



# IDRC ANNUAL REPORT

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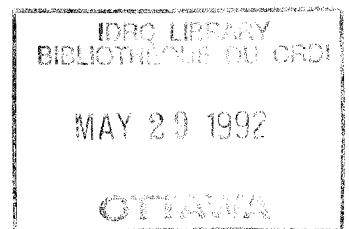
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## **International Development Research Centre**

The International Development Research Centre is a public corporation established by Act of the Canadian Parliament "to initiate, encourage, support and conduct research into the problems of the developing regions of the world and into the means for applying and adapting scientific, technical and other knowledge to the economic and social advancement of those regions, and, in carrying out those objects,

- (a) to enlist the talents of natural and social scientists and technologists of Canada and other countries;
- (b) to assist the developing regions to build up the research capabilities, the innovative skills and the institutions required to solve their problems;
- (c) to encourage generally the co-ordination of international development research; and
- (d) to foster co-operation in research on development problems between the developed and the developing regions for their mutual benefit."

Head Office:  
P.O. Box 8500, Ottawa,  
Canada, K1G 3H9





## **Annual Report 1974-1975**

### **International Development Research Centre**

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INTERNATIONAL DEVELOPMENT RESEARCH CENTRE  
CENTRE DE RECHERCHES POUR LE DEVELOPPEMENT INTERNATIONAL

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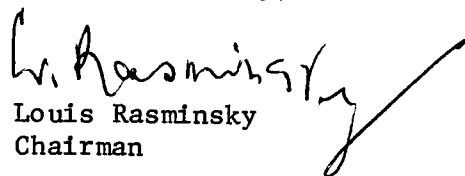
July 14, 1975

The Honourable Allan J. MacEachen  
Secretary of State for External Affairs  
Ottawa, Canada

Dear Mr. Minister:

I have the honour to transmit herewith the Annual Report of the International Development Research Centre for the fiscal year ending March 31, 1975, for submission to Parliament as required by section 22 of the International Development Research Centre Act (Revised Statutes of Canada, 1970, 1st Supplement, Chapter 21).

Yours very truly,

  
Louis Rasminsky  
Chairman

## The Board of Governors

°† Louis Rasminsky  
Chairman of the Board of Governors  
Ottawa, Canada

° Louis Berlinguet  
Vice-Chairman of the Board of Governors  
Chairman of the Executive Committee  
Quebec City, Canada

°† W. David Hopper  
President and Chief Executive Officer  
Ottawa, Canada

\*\* Manuchehr Agah  
Tehran, Iran

° Aklilu Habte  
Addis Ababa, Ethiopia

Pierre Bauchet  
Paris, France

\* C. Fred Bentley  
Edmonton, Canada

°† Roger A. Blais  
Montreal, Canada

\* Roberto Campos  
Rio de Janeiro, Brazil

Sir John Crawford  
Deakin, Australia

°† Norman T. Currie  
Chairman of the Finance Committee  
Toronto, Canada

\* A. L. Dias  
Calcutta, India

Paul Gérin-Lajoie  
Ottawa, Canada

Peter G. Green  
Halifax, Canada

° Ilunga Kabongo  
Kinshasa, Zaïre

°† Archie R. Micay  
Winnipeg, Canada

R. Stephen Milne  
Vancouver, Canada

° Rex M. Nettleford  
Kingston, Jamaica

° T. W. Schultz  
Chicago, U.S.A.

Dr. Soedjatmoko  
Djakarta, Indonesia

\*\* Victor L. Urquidi  
Mexico

° Sir Geoffrey Wilson  
London, England

° William C. Winegard  
Guelph, Ontario

\* Retired October 1974

\*\* Appointed March 1975

° Executive Committee member at 31 March 1975

† Finance Committee member at 31 March 1975



## Introduction

This year we have divided between two books the material that has previously appeared in the annual report. The reason for doing so was that the report was becoming bulky; and yet not necessarily satisfying the needs of any particular group of readers. Some readers — among them, no doubt, the Members of Parliament — want to examine the specific details of research projects that have been supported, the human resources awards that have been made and the expenditures that have been incurred. This book is designed to answer their questions. Other readers are less interested in such figures, but want to grasp the general framework of the research activities that are being supported with IDRC funds. A companion book with the title of *Review 1974-75* sets out, rather more methodically than could be done within the bounds of an annual report, to give that general picture; to sketch the patterns of research and the collaborative networks; to shade in the sectors of concentration; and, through fuller descriptions of a few particular projects, to add color and detail to the general picture. The two books overlap in material only to a small extent; they are planned as complementary books. The statistics are in these pages, the narrative in the other volume.

So, to the statistics. During 1974-75 the Board of Governors approved 98 projects involving appropriations amounting to \$23.6 million. This brought the cumulative total for the 4½ years of Centre operations to 252 separate projects of research that have been taking place in some 75 countries and have required appropriations of \$50.1 million. Of that total, 38 projects have now been completed. Since many of the projects have a duration of two years or more, and the research funds are disbursed by installments after receipt of financial reports from the research directors, not all of the \$23.6 million was disbursed during 1974-75. The section on Financial Analysis later in this report gives details of actual disbursements.

Another \$1.98 million was committed during the year under review in Division Activity Projects. These comprise a group of activities such as consultancies, conferences and workshops which are undertaken at a preliminary stage to make sure there are sound foundations for a future research project. There were 217 such activities during the year, and a short description of several of these activities appears in this project.

The Centre is structured to support research on a sectoral, rather than a geographical basis. The titles of the program divisions make this plain: Agriculture, Food and Nutrition Sciences; Population and Health Sciences; Social Sciences and Human Resources; Information Sciences; and Publications. The benefits of a particular work of research can be worldwide, and indeed a major preoccupation of the Centre staff has been to build networks so that researchers do not work in isolation but in collaboration with researchers in other countries and regions. What is important to the Centre is not so much the country from which a particular research proposal comes, as whether the proposal fits inside the broad areas of concern delineated by the Centre and whether its findings are likely to have wide applicability. Hence no set amounts are worked out in advance of a budget year for country-by-country allocations.

That having been said we should draw attention to where the largest part of IDRC funds has been directed, both in sector and in geographical region. Tables are included in later pages showing the figures for 1974-75 and the cumulative totals since 1970. They show that nearly 38 percent of all funds since the start of Centre operations (and 42 percent during 1974-75) went in support of projects initiated through the Agriculture, Food and Nutrition Sciences Division; they also show that the largest share of funds (33.4 percent over the whole period and 39.6 percent in the latest year) supported projects located in Asia. The Centre has made its major concern the improvement of the economic and social wellbeing of rural peoples; a first step is to help provide the means by which they can be adequately fed. It has also followed that the most populous part of the world has claimed the largest support. But the Centre staff make constant efforts to make sure that all regions of the developing world can gain some benefit from the research being done in any particular region.

Support has been balanced between international centres of research and much smaller groups of researchers in a series of countries. The facilities and the combination of scientific talent assembled at any one of the eight or nine international agricultural research centres make these the likeliest places where important discoveries will be made. The application of these findings, however, has to be tested in a range of climates and environments and in a variety of local conditions. The Centre has therefore contributed both to experimental research in these large centres and also to many "outreach" programs where

improved varieties of crops undergo field trials.

One example is the research to improve the staple food crops of the semi-arid tropical regions: the cereals sorghum and millet and various grain legumes such as pigeon pea and chick-pea. IDRC has contributed substantially (about \$1.5 million in total) to centres in India, the Lebanon, Nigeria, and Mexico to support work and training on these crops; but it has contributed an almost equal amount to university agricultural departments and government institutions in a band of countries — from Trinidad through Algeria, Senegal, Ethiopia and Tanzania to Thailand and Papua New Guinea — that are carrying out research appropriate to their local circumstances, with improved seed supplied from the international centres.

Similar networks have spread across three continents to help the coordination of research into the development of triticale as an alternative to wheat in marginal lands, and into the improvement of cassava as human food or animal feed. Staff of the IDRC have published during 1974-75 papers summarising advances in research on these crops. The researchers in a particular field have been able to keep in touch with each other's work through both publications and correspondence and also through seminars such as one on cassava research with the Centre co-sponsored in Colombia in February 1975.

During 1974-75 greater attention began to be paid to research into farming systems, so that farmers might achieve not simply the best results from a single crop but a balance of good results from a range of crops that can provide their families with a nutritious diet and some cash income. Research of this sort has neared completion in a high plateau area of Colombia, and is beginning in parts of Asia, notably Bangladesh and Indonesia. There has been a similar increase of emphasis on the improvement of post-harvest systems, in order to reduce to a minimum the



losses that take place in the whole process of harvesting, drying, threshing, milling, storing, marketing and finally consuming a food crop. As a synthesis of several studies commissioned by the Centre on post-harvest systems, AFNS director J. H. Hulse presented a paper on this topic to the Conference of Commonwealth Agriculture Ministers in London in March 1975. Projects designed to improve these post-harvest technologies are being supported in Asia and Africa.

The year has seen advances in the planning of research into aquaculture. The Centre is placing more emphasis on these techniques than on "capture fisheries" since the prospects for increased fish production for developing countries, especially those in Southeast Asia, point clearly to the need for research on fish reared in inland ponds or coastal waters. A major move in this respect was a grant of \$826,000 to the Southeast Asia Fisheries Development Centre in the Philippines, which will allow research to start on milkfish, an important source of protein in the region.

Forestry research has mainly centred upon the semi-arid areas of Africa. Several such projects are closely linked with attempts to increase food production, either by providing shelterbelts of trees among which crops may be grown or by afforestation of marginal land so that forest land which is of good soil be turned over to agriculture.

Growing attention is being given to the role of women in agriculture. In Africa, for example, a network of activities is in progress related to the methods by which the cereals and legumes of the semi-arid topics are processed in the home.

The *Information Sciences* Division, in its program of "information about development", took a lead in promoting the creation of DEVSIS, a worldwide system that will collect and disseminate information about economic and social development projects, plans, programs and achievements. Early in 1975 John Woolston, the director of this division, was seconded to Geneva for about six months to direct a study team that will move DEVSIS towards an operational stage. International cooperative information systems continued to receive strong support in several subject areas, enabling developing-country institutions to participate, in some cases by funding or giving technical advice to the system coordinators.

In the field of "information for development", regional institutions in Latin America and Southeast Asia began to collect the agricultural literature produced in their region and to feed it to AGRIS, the international agricultural information system being operated by the Food and Agriculture Organization of the United Nations. Within FAO itself, a unit was set up that will enable developing-country institutions to contribute to AGRIS even before they are capable of using computer methods. Two more specialized agricultural information centres were established, on



grain legumes and on irrigation science and technology, and support was given to a system to handle information on educational innovations in developing countries.

The Technonet-Asia network of extension services for small-scale industry was broadened to include institutions in eight Southeast Asian countries, and at its first Council meeting in October 1974 at the coordination centre of the IDRC regional office in Singapore, it established a program that places heavy emphasis on training local industrial extension engineers. Support for cartographic work linked to development planning was concentrated in Africa, but a new initiative during 1974-75 — the mapping of natural resources from satellite measurements — was begun in Bolivia as well as in the Sudan.

Research on many aspects of the relationships between population, health and development was extensive, and the Centre's broad approach through the *Population and Health Sciences Division* was in harmony with the view expressed by most developing countries at the Bucharest World Population Conference in August. In this field, as with projects in food production, the Centre balanced its collaboration with international bodies and other donor agencies — such as the World Health Organization, the Population Council and the Ford Foundation — with support of the activities of many national governments or regional institutions.

At the international level, the Centre supported efforts to find more effective contraceptive techniques, and to improve the management of family planning programs. A number of the projects at the national level were concerned with identifying and measuring the variables that affect fertility behaviour — education, family income, literacy, cultural values — in order to provide a deeper understanding of motivation. Several projects were aimed directly at providing information to help governments formulate their population policies. One such project consists of a consortium of leading Latin American institutions that are developing a coherent set of research activities and seminars for their region.

Experimental work in the delivery of rural health care services continued, with encouraging results coming in particular from Iran; and a program was begun in the important, but so far largely neglected, field of research into improved water supplies and sanitation services in rural communities. Support has also continued for research on the control of certain tropical diseases. In these last two areas, the Centre has taken part in the creation of expanded international research networks.

The work supported through the *Social Sciences and Human Resources Division* continued to concentrate on the means of easing the process of modernization and change that faces communities throughout the world. The pioneering work done in the Andean Pact

Commission on questions of transfer of technology has moved into a second stage and is closely linked to a three-continent network of institutions studying the mechanisms for implementing science and technology policies. The difficulties of "development management" have become a matter of great concern in many countries, particularly in Asia, and the Centre has responded by supporting studies of the performance of public enterprise as well as of more local, rural institutions.





In 1974-75 several projects of applied social sciences neared successful completion. These included the study of the role of hawkers and vendors in the economic life of six Asian cities, and of the low-cost housing needs in eight Asian countries. A similar housing study began in Latin America. Work in the field of educational research concentrated on the ways of improving the delivery of primary education in rural areas.

The Human Resources program of awards at different levels of experience in international development, for both Canadians and non-Canadians, expanded during the year. A main innovation was the category of Senior Research Associate awards for up to 10 senior professionals a year from Canada and developing countries. Another set of awards introduced was for the Pre- and Post-Project Training Program for individuals who have been or are likely to be associated with IDRC-supported projects. Details of the awards made during 1974-75 are given later in this report.

In September the Board of Governors acted to create the *Publications Division* as a fifth program division. From the outset the Centre has been extremely active in publishing both technical reports and more general material. Partly in recognition of the growing volume of this activity, partly to open the way for the Centre to support projects in developing countries that might be grouped under the broad heading of communications about development, this new division took its place alongside the original four. David Spurgeon, who has been a leading science writer in Canada for many years and has worked in senior staff posts in the Centre since 1971, became its director.

Early in the year Cheikh Hamidou Kane of Senegal, who was for 10 years a senior official of UNICEF in West Africa, took up the post of Vice-President International. The Office of the Vice-President International has strengthened its links with governments and

research institutions in developing countries during 1974-75. In Ottawa two new liaison officers were appointed, one having responsibility for links with Latin America and the other with Africa, each of them being from the region involved. A fourth regional office was added to those already established in Singapore, Bogota and Dakar. This fourth office was officially opened in Beirut in November. Salah Dessouki of Egypt, whose previous appointment was regional director of the UN Environment Program, is the director of this office which covers North Africa and the Middle East. A further change was the appointment of Stanislav Adotevi of Dahomey as regional director of the West African regional office in Dakar; his predecessor, Tony Price, will become director of an East African regional office due to open in Nairobi in mid-1975. The Asia regional office in Singapore was host to the Board of Governors at their meeting in March 1975. All three established offices continued to develop, and the program divisions appointed more representatives (most of whom come from the region) to these regional offices to keep closely in touch with projects that are being supported and to explore further research possibilities.

Lucien Michaud, formerly Vice-President of the University of Sudbury and later Director of Research and of International Programs for the Association of Universities and Colleges of Canada, took up the appointment in November of Vice-President, Canada and Donor Agency Relations. Cooperation between IDRC and donor agencies — whether other governments or foundations or international bodies — has to keep pace with the programs as they increase. On the Canadian front, although the Centre has made beneficial use of the talents of many university departments that have undertaken fundamental research that is supportive of research projects in developing countries, a more comprehensive approach to co-operation and a more complete knowledge of university capacities, activities and policies, is clearly needed to ensure optimum benefit from any future joint ventures.

Liaison with both Canadian provincial and federal government departments is also an important role. Similarly, liaison with external governments, private foundations, international and non-governmental organizations in the area of international development research will seek to further the Centre's goal of cooperation and coordination of research activities with other donor agencies, to reduce the gaps and duplications present in this work, as well as to provide the Centre executive staff with rapid access to information on other donor agencies' activities in those areas of Centre concern. Mr Michaud's office will play a major part in strengthening these various links.

The following section gives brief details of research projects approved by the Board of Governors during 1974-75.

# 1974 1975

## Projects for which funds were approved during the fiscal year 1974-75

### Agriculture, Food and Nutrition Sciences

#### **Sorghum (CIMMYT), Phase II**

For the Centro Internacional de Mejoramiento de Maíz y Trigo (CIMMYT), Mexico, to continue and expand its research on sorghums that are tolerant of low temperatures, and encourage farmers to adopt these through practical training and demonstration programs.

\$124 700 – 2 years

#### **Sorghum/Maize (Papua New Guinea)**

For the University of Papua New Guinea, to select high-yielding early maturing varieties of sorghum and maize, investigate the possibility of intercropping them with sweet potato, and to train graduate students and field staff in plant breeding and agronomic techniques.

\$140 200 – 2 years

#### **Semi-Arid Crops (Thailand)**

For the Faculty of Agriculture of Khon Kaen University, to identify and adapt improved varieties of sorghum, soybeans and groundnuts, to develop suitable agronomic techniques for their cultivation, and to train local researchers in practical plant breeding and agronomy.

\$311 000 – 5 years

#### **Drought Resistance (Laval), Phase II**

For the Faculty of Agriculture of Laval University, Quebec, to refine and standardize methods of screening sorghum for drought resistance and to extend these methods to pearl millet.

\$80 500 – 2 years

#### **Composite Flours (Manitoba), Phase II**

For the University of Manitoba, to determine how the mixing of flours from tropical plants such as cassava and sorghum with wheat flour affects the quality of bread made in machines that are hand-operated and simple to make.

\$9 300 – 1 year

#### **Grain Milling and Utilization (Nigeria), Supplement**

For the Ministry of Agriculture and Natural Resources of the Government of Nigeria, to permit modifications and overhaul of the milling equipment and to train a Nigerian Home Economist in the operation of the newly-established test kitchen and quality control facilities.

\$15 000

#### **Grain Milling and Utilization (Nigeria), Phase II**

For the Ministry of Agriculture and Natural Resources of the Government of Nigeria, to develop a suitable milling system producing basic and composite flours from local grains for the production of bread, noodles, infant foods and other products.

\$160 000 – 2 years

#### **Alfa Grass (Tunisia)**

For the National Institute on Forestry Research of the Ministry of Agriculture, Ariana, to undertake research aimed at increasing the production of alfa grass and to develop small-scale harvesting equipment.

\$204 800 – 3 years

#### **STRIGA (Sussex), Supplement**

For the University of Sussex, to support a full-time research assistant to work on the testing program of a parasitic weed of grasses called striga, and to cover the costs of additional materials and travel by the research scientist to the overseas testing sites.

\$19 000 – 1 year





### **Orobanche Control (ALAD)**

For the Arid Lands Agricultural Development Program (ALAD), Beirut, Lebanon, to determine the effectiveness of new chemical compounds designed to control Orobanche, a parasitic weed severely affecting crops particularly in the Near East and North Africa.

\$48 000 – 3 years

### **Triticale (India)**

For the Indian Council of Agricultural Research, New Delhi, to enable G. B. Pant University to do research on triticale in order to increase food production on India's rainfed plains and hills, and specifically to develop varieties, agronomic practices and post-harvest technologies suitable to local conditions.

\$241 785 – 3 years



### **Triticale (Kenya)**

For the Ministry of Finance and Planning of the Government of Kenya, to select and test high-yielding varieties of triticale for rust resistance, in cooperation with institutions in Mexico and Manitoba, and help establish triticale as an economic crop in East Africa.

\$87 000 – 3 years

### **Cassava (Nigeria)**

For the University of Ife, Ile-Ife, to determine appropriate protein sources for the formulating of balanced animal rations composed primarily of cassava, and establish economic parameters within which cassava use could become a practical component of animal rations in Nigeria.

\$114 100 – 2 years

### **Cassava (Malaysia)**

For the Malaysian Agricultural Research and Development Institute (MARDI) of the Government of Malaysia, Selangor, to establish a cassava research program which will include an extensive training component for scientists and technicians from both Malaysia and surrounding countries.

\$320 000 – 4 years

### **Cassava Nutrition (Thailand)**

For the Faculty of Agriculture of Khon Kaen University, to determine the value of cassava in animal feeds and to study the technological and economic aspects of using Thai cassava products in the domestic animal feed industry.

\$153 300 – 3 years

### **Bacterial Blight (Nigeria)**

For the International Institute of Tropical Agriculture (IITA) in Ibadan, to study the biology and epidemiology of cassava bacterial blight, develop practical control methods, and train workers from countries in which the disease is endemic.

\$180 000 – 3 years

### **Cassava Processing (Thailand)**

For the Asian Institute of Technology, Bangkok, to develop improved practical processing, storage and packaging methods for cassava chips and pellets, and disseminate the results of their research to manufacturers and farmers in Thailand and other parts of Asia.

\$16 800 – 1 year

### **Legume Processing (Philippines)**

For the University of the Philippines at Los Baños, to identify and test dehulling and milling equipment for cowpea and other grain legumes, and study the utilization of legume flours in traditional and new foods.

\$21 000 – 2 years

### **Pasture Legumes (Caribbean), Phase II**

For the University of the West Indies, St. Augustine, Trinidad, to undertake research on pasture legumes in Belize, Antigua and Trinidad.  
\$197 000 – 2 years

### **Aquaculture (India)**

For the Council of Agricultural Research of the Government of India, to develop and establish productive experimental systems of composite fish culture in village ponds in Orissa and West Bengal.  
\$324 000 – 3 years

### **Milkfish (SEAFDEC)**

For the Southeast Asian Fisheries Development Centre (SEAFDEC), Rizal, Philippines, to enable its Department of Aquaculture in Iloilo, to undertake a research program for breeding and hatchery rearing of Chanos (Milkfish).  
\$826 000 – 3 years

### **Land Reclamation (Sudan)**

For the Forest Research and Education Institute of the Ministry of Agriculture, Food and Natural Resources of the Sudan, to develop suitable tree species and tree management techniques which will allow the establishment of shelterbelts under desert and semi-desert conditions.  
\$165 000 – 5 years

### **Forestry Technology (Andean Pact)**

For the Junta del Acuerdo de Cartagena, in Lima, Peru, to determine the industrially functional properties of at least 100 relatively unknown tropical timber species of this region.  
\$988 420 – 2 1/2 years

### **Afforestation (Kenya)**

For the Forestry Department of the Ministry of Natural Resources, Nairobi, to undertake research in the afforestation of dry, marginal lands not suitable to agriculture with a view to meeting increased local demand for forest products.  
\$199 500 – 4 years

### **By-Products (Mexico)**

For the Consejo Nacional de Ciencia y Tecnologia (CONACYT), Mexico City, to support research at five Mexican Institutions on the development and testing of cattle feeding systems using sugarcane and cane by-products, and study the consequences and determine the economic effects of sugarcane in animal feed.  
\$362 900 – 2 years

### **Post-Harvest Technology (India)**

For the Indian Council of Agricultural Research (ICAR), New Delhi, to develop post-harvest systems aimed at reducing losses and improving the quality, processing, distribution and availability of cereal grain and food legume products produced on small farms throughout India.  
\$360 000 – 3 years

### **Post-Harvest Rice Technology (Singapore)**

For the Singapore Institute of Standards and Industrial Research, to develop and test the most economical system for the bag storage of milled rice.  
\$38 000 – 2 years

### **Cropping Systems (Bangladesh)**

For the International Rice Research Institute (IRRI), Manila, Philippines, to enable IRRI to support the Bangladesh Rice Research Institute in research and training on the development of farming systems appropriate to small farmers, particularly those involving intercropping of rice with other food crops.  
\$418 200 – 4 years

### **Cropping Systems (IRRI)**

For the International Rice Research Institute (IRRI), Manila, Philippines, to expand its present cropping systems research programs to other countries of Southeast Asia, test new and improved cropping systems under a variety of agroclimatic conditions, train researchers and leaders from developing countries in this field, and develop an information exchange program.  
\$1 303 760 – 2 years



### Multiple Cropping (IRRI), Supplemental

For the International Rice Research Institute (IRRI), Manila, Philippines, to cover an increase in the cost of providing an agricultural economist to the project. \$7 553.16

### Varietal Screening (Philippines)

For the International Rice Research Institute (IRRI), Manila, Philippines, to enable the University of the Philippines at Los Baños, to conduct a screening program for a variety of crops, determine which are best suited to multiple cropping systems in Asia, and test, in cooperation with IRRI, the most promising genotypes in several agroclimatic zones. \$288 000 – 4 years



Agriculture, Food and Nutrition Sciences	Program Projects Approved in Fiscal Year 74-75 (1000's)	Approved to March 31, 1975 (including pending approved appropriations) (1000's)
Africa	1,125	5,714
Asia	5,015	7,945
Caribbean & Latin America	1,476	4,022
Global	19	168
Canada	90	1,125
Total	7,725	18,974
% of total	36.1	37.8



## Information Sciences

### Grain Legume Information Centre

For the International Institute of Tropical Agriculture (IITA), Ibadan, Nigeria, to establish at the Institute a specialized information centre on cowpeas and other grain legumes.

\$222 500 – 3 years

### Soil Engineering Information Centre, Supplemental

For the Asian Institute of Technology, Bangkok, Thailand, to cover the salary of additional staff and increases in the cost of materials, and for promotional work to ensure that all potential users are put in contact with the Asian Information Centre for Geotechnical Engineering.

\$44 300 – 3 years

### Oysterculture Bibliography

For Dr. D. B. Quayle, of Nanaimo, British Columbia, to compile a bibliography on oysterculture and to enable the Centre to publish it as an IDRC monograph.

\$4 900 – 6 months

### ICTA Catalogue

To enable the Information Sciences Division of the International Development Research Centre, in cooperation with the University of the West Indies, to support the Publication of the Imperial College of Tropical Agriculture (ICTA) Catalogue for the benefit of selected libraries in developing countries.

\$35 000 – 8 months

### Microform Masterlist (Southeast Asia)

For the Southeast Asian Regional Branch of the International Council on Archives (SARBICA) of Malaysia, to identify, locate and make available for reference purposes all Southeast Asian documents presently on microform.

\$33 000 – 2 years

### International Education Reporting Service

For the International Bureau for Education (IBE), Geneva, Switzerland, to identify, collect, process and disseminate information about innovation in education and sponsor new studies to fill gaps in existing documentation.

\$130 000 – 3 years

### Industrial Technical Information Service (SITI)

For the Ministry of Industry, Commerce and Tourism of the Government of Bolivia, La Paz, to establish and operate a scientific and technical information service for small and medium-size Bolivian industries.

\$49 500 – 1 year

### Communication Research Documentation (CIESPAL)

For the Centro Internacional de Educacion Superior en Periodismo para America Latina (CIESPAL), Quito, Ecuador, to collect and index, for the purpose of publishing a preliminary bibliography with abstracts, all major studies conducted since 1960 on communications science in Latin America.

\$49 900 – 1 year

### AGRIS Central Processing

For the Food and Agricultural Organization of the United Nations (FAO), to establish a small data conversion unit in Vienna, in close contact with the International Atomic Energy Agency (IAEA), as an integral part of FAO's international agricultural information system (AGRIS).

\$170 800 – 2 years

### AGRIS Latin America (Preliminary)

For the Centro Interamericano de Documentacion e Informacion Agricola de the Instituto Interamericano de Ciencias Agricolas (IICA-CIDIA), San José, Costa Rica, to organize itself to act as the Latin American input/output centre for FAO's worldwide agricultural information system (AGRIS).

\$250 000 – 3 years

### Computer Information System (ISIS)

For the operation at the International Development Research Centre of the Integrated Set of Information Systems (ISIS) for information storage and retrieval and for handling library management tasks.

\$300 000

### Library and Internal Information Services

For the operation of the International Development Research Centre Library, with publications and books focussing on the Centre's main sectors of concentration, to assist IDRC staff and other research specialists in their professional work.

\$500 000

### DEVSIIS Feasibility Study

For Unesco, to create a Steering Committee and Study Team to investigate the feasibility and design of DEVSIIS, and to enable IDRC to contract related data-gathering and research tasks to specialist organizations.

\$220 000 – 1 year

### DEVSIIS Latin America: Preliminary Phase

For the UN Economic Commission for Latin America (ECLA), to enable the Latin American Centre for Economic and Social Documentation (CLADES), Santiago, Chile, to prepare an inventory and publish a directory of the major Latin American and Caribbean information centres handling social and economic documentation, and, in preparation for CLADES' potential role as the regional DEVSIIS centre, to undertake a pilot project to create a computerized data base of documents emanating from regional bodies that promote economic integration.

\$187 100 – 20 months

### DEVSIIS: Asian Institute Survey

For the Asian Institute for Economic Development and Planning, Bangkok, Thailand, to identify and survey the major activities in Asia concerned with the collection, storage and dissemination of development information, analyze the data gathered and publish the summary results in a Directory.

\$44 000 – 8 months

### Seismic Map of Ethiopia

To enable the International Development Research Centre to support the Geophysical Observatory of Haile Selassie I University, to obtain computing assistance from the Global Seismological Unit in Edinburgh and to prepare and publish seismic maps of Ethiopia.

\$25 700 – 18 months

### African Family Health Periodical

To enable the Information Sciences Division of the International Development Research Centre to finance the publication, in Africa, of an illustrated magazine for French-speaking Africa, entitled "Famille et Développement", which covers such fields as family health, nutrition and hygiene, family planning, etc.

\$644 000 – 3 years

### ERTS: Sudan

For the Ministry of Agriculture, Food and Natural Resources of the Government of Sudan, Khartoum, to establish an ERTS (Earth Resources Technology Satellite) applications unit capable of meeting the specialized thematic cartography needs of departments concerned with national development, particularly in rural areas, and to train local personnel in this information technique.

\$180 678 – 18 months

### ERTS: Desaguadero River (Bolivia)

For the Programa del Satelite tecnologico de Recursos Naturales (PSTRN), La Paz, to prepare a set of thematic maps of the Desaguadero River Basin, to train local personnel in the computer analysis of ERTS (Earth Resources Technology Satellite) records, and to publish a report of the project.

\$70 089 – 1 year

### Irrigation Information Centre (Israel)

For the International Irrigation Information Centre, (IIIC), Bet Dagan, to cover increased costs in the project.

\$50 100

Information Sciences	Program Projects Approved in Fiscal Year 74-75 (1000's)	Approved to March 31, 1975 (including pending approved appropriations) (1000's)
Africa	644	1,237
Asia	328	1,401
Caribbean & Latin America	607	683
Global	778	1,150
Canada	5	1,169
Total	2,362	5,640
% of total	11.0	11.3



## Population and Health Sciences

### **Infertility-Subfertility (Nigeria)**

For the universities of Lagos and Ibadan, to study, in rural and urban areas of Nigeria, the possible factors involved, such as socio-economic, clinical and pathological factors in sub-fertility and infertility, and recommend future approaches to the problem.  
\$84 800 – 18 months

### **Fertility Research (Southeast Asia)**

For the universities of Singapore and Malaysia, and Sumatra Utara Universitas, Indonesia, to develop a cooperative network of the departments of Obstetrics and Gynaecology of these three universities for the purpose of undertaking collaborative research and training in the field of human reproduction, and establishing a central secretariat to collect data and coordinate the activities of the network.  
\$263 600 – 3 years

### **Fertility Regulation Research (India)**

For the Indian Council of Medical Research, New Delhi, to study the mortality and morbidity rates, and side effects of tubal ligation in Indian women, and to carry out a comparative evaluation of vaginal and abdominal sterilization.  
\$273 285 – 2 years

### **Female Literacy/Fertility (Turkey)**

For the Institute of Population Studies of Hacettepe University, Ankara, to study the underlying economic, social, cultural and physical factors causing low literacy rates amongst the girls of Turkish rural areas, and, indirectly, their relation to fertility. (PHS and SSHR project)  
\$66 800 – 18 months

### **Women's Roles and Fertility (Southeast Asia)**

For the Institute of Southeast Asian Studies, Singapore, to develop and publish a bibliography on the role and the social, familial and legal aspects of the status of women, and on fertility behaviour in Southeast Asia, Taiwan and Korea.  
\$6 400 – 6 months

### **Disincentive Study (Singapore)**

For the University of Singapore, to enable its Department of Sociology to investigate the attitudes of young Singapore families regarding large families in the context of recent disincentive legislation adapted by that country, and determine the impact of these measures on future family size.  
\$43 000 – 3 years

### **Value of Children (Singapore)**

For the Institute of Southeast Asian Studies in Singapore, to apply the core-interview schedule developed by the Asian Value of Children investigators to a select sample in Singapore, in an effort to determine their views on the satisfactions and costs of children to parents and the motivations of child-bearing.  
\$32 000 – 2 years

### **Micro-Economics of Fertility (Thailand)**

For Mahidol University, Bangkok, for a pilot study of household budgets particularly of the costs and economic contributions of children to the family, and to assess some of the perceived costs and benefits of children and relate these to the family budgets and the social and economic organization of children in family life.  
\$27 600 – 18 months

### **Household Budget Surveys (Senegal), Supplemental**

For the Ministry of Finance and Economic Affairs of the Government of Senegal, to help cover increases in the cost of salaries, travelling expenses for survey personnel, vehicle maintenance and office furniture.  
\$64 800

### **Red Cross Societies**

For the League of Red Cross Societies, Geneva, for a study to determine, in 30 countries, the present role, capacity and potential of a representative cross-section of National Red Cross Societies.  
\$10 000 – 1 year

### **WHO Human Reproduction Special Fund, Supplement**

For the World Health Organization, Geneva, to cover increases in fee and benefits incurred under the terms of the original contract with the Canadian Consultant provided for the WHO Expanded Program of Research, Development and Research Training in Human Reproduction.  
\$42 000

### **Middle Level Health Care Delivery (Nigeria)**

For the Institute of Health, Zaria, to develop and evaluate a health care demonstration project, and make recommendations to the appropriate authorities on the improvement of health auxiliary training programs.

\$283 515 – 3 years

### **Biomedical Support Program (Latin America)**

For the Corporacion Centro Regional de Poblacion, Bogota, Colombia, to enhance the research capability of junior scientists in the field of fertility regulation through a program of awards.

\$330 000 – 2 years

### **Committee for Comparative Behavioural Studies on Population (CCBSP)**

For the Committee for Comparative Behavioural Studies on Population (CCBSP), to compile an inventory of Asian individuals and institutions involved in behavioural science research on population, and facilitate the coordination and implementation of research projects and the distribution of their findings.

\$24 000 – 2 years

### **International Committee on the Management of Population Programs (ICOMP)**

For the Population Center Foundation, to enable the International Committee on the Management of Population Programs (ICOMP), Manila, Philippines, to improve the management of existing family planning and population programs in developing countries and encourage the design and implementation of better programs through the application of modern management concepts and techniques.

\$50 000 – 3 years

### **International Committee for Applied Research in Population (ICARP), Phase II**

For the Population Council, New York, to enable ICARP to continue and expand its research in population and family planning in developing areas.

\$260 000 – 2 years

### **Population and Development Policies (Latin America), Supplement**

For the Centro Latinoamericano de Demografia (CELADE), Santiago, Chile, to enable CELADE to continue its study of the demographic impact of the development plans and strategies of Brazil, Cuba, Costa Rica and Chile.

\$26 275

### **Population Policies – Women's Role (Colombia)**

For the Asociacion Colombiana para el Estudio de la Poblacion, Bogota, Colombia, to study the characteristics of female participation, at the family or institutional level, in several sectors of socio-economic life, and establish comparisons with other countries in the region.

\$60 000 – 18 months

### **Population Policy Research (Latin America), Phase II**

For the Consejo Latinoamericano de Ciencias Sociales (CLACSO), through the Colegio de Mexico, to enable the PISPAL Program (Social Research on Population Policy Problems in Latin America) to continue and expand its research on the formulation of appropriate national population policies for Latin America.

\$500 000 – 3 years



### National Demographic Survey (Bolivia)

For the National Institute of Statistics, La Paz, to undertake a basic national demographic survey in Bolivia using the RETROEDEN methodology (Encuesta Demografica Nacional Retrospectiva) which would provide training, field testing and information necessary for the census to take place in late 1976, as well as test the value of the RETROEDEN methodology within the context of a country with little available demographic data.

\$50 000 – 8 months

### Migrations/Publication/CCRP

For the Corporacion Centro Regional de Poblacion (CCRP), Bogota, Colombia, to complete the publication of the proceedings of the IDRC-supported Conference on Development of Policies Relating to Migration, Urbanization and Distribution of the Population in Latin America, held in Sochagota, Colombia, in September 1973.

\$6 500 – 6 months

### Community Contraceptive Distribution (Thailand)

For Mahidol University, Bangkok, to develop appropriate alternative methods of distribution of contraceptives using village volunteers, and to determine the number of new acceptors, their continuation rates per year and the annual cost per acceptor.

\$42 500 – 2 years

### Family Planning Program (Mali), Phase II

For the Ministry of Public Health of the Government of Mali, to expand Mali's pilot family planning program to a national phase involving the establishment of 12 clinics and training programs, and to do research on family planning practices and on the program's demographic impact.

\$243 500 – 2 years

### Rural Health and Family Planning (Haiti)

For the Department of Public Health and Population of Haiti, Port-au-Prince, to enable its Family Hygiene Division to undertake the research, training and evaluation components of a three-year demonstration program on health and population for rural areas.

\$233 000 – 3 years

### Alternative Waste Disposal Methods (Tanzania)

For the National Scientific Research Council, Dar-es-Salaam, Tanzania, to adapt a waste disposal system known as "compost toilet" (which relies on the organic decomposition of human waste and organic kitchen refuse) to tropical conditions and climate using indigenous materials, and study traditional waste disposal methods for comparison.

\$223 500 – 2 1/2 years

### Water Treatment Plant (Peru)

For the Pan American Health Organization (PAHO), Washington, D.C., to support the Pan American Centre for Lima, in an evaluation of the performance of the El Imperial Water Treatment Plant, and in determining any necessary modifications and possible reduction of construction and operational costs.

\$14 700 – 15 months

### Trust Fund Rural Water Supply and Sanitation

For the World Health Organization administered Trust Fund for the Ad-Hoc Committee on Rural Water Supply and Sanitation, to continue the review of requirements for an expanded international information program, and to study the needs of the international, regional and national centres as well as those of an international reference centre.

\$50 000 – 18 months

Population and Health Sciences	Program Projects Approved in Fiscal Year 74-75 (1000's)	Approved to March 31, 1975 (including pending approved appropriations) (1000's)
Africa	900	2,429
Asia	1,382	2,298
Caribbean & Latin America	1,503	3,606
Global	412	1,244
Canada	0	74
Total	4,196	9,651
% of total	19.7	19.2

## Social Sciences and Human Resources

### **Documentation and Analysis of Development Programs in Canada**

For the Development Associates, Edmonton, Alberta, to gather information about Canadian experiences in development that may be replicable in developing countries, and compile a reference list of Canadians involved in successful development projects.

\$9 400 – 1 year

### **Implementation of Development Programs (EROPA), Supplement**

For the Eastern Regional Organization for Public Administration (EROPA), Manila, Philippines, to enable it to publish a book resulting from five Centre-supported case-studies on the implementation of development projects in India, Iran, Korea, Nepal and Sri Lanka.

\$4 500 – 6 months

### **Socio-Economic Impact of Roads (Malaysia)**

For Nanyang University, Singapore, to carry out a study of the impact of the Trans-Sarawak Highway on its surrounding areas, focusing on the social and cultural changes associated with its development and examining the extent and pattern of growth or decline of some of the major coastal cities and towns served by the highway.

\$49 500 – 18 months

### **Technical and Social Progress (Indonesia and Malaysia), Supplement**

For the Universiti Sains Malaysia, the Universitas Syiah Kuala, Indonesia, and Laval University, Quebec, to further analyze the data gathered in the first phase of the project, disseminate the results, and train indigenous researchers in comparative research methods.

\$47 878 – 1 year

### **Economic and Management Study (Nepal), Supplement**

For the Management Consultants & Co., Katmandu, to defray additional project expenditures incurred during the original and supplemental project periods.

\$2 756

### **Research Management (Asia)**

For the Southeast Asian Regional Centre for Graduate Study and Research in Agriculture (SEARCA), Los Baños, Philippines, to coordinate in five countries a program of seminars and training courses designed to build up a capability in research administration which can support the introduction of modern agricultural methods (countries involved: Indonesia, Malaysia, Philippines, Taiwan and Thailand).

\$248 000 – 3 years

### **Performance of Public Enterprise in Asia**

– Bangladesh Institute of Development Studies, Dacca; Bureau of Public Enterprise, Government of India, New Delhi; Korea Development Institute, Seoul; Development Academy of the Philippines, Rizal; National Institute of Management of Sri Lanka, Colombo; National Institute of Development Administration (NIDA) of Thailand, Bangkok; and two undetermined recipients; to systematically describe the public enterprise sector in the respective countries, develop performance criteria in the light of national goals, and make concrete policy recommendations for improving the performance of public enterprises in each country; and for the Korea Development Institute, Seoul, to establish the Office of the Project Coordinator which will oversee the progress of the project, organize meetings and communication and information flow among the participants, and make arrangements for training and for the sharing of expertise.

\$576 190 – 2 years

### **Rural Development (Kenya)**

For the University of Nairobi, to study leadership patterns, resource allocation, and centralized decision-making in the planning and implementation of rural development programs in Kenya.

\$48 600 – 2 years

### **Cooperative Regional Development (Southeast Asia), Supplement**

To enable the International Development Research Centre to cover the costs of increased airfare and accommodation, and invite more participants to the last two meetings of the Cooperative Regional Development project in Southeast Asia.

\$45 000

### **Rural-Urban Migration (Papua New Guinea)**

For the University of Papua New Guinea, to enable its Rural-Urban Economics Research Committee and the Papua New Guinea Research Unit of the Australian National University, to investigate the nature, causes and economic effects of migration from the villages to the towns of Papua New Guinea.

\$34 000 – 18 months

### **The Use of Educational Technology, Supplement**

For the Association of Caribbean Universities and Research Institutes (UNICA), Kingston, Jamaica, to assist in the creation of a mechanism which would assure the use of existing programs, and encourage continued development of regional resources.

\$71 000 – 15 months

### **ECIEL-Economics of Education**

For the Estudios Conjuntos sobre Integración Económica Latinoamericana (ECIEL), Rio de Janeiro, Brazil, to enable 20 ECIEL member-institutions to study the relations between education and the economic and social development of their respective countries.

\$125 000 – 4 years

### **Low-Cost Housing (Latin America)**

For the Sociedad Interamericana de Planificación (SIAP), Bogota, Colombia, to support research institutions in seven Latin American countries in a study for the formulation of recommendations on policies and programs aimed at the improvement of low-cost housing conditions.

(Participating institutions: Universidad de los Andes, Colombia; Universidad de Costa Rica; Instituto para el Desarrollo Económico Social de América Central, Guatemala; Centro Operacional de Vivienda y Poblamiento, Mexico; Universidad de Panamá; Fundación Salvadoreña de Desarrollo y Vivienda Mínima, El Salvador; Oficina de Estudios Económicos, Venezuela).

\$345 000 – 21 months

### **Low-Cost Housing (Southeast Asia), Supplement**

To enable the International Development Research Centre to cover the costs of increased air fares and additional participants for the last two meetings of the Low-Cost Housing (Southeast Asia) project.

\$50 000

### **Distribution Systems (Pacific Islands)**

For the Australian National University, Canberra, and the University of the South Pacific, Suva, Fiji, to study the distribution systems for foodstuffs and other commodities in Tonga, Fiji and the New Hebrides, and to make the results available to local policy makers.

\$160 000 – 2 1/2 years

### **Agro-Economic Rice Research Network**

For the International Rice Research Institute (IRRI), Manila, Philippines, to identify the factors explaining the differences between actual and potential rice yields in selected farm environments, and to determine what steps must be taken to relieve the constraints to production in specific farm situations.

\$600 000 – 3 years

### **The Impact of Rice Farming Changes (Asia), Supplement**

For the International Rice Research Institute (IRRI), Manila, Philippines, to enable the results of this project to be published.

\$10 000 – 10 months

### **Irrigation Systems (Indonesia)**

For the Research Institute in Social Sciences at Satya Wacana Christian University, Salatiga, Java, to study the various irrigation systems presently in use in Central Java and Bali, with a view to formulating suggestions as to the best approaches for providing irrigation to local rice farmers.

\$9 200 – 9 months

### **Caribbean Technology Policy Studies**

For the Institute of Development Studies of the University of Guyana, Georgetown, and the Institute of Social and Economic Research of the University of the West Indies, Kingston, Jamaica, to study the methods by which technology has been transferred to the Commonwealth Caribbean and assess its effects, and to suggest ways of increasing the economic and social benefits.

\$302 549 – 2 years

### **International Food Policy Research Institute**

To enable the International Development Research Centre, in cooperation with the Ford and Rockefeller Foundations, to support the establishment, in Washington D.C., of the International Food Policy Research Institute, to be a non-profit organization governed by an international Board of Trustees, which will undertake to: a) expand world food production particularly in low-income nations; b) determine and publicize possible actions and policies which could effect a continued increase in world food supplies; and c) provide information and objective analysis about world food problems and indicate potential solutions.

\$2 250 000 – 3 years

### **Council for Asian Manpower Studies (CAMS) – I**

For the Council for Asian Manpower Studies (CAMS), Makati, Philippines, to support the research activity of two CAMS committees: Committee II – Employment and Income Distribution, and Committee V – Trade and Employment.

\$32 000 – 1 year



### Study-Service Research Network

To enable the Social Sciences and Human Resources Division of the International Development Research Centre to support a research program designed to give participants from Ethiopia, Indonesia, Nepal, Philippines, Sri Lanka and Thailand, an opportunity to gather and analyze information on study-service programs, to develop a network of information exchange and to make recommendations for the improvement of existing study-service programs.  
\$492 360 – 18 months

### Human Resources Development

To enable the International Development Research Centre to continue, for a fourth year, its program of awards designed to encourage and develop individual competence in the field of development.  
\$1 793 500

Social Sciences and Human Resources	Program Projects Approved in Fiscal Year 74-75 (1000's)	Approved to March 31, 1975 (including pending approved appropriations) (1000's)
Africa	48	1,055
Asia	2,080	5,105
Caribbean & Latin America	844	1,529
Global	4,128	6,401
Canada	9	1,786
Total	7,109	15,876
% of total	33.2	31.7

Combined totals	Total		% of total	
	Program Projects Approved in Fiscal Year 74-75 (1000's)	Approved to March 31, 1975 (including pending approved appropriations) (1000's)	Program Projects Approved in Fiscal Year 74-75 (1000's)	Approved to March 31, 1975 (including pending approved appropriations) (1000's)
Africa	2,717	10,435	12.7	20.8
Asia	8,805	16,749	41.2	33.4
Caribbean & Latin America	4,430	9,840	20.7	19.6
Global	5,337	8,963	24.9	17.9
Canada	104	4,154	0.5	8.3
Total	21,393	50,141		
% of total			100	100

# 1974-1975

## FINANCIAL ANALYSIS

### The 1974-75 Budget

The 1974-75 Budget anticipated cash resources, for the fiscal year, in the amount of \$24.833 million. This figure included a Parliamentary grant of \$19.0, a surplus carried forward from previous years of \$4.590 million, and forecast interest earnings of \$1.243 million. On the basis of this cash budget, the Centre's Board of Governors was enabled to authorize a level of appropriations in the amount of \$34.256 million, an increase of 16% over the previous year's original estimate.

It was further expected that, of this budget, \$29.528 million would be formally committed, \$26.263 million of which would be in support of programs, and \$3.265 million would be devoted to general administration. It was forecast that \$21.1 million in cash would be spent in liquidating current and prior years' commitments. The achievement of these levels of activity would result in the Centre completing its fiscal year with a cash surplus of \$3.733 million.

### The IDRC Program of 1974-75

In the implementation of its program for 1974-75, the Centre was reasonably successful in achieving its budgetary objectives. Appropriations totalling \$32.213 million, or 94% of the budget were approved. Of this amount \$28.704 million, or 89% of the total was in support of program operations. During the year \$29.184 million was formally committed, which represents 99% of the budgeted amount. Cash expenditures in the amount of \$20.227 million were 96% of the figure anticipated in the budget. It might be considered that, for a program of such magnitude and diversification, such a close correlation between budget and actual experience reflects favourably on the Centre's management capabilities. A comparison of the three indices considered herein with those for the previous year indicates a strong pattern of growth during the year under review.

Appropriations increased by 43%, commitments by 60% and cash expenditures by 56% over the 1973-74 figures.

As a result of these levels of activity, the Centre completed the fiscal year with uncommitted appropriations of \$11.521 million, outstanding commitments of \$18.754 million, and a cash surplus of \$4.629 million. That this surplus exceeds the budgeted figure by \$.896 million is accounted for by a shortfall in expenditures of \$.848, and by interest earnings of \$48,000 more than was anticipated.

### Management Costs

For the first time in three years, the costs of general administration have not been affected in a major way by extraordinary expenditures associated with the establishment of the Centre's new headquarters. Expenditures in 1974-75 were \$3.509 million, compared to a total of \$2.856 million for 1973-74. This increase, of approximately 23%, reflects staff increases and escalated wage and operating costs. Since the establishment of the Centre's infrastructure is now virtually completed, it is expected that future administration expenditures will rise at a more moderate rate.

The expenditures for general management represent 17.3% of total expenditures, compared to a budgeted 16%.

Division management expenditures totalled \$3.409 million, or 16.9% of the total outlay as opposed to the 16% anticipated in the budget.

At \$1.15 million, the cost of administration of the four Regional Offices represented 5.6% of total expenditures.

### Special Projects

The International Development Research Centre is a managing agency for the Canadian International Development Agency (CIDA) for the executive handling of the triticales and cassava/swine research projects. During 1974-75, the expenditures in support of these two programs amounted to \$2,009,921 while a further \$45,761 was expended on other such projects. As a collaborative arrangement, administration costs of these projects are borne by the International Development Research Centre and amounted to some \$28,720 during this fiscal year.

Tables I and II summarize some of the more significant financial aspects of the Centre's activities over the period under review.

Table III compares the actual results of the fiscal year with the budgetary estimates, and relates that experience to the actual results for 1973-74 and to the

estimates for 1975-76. The figures reveal clearly the vigorous pattern of growth that the Centre is currently displaying.

Table IV graphically depicts the manner in which the Centre's resources were allocated among its various divisions and also indicates the actual results experienced during the year.

Table I

## Management Report

(in thousands of dollars) (Excluding Special Projects) For the twelve months ended March 31, 1975

Sector/Activity	Approved Budget	Approved Appropriations	Balance Available for Appropriation
<b>1. Program Operations</b>			
Agriculture, Food and Nutrition Sciences	8,900	9,370	(470)
Industrial and Engineering Sciences	100	30	70
Information Sciences	4,976	3,631	1,345
Population and Health Sciences	6,630	5,139	1,491
Social Sciences and Human Resources	7,695	8,692	(997)
<b>2. External Liaison and Relations</b>	1,765	1,842	(77)
<b>3. Administration</b>			
General Management	3,615	3,509	106
Unallocated Centre Reserve	575	—	575
<b>Total</b>	<b>34,256</b>	<b>32,213</b>	<b>2,043</b>

Table II

## Allocation of IDRC Financial Resources for Projects and Management — 1974-75 and 1973-74 (in thousands of dollars)

IDRC Activities	Approved Appropriations			
	1974-75	%	1973-74	%
Program Projects	22,066	68.5	15,577	68.9
Division Activity Projects	2,083	6.4	1,278	5.6
Regional Offices	1,146	3.6	541	2.5
Division Management	3,409	10.6	2,329	10.4
General Management	3,509	10.9	2,856	12.6
<b>TOTAL</b>	<b>32,213</b>	<b>100.0</b>	<b>22,581</b>	<b>100.0</b>



Commitments	Cumulative Commitments 1974-75	Cash Payments During 1974-75	as at March 31, 1975		
			Uncommitted Appropriations	Outstanding Commitments	Total Encumbrances
9,642	14,107	5,426	2,527	8,681	11,208
28	30	25	—	5	5
4,219	4,591	2,225	1,465	2,366	3,831
5,141	7,037	3,626	1,795	3,411	5,206
4,803	7,826	3,639	5,734	4,187	9,921
1,842	1,881	1,777	—	104	104
3,509	3,509	3,509	—	—	—
—	—	—	—	—	—
29,184	38,981	20,227	11,521	18,754	30,275

Cumulative Commitments				Cash Expenditures			
1974-75	%	1973-74	%	1974-75	%	1973-74	%
28,244	72.4	15,571	68.3	10,480	51.8	6,442	49.6
2,673	6.9	1,495	6.6	1,683	8.3	826	6.4
1,146	2.9	541	2.4	1,146	5.7	541	4.1
3,409	8.8	2,329	10.2	3,409	16.9	2,329	17.9
3,509	9.0	2,856	12.5	3,509	17.3	2,856	22.0
38,981	100.0	22,792	100.0	20,227	100.0	12,994	100.0

Table III

## International Development Research Centre

## 1974-75 Budget Performance

(\$ millions)

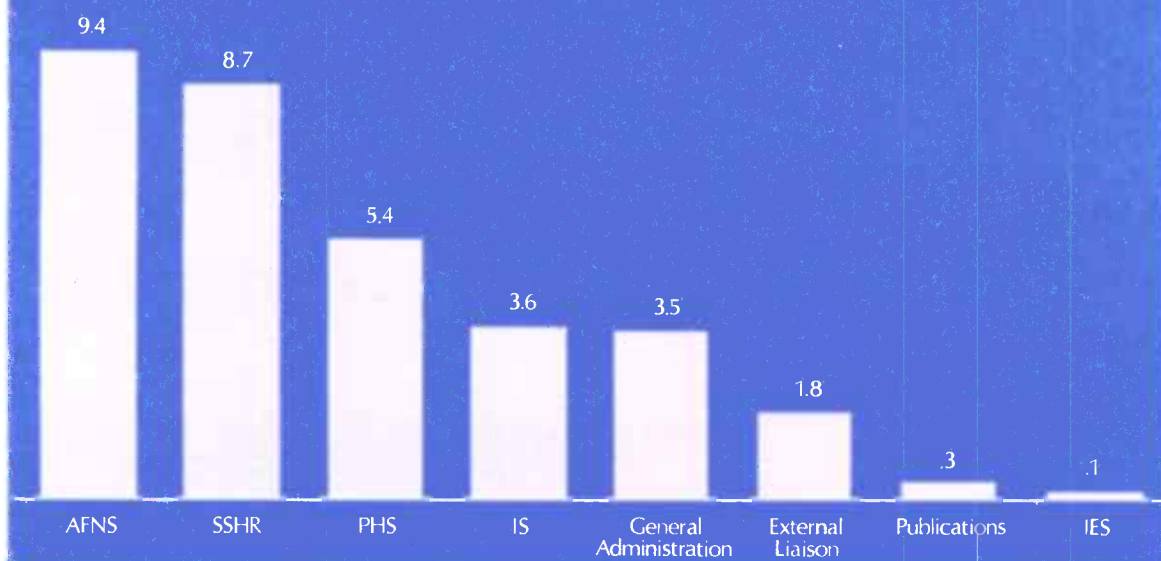
	1973-74 Actual	1974-75 Actual	1974-75 Budget	1975-76 Estimate
Appropriations	22.6	32.2	34.3	47.1
Commitments	18.2	29.2	29.5	41.2
Uncommitted appropriations	9.2	11.5	13.9	19.8
Income	14.8	20.3	20.2	28.6
Expenditure	13.0	20.3	21.1	29.5
Cash surplus	4.6	4.6	3.7	2.8

Table IV

## International Development Research Centre

## 1974-75 Actual Appropriations

(\$ millions)



Ottawa, Ontario  
K1A 0G6

June 25, 1975

**International Development Research Centre  
and  
The Honourable Allan J. MacEachen, P.C., M.P.  
Secretary of State for External Affairs  
Ottawa**

Dear Sirs:

I have examined the balance sheet of the International Development Research Centre as at March 31, 1975 and the statements of revenue and expenditure and changes in financial position for the year then ended. My examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as I considered necessary in the circumstances.

In my opinion these financial statements give a true and fair view of the financial position of the Centre as at March 31, 1975 and the results of its operations and the changes in financial position for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

I further report that, in my opinion, proper books of account have been kept by the Centre, the financial statements are in agreement therewith and the transactions that have come under my notice have been within its statutory powers.

Yours sincerely,  
**J. J. Macdonell**  
Auditor General of Canada

# INTERNATIONAL DEVELOPMENT RESEARCH CENTRE

(Established by the International Development Research Centre Act)

## Balance Sheet as at March 31, 1975

Assets		
	1975	1974
Cash	\$ 143,068	\$ 89,096
Short-term investments and accrued interest	4,931,488	4,959,561
Canada Savings Bonds and accrued interest	51,551	51,551
Accounts receivable	140,390	80,146
Prepaid expense	59,590	26,261
Staff residences, at cost	\$171,084	
Less: Accumulated depreciation	4,409	
	<hr/>	<hr/>
Recoverable deposits	166,675	44,084
	33,280	20,480
	<hr/>	<hr/>
	\$5,526,042	\$5,271,179
	<hr/>	<hr/>

The accompanying notes are an integral part of the financial statements.

Certified correct:

R. J. Audet

Treasurer

Approved:

Lucien F. Michaud

for President

## Liabilities and Surplus

	1975	1974
Accounts payable and accrued liabilities	\$ 808,890	\$ 603,839
Funds provided by others for special projects	88,363	77,795
Surplus:		
Balance at beginning of year	\$4,589,545	
Add: Excess of revenue over expenditure	39,244	
	<hr/>	<hr/>
Balance at end of year	4,628,789	4,589,545
	<hr/>	<hr/>
	\$5,526,042	\$5,271,179
	<hr/>	<hr/>

I have examined the above balance sheet and the related statements of revenue and expenditure and changes in financial position and have reported thereon under date of June 25, 1975 to the International Development Research Centre and the Secretary of State for External Affairs.

J. J. Macdonell

Auditor General of Canada

# Statement of Revenue and Expenditure for the year ended March 31, 1975

	1975	1974
<b>Revenue:</b>		
Grant received pursuant to External Affairs Vote 30 (Vote 25 in 1973-74)	\$19,000,000	\$14,000,000
Interest earned	1,291,161	825,127
Miscellaneous Income	2,314	—
	<u>20,293,475</u>	<u>14,825,127</u>
<b>Expenditure:</b>		
Programs:		
Agriculture, Food and Nutrition Sciences	5,424,868	3,242,426
Social Sciences and Human Resources	3,638,347	2,629,058
Population and Health Sciences	3,625,534	2,178,436
Information Sciences	2,225,471	1,152,754
External Liaison and Relations	1,777,245	895,314
Industrial and Engineering Sciences	25,101	39,093
Special Projects	\$2,084,402	
Less: Provided for by Canadian International Development Agency	2,009,921	
Others	45,761	
	<u>2,055,682</u>	
	<u>28,720</u>	<u>25,900</u>
	<u>16,745,286</u>	<u>10,162,981</u>
<b>Administration:</b>		
Salaries, allowances and benefits	1,674,691	1,010,854
Accommodation	584,368	896,462
Staff travel and removal	216,173	99,646
Communications	215,302	159,112
Furniture and equipment	159,664	209,570
Professional and special services	156,154	171,858
Printing and duplicating	143,719	111,547
Governor's meetings, honoraria and travel	141,827	83,351
Office supplies	111,916	63,289
Sundry	105,131	50,781
	<u>3,508,945</u>	<u>2,856,470</u>
	<u>20,254,231</u>	<u>13,019,451</u>
Excess of revenue over expenditure	<u>\$39,244</u>	<u>\$1,805,676</u>

The accompanying notes are an integral part of the financial statements.

# Statement of Changes in Financial Position for the year ended March 31, 1975

	1975	1974
<b>Funds Generated By:</b>		
Results of operations		
Excess of revenue over expenditure	\$ 39,244	\$1,805,676
Add: non cash outlay — depreciation	4,167	242
	<hr/> 43,411	<hr/> 1,805,918
Increases in liabilities		
Accounts payable and accrued liabilities	205,051	116,897
Funds provided by others for special projects	10,568	—
Decrease in assets		
Short-term investments	28,073	—
	<hr/> 287,103	<hr/> 1,922,815
<b>Funds Applied To:</b>		
Increases in assets		
Short-term investments	—	1,484,580
Accounts receivable	60,244	14,398
Prepaid expense	33,329	19,363
Purchase of staff residences	126,758	44,326
Recoverable deposits	12,800	17,514
Decrease in liabilities		
Funds provided by others for special projects	—	293,903
	<hr/> 233,131	<hr/> 1,874,084
Net Increase in Cash Balance	53,972	48,731
Cash Balance at Beginning of Year	89,096	40,365
	<hr/> Cash Balance at March 31, 1975	<hr/> \$89,096
	<hr/> \$143,068	<hr/> \$89,096

The accompanying notes are an integral part of the financial statements.

## Notes to the Financial Statements

March 31, 1975

### 1. Accounting policy

The administration costs of the Centre are recorded on an accrual basis. Certain project costs, relating to payments under contract are expensed at the time of disbursement.

Fixed assets are expensed in the year of acquisition except for two revenue producing residences which are recorded at cost and are depreciated on a straight line basis at 4% per annum.

### 2. Commitments

Subject to funds being provided by Parliament, the Centre is committed to make contributions totalling \$18,514,228. In addition, the Centre had submitted formal offers to prospective grantees totalling \$920,809 and was awaiting acceptance of these offers. The Centre also had commitments totalling \$2,191,697 which are to be met with funds provided by the Canadian International Development Agency under agreements entered into with that Agency in respect of two development research projects.

### 3. Remuneration of officers

Salaries totalling \$337,039 were paid to eleven executive officers.

# 1974 1975

## Division Activity Projects

Division activity projects consist of two main types of activity:

1. *Consultancies*, either on a short-term basis to advise in the preparation of a specific project or else for varying periods to report on subjects of concern to the Centre in planning its overall program. Contracts were signed for a total of 85 consultancies during the year of this work.

2. *Meetings, workshops and conferences*, which are organized in support of specific projects or to explore a new field from which projects may result. The Centre participated in and supported 132 such meetings during the year.

During 1974–75 a total of \$1,980,673 was committed for division activity projects. The following table shows a breakdown by program area of how those funds were allocated:

As at March 31, 1975			
Program Division	Consultancies	Workshops	Total
Agriculture, Food and Nutrition Sciences	\$ 51,912	\$ 454,034	\$ 505,946
Information Sciences	64,196	332,999	397,195
Industrial and Engineering Sciences	17,250	—	17,250
Population and Health Sciences	217,075	168,887	385,962
Social Sciences and Human Resources	95,267	331,347	426,614
Vice-President International	12,000	59,206	71,206
Vice-President Canada and Donor Agencies	—	176,500	176,500
TOTALS	\$457,700	\$1,522,973	\$1,980,673

### Consultancies

Consultants were contracted to travel and give reports on a wide variety of concerns to the Centre. A total of \$457,700 was committed during the year under review for 85 such consultancies. The following are examples of this work:

- the identification by a Canadian plant scientist of research priorities for grassland and pasture research in Mexico;
- participation of a Canadian expert in the December 1974 seminar, in Dakar, on the utilisation of solar energy, in order to advise the Centre of developments in this field;
- support to East African writers preparing a review of family planning experiences in Kenya, Tanzania and Uganda, to be included in a 1975 Population Council publication of world wide family planning experiences.
- travel to four Asian countries by a Korean consultant to assist in the preparation of research proposals for a regional project on the management of Public Corporations;
- participation of an Asian nutritionist in the establishment of a nutrition education program aimed at the improvement of cassava processing and storage in Thailand;
- an investigation by two Latin American consultants in trade and industrial information of the possibility of IDRC participation in the establishment of a national Centre of Information and Documentation for Industry and Commerce in Bolivia;
- support for one year for Mr. Myer Cohen to chair the Technical Panel on Rural Water Supply and Sanitation and to assist researchers in the development of international strategies;
- consultations between a Canadian plant scientist, the International Rice Research Institute and the Centre on allelopathic reactions among plants in intercropping systems;
- the exploration of primary education programs and priorities in Nigeria, Zambia, and Tanzania to assist the Centre in establishing research priorities.

### Meetings

The Centre also funded, either completely or jointly with other institutions 132 meetings, workshops and conferences during 1974–75, of which the following are just a few examples:

- a series of three meetings of researchers and policy-makers was held in Africa, Asia and Latin America to discuss educational research priorities. The meetings were organized by the Centre on behalf of a group of donor agencies concerned as to how their relatively small contributions can best be used in conjunction with the large investment in education of the third world countries themselves.
- a 10-day travelling seminar on rural health care delivery brought together health service policy-makers from seven Latin American countries with the aim of providing a clearer understanding of the services provided by middle and lower level health personnel. A series of workshops complemented visits to existing rural health projects in Venezuela, Panama and Guatemala.
- a fish products workshop aimed at identifying means of reducing the waste normally incurred in fish processing in the tropics. Technologists from 13 countries helped to define the specific products requiring no refrigeration that can be packed in safe, inexpensive containers.
- twenty-six science writers and editors from Southeast Asia met in Manila to discuss ways of improving science coverage in the news media, thus helping to create a receptive environment for development programs. The seminar was hosted by the Press Foundation of Asia.
- in cooperation with the International Potato Centre of Peru, a workshop was held in Ottawa as a first step to developing simple methods by which potatoes can be preserved for lengthy storage by small growers with limited facilities.



# 1974 1975

A description of the seven award categories listed below is given on the following pages, together with a list of the candidates selected to receive awards during the coming year:

1. Thesis Research awards –Ph.D. degree
2. Travel and Research awards
3. Research Associate awards (Canada)
4. Research Associate awards (Developing Countries)
5. Senior Research Associate
6. Research Fellows
7. Pre-Post Project Training awards

A brief outline of the work undertaken by candidates having received awards during the year under review is also given.

## Human Resources

In keeping with the Centre's commitment to invest in the training and development of young professionals, nearly every project supported by the Centre includes funds specially earmarked for this purpose.

Complementing this in-project training, the Centre has supported additional programs designed to promote the professional competence of scientists in developing countries. In 1974 a third renewal was approved for the Regional Research and Training Program in Asia, which the Centre is supporting in cooperation with the Agricultural Development Council. The program is directed to the need to up-grade and update training for young scholars, and to identify significant research and researchers in the field of "rural social sciences". Also, in January 1975, the first 13 awards, under the Southeast Asia Population Research Awards Program (SEAPRAP), were made to young Asian social scientists to enable them to undertake research on population issues.

The Centre's Human Resources awards program, designed both to assist Third World researchers and to increase the present available resource base in Canada of professionals with training in the problems of development, was renewed for a fourth year. Some changes were, however, made to the program in 1974–75. A new category, that of Senior Research Associate, now supplements the Research Associate grants for both Canada and the developing countries. These awards are intended for senior professionals who have been, and will continue to be, active in the development fields. The category of Research Fellows is now reserved for senior research scholars. Another new category, Pre-Post Project Training award, has been added for individuals from the developing countries who have been, or are likely to be, associated with IDRC supported projects.

### **Thesis Research award –Ph.D. degree**

This grant is designed to support research for the thesis for the Ph.D. degree, after course work has been completed. It is intended for the Canadian graduate student who has already made a commitment to the field of development by his choice of a thesis topic. The research supported by the grant will generally be undertaken in a developing country.

Awards are for Canadian citizens or landed immigrants with 3 years residence, and are made by means of an annual competition. Each one-year award provides a basic stipend of \$5,500, research costs of up to \$1,000, and travel costs to and within the field. In addition, funds are available to permit the thesis adviser to visit the award holder in the field. In

providing for this the Centre hopes to ensure not only that the recipients receive the necessary supervision and guidance, but also that as many links as possible are encouraged between the Canadian academic community and the developing world.

In 1974–75 one such award was committed and an additional six graduate students have been recommended to receive awards:

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### **Awarded**

#### **Award holder**

Mlle Nicole Pariseau  
Montréal, Québec

#### **Thesis Topic**

Communication structures as means of socio-economic change in rural areas.

#### **University**

Department of Anthropology  
University of Montreal

#### **Base during tenure**

Centre de recherches caraïbes de Fonds St-Jacques (Martinique) and Centre d'études de géographie tropicale (Bordeaux, France)

### **Recommended**

#### **Award holder**

Johannes I. Bakker  
Toronto, Ontario  
Daniel T. G. Hazlett  
Guelph, Ontario  
S. Ragnar Johnson  
Mississauga, Ontario  
Mrs. Johanna M. Lanfranco  
Hamilton, Ontario  
Chukuma E. Mwachuku  
Waterloo, Ontario  
Denis Turcotte  
Québec, Québec

#### **Department & University**

Department of Sociology  
University of Toronto  
Veterinary Department  
University of Guelph  
Institute of Social Anthropology  
Oxford University  
Department of Political Science  
McMaster University  
Department of System Design  
University of Waterloo  
Department of Political Science  
Laval University

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### Travel and research award

With this award, the Centre hopes to provide field experience to young professors who have recently begun a career in international development within the Canadian academic community. The purpose of the award is to allow the academic, who has been on the faculty of a Canadian university for up to five years, to undertake all, or part, of ongoing research activities in a developing country. Up to \$1,500 is provided for travel and research costs. Generally their

projects are already funded from other sources; but, without the IDRC award, they would not be able to travel to the field. A total of 10 such awards is available annually.

In 1974–75 one award was committed and a further two were recommended:

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### Awarded

#### Award Holder

Raymond F. Currie  
Winnipeg, Manitoba

#### Activity

An observation of development projects sponsored by Development and Peace (CCODP) in several Latin American countries.

#### Location

Panama, Colombia,  
Peru, Ecuador

#### Department and university

Sociology Department  
University of Manitoba

### Recommended

#### Award holder

Paul S. Sachdev  
St. John's, Newfoundland  
Florian Sauvageau  
Québec, Québec

#### Department and University

Department of Social Work  
Memorial University of Newfoundland  
Journalism Department  
Laval University

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### Research Associate award (Canada)

The Centre has made a special effort to tap the experience of Canadian professionals who have devoted some 10 years of their working life to a particular career. By providing such people with the opportunity of a year's research, often combined with training, it hopes to allow Canadians already involved in international development to update their skills and knowledge, and it aims to encourage others who have little or no experience in developing countries to explore this field. For this purpose, the awards offer support for a year of research, specialized training, or investigation of the problems of developing countries.

Ten awards are offered annually to Canadian citizens or to residents with three years landed immigrant status. Each grant provides a stipend of up to \$17,500, travel funds to cover travel to the field for the award holder and family and any necessary field travel, as well as research/training costs of up to \$2,000. The 42 awards made since 1971 are outlined in earlier annual reports. The 10 awards recommended this year are listed below:

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### Recommended

#### Award holder

Mlle Monique Gauthier  
Laval-des-Rapides, Québec  
Alan M. Grant  
Kingston, Jamaica

Zdenek Kalensky  
Ottawa, Ontario  
Alain Maillard  
Ste-Foy, Québec

Norman B. McLeod  
Toronto, Ontario  
Robert J. Ogle  
Saskatoon, Saskatchewan  
Michael J. Porter, M.D.  
Thornhill, Ontario  
John Ritchie  
Hudson, Quebec  
Miss H. Miriam Ross  
Springhill, Nova Scotia  
Gaétan Sirois  
Ste-Foy, Québec

#### Profession

Marine biologist  
Technical expert at CIDA  
(CIDA Advisor, College of Arts Science & Technology, Kingston, Jamaica  
Research scientist, Forest Management Institute, Department of Environment, Ottawa  
External cooperation expert, Ministère de l'éducation du Québec; director, Centre de Recherches architecturales et urbaines, Université d'Abidjan

Minister, Bloor Street United Church, Toronto

Pastor, Roman Catholic Church, Saskatoon

Dermatologist  
Student at Carleton University  
School of International Affairs (M.A.)  
Student in post-master's programme at School of Nursing, University of Washington

Forestry engineering consultant

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### Research Associate award (Developing Countries)

Awards made in this category are designed to assist Third World professionals, engaged in activities associated with development in their country, to spend a year in research or training as appropriate to their career development. Award-holders are selected

from nominated candidates, rather than by open competition, which is the case with the Canadian awards. Since they began in 1973, 14 such awards were offered before the year under review. In 1974-75 five awards were given and an additional two were recommended as outlined below:

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### Awarded

Award holder	Subject of research	Base during tenure
Mrs. Meena Acharya Nepal	Research on problems of resource mobilisation and modes of economic development in Nepal.	Institute of Social Studies in The Hague & Nepal
Mrs. Banke Akerele Liberia	Study on enlarging employment opportunities for educated African females in the modern sector.	Northwestern University Evanston, Illinois, U.S.A.
Jonathan O. Dipeolu Nigeria	Research on a comprehensive and retrospective bibliography of Nigeria.	Boston University Boston, Mass., U.S.A.
Ali A. Mazrui Kenya	Research to lay the foundations for a monograph on the impact of political change on structures and social values in Africa.	Institute of Development Studies England & Kenya
D. I. Oseyesekere Sri Lanka	Studies at the Columbia Graduate School of Business.	Columbia University New York, U.S.A.

### Recommended

**Award holder**  
Ashok Valji Desai  
India  
Jahangir Mehrbanpour  
Iran

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### Senior Research Associate award

This new award, a supplement to the Research Associate grants, is designed for senior professionals active in the field of development, both in Canada and in the developing countries. As is the case with the Research Associate award (Developing Countries), awards will be offered by a process of nomination and selection by a committee presided over by

the Chairman of the Board, rather than by open competition. A total of 10 one-year awards, including a stipend of up to \$25,000, will be made available annually. Although no such awards were offered during the year under review, a number of candidates have been suggested and selection will take place during the coming months.

### Research Fellows

In addition to encouraging younger scientists and professionals to upgrade their skills, the Centre has also been concerned to recognize the past excellence and major contributions by senior researchers in the development field through its award of the Research Fellowship. This award provides the opportunity for these senior research scholars to draw the greatest benefit from their previous experience through a year of research, reflection and writing. The location and nature of the activity are left to the discretion of the grantee. Up to five appointments may be made each year by the Executive Committee of the Board of Governors upon the recommendation of the President. Since 1971, 13 Research Fellows have completed tenure; their names and areas of research were noted in previous reports. The two present Research Fellows are:

*Gérald Fortin*, Directeur, Centre de recherches urbaines et régionales, Université du Québec. He is analyzing the role that the spatial organization of Latin American cities may play in influencing the social structures and value systems of the communities.

*Gerald K. Helleiner*, Professor, Department of Political Economy, University of Toronto. Professor Helleiner is undertaking research on the international economic order, including a study of North American importers, trade barriers and manufactured exports from less developed countries.

### Pre-Post Project award

The second new award program introduced during 1974-75 is intended to further the training of individuals from developing countries who have been associated with an IDRC supported project, and to provide training for others prior to their participation. Nomination and selection for this award are made by the appropriate Program Division in cooperation with the Division of Social Sciences and Human Resources. The number of grants to be awarded annually is variable, as is the level of the grant; the nature and location of training are, of course, dependent upon the individuals selected. The first two awards given during the year under review are:

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#### Pre Project Award

##### Award holder

Ishwarduth Topsy  
Mauritius

##### Subject of research

A three year training programme in library sciences in Jamaica

##### Base during tenure

University of the West Indies  
Kingston, Jamaica

#### Post Project Award

Victor E. Paner  
Philippines

Doctoral studies in horticulture

University of Guelph  
Guelph, Ontario

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# 1974 1975

## People

So far the statistics in this Annual Report have been concerned with projects and with money. But there is another dimension to the Centre at least as important as these two — the human element.

Although it has grown dramatically in the past five years, the Centre is still small by the standards of many international organizations. As of the end of the fiscal year it employed some 330 people, of whom 252 were based in the Centre's Ottawa head office. About 20 percent of the Centre's staff are non-Canadians — in all some 64 people representing 26 nationalities, many of them from Third World countries.

These are the human statistics of the Centre, but like most statistics, they give only a partial view. No statistical analysis, for example, could calculate the benefit of the remarkable amount of work done by the many staff members serving on other bodies in the development field, both in Canada and internationally.

In this way the Centre has been involved, directly or indirectly, with many of the major conferences that have taken place on the international scene, such as the World Food Conference and the World Population Conference. Less publicised, but equally vital, are the activities of many small, highly specialized committees or working groups, and here too the Centre is represented.

Through accepting membership on such bodies, the Centre staff can bring specialist knowledge of their own, or knowledge accumulated through the Centre, to the attention of others in the field; sometimes they can even perform the role of a catalyst, bringing together research scientists and administrators who were otherwise isolated from each other.

These extramural activities, too numerous to list here in detail, are one way in which the Centre sets out to meet one of the objectives laid down by the 1970 Act of Parliament, "to encourage generally the coordination of international development research"

### Officers of the Centre

President

W. David Hopper

Vice-President, Canada and Donor Agencies  
Lucien Michaud

Vice-President, International  
Cheikh Hamidou Kane

Director of Administration  
John J. Comeau

Secretary  
James C. Pfeifer

Treasurer  
Raymond J. Audet

Director, Agriculture, Food and Nutritional Sciences  
Joseph H. Hulse

Director, Information Sciences  
John E. Woolston

Director, Population and Health Sciences  
George F. Brown

Director, Social Sciences and Human Resources  
Ruth K. Zagorin

Director, Publications  
David Spurgeon

### Regional Directors

Asia Regional Office  
Nihal Kappagoda

West Africa Regional Office  
E. Anthony Price (to May 1975)  
Stanislas Adotevi (from June 1975)

Latin America Regional Office  
Henrique Tono T.

Middle East and North Africa Regional Office  
Salah Dessouki

## Publications and Texts/Publications et textes

### Centre Publications/Publications du Centre

- IDRC-003/74e,f *IDRC Annual Report 1973-74/CRDI Rapport Annuel 1973-74*: Ottawa 1974. 81p.
- IDRC-023e (revised) *Directory of food science and technology in Southeast Asia*: compiled by E. V. Araullo. Ottawa, 1975. 267 p.
- IDRC-024e *Triticale: proceedings of an international symposium*, El Batán, Mexico, 1-3 October 1973, Reginald MacIntyre and Marilyn Campbell, ed. Ottawa 1974. 250p.
- IDRC-033e *Interaction of agriculture with food science: proceedings of an interdisciplinary symposium*, Singapore, 22-24 February 1974, Reginald MacIntyre, ed. Ottawa 1974. 166p.
- IDRC-034e *Tsetse control: the role of pathogens, parasites and predators: report of a scientific advisory group convened at the Memorial University of Newfoundland, St. John's, Canada, 25-29 March 1974*. Ottawa 1974. 22p.
- IDRC-034f *La lutte contre les tsé-tsé: le rôle des pathogènes, parasites et prédateurs: rapport d'un groupe scientifique consultatif réuni à l'université Memorial de Terre-Neuve, St-Jean, Canada, 25-29 mars 1974*. Ottawa 1974. 23p.
- IDRC-035e *Whilst time is burning: a report on education for development*, J. Roby Kidd. Ottawa 1974. 120p.
- IDRC-036e *Current trends in cassava research*: Barry L. Nestel. Ottawa. 1974. 40p.
- IDRC-037e *Study-service — a survey*: prepared as a background paper for research into various aspects of study-service, Diana Fussell and Andrew Quarmby. Ottawa 1974. 43p.
- IDRC-038e *Health care in the People's Republic of China: a bibliography with abstracts*, Shahid Akhtar. Ottawa 1974. 182p.
- IDRC-039e *Role of traditional birth attendants in family planning: proceedings of an international seminar held in Bangkok and Kuala Lumpur, 19-26 July 1974*, J. Y. Peng, Srisomang Keovichit, and Reginald MacIntyre, ed. Ottawa 1974. 107p.
- IDRC-040s *Triticale: resúmenes de los ensayos presentados durante un simposio internacional*, El Batán, México, 1º al 3 de octubre de 1973. Ottawa 1975. 31p.
- IDRC-041e *Stable tropical fish products: report on a workshop held in Bangkok, Thailand, 8-12 October 1974*, Marilyn Campbell. Ottawa 1975. 27p.
- IDRC-042e *Low cost rural health care and health manpower training: an annotated bibliography with special emphasis on developing countries*, Shahid Akhtar. Ottawa 1975. 168p.
- IDRC-043e *Doctors and healers*: Alexander Dorozynski, Ottawa 1975. 64p.
- IDRC-043f *Médecine sans médecins*: Alexander Dorozynski. Ottawa 1975. 64p.
- IDRC-044e *Hawkers and vendors in Asian cities: report on a study supported by IDRC*. Ottawa 1975. (in press)
- IDRC-045e *Family planning in Mali*: André Laplante, Faran Samake and George Brown. Ottawa 1975. (in press)
- IDRC-045f *Le planning familial au Mali*: André Leplante, Faran Samake et George Brown. Ottawa 1975. (sous presse)
- IDRC-046e *Population and health: IDRC program directions*. Ottawa 1975. (in press)
- IDRC-046f *Population et santé: direction de programmes du CRDI*. Ottawa 1975. (sous presse)
- IDRC-047e *Projects 1975*: Claire Veinotte, ed. Ottawa 1975. (in press)
- IDRC-047f *Projets 1975*: Claire Veinotte, rédactrice. Ottawa 1975. (sous presse)
- IDRC-047s *Proyekto 1975*: Claire Veinotte, ed. Bogota 1975. (en prensa)
- IDRC-048e *To conquer hunger: opportunity and political will*: W. David Hopper. Text of a lecture delivered in the John A. Hannah International Development Lecture Series, Michigan. Ottawa 1975. 24p.
- IDRC-049e *The international exchange and testing of cassava germ plasm: proceedings of an interdisciplinary workshop*, CIAT, Palmira, Colombia, 4-6 February 1975, Barry L. Nestel and Reginald MacIntyre, ed. Ottawa 1975. (in press)
- IDRC-LP1 *Corporate author list/Répertoire collectivité-auteur*: IDRC Library/Bibliothèque du CRDI. Ottawa 1975. 123p.



### **The IDRC Reports/Le CRDI Informe (David Van Praagh, ed.)**

Vol. 3, no. 2 — June 1974 (focus on food and population questions and on Latin America)

juin 1974 (consacré à l'Amérique latine et aux difficultés en matière d'alimentation et de population)

Vol. 3, no. 3 — September 1974 (focus on the world energy crisis and its influence on developing countries)

septembre 1974 (consacré à la crise mondiale de l'énergie et ses effets sur les pays en voie de développement)

Vol. 3, no. 4 — December 1974 (focus on the population question after the Bucharest Conference)

décembre 1974 (consacré au problème de la population suite à la Conférence de Bucarest)

### **The IDRC Reports/Le CRDI Explore/El CIID Informa**

(Bob Stanley, Editor-in-Chief)

Beginning with vol. 4, no. 1 *The IDRC Reports* has been produced in English only, with companion editions in French, *Le CRDI Explore*, and Spanish, *El CIID Informa*. In its new format the publication takes a more general "news-magazine" approach to the work of the Centre and related development topics, rather than relating each issue to a specific theme.

Madeleine Vaillancourt Wagner has been responsible for the French edition; Susana Amaya Puerto, of the Latin America Regional Office in Bogota, is responsible for the Spanish edition; while the English edition, together with coordination and production, is in the hands of Bob Stanley, Editor-in-chief.

Avec le no 1 du vol 4, *Le CRDI Informe* est devenu *Le CRDI Explore*. La revue est maintenant publiée séparément en français, en anglais (*The IDRC Reports*), et en espagnol (*El CIID Informa*). Son format, sa présentation graphique se sont transformés et son contenu s'est enrichi de nouvelles rubriques.

Bob Stanley remplit les fonctions de rédacteur en chef et il est responsable, à ce titre, du contenu et de la présentation des trois revues et coordonne la production des éditions françaises et anglaises. Il s'occupe également de l'édition anglaise tandis que Madeleine Vaillancourt Wagner s'occupe de l'édition française. Susana Amaya Puerto dirige, à partir du Bureau régional du CRDI pour l'Amérique latine, la publication de l'édition espagnole.

### **Publications/Research supported by IDRC**

#### **Publications/recherche subventionnées par le CRDI**

*An international centre for manatee research*: report of a workshop held 7-13 February 1974, Georgetown, Guyana. The National Science Research Council, Georgetown, 1974. 34p.

*agrindex*: Food and Agricultural Organization of the United Nations, Rome, vol. 1, no. 1, 1975. 132p. (First of a series)

*DEVSIS Newsletter*: DEVSIS Study Team, c/o International Labour Office, 1211 Geneva 22, Switzerland, no. 1, April 1975. 8p. (First of a Series)

*ISIS Newsletter*: IDRC, Ottawa, vol. 1, no. 3, July 1974. 32p. vol. 1, no. 4, October 1974. 23p. vol. 2, no. 1, January 1975. 23p.

*Technonet Newsletter*: Asian Network for Industrial Technology Information and Extension, no. 1, March 1974. 8p.

*Demografi Indonesia*: Demographic Institute, Faculty of Economics, University of Indonesia, Jakarta, no. 1, June 1974; no. 2, December 1974.

*Study-Service Newsletter*: Published by Diana Fussell and Andrew Quarmby, Singapore, January 1975. 10p. (This issue supported by IDRC)

*A preliminary study of consumer preference in the choice of cowpeas*: Western and Kwara States Headquarters and Areas of Nigeria, Caroline Ebon Williams. Department of Agricultural Economics and Extension, University of Ibadan, Nigeria, June 1974. 103p.

*Population and development planning*: report on a workshop held by the Inter-Governmental Coordinating Committee, Southeast Asian Regional Cooperation in Family and Population Planning, Penang, Malaysia, 27-29 September 1973. 42p.

*Sub-fertility and infertility in Africa*: report of a workshop held at the University of Ibadan, Nigeria, 26-30 November 1973, B. Kwaku Adadevoh, ed. The Caxton Press (West Africa) Ltd., Ibadan, 1974. 114p.

*Institutionalizing research management in Asia*: proceedings of a seminar-workshop, Laguna, Philippines, 10-19 December 1973. Sponsored by the University of the Philippines at Los Baños, and the Southeast Asian Regional Center for Graduate Study and Research in Agriculture. 1974. 222p.

*The social sciences and development*: papers presented at a conference in Bellagio, Italy, on the financing of social science research for development, 12-14 February 1974. 238p.

*Social and psychological aspects of fertility in Asia*: proceedings of the technical seminar, Choonchun, Korea, 7-9 November 1973, Henry P. David and Sung Jin Lee, ed. Korean Institute for Research in the Behavioral Sciences, Seoul, and Transnational Family Research Institute, Washington, 1974. 128p.

*The 1973 national demographic survey of Tanzania*: a new approach to national demographic surveys in Africa, Roushdi A. Henin, Ian D. Thomas and James E. Kocher. Paper prepared for the meeting of the Population Association of Africa, Ibadan, Nigeria, 10-14 May 1974. 51p.

*América Latina: distribución espacial de la población*: Ramiro Cardona, ed. Corporación Centro Regional de Población (CCRP). Bogotá, Colombia, Abril 1975. 550p.

*Experiencias en desarrollo rural*: K. G. Swanberg, C. A. Zulberti y H. G. Zandstra. Instituto Colombiano Agropecuario, Bogota, Columbia, Febrero 1975. 100p. (Resultado del trabajo interdisciplinario del grupo ICA/CIID)

*Famille et développement*: CRDI, Dakar, Sénégal, no. 1, janvier 1975. 32p.

## Publications by staff and consultants

### Publications rédigées par les cadres et conseillers du Centre

- Allsopp, W. H. L. *African fisheries: their problems and opportunities and their role in the Sahelian famine*. United Nations, New York, ST/SSO/30\*, July 1974. 27p.  
*Problèmes et perspectives de la pêche en Afrique; son rôle dans la famine au Sahel*. Nations Unies, New York, ST/SSO/30\*, juillet 1974, 39p.
- Armstrong, Gregory. *Domestic factors in aid policy*. International Perspectives, Ottawa, March/April 1975. p. 44-48.  
*Du plan de Colombo à l'ACDI: Les politiques d'aide: reflet des préoccupations fédérales*. Perspectives internationales, Ottawa, Mars/avril 1975. p. 49-53.
- Beltran, L. R. *Rural development and social communication: relationships and strategies*. Paper presented at the International Symposium on Communication Strategies for Rural Development, Cali, Colombia, 17-22 March 1974. Centre for Rural Development and Land Reform, Bogota, 1974. 55p.
- Brown, George F. *IDRC in health and population: a review of international research*. Paper presented to the Canadian Public Health Association, 2nd Annual Meeting, Tropical Medicine and International Health Division, Toronto, 29-30 November 1974. 11p.
- Burton, I. *Domestic water supplies for rural peoples in the developing countries: the hope of technology*. Paper presented to the Symposium of Human Rights in Health, London, 4-6 July 1973. In *Human rights in health*, Amsterdam, 1974. p. 61-79.
- Cummings, F. H. *Migration and regional development: implications for planning in Indonesia, Thailand and the Philippines*. Ph. D. Thesis, Clark University, Worcester, Mass., 1974. 299p.
- Dobson, W. *Objectives and principles of World Population Plan of Action*. World Population Conference, Bucharest, 19-30 August 1974. United Nations, New York, 1974. 29p.
- \_\_\_\_\_ . *New directions in population*. World Population Conference, Bucharest, 19-30 August 1974. 16 p.
- \_\_\_\_\_ . *Population: Was Bucharest a bust?* Montreal Gazette, 16 September 1974. p. 7.
- \_\_\_\_\_ . *Women and rural development*. Rural societies and participation of women. IDRC, Ottawa, 1974. 7p.
- Doggett, Hugh. *New directions in world cereals research: crops of the semi-arid tropics*. Paper presented at a symposium sponsored by the American Association of Cereal Chemists and IDRC, Montreal, 22 October 1974. 10p.
- \_\_\_\_\_ . *Sorghum bicolor* (Linn.) Moench — Gramineae, Andropogoneae. International Crops Research Institute for the Semi-Arid Tropics, Hyderabad, India, 1974. 15 p.
- Dorozynski, A. *Sirènes de Colomb* (article sur le lamantin). Québec Science, Québec, vol. 12, no 9, mai 1974. p. 7.
- \_\_\_\_\_ . *Le climat de la terre est en train de changer*. Science et Vie, Paris, no 680, mai 1974. p. 84-92.
- \_\_\_\_\_ . *Médecins aux pieds nus*. Science et Vie, Paris, août 1974. p. 80-82.
- \_\_\_\_\_ . *Une ferme pour "veaux de mer"*. Science et Vie, Paris, vol. 125, no 680, mai 1974. p. 46.
- \_\_\_\_\_ . *Climat plus froid*. Science et Vie, Paris, vol. 125, no 681, juin 1974. p. 84.
- \_\_\_\_\_ . *Médecins aux pieds nus pour pays pauvres*. Science et Vie, Paris, vol. 125, no 683, août 1974. p. 80.
- \_\_\_\_\_ . *Stop à la génétique?* Science et Vie, Paris, vol. 125, no 685, octobre 1974. p. 35.
- \_\_\_\_\_ . *Un enfant de 1974 passera 5 ans de sa vie à la Télé*. Science et Vie, Paris, vol. 125, no 685, octobre 1974. p. 112.

- \_\_\_\_\_ . *Le premier congrès de la faim*. Science et Vie, Paris, vol. 125, no 686, novembre 1974. p. 43.
- \_\_\_\_\_ . *Mercurie: des taux alarmants dans les poissons de la Méditerranée*. Science et Vie, Paris, vol. 125, no 687, décembre 1974. p. 52.
- \_\_\_\_\_ . *La médecine et les médicaments en question*. Science et Vie, Paris, vol. 126, no 688, janvier 1975. p. 12.
- \_\_\_\_\_ . *La famine au Sahel: un drame prévisible*. Science et Vie, Paris, vol. 126, no 690, mars 1975.
- \_\_\_\_\_ . *Mediterranean poison fish forecast*. Nature, London, vol. 254, no. 5501, 17 April 1975. p. 549-551.
- Gauthier, Hervé and Jacques Henripin. Canada, in *Population Policy in Developed Countries*, B. Berelson, ed. McGraw-Hill, Toronto, 1974. p. 403-426.
- Gauthier, H. et K. D. Le Thi. *Observations permanentes pilotes réalisées dans les pays de l'UDEAC 1971-1974; projet de coopération*. Secrétariat Général de l'UDEAC, Bangui, Congo, 1974. 85p.
- Gordon, J. King. *U Thant: He served the cause of peace and of the common man*. Ottawa Citizen, 30 November 1974. p. 7.
- Hillel, D. (IDRC Research Fellow) *Soil and water science in an arid environment*. International atomic energy agency bulletin, Vienna, October 1974. p. 56-61.
- Hillel, D., C. H. M. Van Bavel, and H. Talpaz. *Dynamic simulation of water storage in fallow soil as affected by mulch of hydrophobic aggregates*. Paper prepared for IDRC, 1975. 28p.
- Hopper, W. David. *Esquisse d'une solution de rechange aux problèmes de la faim dans le monde*. Revue de la Société d'études et d'expansion, Liège (Belgique), no 262, octobre-novembre-décembre 1974. p. 531-537.
- Hulse, Joseph H. and David Spurgeon. *Triticale*. Scientific American, New York, vol. 231, no. 2, August 1974. p. 72-80.
- Hulse, Joseph H. and W. Douglas Daniels. *Economics of Transfer*. Paper prepared for Western Hemisphere Nutrition Congress, Bal Harbour, Florida, 20 August 1974. 23p.
- Hulse, Joseph H. *The new "miracle" grain/Triticale: la nouvelle céréale "miracle"*. Cooperation Canada, no. 16, September/October 1974. p. 18-23.
- \_\_\_\_\_ . *Problems of nutritional quality of pigeon pea and chickpea and prospects of research*. Paper presented to the ICRISAT Workshop on Grain Legumes, Hyderabad, India, 13-15 January 1975. 24 p.
- Hyder, Syed S. and F. Richer. *The theory and design of a system for printing and communication in Arabic-Urdu-Farsi languages* (IDRC-supported project). Institut de Programmation, Université de Paris, July 1974. 37p.
- Jeanes, C. W. L. *Health services: Kidney machines versus nutrition and hygiene/La santé du tiers-monde: Esculape doit céder une large place aux auxiliaires médicaux*. Cooperation Canada, Ottawa, no. 14, May/June 1974. p. 20-22.
- Laquian, A. A. *Slums of hope . . . slums of despair/L'urbanisation "sauvage" à la croisée de l'espoir et du désespoir*. Cooperation Canada, no. 16, September/October, 1974. p. 3-11.
- Leatherdale, Donald and Siegfried Schrader. *Konzeption einer Dokumentationssprache für das internationale Agricultural Informationssystem (AGRIS)*. Sonderdruck aus Mitteilungen der Gesellschaft für Bibliothekswesen und Dokumentation des Landbaues, Heft 22, 1975, Seite 41-49. Stuttgart-Hohenheim, West Germany.
- Nestel, B. L. *Battling to fill 4 billion bellies*. Sunday Times, London, July 1974. p. 63-64.
- \_\_\_\_\_ . *Role of the IDRC in strengthening agricultural and livestock research in and for the developing countries*. IDRC, Bogota, 1974. 14p.
- Oldham, C. H. G. (participant) *Draft Code of Conduct on Transfer of Technology*, by a Working Group of the Pugwash Conference on Science and World Affairs, convened at Geneva, 1-5 April 1974 20p.
- Plumptre, A. F. W. *The International Development Research Centre and the role of L. B. Pearson*, in *Freedom and Change: essays in honour of Lester B. Pearson*, M. Fry, ed. McClelland and Stuart, Toronto, 1975. P. 152-170.
- \_\_\_\_\_ . *Maynard Keynes as a Teacher*, in *Essays on John Maynard Keynes*, Milo Keynes, ed. Cambridge University Press, 1975.
- Povey, George, D. Uyeno and I. Vertinsky. *Social impact index for evaluation of regional resource allocation*. Health Status Indices, Robert L. Berg, ed. Hospital Research and Education Trust, Chicago, 1973. p. 104-119.
- Pradervand, P., M. Carder, M. Henry and K. Horsely. *Emerging population alternatives: an annotated bibliography*. American Freedom from Hunger Foundation, Washington, D.C. 1974. 13p.
- Pradervand, P. *Population and the Third World: the population control explosion or the resurgence of Malthus*. Transnational perspectives, Copenhagen, vol. 1, no. 1, April/July 1974. P. 10-20.
- Rao, M. S. *World Food Council*, In *World Food Conference*, Rome, 5-16 November 1974. 3p.
- \_\_\_\_\_ . *Some comments on the World Food Conference*. World Food Conference, Rome, 5-16 November 1974. 6p.
- Sanger, Clyde. *A Way Through the Morass*. Echange Canada Exchange, Canadian Bureau for International Education, Ottawa, vol. 2, no. 2, 1974. p. 6-7.
- \_\_\_\_\_ . *Canada's help to the world's rural poor*. Canadian Geographical Journal, Ottawa, vol. 88, no. 5, May 1974. p. 14-21.
- \_\_\_\_\_ . *There has been a significant increase in the production of wheat, rice and maize in Latin America and Asia . . .* The Guardian (Special Supplement published during the World Food Conference), London, 1 November 1974. p. 14.
- \_\_\_\_\_ . *The rich get richer*. Canadian Consumer, vol. 4, no. 6, Ottawa, December 1974. p. 25-27.
- \_\_\_\_\_ . *Our research in world food drive*. New Straits Times, Kuala Lumpur, 31 January 1975. p. 14.
- \_\_\_\_\_ . *IDRC'S Projects in Indonesia*. The Indonesia Times, 29 January 1975. p. 4.
- \_\_\_\_\_ . *Learning by doing to help Third World countries*. Straits Times, Singapore, 14 March 1975.
- \_\_\_\_\_ . *Worldview: Club of Rome*. The Presbyterian Record, Totonyo, July-August 1974. p. 21.
- \_\_\_\_\_ . *Worldview: Fish (in the Sahel)*. The Presbyterian Record, Toronto, September 1974. p. 9.
- \_\_\_\_\_ . *Worldview: Colombia*. The Presbyterian Record, Toronto, December 1974. p. 9.
- \_\_\_\_\_ . *Worldview: Children*. The Presbyterian Record, Toronto, March 1975. p. 9.
- \_\_\_\_\_ . *Worldview: Southeast Asia*. The Presbyterian Record, Toronto, April 1975. p. 9.
- Seward, S. *Evolution of the International Development Research Centre: an Interpretation*. IDRC, Ottawa, 1974. 55p.
- Siegel, A. *Development, acceptability, and nutritional evaluation of new high-protein rice-based foods for Thai children*. Ph.D. Thesis, Kansas State University, 1974. 177p.
- Spurgeon, David. *Strategy for survival: the green revolution*. Nature, London, vol. 252, 20-27 December 1974. p. 624-625.
- \_\_\_\_\_ . *How Manila's water supply will be saved*. Gemini News Service, London, 1974.
- \_\_\_\_\_ . *Farming the seas*. Alumni Gazette, University of Western Ontario, vol. 51, no. 2, Winter 1974. p. 12-15.

- \_\_\_\_\_ . *Do developing countries need a new kind of science journalism?* Science Forum, Toronto, vol. 7, no. 5, October 1974. p. 12-15.
- \_\_\_\_\_ . *Science calls up an army of microbes to make protein.* Gemini News Service, London, 1974.
- \_\_\_\_\_ . *The Arab World science revival.* Nature, London, vol. 254, 6 March 1975. p. 10.
- \_\_\_\_\_ . *Club of Rome associations.* Nature, vol. 249, 31 May 1974. p. 403.
- \_\_\_\_\_ . *Back to square one on tsetse fly.* New Scientist, London, 13 June 1974. p. 683.
- \_\_\_\_\_ . *Can Manatees help solve problems of tropical water weeds?* Science Forum, Toronto, vol. 7, no. 4, August 1974. p. 10-11.
- \_\_\_\_\_ . *Making the most of Ghana fish.* African Development, London, vol. 8, no. 8, August 1974. p. G.21-23.
- \_\_\_\_\_ . *Sea cows eat their way to domestication.* New Scientist, London, vol. 63, no. 908, August 1974. p. 238-269.
- \_\_\_\_\_ . *More food crisis.* The Globe and Mail, Toronto, 10 April 1975. p. 43.
- \_\_\_\_\_ . *Updating the green revolution.* Nature, London, vol. 254, 24 April 1975. p. 642-643.
- Taylor, D. R. F. (IDRC Research Associate) *Spatial organization and rural development*, in *Freedom and Change*; essays in honour of Lester B. Pearson, M. Fry, ed. McClelland and Stuart, Toronto, 1975. p. 217-241.
- Wagner, Madeleine Vaillancourt. *Quarante millions de victimes.* Québec Science, décembre 1974, vol. 13, no. 4. p. 28-33.
- \_\_\_\_\_ . *La foresterie au Sahel.* Québec Science, février 1975, vol. 13, no 6. p. 18-24.
- \_\_\_\_\_ . *Aquiculture — la mer à manger.* Québec Science, mai 1975, vol. 3, no. 9. p. 38-41.
- \_\_\_\_\_ . *Science et développement: La fatalité du chiffre trois.* L'Information médicale et paramédicale, Montréal, 5 novembre 1974.
- \_\_\_\_\_ . *Science et développement: À propos d'autre chose.* L'Information médicale et paramédicale, Montréal, 19 novembre 1974. p. 39.
- \_\_\_\_\_ . *Science et développement: L'opération corne d'abondance.* L'Information médicale et paramédicale, Montréal, 3 décembre 1974. p. 14.
- \_\_\_\_\_ . *Science et développement: Une charade pour le congé de Noël.* L'Information médicale et paramédicale, Montréal, 17 décembre 1974.
- \_\_\_\_\_ . *Science et développement: Pour que reverdisse le Sahel.* L'Information médicale et paramédicale, Montréal, 4 février 1975. p. 28.
- \_\_\_\_\_ . *Science et développement: Le pour et le contre de l'agriculture savante.* L'Information médicale et paramédicale, Montréal, 18 février 1975. p. 49.
- \_\_\_\_\_ . *Science et développement: Au Mali: le planning familial au service des valeurs traditionnelles.* L'Information médicale et paramédicale, Montréal, 18 mars 1975. p. 20-21.
- \_\_\_\_\_ . *Science et développement: Un long divorce* (article sur la femme et la science). L'Information médicale et paramédicale, Montréal, 1er avril 1975. p. 14.
- \_\_\_\_\_ . *Science et développement: L'opération Caqueza.* L'Information médicale et paramédicale, Montréal, 15 avril 1975. p. 14.
- \_\_\_\_\_ . *La femme et la science.* Dateline Canada 75. p. 43-44.
- \_\_\_\_\_ . *À besoins nouveaux, formule nouvelle.* Le Consommateur Canadien, Juin 1975, vol. 5, no. 3. p. 26-29.
- \_\_\_\_\_ . *Third World: Research a Solution?* Canadian Consumer, June 1975, vol. 5, no. 3, p. 26-29.
- Wild, K. and J. Woolston. *Social and economic development: how DEVSIS would link into the emerging network of international information systems.* Paper presented to the 5th World Congress of the International Association of Agricultural Librarians and Documentalists, Mexico, 14-18 April 1975. 8p.
- Woolston, J. and M. Brandreth. *Some thoughts on a world information service related to rural water supplies and sanitation in developing countries:* paper presented to the Ad Hoc Working Group on Rural Potable Water Supply and Sanitation, Geneva, 13-14 February 1975. 11p.
- Yeung, Yue-man. *Hawkers and vendors: dualism in Southeast Asian cities:* paper presented at the Association of American Geographers annual meeting, Milwaukee, U.S.A., 20-23 April 1975. 16p.
- Zandstra, Hubert G. *Expected benefits of fertilizer recommendation strategies based on chemical soil tests.* Paper presented at the 66th annual meeting of the American Society of Agronomy, Chicago, Ill., 10-15 November 1974, 27 p.
- Zandstra, Hubert G. y Roberto Gonzalez. *El pequeño agricultor: filosofía a de la investigación en producción de pequeño agricultor.* Instituto Colombiano Agropecuario, vol. 1, Bogotá, 1975. 36p. (Proyecto en cooperación con el personal de desarrollo rural del ICA y el Centro Internacional de Investigaciones para el Desarrollo).