio Television

# Table 12. Ranking of different means of information dissemination by Canadian and ThirdWorld respondents.

Cooperative Projects: Analysis

For Canadians, the mass media (Canadian newspapers, magazines, radio, and television) were by far the lowest ranked means of disseminating research findings. It might be expected, however, that Third World scientists would be more involved in what might be called popular dissemination. This was not the case. Like their Canadian counterparts, dissemination was largely horizontal and popular media were rarely used. Only 28 scientists were ever on television or radio to disseminate the knowledge they had generated. This contrasts with 174 appearances at international meetings and 194 publications in international journals. Responses from the sample of regular IDRC-funded projects showed a similar pattern.

Response patterns for the Canadian and developing country project leaders were similar; however, the questionnaire did not specifically ask about establishing links with extension services, NGOs, and other potential users. It is therefore not possible to infer the extent to which the respondents were communicating and strengthening ties with a user constituency that would benefit from and hence support future development programs.

**Impact:** To obtain information about the usefulness of the research, the project leaders were asked to rate the impact that the research had had on various target audiences. Fourteen categories were offered. Overall, there were almost no negative responses about the influence of the research; responses were in the neutral or mildly positive range. There were also few *extremely positive* responses to the question.

The Canadian scientists rarely considered that the research results had an important positive impact. On average, no more than 5% judged the impact as *extremely positive*, and about 10% thought the impact as *very positive*. Among the categories of impact, *adoption of new technology/process by the target community* had the highest rating; 70% of Canadian project leaders rated this positively. Responses for impact on commercial production of technology, government policy, and the situation of women and children were neutral.

These results are difficult to interpret. Several possible explanations exist:

- Canadian scientists have generally not taken an interest in the beneficiary-level application of the research and have placed their emphasis on scientific publications.
- Canadian scientists are not familiar enough with Third World conditions and are therefore not in a position to perceive the impact of the research.
- The majority of Canadians simply do not know about the usefulness of their work and their answers reflect an assumption that the work must have done some good somewhere.

Third World project leaders also saw the impact of their work in a positive light. Only about 7% of respondents found that their work had an extremely positive influence, and about 24% reported in all areas that their work had neither a negative nor a positive impact. The three specific areas that received the most positive mention were:

- *Replication of project methodology at other sites.*
- Adoption of new technology/process by the target community.

• Environmental/ecological issues and problems.

Without additional detail, it is difficult to assess how much dissemination, utilization, and impact is implied by these positive answers. However, a number of IDRC-funded projects were reported to have made a very positive impact in the areas of environment and ecology.

In comparison, Third World researchers replied that their research had had little impact on:

- Social services (increased use, quality, equity).
- The situation of women and children.
- Community process (equity, democratization, gender impact).
- Patent applications.

These responses indicate that much of the research was not seen as being directly concerned with social impact, with the improvement of living conditions of women and children, or with a more equitable distribution of wealth and opportunities. Emphasis on these aspects of development has grown over the past decade, but projects carried out in the early 1980s may have paid less explicit attention to such parameters. As well, the research may have been carried out at the macro level without connection to policy development or the utilization of research results. Therefore, the researchers may not be aware of the potential impact of their work at the micro level.

# **Influence on Subsequent Research Activities**

Canadian scientists were asked how participation in an IDRC cooperative project had influenced both their own attitudes and the policies and priorities of their institutions. The answers were strongly positive in terms of personal commitment. Fifty-nine percent of project leaders responded that the project corresponded closely to their own research interests, and that they remained committed to Third World development, even without continuing IDRC support (53%). On a less positive note, 20% of respondents indicated that their employer was not at all interested in development research.

Canadian institutions derived limited benefits from participation in an IDRC project. The most useful results of the IDRC project were judged to be:

- Increased understanding of development research needs.
- Increased awareness of Third World and global problems and research needs.

Participation in cooperative projects had its most significant impact on providing new interests and contacts and on fostering an appreciation of the difficulties faced by Third World countries. These factors became a strong motivation to continue cooperative research. Individual opinions included:

• It has made me aware of the obstacles that Third World research and development people have to overcome and has greatly increased my respect for their abilities and indeed courage

- Une meilleure prise de conscience des problèmes de développement scientifique et environnemental dans le tiers monde
- Involvement in this project confirmed my belief that advanced countries must assist developing countries in ways that permit scientists to feel that they are equal partners in technology transfer and training.
- I am even more convinced of the need for links between researchers in developing countries and Canada. As a result, I have developed contacts with researchers in other developing countries.

The impact of cooperative projects on individual Canadian researchers has been very positive. Many of them are committed to a continuing interest in development, and a number have continued development-related work without IDRC support. Other positive outcomes include an appreciation of the benefits of interdisciplinary work, a positive reorientation of research toward practical application, and teaching and interpersonal relationships. Without the cooperative projects supported by IDRC, these Canadian researchers might have been deprived of working relationships with Southern researchers, learning about the needs of Third World countries, and strengthening their commitment to help resolve some of the problems faced by these countries.

# **Comments and Suggestions for Improvements**

Three open-ended questions gave the project leaders the opportunity to express praise, concerns, suggestions, and criticism. The assurance of anonymity enabled the respondents to give frank opinions:

- What changes are necessary in future research partnerships to strengthen the development research capacity of your institution?
- In your view, what other approaches can be used to facilitate effective delivery of research partnership projects?
- Do you have any other comments regarding any aspect of the research partnership? The answers to these questions were grouped according to whether they were positive comments or suggestions for change.

**Positive Comments:** Responses conveyed the overall satisfaction of Canadian project leaders with the outcome of their projects, and expressed the opinion that the project was successfully executed. Some of the positive responses were:

- Ce fut un grand succès.
- The research partnership was a major factor in establishing an international network of collaborative research on this topic. IDRC staff have been very useful and cooperative in all dealings which we have had with them.
- I believe that the IDRC approach used for the project is good and effective because it promotes a two-way exchange of expertise and knowledge. It enables the developing country participants to upgrade, while permitting opportunities for Canadians to visit and observe implementation and act as local advisors.
- Votre projet a eu des impacts technologique très importants dans un pays peu développé, impact

#### financier économique, culturel et humain très important.

Cooperative projects were also judged as satisfactory by Third World project leaders. They expressed their positive views in these ways:

- The cooperative project mode is most useful for developing country scientists, and IDRC should continue to fully supported it.
- Our research partnership with Canadian researchers was very successful for several reasons: the principal Canadian researchers had open minds, they had internationally recognized expertise in their field of research, and the exchange of visits was very profitable to facilitate training.
- Through this joint research we have established a good relationship with our Canadian partner, and at present we still keep in touch frequently.
- A joint project with Canadian scientists funded by IDRC is the most effective approach compared to others. I have cooperated with American and British projects, but in my experience IDRC is still the best.

#### **Suggestions for Change**

*Selection of Partner:* The importance of pairing compatible partners was stressed by many Canadian respondents. Observations were based on both good experiences between closely cooperating partners and on bad experiences between partners who had problems. Changes were suggested to address problems such as the following ones raised by Canadians:

- Lack of clear information about both the cooperative project and its mode of operation.
- Lack of preparation for the project in terms of getting to know each other, and a failure to clearly and jointly define and understand the research problem in its local context.
- A failure to jointly create a feasible and realistic workplan.

IDRC program officers play a crucial role in these areas. Clearly, initial attention to selection, training, and familiarization of project leaders is crucial. Many of the negative comments made by Canadians referred to a lack of interest, commitment, or ability of the Third World partner. The Canadians became frustrated by the lack of progress, poor results, and limited success. Comments included:

- There is no point in giving research money to developing country institutions unless the staff are committed to doing meaningful work. After 3 years, the equipment purchased was still in boxes, except for the items used for their private benefit.
- Le CRDI doit même définir le concept ''partenariat de recherche''. Initialement le laboratoire canadien était plutôt considéré comme un ''conseiller technique'' et il s'agissait plutot de faire du transfert technologique. La contribution de la recherche canadienne et son support financier doivent être mieux définis.
- It is very important that the developing country researcher be committed to the development of his country, and not be just concerned with obtaining funding.
- It is very important for the Canadian research counterparts to assess the intentions of the

# developing country partners in doing good research and collecting good equipment and researchers to do the work.

Third World researchers were not completely happy with the partner selection process. Their concerns focused on better ways of finding and linking partners and on the lack of a system to help identify Canadian partners. They also suggested the need for initial briefing and training for both partners on the cooperative project approach. Several quotes illustrate these concerns:

- The project members should be given the freedom to choose among a roster of Canadian experts in the field whom they feel would best answer their needs in the development of their expertise.
- Most projects originate at the developing country institution, where problems of infrastructure and facilities are different from the Canadian collaborating institute. In order to select the proper Canadian collaborating partner, IDRC needs to provide information about the collaborating Canadian institutes prior to the final selection.
- A concerted effort should be made to identify the gaps in knowledge and skills at developing country institutions. Appropriate institutions in Canada, which have the capability to help on the identified gaps, need to be selected as partners.
- Initial visits and exchanges of scientists are essential to identify the research areas and to formulate the project plan.

Despite the fact that the Canadians were considered to be good partners, the process of finding and selecting them was of concern to Third World scientists. A database of Canadian institutions and scientists who are interested in, and capable of carrying out, development research was suggested. Modern data systems make the establishment of a resource database of this nature feasible.

In the in-depth interviews, several Third World project leaders complained that the Canadian partner was in charge, initiated the project, and took all management decisions. In these cases, and contrary to the majority of questionnaire responses, there was a perception of a lack of genuine partnership, and the level of cooperation was limited. Some examples of this concern:

- The main reason for involving a Canadian university was to get access to IDRC funding. Their technical support was definitely secondary.
- This project was designed and initiated in Canada. The Canadian institution was looking for a Third World partner and selected us.
- There was very little contact between the two agencies, nothing of the kind of regular contact which might be expected to characterize a cooperative project.
- The two partners worked for all practical purposes as independent actors in isolation from each other. Each had its own budget and was responsible for its own management.

*Project Evaluation and Long-Term Commitment:* A number of Canadian project leaders addressed the issue of long-term planning. The usual IDRC mode of funding projects for 2 or 3 years was not challenged, but the lack of a long-term commitment was questioned. Several Canadian researchers suggested that research could take up to 10 years and that they were handicapped by the lack of

commitment beyond one 3-year contract. Although a 3-year phase may continue to be an important tool for project management, a less firm but longer-term commitment focused on attaining research objectives was suggested by the Canadians:

- Short-term projects do little good to the institution since the trained personnel disappear when the funding ends. Continuity is the big requirement.
- Le système des partenariats de recherche fonctionne assez bien, mais il devrait permettre aux deux partenaires de continuer une coopération à plus long terme. Cela permettait d'assurer un développement scientifique et des collaborations plus durables.

Another weakness identified was the lack of evaluation. Many researchers wanted an evaluation to obtain an outside opinion, to learn from the past work, to define future directions, and to demonstrate the value of their work to IDRC and the two cooperating institutions. Evaluations during a project would provide a safeguard against program officers having too much or too little authority over a project and help correct partnerships that are problematic. Evaluations may also be helpful when a decision must be made about continuing a project.

Project evaluation and the duration of funding, although not among the highest priorities, were recurring themes for the Third World project leaders that mirrored Canadian concerns. In their comments, evaluation and continuation of the projects were often linked. Project leaders were looking for affirmation of their work and would like to use an evaluation as a strong argument to persuade IDRC to continue funding their research. The feeling seemed to be that long-term commitment by IDRC is lacking and that a one-phase project is often too short to complete complex research tasks, although it is enough to demonstrate, if evaluated, the merits of continued support either to further the research or to apply the results. Comments by Third World project leaders included:

- The project should have a formal evaluation, with evaluators from both Canada and China. This is necessary to prove the value of the project.
- Projects should have a longer time frame, a minimum of 5 years. Now too much is expected over a 3-year period, because researchers in developing countries have other duties such as teaching, and are often not able to work full time on research.
- Création des conditions pour continuer le partenariat à la fin du projet.
- Partnerships should be longer to facilitate the Canadian partner to adapt to local problems and culture.

Several project leaders were disappointed by the absence of a long-term commitment by IDRC to see the research process through to its application. In some projects, pure research was emphasized at the expense of any involvement, support, and funding by IDRC for dissemination or practical use of the research. In many cases, although the research produced valuable results, it was stopped because of a lack of support, and the use of the results was not realized:

- The project was stopped early at the experimental stage before it went into practical application.
- There were problems over a change in IDRC structural policy, which meant that the project

# would not go from the laboratory stage to the practical application stage. IDRC was not interested in supporting the utilization of the research. The group is now attempting to set up a factory for production but financing is not resolved.

*Communication and Interaction:* Communication between the partners and between research teams was emphasized in a number of the comments by both Canadian and Third World researchers. Effective communication allows both parties to collaborate in the design and implementation of the research. It can also be the remedy for personal, technical, or institutional problems that arise in the course of a project. Communication (including travel) between North and South is also expensive and is often kept to a minimum due to budget constraints.

Communication on work progress and problems were seen by some Canadians as being unduely limited by IDRC's budgetary controls and this may have hindered the attainment of project goals. It seems that the amount of funding for travel, training, familiarization, and interaction was sometimes underestimated in project budgets, especially in earlier cooperative projects. More recent projects have made increased use of fax, telephone, and direct computer links. However, electronic communications are no substitute for personal contact. Because the core of the cooperative concept is close work between scientists on a joint research project, care must be taken not to limit their opportunities for cooperation with an overly restrictive workplan and budget. Conversely, some project leaders credited excellent communication with attainment of project goals:

- In this project, information flowed freely between the two working groups, mainly during my visits to Egypt. Delivering information could be further enhanced by allowing the developing county partners to visit the developed country research facilities more frequently.
- While we completed our objectives, and on budget, we consistently underestimated the budget for travel to collaborate. It was hard to write progress reports and publications at a distance, and when meetings were necessary, they often had to be funded from outside sources.
- Increased communication during the initiation stages of the project would be beneficial, especially when delays can be anticipated. It would have been beneficial to visit the developing country at the early stages of the project to familiarize the researcher with the specific environment.
- Communications made possible through strong telephone and fax links were very important.

Third World scientists felt that there was not enough personal contact and, in some cases, inadequate communication between the two project leaders. These problems occurred during the project design phase as well as during implementation. Limited interaction reduced learning time for developing country scientists and limited the ability of the Canadians to appreciate the sometimes difficult working conditions in the Third World or to become familiar with the target community:

- Permettre à un chercheur PPD de séjourner dans un laboratoire de recherche au Canada afin de lui permettre d'acquérir directement les méthodes de travail utilisées et la bibliographie nécessaire.
- The Canadian partner should spend time in the developing country to appreciate field

conditions.

• Emphasize closer contact between Canadian researchers and their counterparts through visits, and increase communications between the partners, as well as with both technical and administrative IDRC staff.

*Training:* Training was not of importance to Canadian project leaders, but was the most frequent suggestion made for improvements by Third World researchers. Training is clearly a key ingredient for these project leaders and young scientists. They saw participation in a cooperative project as an important avenue to upgrade human resources, personally and institutionally:

- To enhance the research capability of developing country institutions, it is necessary to incorporate larger amounts of funding for training, both academic and practical. Only such training can assure sustainability and lead to innovativeness in the creation and execution of research.
- Systématisation de la formation du bénéficiaire au sein de l'institution du partenaire canadien. Organisation des missions de formation du bénéficiaire lors de l'exécution des tâches revenant au partenaire.
- In regard to human resources development, more attention should be focused on short-term and intermediate training instead of degrees.
- Meilleur investissement dans la formation; profiter de l'opportunité de ces recherches pour améliorer les procédures de recherche.

*Costs of Canadian Participation:* This was a relatively minor theme in the questionnaires, but it played a much more prominent role in the personal interviews with Canadian scientists. The majority of interviewees stressed the changes that had occurred in the economic environment since their cooperative project had been carried out. When funding was freely available, participation in an IDRC project generated benefits that justified the losses an institution might incur because of its contribution. In recent years, many institutions have been forced to become far more conscious of budget restrictions. Universities now consider that professors must devote their time exclusively to teaching. If professors are interested in research, then they must seek external funding to cover losses in teaching time. In addition, many research institutes that rely on private or provincial funding are moving toward full cost recovery to assure their survival.

Canadian institutions must make a recipient contribution to cooperative projects, and recent lean times have caused some reluctance to take on new IDRC projects. This issue was addressed as:

- IDRC will have to pay higher rates for Canadian technical/scientific staff if input of people from cost recovery institutes is wanted.
- My time spent on this research is significant. If the university can be partly compensated for it, we can hire more researchers to work on development research projects.
- The major problem is time for most academics. The most useful thing would be to fund shortterm buy-outs which would enable the developing country and Canadian personnel to take a term off teaching. This does not mean full salary, but enough to pay for replacement instructors.

• Nos ressources financiers et nos marges de manoeuvre sont trop minces pour financer nous même une partie de notre implication.

*Change of IDRC Direction:* Feedback on IDRC from Canadian scientists focused mainly on the recent reorganization and changes of priorities and program directions. Most of these scientists were confused by the changes. Many did not agree with them or did not understand their rationale:

- IDRC's goals have changed. Staff have moved and one is not clear of their long-term focus. Because of this, developing country researchers are uncertain of IDRC's future, this must be addressed.
- IDRC needs to openly collaborate with researchers from industry to ensure a high value socioeconomic result from research partnerships.
- Permettre un accord direct avec le secteur privé du PPD et du Canada sans exiger l'implication des autorités des ministères régissant la coopération au PPD.
- Combining resources and philosophies of IDRC/CIDA with the resources available in Canada (scientific expertise).

Third World scientists also expressed concern about the change of direction by IDRC. In common with concerns expressed by Canadian scientists, they expressed a lack of clarity about the new direction and priorities of IDRC. Third World scientists were concerned about being able to match the research priorities of their institution and country to the funding priorities of a donor agency such as IDRC:

# • We need to have a better understanding of the new areas of research which IDRC is interested in funding, so that we can match these to our own goals and priorities.

From the Canadian perspective, it seems there is a considerable communication gap and some confusion about the new IDRC. Of particular concern were cases where, at the conclusion of the first phase of a successful project, the project leader was told that the research was no longer an IDRC priority and that therefore the project would not continue. When the research is addressing an important development problem and the first phase has been well-managed and of high technical quality, it is very difficult for the project team to accept the closure of the project.

*Project Design:* Third World researchers expressed interest in broadening the project model that IDRC has adopted for its cooperative projects, and several recommend a wider partnership:

- With the limited resources available from Canadian sources, a partnership with both Canadians and colleagues from other developed countries in one project could attract a more positive response from my institution.
- Il faut aller vers un projet partagé entre plusieurs institutions africaines et canadiennes qui établirait des échanges nord-sud et également sud-sud.
- Entreprendre le financement de projets de partenariat tripartite, par exemple, fournir l'expertise d'un pays en développement à un autre par l'intermédiaire d'agences de coopération des pays développés.

- Un double partenariat sud-sud et nord-sud parce qu'en plus du partenaire canadien, qui dispose de moyens de recherche mais qui est très distant, il est nécessaire d'avoir un deuxième partenaire sous-régional ayant de l'expérience dans le domaine de recherche concerné.
- IDRC must allow the developing country partner the opportunity to collaborate on research activities in other developing countries, and with other developed countries.

Such links between two or more regional Third World scientists and a Canadian partner, or with other scientists from different developed countries have been used with success in many IDRC projects. South–South cooperation and networking is becoming more important as communication technologies proliferate and centres of excellence and prosperity develop in the South. One approach, which is not precluded by current policy, is for the Canadian partner to be the third member of a South–South cooperative project.

**Project Management:** In a few cases, the Canadian researchers felt frustrated that standards of management, accounting, and performance by their partners did not meet Canadian standards. Some suggested the need for much stricter administrative systems and tighter financial controls, others wanted more control over funds for themselves, and others looked to IDRC to resolve such problems:

- Items in the budget were not available when needed, and the funds were spent on other things. There seemed to be no mechanism for control in the developing country, once the funds had been allocated.
- IDRC needs better control of the expenditure of funds to ensure that they are used for the designated project and not allocated for other purposes.
- Tighter control is required of IDRC money given to developing countries. It should be given only as results are delivered.
- After 3 years, the equipment purchased was still in boxes in the developing country, except for the Toyota which his wife used, and the computer which was used for private commercial use.

These examples from a small number of projects suggest that monitoring of financial administration and performance may need to be improved. Similarly, a few Canadian scientists reported serious negative experiences because of poor technical performance, lack of dedication of their partner, or specific conditions in the developing country.

There were a few critical comments made by Third World researchers that covered a variety of issues with the management of cooperative projects:

- One would like closer participation of IDRC program officers throughout the planning and development of the project. During the 6 years of working on IDRC projects we have not received a single visit or evaluation from IDRC Ottawa or the Regional Office, with the exception of a brief visit of the Regional Director.
- The project was conceptualized to draw on Canadian expertise in plant tissue culture to solve a practical problem. The project was technically not very successful and did not solve the problem.
- La dernière tranche de financement n'a pas été versée parce que l'administrateur de programme

a été muté au Kenya. Cela démontre que la continuité n'existe pas dans l'administration du CRDI.

- Because the Canadian project leader had a large international commitment, the responsibilities for this project were passed to another Canadian scientist, who decided to submit the final report unilaterally, allowing no involvement of the developing country counterpart, and thus belittled the effort and the report of our team.
- Political interference, when the then Canadian High Commissioner tried to pressure the research team leaders to remove a team member.

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# **Conclusions and Recommendations**

This evaluation of the cooperative projects covered 1980–1992. During that time, many changes took place. IDRC down-sized, reorganized, and changed its program priorities; and both the North and South changed drastically.

Before 1980, research in developing countries was in its infancy and lacked trained and experienced local scientists. In Canada, there were few pathways to allow Canadians researchers to get involved in development research. The need to train developing country researchers, to help build Third World institutions, and to channel more development funding to Canadian institutions, made the cooperative project approach worthwhile.

Over the last 15 years, universities, colleges, research stations, and industries in developing countries have provided the necessary infrastructure for local research. Fifteen years of training and schooling have helped staff these facilities with well-trained, experienced scientists. To quote one well-established Canadian scientist:

• I am now working with a team of some ten scientists, where I am the only one from a developed country. I am also the least educated with my Canadian degree. All my colleagues have degrees from Harvard, MIT, and The London School of Economics. I am the junior partner!

In Canada, funding for research has declined, universities are less inclined to allow their professors to undertake development work that is not fully supported by a funding agency, and many research institutions are expected to be self-financing. At the same time, there is a degree of disillusionment that much of the past development effort may have been wasted. The focus has also changed to take a more pragmatic outlook because of the reduction in funds available for development activities. Against this backdrop it is legitimate to ask: *Is the cooperative projects approach still relevant today, and if so how can it be made more effective?* 

The answer found in this study to the first part of the question is reflected in the finding that the cooperative projects mode received support from Canadian and Third World project leaders for its approach, performance, and usefulness. Given the rapid strides in education and rapid development of the research capacity in many Third World countries, project leaders were asked if cooperative projects were still relevant to development. The response was a unanimous and emphatic yes. Although in some fields, the research establishment in the South is now equal to that in the North, it was pointed out that in many other areas the needs for cooperation are still enormous, and that in some research fields the gap is actually widening. Canadian researchers, although more critical, were equally convinced that Canada has much to offer, and that the benefits of cooperative projects continue to be highly relevant to the Canadian research community.

If cooperative projects must change to meet the realities of the present Canadian research environment and the needs and aspirations of developing countries, this study provides some insights into improvements IDRC might consider making. The following conclusions and recommendations on ways to improve cooperative projects and their delivery are grouped under the four main issues on which the study focused.

# Nature of the Research Partnerships

Feedback from Third World scientists stressed the need to continue, and expand, cooperation with Canadian scientists. However, the process of linking Third World scientists and Canadians was criticized as being less than systematic, although the resulting cooperation was excellent. Developing country scientists want to know on a more formal and organized basis what expertise is available in Canada, and they want to choose the most suitable partner in terms of both professional capacity and personality. To address this need, a database of Canadian research establishments (universities, government research establishments, and private research entities) could be established. Information on faculties, staffing, training capacity, research priorities, and past and present research should be included to provide Third World scientists with a full overview of the Canadian research establishment. The system could include information on the education, research interests, and achievements of individual researchers. Canadians who have been involved in IDRC research projects represent a significant subset of scientists with development research experience, and who are knowledgeable about and sympathetic to development problems. This expertise may be largely unknown and underutilized.

- The cooperative project mechanism should continue and be linked to current programs.
- Efforts should be made to refine methods of selecting appropriate partners to ensure the development of relevant and effective cooperative projects.
- A database of Canadian research capacity should be established to allow Third World scientists to select the most capable and suitable Canadian partner. This database would include an inventory of Canadian research institutions along with their capability, interest, and speciality as well as an inventory of researchers with development research skills or an interest in starting a career in development research. It would also be a source of information on former Canadian leaders of IDRC projects.

The responses from Canadian project leaders suggest that several different viewpoints exist on the role of the Canadian partner in the project and the rationale for undertaking the research. The diversity of viewpoints suggests a lack of clear vision about the purpose of a cooperative project. Some Canadian partners saw their role as teaching and training their partner in adopting a technology developed in Canada. They did not see as paramount the concepts of cooperation, partnership, and joint ownership of the research.

Although a smaller group of Canadian researchers saw their participation as a true partnership, there was considerable diversion in understanding IDRC's objectives for cooperative projects.

# • IDRC should clearly define its objectives for cooperative projects and should give clear

### directives on the priorities and approaches to be used in future cooperative projects.

Although a few Canadian respondents expressed a degree of dissatisfaction with their counterpart scientist, the majority were very satisfied. Most negative comments did not focus on professional aspects of training, experience, or qualification. Rather, they concentrated on a lack of interest and dedication, the absence of a results-oriented approach, and a lack of accountability.

Partner selection is very difficult without direct experience. One way to better assess potential partners would be to have them carry out a small project. Perhaps future cooperative projects could make more use of pilot projects as a trial of both the subject matter and the researchers. If both aspects were satisfactory, a second phase could be supported.

• To determine the qualities and compatibility of the scientists and the usefulness of the research, the researchers could carry out an initial small project. The results of this project could be used to assess the suitability of developing a larger second phase.

A number of the project leaders felt they were not properly prepared to undertake a cooperative research project. Briefings on the purpose of the project, and on the roles of the researchers, were limited. In some cases, the two partners had too little time to get to know each other, and some Canadians were unable to visit the country and institution of the partner until the project was approved and started. Lack of knowledge of the other partner, of the practicalities of the research project, and of the project environment were cited as areas where improvements were necessary.

The lack of opportunities to cooperate fully in the project design was cited as having a negative influence the performance of cooperative projects. More preparation time, initial exchange visits, and a clearer understanding of research goals and approaches are needed. To encourage a fully cooperative approach to writing project proposals, more use could be made of workshops to allow all partners, the program officer, and selected experts to work together to write and revise the proposal.

• Some cooperative projects may require a longer or more intensive development phase in which workshops may be needed to develop proposals. When this mechanism is required, the partners, and perhaps resource persons, would require adequate funding.

Respondents felt that Canadian scientists have the potential to continue to play an important, and possibly increasing, role in development research. The interviews helped to define specific areas where Canada has particular expertise. IDRC could set for itself the key task of identifying such Canadian centres of excellence and working to link Third World researchers with the best scientific development resources Canada has to offer.

• To define the specific areas where Canada can make an outstanding contribution to development, IDRC should identify Canadian institutions that are leaders in research fields relevant to its programs. These institutions would become the focus for Canadian contributions to future cooperative research initiatives.

# **Enhancing Research Capacity**

Canadian researchers expressed concern about the sustainability of research capability beyond the IDRCsponsored project. Several Third World researchers indicated that their institution was not in a position to maintain the facilities and equipment that were purchased through the IDRC project.

An implicit goal in all projects is to enable the Third World partner to continue to do research and to contribute to development without long-term outside financial and technical support. Some projects have succeeded admirably, and a few respondents indicated that they no longer needed Canadian partners. Nonetheless, a majority of developing country respondents made it clear that their preferred choice would be to continue working with IDRC. These responses suggest both the value placed on IDRC support and the possibility that sustainability may not have been given appropriate attention during the project.

In future, sustainability should be a key aspect of the design of any cooperative project. Particular attention must be paid to the appropriateness of skills and equipment, and the capability of the receiving institution to maintain the equipment. Ideally, each project should aim to assist the developing country researchers to continue their work unassisted after the end of IDRC support. Particular attention must be given key areas such as: research management, access to resources, and technical knowledge.

• Additional attention must be given to strengthening the probability that developing country researchers can continue their work without further IDRC involvement. Future cooperative projects should establish sustainability as a key goal and identify, where appropriate, ways to ensure that sustainability is achieved.

# **Research Utilization**

When asked about the areas that their research results affected, respondents gave the lowest ranking to social parameters such as increased equity, improved situation of women and children, and environmental issues. Because these are important factors in IDRC programs, further research is needed to understand why these were not rated highly by project leaders. More analysis could be considered on the expected benefits arising from the utilization of IDRC- funded research to determine whether it should establish stronger policies and guidelines for the type of research that will be supported and the areas of potential impact.

# • Clear guidelines should be developed for future cooperative research projects in relation to the social and environment aspects of applied research.

The project leaders showed a very strong preference for horizontal dissemination within the scientific community. The most commonly used dissemination channels were directed to other scientists in the same field and included, most commonly, international conferences and scientific journals.

Cooperative Projects: Conclusions and Recommendations

Dissemination of information, therefore, was largely horizontal with very little exposure through what might be termed the popular media. Newspapers, magazines, and radio and television are also important channels to transmit information to end-users and potential beneficiaries and ignoring them could undermine the usefulness and impact of the research.

Most researchers have not had training in the specific skills required to communicate scientific information through the mass media. A dissemination component should be considered for every project proposal, with the possibility of resources allocated for communications training or specialists. Cooperative links could include communication specialists in both the developing country and Canada. This type of project component could enhance the public profile for IDRC projects and facilitate the dissemination of relevant information to a variety of audiences.

• Greater effort is needed to disseminate the results of cooperative projects to broaden audiences as well as to target groups and end users. Future cooperative projects should have a clear dissemination plan, adequate funding for dissemination, and access to communications specialists to advise and help manage dissemination activities.

An understanding of the project environment and the identification of beneficiaries must be a key motivation for undertaking a project. Project design must include a clear definition of the problem, a sound knowledge of the beneficiary, and a proper understanding of how the benefits will materialize as a result of the research program. IDRC could do more to ensure that the interests and circumstances of the end users and target populations and their specific environments are taken adequately into account by both Canadian and Third World project leaders.

• As IDRC moves toward greater emphasis on measuring and documenting results, projects should clearly identify the beneficiaries, how the research will generate benefits, and how the research results will be used to produce these benefits. The needs of the beneficiary must be built into the design of the project, and the potential impact of the project must be realistically assessed and understood by all parties involved in the project.

Cooperative projects should be managed using a system that concentrates on clearly stated goals and the measurement of performance and results. This approach will allow the program to become more flexible and responsive in terms of duration, task sharing, number and type of partners, and utilization of research results.

# **Subsequent Research Activities**

Between 1980 and 1992 a substantial amount of IDRC funding was directed to various international organizations. Canadian scientists who were aware of these projects suggested that some of them could have been carried out by Canadian scientists. In some cases, they resented this IDRC support for non-Canadian institutions.

• If one goal of cooperative projects is to support and fund Canadian scientists to give them Third

# World exposure and research experience, the flow of cooperative funds to researchers in other Western countries should be constrained and closely monitored.

IDRC and its program officers received high praise for their efficiency and flexibility. The administrative systems were perceived to be sound. This evaluation covered the period before serious budget cuts forced the Centre to reduce its staff, revise its programs, and reorganize its structure. The findings of this evaluation must be clearly understood as feedback on that period.

Interviews, mainly with Canadian researchers, indicated a number of misgivings about the recent changes at IDRC: the loss of good program officers who had contributed to IDRC's excellent reputation; reservations about the professional profile of present IDRC staff; and a feeling of disillusionment with the changes that had taken place at IDRC. Some comments also suggested increased bureaucracy and increased adherence to rules and regulations at the expense of scientific performance and results.

# • The management structure for cooperative projects should be reviewed to ensure that future projects are appropriately developed and monitored using a flexible results- oriented management system and that policies and guidelines are clearly communicated.

A number of Canadian and Third World respondents advocated evaluations to assess project achievements in an objective framework, especially when decisions must be made about future project support.

Evaluations were not seen as a threat but as a frequently missing component of IDRC projects. Evaluations of all projects may not be economically justified, but should be carried out for specific purposes such as when unusual difficulties occur, when a project leader feels that the judgement of the program officer does not do justice to the achievements, or when it is important to draw lessons from a specific project.

# • The lack of evaluations in cooperative projects is a serious shortcoming of the IDRC project system. Future cooperative projects should include an evaluation process that can be used on a routine basis and when specific circumstances or difficulties arise. These evaluations should include the perspectives of independent evaluators.

Problems related to the performance of IDRC program officers were a small part in the feedback, which overall was positive. But in those cases, the questionnaires and interviews were reported as the first opportunities for dissatisfied project leaders to air their grievances. One of the complaints aired primarily by Canadian partners, was that when there were problems pointed out to IDRC, no corrective action was taken. When such expressed concerns were not dealt with, the Canadian partner became frustrated and the performance of the project was jeoparidized. The main trust of this criticism was the perceived power of the program officers to make decisions on a project. Project leaders felt that some program officers wielded power through the funds they were empowered to allocate or withhold and could decide to discontinue IDRC support for a project without reference to an important assessment of project performance.

Some Canadian project leaders were particularly unhappy with this management system, and asked for independent outside evaluations, when necessary, to provide feedback on project performance and suggest corrective actions.

However, even with an evaluation system in place, a few project leaders felt they should have a separate avenue available to them so that problems can be taken to a higher level that has the capability and authority to assess the situation, make a recommendation on the resolution of the problem, and supervise the corrective action.

# • IDRC should establish a mechanism to allow project leaders to appeal should problems arise that cannot be resolved by the normal system.

Many Third World and Canadian scientists were unaware of the exact nature of the changes that had taken place at IDRC. Some were upset because changes in policy and priority had excluded their research field from funding, although they had proven the value of their research in past projects. There is confusion about IDRC, its present priorities, and future direction. The changes that have taken place at IDRC have not been fully communicated; they are not widely understood. As a result, a pool of experienced and accomplished potential future project leaders, both Canadians and Third World scientists, are being lost to IDRC.

# • To overcome the communication gap that exists about the changes that have taken place at IDRC, project leaders and scientists in Canada and the Third World must be informed of new policies and priorities to enable them to relate to the new system and to continue their relationships with IDRC.

The environment for cooperative projects has drastically changed because of the state of the Canadian economy. Overall funding for development has decreased, and financial restrictions on Canadian research establishments have caused them to make fundamental changes to their approach to development research. The Canadian research establishment can no longer be as generous as it was 15 years ago. Staff at teaching institutions, in particular, must teach a full load. If they undertake research, the cost for time lost must be recovered. Small research institutions funded by provincial governments or supported with private funds must also fully recover all costs for research. Whole research departments have been closed because they did not become self-supporting. From such institutions the message was clear: we can no longer undertake research with IDRC on the same basis as in the past.

Financial concerns are a fundamental dilemma. Both Third World and Canadian researchers are keen to continue their involvement with cooperative projects, but the majority of Canadian researchers are now restricted in their ability to contribute. Its own financial constraints will limit the ability of IDRC to offer generous financial compensation to Canadian scientists. Each Canadian institution is in a different financial situation, and will have different parameters to consider for cooperation. It is important that conditions for participation of researchers in IDRC projects be negotiated with each institution as a whole.

Cooperative Projects: Conclusions and Recommendations

• Cooperative projects should have access to the best resources in Canada. Given present economic constraints, IDRC should negotiate specific financial agreements with selected Canadian institutions. IDRC must be flexible enough to offer an acceptable level of financial compensation for researchers to ensure that lack of funds no longer acts as a disincentive to participation in cooperative projects.

The evaluation found that, from the perspective of the participating researchers, cooperative projects have had an impact in many research areas over the last 12 years. However, the development environment has clearly changed, as has the economic climate, especially in Canada. The policies and priorities of IDRC and its financial resources have also changed. Under these circumstances, new approaches to a program of cooperative projects should be explored.

The positive feedback from the respondents offered many suggestions for improvements and refinements to the program. The recommendations and the analysis of the changed circumstances suggest future cooperative projects that will focus on results and their application. Projects should continue to develop links between the best Canadian and Third World researchers, and the research should be designed to generate directly useful results.

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