

**IMPLEMENTATION OF ARTICLE 66.2: INFORMATION FROM
DEVELOPED COUNTRY MEMBERS**

Addendum

CANADA

The present document reproduces information on the implementation of Article 66.2 of the TRIPS Agreement, which has been received from the Permanent Mission of Canada by means of a communication, dated 20 September 2000.

Developed country Members have undertaken to provide information regarding their activities relevant to Article 66.2 of the TRIPS Agreement, namely, the provision of incentives to enterprises and institutions in their territory, to promote and encourage technology transfer to least developed country Members (LDCs), in order to help them to create a sound and viable technological base.

Several Canadian government departments, agencies and programmes are involved in providing incentives, either directly or indirectly, for Canadian enterprises and institutions to engage in activities involving technology transfers to developing country Members and LDCs. Canada provides such incentives at the bilateral, regional and multilateral levels.

This current document is illustrative, rather than a complete documentation, of the activities and initiatives that Canada is involved in towards creating a sound and viable technological base in LDCs in accordance with Article 66.2.

The incentives for technology transfers that Canada provides to developing country Members and LDCs are geared at addressing the organizational knowledge necessary for production and distribution of goods and services, in addition to the knowledge on which a product, process or service is based. Rather than only transferring technology embodied in machinery, equipment and managerial skills, Canada also provides technology through other means such as training and the provision of information. In general, the incentives that Canada provides are focused on the transfer of capacity as well as hardware. Canada does not impose technology transfer requirements on Canadian investors seeking to invest in developing country Members and LDCs.

The two Canadian agencies most actively involved in activities relevant to Article 66.2 are the Canadian International Development Agency (CIDA) and the International Development Research Centre (IDRC). A number of other government departments, agencies and programmes such as Industry Canada, Export Development Corporation (EDC), and volunteer programmes also contribute significantly to providing incentives for technology transfers to LDCs.

Canadian International Development Agency (CIDA)

CIDA is the lead organization responsible for Canada's Official Development Assistance (ODA) Programme. CIDA works with partners in the private and public sectors in Canada, developing country Members, LDCs, and with international organizations and agencies to support sustainable development in developing country Members and LDCs to contribute to a more secure, equitable and prosperous world. CIDA supports foreign aid projects in over 100 developing country Members and LDCs with the objective to work with those countries to develop the tools to eventually meet their own needs. The Asia, Americas, and Africa and Middle East branches provide most of CIDA's technology transfer activities to LDCs.

All of CIDA's programme priorities have elements of technology transfer. Two of the most relevant are: (1) Infrastructure Services - which helps developing country Members and LDCs to deliver environmentally sound infrastructure services, with an emphasis on poorer groups and on capacity building; and (2) Private-Sector Development - which aims at increasing developing country Members and LDCs access to investment capital and reinforcing capacity-building by making available Canadian technology, and managerial, entrepreneurial and technical expertise. The Industrial Co-operation Division (INC) promotes the participation of Canadian firms in private infrastructure projects in such areas as communications, engineering/technology and computer science. The Industrial Co-operation Programme, in particular, provides incentives to Canadian firms to work in developing country Members and LDCs where their expertise contributes to the transfer of technologies.

CIDA's activities are designed to increase the level of knowledge, skills, technical know-how or productive aptitudes of the population of developing country Members and LDCs. It also sponsors numerous students and trainees by providing scholarships, fellowships, grants or other funds. Trainees receive practical training, or participation in study or technical tours, or attend short-term courses, seminars or conferences. There has also been an increase in distance education. The Educational Institutions Programme (EIP) provides the most significant support for degree-seeking scholarship recipients and short-term training.

Experts are funded by CIDA to provide services including teaching, training, provision of advice, operational and managerial duties, feasibility studies, research, surveys and the implementation of capital projects.

CIDA's focus on water and sanitation infrastructure is evident in projects such as the Fourteen Centres Water Supply project. Through an association with MJM Engineering of Malawi and engineers and staff of the Malawi Water Department, there was an important transfer of skills and knowledge. Officials of the Water Boards and the Malawi Government attended a number of workshops on Community Based Management and Community Representation in peri-urban water design, operation and maintenance. CAD drafting, professional engineering and certified technical staff, many of whom were from developing country Members and LDCs, provided computer modelling, GPS surveying and other technical services.

CIDA's Youth Action Division has sponsored experts working in developing country Members and LDCs in areas such as training in Internet design.

CIDA was actively involved in Global Knowledge '97, a conference in Toronto co-hosted by Canada and the World Bank. The conference played a strong role in consolidating knowledge transfer and Information and Communication Technologies (ICTs) as key issues in the development agenda.

As part of CIDA's Year 2000 (Y2K) Plans, it contributed close to Can\$1 million to the World Bank's Information for Development (InfoDev) initiative and InfoDev's Y2K programme for contingency planning seminars for developing country Members and LDCs.

International Development Research Centre (IDRC)

IDRC is a public corporation created by the Parliament of Canada to help developing country Members and LDCs use science and knowledge to find practical, long-term solutions to the social, economic and environmental problems they face. Support is directed toward developing an indigenous research capacity to sustain policies and technologies in developing country Members and LDCs. IDRC has been promoting technologies for managing and sharing information technology for the past 30-odd years and has been funding the efforts of some 20,000 researchers and policy-makers from 142 countries. IDRC has also initiated funding partnerships with other donors, including the private sector, to help secure additional support for its research.

It was one of the first organizations to work toward bridging the "digital divide" and has been supporting research on "connectivity" and into the application of ICTs to improve the lives of people in developing country Members and LDCs. A few of IDRC's programmes related to technology transfer are detailed below.

Communities and the Information Society in Africa (ACACIA)

Launched in 1997, ACACIA is the single largest venture IDRC has ever undertaken. It is a programme to help disadvantaged communities and social groups in Africa assert control over their own development through access to, and effective use of, information and communication technologies (ICTs). Telecentres, the Internet version of public phone booths, are one of the tools being used by the programme. ACACIA has also helped set up national advisory committees, such as in Mozambique, to provide input in local ICT development and projects. For instance, a multipurpose telecentre in Timbuktu, Mali, developed in partnership with UNESCO and the International Telecommunications Union will include resources for distance education and telemedicine as well as business support services. ACACIA has also played an important role in promoting school networking and the development of on-line educational material in countries such as Mozambique. These initiatives are of particular benefit to the many schools in these countries that are geographically isolated and lack resources. A monitoring programme - the Evaluation and Learning Systems for Acacia (ELSA) - is used to guide ACACIA's current activities and future investment in ICTs and development. The ACACIA initiative is evolving with the programme being extended to other countries in Africa with the collaboration of the United Nations Economic Commission for Africa and new partnerships with the World Bank, the United Nations Development Programme, UNESCO, the International Telecommunications Union, the African Development Bank, the European Union, other national donor agencies, and African telecommunication operators and providers. ACACIA will also continue its work with the Information Technology Association of Canada to support the development of the African ICT private sector and to encourage Canada/Africa private sector partnerships.

Small, Medium, and Micro Enterprise Innovation and Technology (SMMEIT)

Most non-agricultural employment in developing country Members and LDCs is generated by small, medium and micro-enterprises (SMMEs). IDRC recognizes this by promoting the adaptation, transfer, commercial development, and marketing by SMMEs of technologies resulting from past IDRC research support. Specifically, IDRC supports the identification, adaptation, and transfer of cleaner technologies and production methods for use by SMMEs, and assisting in the commercialization by SMMEs of IDRC-funded products and technologies.

Sustainable Use of Biodiversity

The systematic mixing of crop varieties of various origins and genetic make-ups significantly affects the available food supply. IDRC supports local scientists, people and institutions, to identify income-generating strategies and appropriate production technologies for the sustainable use of the products of biodiversity, such as medicinal plants and non-timber products in LDCs.

Community-Based Natural Resource Management

IDRC initiatives include the integration of natural science components, such as resource assessment and production technologies that respond to priorities defined by local communities. In African LDCs, IDRC efforts have been concentrated on developing and spreading improved technology for the management of land and water resources.

UNGANISHA – Connecting IDRC Funded Researchers

Under the UNGANISHA programme IDRC-funded projects have been offered direct financial and technical support to connect project teams to the Internet and train them in the use of ICTs and in the publishing of documents on the World Wide Web. The UNGANISHA project has allowed developing country Members and LDCs researchers to avail themselves of information found on the Internet and, more importantly, to add their voice to regional and global scientific debates and discussions.

Industry Canada

Industry Canada, through its "Connecting Canadians" initiative, which includes "Connecting Canada to the World", promotes global interconnectivity and inter-operability of broadband networks, applications and services (e.g. telehealth and telelearning). This federal government department works to improve the domestic and international investment climate in order to create an orientation to global markets, including developing country Members and LDCs, by encouraging more companies to make their products and services export-ready. It also fosters international collaboration for Canadian research institutions in emerging high-growth areas of electronic commerce, genomics, environmental technologies and advanced engineering.

Within Industry Canada, a number of divisions are particularly active in the technology transfer area. For instance, the Information and Communication and Technologies Trade Division has acted as an implementation agency for an ODA funded project, organized seminars and workshops on ICT regulatory issues for and in developing country Members and LDCs, and hosted incoming study missions.

One initiative, Team Canada Inc., was launched in 1997 with Industry Canada as one of three founding members. It is a virtual trade promotion agency currently involving 23 federal departments and agencies which work with the provinces and territories, and other partners to help Canadian companies succeed in world markets.

The Office of International Partnerships (OIP) provides a single point of access to the best of Canada's information and communication technology skills and products for any country or foreign organization seeking to build their own electronic learning network. The OIP links foreign governments, agencies and companies with Canadian companies, organizations and entrepreneurs who develop and apply information and communication technology to learning and training. Specifically, the OIP offers the exchange of technical knowledge and the co-development of learning materials and application of educational resources for the Internet.

Export Development Corporation (EDC)

EDC is a Crown corporation that provides a full range of trade financial services that helps Canadian exporters and investors do business in 200 countries, including higher-risk and emerging markets such as in developing country Members and LDCs. EDC acts as a catalyst to help create international project opportunities in certain key sectors such as engineering and professional services; industrial equipment; information technologies; telecommunications; and advanced technology.

Within EDC, three teams are actively involved in the technology transfer area: (1) the Advanced Technology (AT) Team - serves exporters in several sectors, such as electronic parts, computers, instrumentation and software services; (2) the Civil Works and Professional Services Team - supports a wide range of export business including projects to build water and sewage treatment plants and other infrastructure; and (3) the Telecom Team – which works with Canadian companies to help reduce the risks in key Internet technologies such as fibre-optics, high-capacity switching and broadband wireless access.

In 1999, EDC launched an important environmental export initiative, committing more resources to help Canadian companies in developing and exporting environmental technologies and solutions. With EDC's support, Canadian companies have been able to participate in a number of major environmental projects including wastewater treatment plants, and environmental consulting services around the world. EDC's project financing expertise has been used to encourage Canadian companies to become involved in private sector financing that has taken root in many African projects.

Volunteer Programmes

The Government of Canada actively encourages and funds a number of programmes where skilled Canadian volunteers are sent to developing country Members and LDCs to establish and further the creation of a sound and viable technology base in those countries. One such programme is NetCorps Canada International (NetCorps). NetCorps provides internships of approximately six months to Canadians with appropriate skill in information and communication technologies. The internships are implemented by the NetCorps Coalition, which includes some of Canada's largest volunteer-send international organizations such as the World University Service of Canada, in partnership with Industry Canada. NetCorps representatives support developing country Members and LDCs efforts to enhance their information and communication technologies capacity by working in the private, public or non-profits sectors. Volunteers support developmental objectives by improving the information and communication technology capacity and infrastructure of developing country Members and LDCs in fields such as health, education and agriculture. By 31 March 2001, NetCorps would have placed over 500 Canadians abroad. Every NetCorps assignment is tailored to specific needs of the overseas host organization. They typically involve tasks such as establishing Internet connections, creating websites, developing databases, setting up and configuring hardware, preparing manuals and documentation, and most placements involve training local personnel to ensure continuity of the project. Funding for the programme makes available orientation, travel, insurance, local support in the host country, accommodation, and living allowance for the volunteers.

Multilateral Level Activities

At the multilateral level Canada actively contributes to many international financial institutions (IFIs) which, in turn, support projects and programmes that provide incentives for technology transfer to developing country Members and LDCs. For instance, Canada's contribution to the WTO's technical assistance fund facilitates seminars and technical assistance projects for developing country Members and LDCs. These projects incorporate a technology transfer element through the allocation of human capital in these countries. Canada also subscribes to approximately

4.0 per cent of the Inter-American Development Bank's (IDB) capital. The IDB has provided a number of projects including training incentives to the private sector in Haiti, which incorporate components of technology transfer. Canadian assistance allows the African Development Bank to launch micro-finance initiatives, which include incentives for technology transfer to LDCs by Canadian firms. Canada's contribution to the Asia Development Bank enables it to support the development of key infrastructure, such as power, gas and transportation, along with policy reforms to establish an enabling environment for private sector development in LDCs such as Bangladesh.
