INFORMATION COMMUNICATION AND IDRC

No. 1, December 1993

Partners in Capacity Building

It is now more than twenty years since the Information Sciences and Systems Division of IDRC began participating in an international effort to improve access to information and to build capacity to manage information in developing countries. The Division has supported more than 600 information projects in developing countries with a total value of $120 million since then.

Recently the Division underwent a thorough strategic review of its programs and identified the following as its new objectives: to promote equitable access to and use of information systems, services and networks; to stimulate development and applications of modern information technologies and methods in developing countries; to build local capacity to manage and use information and information technology; and to encourage collaboration among various institutions.

One landmark event which has had a direct impact on the program direction of IDRC was the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro last year, when IDRC was given the mandate to facilitate the implementation of the Agenda 21 Program. The Centre's response was immediate and the philosophy of sustainable and equitable development is now a driving force in all program activities. Innovative projects being put forward by my colleagues in the Division fully reflect the new direction of the Centre.

Another landmark event for the Division this year is the release of a new version of MINISIS software. This much more flexible and easily accessible version will certainly facilitate local management and control of information. Together with the increased capacity of the MINISIS Resource Centres, this new development is another step forward for greater self-sufficiency in all regions.

Many exciting project ideas are in the works; we see our activities bring interesting results; and I believe we have learned a great deal from our experience. With this in mind, we have decided to publish a divisional newsletter to present our views, report our current activities and share our experience. As we face universal resource limitations, it is my belief that the only way we can produce tangible results is for all to bring their respective strengths to work toward common goals. In this first issue we discuss some of our current activities. I look forward to fruitful discussions with you on the development information issues facing us.

-- Martha B. Stone, Director General, ISSD

Sustainable Development Network

One valuable post-UNCED initiative being led by UNDP is the Sustainable Development Network (SDN). It is a mechanism for creating a framework for sustainable development within participating developing countries by facilitating access to information and by encouraging consultative processes at all levels of society and across sectors of the economy. The participants include national and local governments, researchers, NGOs, women's groups, unions, indigenous peoples, youth and business; in fact, all groups identified in Agenda 21.

Following participation in some of the early consultations on sustainable development networking, IDRC became involved in the SDN program at a key meeting in September 1992 in New York, where the present SDN concept was elaborated. This has led to collaboration between IDRC and UNDP on the development of an *SDN Starter Kit*. The project is now in the process of identifying and packaging various information and communications products and services which would help national and regional SDN participants start off effectively. IDRC is also considering support for several model national SDN implementations in developing countries. These approaches, if successful, could then be transferred to other countries.

-- David Balson, ISSD

New MINISIS for a broader access

With the launching of the much anticipated new version, MINISIS is stepping into a new phase of its development this year.

In the late 1970s, as part of its development program in Information Sciences, IDRC recognized the need for a text-oriented computer system capable of running on minicomputers. IDRC wanted an information storage, management and retrieval system suitable for installation in developing countries which would enable them to participate effectively in international cooperative networks. Since then, MINISIS has found a comfortable spread of uses in other areas including inventories, registries, student records, legislative full text, press clippings and real estate listings. The MINISIS software is currently installed in over 350 organizations, including universities, government ministries, research institutes and international organizations in more than 60 countries.

Developing country organizations receive the MINISIS software, related training and technical support directly from IDRC or from one of the five national or regional MINISIS Resource Centres (MRCs). Requests from developed countries are processed by commercial distributors. Regional and International MINISIS Users' Groups meet to share experiences, discuss problems and provide feedback to IDRC on new features and enhancements. Newsletters and the regular Software Status Bulletin keep the user community informed of new MINISIS developments.

The MINISIS software has now been redesigned and rewritten to respond to the needs of users who now have access to increasingly powerful microcomputers. The new implementation of MINISIS will improve the user interface, introduce significant enhancements and allow the software to be implemented in a variety of operating situations. Initially, it will operate on the Hewlett-Packard 3000 minicomputer for our existing users, and DOS-based microcomputers in both stand-alone and LAN environments. Further enhancements to the machine-dependent portions of the MINISIS software allowing it to operate in other environments such as UNIX are under discussion with potential collaborators.

Previously, the MINISIS software allowed for the development of databases which could be manipulated with the standard MINISIS modules. Now, there is more demand for applications which interact with the users in their own terminology and process the information in a sequence or flow which is specific to the application. With the new developments in MINISIS, it will be possible for MRCs, distributors and IDRC to develop specific applications around the MINISIS software to meet the needs of the user community. This will be the primary area of focus of the Software Development and Applications Group of the ISSD in the coming years.

-- Terry Gavin, Director, Software Development and Applications, ISSD

Information technology policies

for Latin America and the Caribbean

The past five years have seen a significant increase in the availability of information technology in Latin America and the Caribbean and consequent changes in the infrastructure of some organizations and of some countries. Policy makers and managers are now facing the difficult task of selecting appropriate information technologies and formulating policies to facilitate access to information and technological know-how.

A meeting held in Montevideo in April 1993 to review the situation and to identify research issues relevant to IDRC's Information Policy Research Program was attended by leading researchers and practitioners from the fields of technology policy and information technologies. The participants reviewed information technology policy issues which may affect regional development and agreed to focus on policies for Small and Medium Enterprises, as the engines of growth in the region. The meeting is being followed up by a computer conference on AlterNex and by a series of case studies in the region.

A conference on information technology policies is planned for December 1993. This conference will bring together researchers and policy makers from the region to examine the results of these studies and to identify areas for further research and policy formulation.

- Fay Durrant, IDRC Regional Office, Montevideo

The Earth Summit CD-ROM

The United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro in June 1992, was the largest conference ever hosted by UN, reflecting the urgency and priority given to the need to protect the environment while promoting sustainable development, in an increasingly interactive and interdependent world. Over one hundred heads of state attended. It was also the first conference of its type attracting the participation of thousands of members of non-governmental organizations.

No sooner was the conference over in mid-June, than important documents started to disappear. IDRC, which was assigned a global mandate by the Prime Minister of Canada to implement the resolutions, initiated discussions with the UNCED Secretariat and UN Publications to ensure that permanent archives of UNCED would be maintained and made readily available. To this end, IDRC and the United Nations collaborated to produce the *Earth Summit CD-ROM*, the only complete collection of official documents leading up to and including the Conference. Included in the 48 000 pages and 3000 images on the CD-ROM are: the complete Agenda 21; 179 national and regional reports submitted to UNCED; 55 research papers commissioned by UNCED; and official documents from the Preparatory Committee Meetings.

The collection will make a useful tool for decision-makers in a number of areas including environment, social and economic development, international trade, and international law. Heads of government departments, researchers, donor agencies, and many others will find information on issues and action plans for sustainable development at their disposal.

The software, CCPUB, developed by the Canadian Centre for Occupational Health and Safety, is powerful yet easy to use. It displays information in full text, displays images (maps, charts, non-Roman alphabet text, etc.), and can locate information through indexed-based searching. Documents can be displayed side by side for comparison of contents: one can, for example, trace the development of Agenda 21 through its various discussions and revisions. It operates in English, French and Spanish and the information on the CD-ROM is in the language in which the documents are written.

The contribution of non-governmental organizations to the discussions leading up to UNCED, and at UNCED itself, is equally invaluable. IDRC is therefore supporting the production of a parallel CD-ROM by the NGO community. Work on this project is under way in Montevideo at the Instituto del Tercer Mundo, a key member of NGONET, an NGO communications support system for environment and development information.

The Earth Summit CD-ROM runs on Windows on an IBM or IBM-compatible microcomputer. An ISO 9660-compatible reader is also required. The cost is $495 US. Copies can be ordered from:

IDRC Books, P.O. Box 8500, Ottawa, Ontario, Canada K1G 3H9, tel: (613) 236-6163 ext. 2087; fax: (613) 363-0815.

-- Ed Brandon, ISSD

New information network for the Red Cross

In 1991, Canadian International Development Agency (CIDA) approved $2 million Canadian for the establishment of a Library and Information Services Network for the Headquarters of the Federation of Red Cross and Red Crescent Societies (IFRC) in Geneva, and in late 1992, requested the Information Sciences and Systems Division of IDRC to assume administration and monitoring of the project on CIDA's behalf.

IFRC is the permanent liaison body of the national societies existing throughout the world and acts as their spokesman and representative internationally. The objective of IFRC is to prevent and alleviate human suffering through the activities of the National Red Cross and Red Crescent Societies. To fulfil its statutory functions of liaison, coordination and study among the national societies, it is essential for IFRC to have quick and easy access to information relevant to the work of the Red Cross/Red Crescent Movement.

The project has four phases, to be undertaken and implemented over three years: (1) establishment of an Information Resource Centre; (2) design, development, and implementation of several specialized information databases; (3) automated access to the Federation's and external databases; (4) network linkage of selected national societies. Phase one has now been completed, with work well advanced in phases two and three. Exploratory work has commenced on phase four.

-- Ronald Archer, Project Manager, ISSD

DAI CD-ROM and CEFDA

the activities of the Coordinating Unit for the International Network for Development Information Exchange

DAI CD-ROM - a CD-ROM of data about development activities - is just one of the products of the Coordinating Unit for the International Network for Development Information Exchange (INDIX).

The first edition of the DAI CD-ROM, containing about 68,000 records, was produced in July 1992. IDRC contributed its own IDRIS database of research projects to the CD-ROM. Other contributors included USAID, CIDA, JICA, Inter-American Development Bank, Kreditanstalt für Weideraufbau, the Export-Import Bank of Korea, UN-ACCIS and OECD. To date, almost 200 copies of the DAI CD-ROM have been sold via subscription, or given free of charge to developing country organizations. The second updated edition of the CD-ROM released in July 1993 also included records from CABI, GTZ, and the World Bank.

Although the DAI CD-ROM is possibly the most tangible result of the activities of the Coordinating Unit, it is by no means the most important of our activities. The production of the DAI CD-ROM actually had its roots in discussions held several years ago among a small number of organizations which managed development information databases. While meeting to discuss topics of common interest such as the use of thesauri, participants in these meetings recognised that the proliferation within this community of information systems with different hardware, software, standards and methodologies placed barriers in the way of successful sharing of information.

USAID, the OECD Development Centre and others formed an informal study group to explore the problems involved in information sharing within the donor community. The Group came up with a solution in the form of CEFDA (Common Exchange Format for Development Activity Information), a format containing the minimum set of data elements which would be required for agencies to exchange data from their information systems. At a meeting in 1991, the Group presented CEFDA to delegates from 50 organizations representing bilateral and international assistance agencies, NGOs and development banks. The delegates accepted CEFDA as a standard for information exchange and proposed that the Coordinating Unit be established at IDRC to test and refine this format further. As a showcase for the CEFDA and a means of testing its viability, they recommended that data be collected from the donor community and produced on CD-ROM in CEFDA format.

In October 1993, the delegates met again to review the activities of the Coordinating Unit over the preceding 24 months. At this meeting they resolved to adopt the name International Network for Development Information Exchange (INDIX) and asked the Coordinating Unit to continue to produce editions of the DAI CD-ROM, to promote the use of the CEFDA, to investigate ways in which NGOs and developing country organizations could participate in this activity and to coordinate a number of sub-committees to look at specific issues affecting the exchange of development activity information.

For more information about the activities and products of the Coordinating Unit, please write to:

Mary Campbell, the Coordinati Unit for INDIX, IDRC; fax: (6 563-3858; Internet: indix@idrc.ca.

Pre-Globesar/Radarsat workshops

During June and July 1993, the Information & Communication Technologies Group, ISSD, and the Regional Office for North Africa and the Middle-East of IDRC sponsored a series of three-day workshops in Morocco, Tunisia, Jordan, Kenya, China, Vietnam, Malaysia, Thailand and Pakistan. Organized by the Canada Centre for Remote Sensing (CCRS) of Energy, Mines and Resources Canada and local institutions of these countries, the workshops were designed to inform the remote sensing community of the Globesar project and to define its national and regional components in developing countries.

Globesar is a project of CCRS in collaboration with several private and public Canadian institutions. Through a world-wide and extensive radar data acquisition survey and technology transfer program, the project will serve to explore the use of remote sensing imaging radar in different natural resources applications in various locations and environments. It aims at preparing the international community for Radarsat, the first operational Canadian remote sensing satellite which will be launched in 1995. As a contributor to this project, IDRC plans to promote the development of a local capacity in rad remote sensing in developing countries, and to increase the contribution local scientists to the Radarsat research and operation plans.

-- Gilles Cliche, IDRC Regional Office, Cairo

Marketing of information

Marketing of information services and products has been identified by ISSD as a key issue for increased and effective use of information and for sustained information services.

Along this line, three projects dealing with marketing of information were recently approved. The project *Strategic Marketing for Information Services* will be conducted by the Caribbean Industrial Research Institute, Trinidad and Tobago, in collaboration with the Centre de Recherche Industrielle du Quebec, in Ste-Foy, Quebec, Canada. The project will adopt a strategic marketing approach for the marketing of information services to industries in Trinidad and Tobago and throughout the Caribbean. One expected output will be a model for marketing of information services to industries.

The project *Research for Product Design and Test Marketing of Management Information* will be conducted by the Indian Institute of Management as a follow up of an IDRC supported project *Market Research on Utilization of Management Information in India* completed earlier this year. The project will design and test-market management information products and services to target customers: academics (students and teachers in management institutions) and executives in business and industry in India.

The project *DEVINSA Business Plan and Marketing Strategy Development* with the Marga Institute, Sri Lanka, will implement a marketing strategy for transforming the Development Information Network for South Asia (DEVINSA) into an entrepreneurial concern to ensure its sustainability.

In addition to these projects, ISSD recently commissioned a study to review literature in the area of marketing of information products and services and to identify main issues. The resulting report, *Marketing of Information: the State of the Art* is available by contacting ***Renald Lafond, ISSD.***

Zbigniew Mikolajuk joins IDRC

Dr. Zbigniew Mikolajuk recently joined the Division as Senior Program Officer, specializing in informatics. Dr. Mikolajuk brings to IDRC over 20 years of experience in information technology research and development. He obtained his Ph.D. degree in computer science at the Warsaw Technical University and taught at universities in Poland and Japan. In recent years, he designed and developed software products for office automation, computer network management, and other applications areas. His technical expertise includes information system design methodologies, expert system development, natural language processing, telecommunications, object-oriented programming and information retrieval systems. His strong information technology background and his broad interests are a welcome addition to the Division.

Empowerment through Knowledge

Through support for research, the International Development Research Centre (IDRC) assists scientists in developing countries to identify long-term, practical solutions to pressing development problems. IDRC is directed by an international Board of Governors and is funded by the Government of Canada.

Capacity building in electronic communications in Africa

The projects supported in Africa by the IDRC Telematics Program have demonstrated the technical viability of computer-based networking and at the same time have highlighted some crucial issues:

-- organizational problems can often be greater barriers than technical problems;
-- without sufficient human resource development and sustainable systems, networking capabilities in Africa will be limited to short-term, ad hoc arrangements dependent on continuing external funding; and,
-- national and regional collaboration are essential among users, service providers and donors as African countries cannot afford the luxury of developing separate networks for each user group.

The project *Capacity-Building in Electronic Communications for Development in Africa* proposes to demonstrate how a sustainable communications and networking infrastructure utilizing FIDO technology can be developed in Africa. The project will establish and strengthen national nodes serving the networking needs of a wide array of institutions and individuals. For every five or six countries, one of the national nodes will be identified as a sub-regional resource centre to provide training, troubleshooting, software support, network management, and research functions for the nodes in the respective sub-region.

The project aims to support the development of a strong network of resource centre facilitators. It will be coordinated and administered by the Pan African Development Information System (PADIS) of the Economic Commission for Africa.

-- David Balson, ISSD

ISS Division restructured

As the result of the recent program review, ISS Division has been restructured into four groups:

Information and Communication Systems and Networks *(Director: Shahid Akhtar)* will enhance development research and action by strengthening the capacity of individuals, communities, and institutions to process, communicate, and utilize knowledge more effectively. Three primary areas of interest are: information and communication policies infrastructure; information management, analysis and marketing; and development communications.

Information and Communication Technologies *(Director: Robert Valantin)* will assist developing countries in carrying out and benefiting from applied research on new information and communication technologies. These are primarily electronic-based and include remote sensing, expert systems and geographic information systems.

Software Development and Applications *(Director: Terry Gavin)* will promote the development, enhancement, marketing, and application of selected software of practical benefit to developing countries. Priority is given at present to MINISIS software.

Program Coordination and Development *(Director: Paul McConnell)* will coordinate division-wide program planning, implementation, evaluation, and special research initiatives, as well as linkages between developing countries and Canadian and international partners.

The Division has produced a series of information brochures to describe the Division and its programs. Copies of the brochures: *Information Sciences and Systems Division; Information Capacity Building Program; Information Policy Research Program; Expert Systems and Computer-based Modelling* may be obtained from: ***Tavinder Nijhawan, ISSD.***

Focus on development communications

The ISS Division recognizes the increasing importance of development communications. An enhanced program will support applied research on innovative uses of development communications, communication policies, the interactive role and effects of communication media on society, and on the integration of indigenous knowledge into communication systems.

Dr. Guy Bessette has been appointed as the program officer responsible for the Development Communications Program and will join IDRC in January 1994. He holds a Ph.D. in Education Science from the Université de Montréal and has worked in various areas of communications for more than a decade, most recently on strategic planning, management and evaluation of projects in communications and distance education in international development. His international experience includes participation in workshops and program development in communications in countries in Africa and Latin America.

New publications

Blake, Cecil. Round Table on Information and Communication for Environment and Development, Nairobi, March, 1993. Nairobi: Regional Office for Eastern and Southern Africa, IDRC, 1993. *(A copy may be obtained from Paul McConnell, ISSD)*

GIS: better tools for local decision making [Special issue]. *IDRC reports*, 20 (4), January 1993.

Morin-Labatut, Gisèle and Shahid Akhtar. Traditional environmental knowledge: a resource to manage and share. *Development*, (4): 24-30, 1992.

Nijhawan, Tavinder and André Lalonde. Indigenous knowledge systems: an international workshop convened by IDRC, Ottawa, October, 1992: summary report of proceedings. *(A copy may be obtained from Tavinder Nijhihawan, ISSD)*

Stone, Martha B. Assessment indicators and the impact of information on development, a paper presented at the 1993 CAIS/ACSI Conference, Antigonish, Nova Scotia, Canada.

Thompson, Pat. Building sustainability into agricultural information projects in small countries. *Quarterly bulletin of the International Association of Agricultural Information Specialists*, 38 (2-3): 75-77, 1993.

Information, Communication and IDRC is published by the Office of the Director General, Information Sciences and Systems Division, International Development Research Centre, P.O. Box 8500, Ottawa; Ontario, Canada K1G 3H9; tel.: (613) 236-6163; fax: (613) 563-3858. Director General: Martha B. Stone. Editor: Atsuko Cooke. ISSN 1195-6879. Cette publication est aussi disponible en français.

The Information Sciences and Systems Programs aim to stimulate social and econ advancement by providing equitable, timely and efficient access to scientif technical and other knowledge, and by promoting its effective application to the problems of development. IDRC offices are located in Ottawa, Cairo, Dakar, Johannesburg, Montevideo, Nairobi, New Delhi and Singapore.