IDRC-Funded Research on Indigenous Knowledge

November, 1999

Tamara Dionne-Stout
Steve Langill

For further information about this document, please contact:

Erin O'Manique
Research Officer, Sustainable Use of Biodiversity Program Initiative
IDRC, PO Box 8500, Ottawa, Ontario K1G 3H9
tel: (1-613) 236-6163 ext. 2198
fax: (1-613) 567-7749
e-mail: eomanique@idrc.ca

Table of Contents

List of Tables

INTRODUCTION: INDIGENOUS PEOPLES AND IDRC

Over its twenty-nine year history, IDRC has supported 218 research projects involving Indigenous peoples, their practices and knowledge. This document provides, for the first time, an inventory and brief summary of these projects, giving a broad overview of IDRC's work with Indigenous peoples and indicating possible directions for future research.

Projects are presented under the following subject headings: environmental; health; socio-economic; education; communication; technology transfer; and research issues. Each section includes a brief introduction to the subject as it relates to Indigenous peoples, a brief description of each project based on the research theme it represents, and a short discussion of research trends and findings. The document also contains a summary of overall research trends, gaps in research and strategic directions and program priorities.

Who are 'Indigenous Peoples' ?

Indigenous peoples are the original inhabitants of a particular geographic location, who have a culture and belief system distinct from the international system of knowledge. The labels that Indigenous peoples have gone under at IDRC include: marginal populations, local or rural communities, peasants, *campesinos*, ethnic minorities or ethnic groups, tribal people, traditional cultures, Natives, Amerindians, Indians, nomads, pastoralists, small farmers, Aboriginal, First Nations, and Indigenous populations. For the most part, such terms describe socio-economic positions or they have been names given to Indigenous peoples by others. This document uses the term 'Indigenous peoples' because it is widely accepted by the people themselves, and has been formally adopted by the United Nations and other important international fora. The United Nations officially defines 'Indigenous peoples' as follows[1] :

- they are descendants of groups which were in the territory of the country at the time when other groups of different cultures or ethnic origins arrived there;

- precisely because of their isolation from other segments of the country's population, they have preserved almost intact the customs and traditions of their ancestors which are similar to those characterized as indigenous;

- they are, even if only formally, placed under a state structure which incorporates national, social and cultural characteristics alien to theirs.

---

[1] UNESCO. 1982. Indigenous populations. Ref:E/Cn.4./Sub.2/L.566 United Nations.

Generally, Indigenous peoples can be distinguished through self-definition: they tend to know who they are. Despite different names and divergent geographies, Indigenous peoples throughout the world share many of the same challenges.

Defining Indigenous Knowledge

Indigenous knowledge (IK), broadly speaking is, the knowledge used by Indigenous people to make a living in a particular environment. Terms used in the field of sustainable development to designate this concept include Indigenous technical knowledge, traditional environmental knowledge, rural knowledge, local knowledge and farmer's or pastoralist's knowledge. Indigenous knowledge can be defined as "A body of knowledge built up by a group of people through generations of living in close contact with nature"[2]. Generally speaking, such knowledge evolves in the local environment, so that it is specifically adapted to the requirements of local people and conditions. It is also creative and experimental, constantly incorporating outside influences and inside innovations to meet new conditions.

A Brief Overview of Project Trends

The first project which IDRC supported was in 1974 involving the Indigenous peoples of the South Pacific. It, like many of the early projects, was based on a 'modernization' approach which sought to uncover the internal factors inhibiting the economic development of Indigenous communities and their integration into national and international economies. Projects addressed problems such as poverty, low educational levels, poor health and landlessness. Unfortunately, although well-intentioned, such projects often failed in their goal to improve the lives of Indigenous peoples.

This failure can be blamed, in part, on a lack of community involvement in the research process. The tendency was for universities and non-government organizations (NGOs) to conduct the research and guide the agenda, with community members having little or no input in problem identification, research design, implementation or dissemination of results. As well, relevant Indigenous knowledge (IK) and the structure of Indigenous social, economic and political systems was often overlooked. The result was inappropriate project goals, community apathy and a lack of understanding of Indigenous culture and ecology.

Today, a very different state of affairs prevails at IDRC. Development philosophy has shifted from an emphasis on economic development based on a Northern model to sustainable development based on local cultural context, community involvement and ecological appropriateness. Indigenous

---

[2] Johnson, M. 1992. Lore: Capturing Traditional Environmental Knowledge. IDRC: Ottawa, Canada.

groups are now encouraged to take an active role in all aspects of the research process, and researchers are encouraged to collect and utilize Indigenous knowledge relevant to sustainable development. In addition, partnerships are now being supported between Canadian Indigenous peoples and those from Southern countries, leading to exchanges of knowledge, skills and technologies. This is indicative of a significant shift in power relations, decision-making practices, and control over research, and signals a progressive and positive change in the direction of IDRC-supported research. Increasingly, research in Indigenous communities is being placed in the hands of Indigenous peoples themselves.

1. ENVIRONMENTAL PROJECTS

Indigenous people often rely heavily on the natural environment and its resources to make their living. Unfortunately, many of the areas inhabited by Indigenous people worldwide are rapidly succumbing to various processes of environmental degradation, compromising the health and well-being of local populations and threatening their very survival. The development community has recently recognized that this global ecological crisis has been caused, in part, by the overexploitation of natural resources based on inappropriate attitudes, approaches and technologies introduced by governments, companies and development organizations.

Scientists now recognize that Indigenous people have managed the environments in which they have lived for generations, often without significantly damaging the local ecologies. Many feel that Indigenous knowledge and institutions can thus provide a powerful basis from which alternative ways of managing resources can be developed. IK technologies and know-how have an advantage over introduced forms in that they rely on locally available skills and materials and are thus often more cost-effective than introducing exotic technologies from outside sources. As well, local people are familiar with them and therefore do not need any specialized training.

1.1 Projects

IDRC has supported 87 projects that focus on Indigenous knowledge of the environment and its possible application to sustainable development. Major areas of inquiry include knowledge associated with farming and pastoral systems, natural resource management, and biodiversity of food species. Projects have also supported the establishment of research networks and centres to generate and disseminate information. Below is a brief summary of the projects which fall under each category.

farming and pastoral systems

IDRC has funded 29 projects between 1981 and 1997 that have focussed specifically on Indigenous farming and pastoral systems. These projects have underscored the importance of not only documenting, evaluating and utilizing Indigenous knowledge of agriculture and animal husbandry, but of understanding the socio-economic, cultural and political context within which this knowledge operates.

With regards to **farming systems**, projects have concentrated on traditional agricultural techniques practised in a variety of environments, including:

- highland ecosystems, with regional focuses on Latin America (81-0029, 81-0052, 90-0160, 91-0005, 92-8762, 96-1005), Asia (91-1042, 92-0003, 92-8021, 92-8013, 93-0031, 94-8014, 94-8308, 95-8018), and Africa (91-1056)
- swampland ecosystems(83-1033)
- dryland ecosystems (94-0006)
- rainforest ecosystems (96-8759)

Projects involving research on **pastoral and agro-pastoral systems**, which have focussed on degraded arid and semi-arid environments in Africa, have included the following:

- analysis of the environmental and socioeconomic context of local agro-pastoralists so that more appropriate approaches to resource management can be developed (87-0290, 87-0291, 88-0004, 89-0265, 89-0266, 89-0267)
- documenting and evaluating ethnoveterinary practices for maintaining livestock health (91-0194)
- documenting and utilizing Indigenous knowledge of land management practices and coping strategies related to arresting processes of desertification (96-0020)
- development of appropriate community-based land management practices (97-8537, 97-8603)
- building on Indigenous knowledge of manure production to improve crop-livestock productivity (97-0013)

natural resource management

IDRC recognizes the importance of Indigenous communities playing a strong role in the control and management of local resources. Between 1990 and 1997, 34 projects have been funded which have explored, mainly through a participatory approach, various aspects of community-based natural resource management.

One focus was the analysis of **traditional resource management** to understand, evaluate and apply sustainable principles to contemporary management plans. In Latin America, projects looked at traditional forest protection and management (90-0162, 95-8760, 96-4012), relationships between ecosystems and traditional ways of life (94-1004), resource management by fishing communities (94-0002) and traditional forest extractive systems (97-0024). In Southeast Asia, projects looked at traditional institutions and knowledge for resource management (96-8007, 97-8001), in Africa researchers examined pastoralist and agro-pastoralist knowledge of local resources (94-8496) and

traditional water management practices (97-1051), and in Canada, a project analysed traditional ecological knowledge of fisheries (94-0005).

Another main research focus has been the analysis of **contemporary natural resource management**, in order to identify problems and design more effective resource management plans. In many cases, traditional resource management strategies that were sustainable in the past have been compromised by the rapid environmental, social, economic and political changes occurring in many Indigenous communities. Research therefore has given attention to the complex social realities at the local level and how these are affected by broader regional, national and international influences. In Asia, projects examined local resource management and the impact of external factors (91-0074, 92-8305, 93-1006), the impact of conflict on local resource management (94-8011), and an examination of community fisheries management and the constraints to sustainable management plans (96-8005). In Latin America, three projects evaluated current resource management practises, with one emphasizing the impact of development projects (94-0024), another the impact of local wood-based enterprises on the natural resource base (95-0001) and another the basic elements necessary for community planning (94-8757). In Africa, researchers examined local forest use and management in order to inform efforts to improve management options (92-8451).

Another main focus has been on capacity-building for **community-based natural resource management**. Community control and management of resources has gained widespread attention in recent years primarily in response to the poor track record of top-down, centralized, bureaucratic management and regulation of natural resources by states and governments. Representative and accountable community-based institutions are seen as potentially more dynamic and responsive to rapidly changing local realities. One project, which had a global focus, had as its objective the development of methodological tools to permit the evaluation and strengthening of community-based forest management systems (96-0030). In Latin America, projects assisted Indigenous people in: developing community-based resource management plans (95-1006, 95-0023, 95-8765); strengthening local resource management institutions (96-1002); and understanding the impact of eco-tourism (95-8757) and large-scale development projects (95-1006) on local resource management. In Africa, four projects focussed on building local institutional capacity to do diagnostic research and sustainably manage local resources (92-8454, 93-0044, 94-8509, 95-0022). In Southeast Asia, a project assisted local communities to develop, test and implement methods of community-based natural resource management (97-8003). In Canada, a two-phase project developed a community-based methodology to document and apply Indigenous knowledge about the environment to natural resource management strategies (93-0012, 94-1008), with a plan to share the methodology with Indigenous groups in Latin America (see 95-1006 above).

In addition to the projects described above, IDRC's Community-Based Natural Resource

Management (CBNRM) Program Initiative has funded numerous projects in Asia on the sustainable use and management of natural resources by local and Indigenous communities. The program initiative aims to assist women and men living in ecosystems that face increasing resource exploitation, to manage and use their natural resources sustainably.

biodiversity of food species

Indigenous people often have a great reliance on and intricate knowledge of local plant and animal species for subsistence. Unfortunately, much of this biodiversity is declining due to various development pressures. IDRC has funded 11 projects which focus on documenting and conserving local biodiversity of food species and associated knowledge[3]. One two-phased project focussed on aquatic biodiversity, with researchers developing an approach to both in-situ and ex-situ conservation of fish genetic diversity (93-1013,
95-1003). In Latin America, projects looked at wild plant species used for food, building material and medicine (94-0007, 95-0002, 98-0008, 98-0017) and at agricultural species cultivated in home gardens (93-0004). In Africa, two projects looked at agricultural biodiversity (95-0006, 97-1003), while in India, a project was aimed at generating incentives for Indigenous people to conserve biodiversity and associated knowledge
(96-0023). IDRC also co-funded the Indigenous People`s Biodiversity Research Program (95-1007), which aimed to enhance the capacity of indigenous people to protect and develop traditional knowledge pertaining to biodiversity.

research networks

IDRC has funded 13 projects which focus on the development of appropriate institutions and mechanisms for documenting and sharing information on conservation and natural resource management both locally and to a wider audience. One project supported the Third World Network in developing research capacity in the area of biodiversity, in order to enable them to provide local groups and policymakers with relevant information for decision-making (94-0023). Two projects in Latin America also supported the strengthening of research centres to increase their capacity for information gathering, dissemination of results, education, and establishing communication networks between stakeholders (91-0004, 95-0605). Another project in Latin America promoted the development of 'environmental action centres'—a loosely-coupled association of community groups and local NGOs which would facilitate local participation in decisions related to socioeconomic and environmental policy (93-8754). A second phase of this project expanded the network to carry out research on local knowledge and biodiversity (96-8755). Other projects supported the establishment of research networks to:

---

[3] see also projects on medicinal plants in *Health Projects* section of this report

- generate information about participatory development in West Africa and disseminate results to local organizations (89-0279, 90-0294)
- coordinate and build research capacity in the area of land tenure and resource management in dryland Africa (91-0151)
- strengthen the capacity of local innovators to protect their rights, experiment with their IK and develop entrepreneurial ability in India (93-0013)
- promote a deeper understanding of how natural resources can be sustainably managed through local institutions and decision-making in Southern Africa (98-8910)

IDRC partners have also looked at the potential uses of computer technology for managing and disseminating Indigenous knowledge data. Two small workshops carried out by Inuit organizations explored the opportunities and challenges presented by the "Information Highway" and other computer and video technology (94-0811, 95-0803). Another project supported the development of the Integrated Conservation Network System (ICONS), a computer software system designed specifically to manage information related to Indigenous knowledge research (95-0609). The software allows researchers, NGOs and Indigenous groups to maintain and exchange data related to IK, conservation and sustainable development.

1.2 Discussion

While research originally emphasized Indigenous *technical* knowledge of the environment, more recent projects have gone beyond this narrow interpretation. Now incorporating a more holistic approach which looks at IK as *cultural* knowledge in its broadest sense, including all of the social, political, economic and spiritual aspects of making a living in a particular environment. More specifically, research has expanded from a focus on traditional farming and pastoral techniques to include examinations of the local institutional structures which influence how whole ecosystems and associated resources are managed, and how these are, in turn, influenced by outside factors.

Earlier approaches to environmental research tended to ignore the importance of local institutional arrangements for natural resource management. Later projects have demonstrated that institutions form a fundamental link between local communities and their environments, and that it is through these rules that the collective action associated with controlling access to local resources is organized. Furthermore, research has shown that community resource management is often shaped by a number of overlapping institutions from the social, political, economic and religious spheres. For example, spiritual beliefs about nature may influence how resources are managed and how willing people will be to adopt new resource management strategies. Communities, rather than being homogeneous entities governed by a single set of rules, are made up of diverse institutions and organizations with conflicting values and priorities based on differences in gender, age, wealth and

other factors. These community institutions, in turn, are interconnected with and influenced by broader institutions operating at the district, regional, national and international levels. This internal and external diversity of institutions needs to be taken into consideration when investigating the local management of natural resources.

Projects have also shown a trend towards encouraging more active, meaningful participation of Indigenous people in natural resource management. Local participation has gone from passive, where Indigenous people contributed only in the sense of sharing their knowledge about agriculture and animal husbandry, to active, where community members are encouraged to utilize their skills and experience and take control of natural resource management. The development of research networks to document and disseminate information on natural resource management both locally and to a wider audience is an important aspect of building local capacity to effectively and efficiently manage resources. The documented IK should be stored in some format that allows easy access, both for community members and the wider national and international development audience. Storing IK in written documents such as books, journals, newsletters, maps and charts, is the conventional and perhaps easiest way to disseminate IK and ensure that local communities have ready access to recorded knowledge. IK can also be stored in computer databases, Internet websites, audiovisuals and museums, although such methods may be difficult or impossible for local people to access in a rural setting. If this is the case, then researchers must ensure that hard-copy documents of the material are made available to local communities.

TABLE 1: IDRC-SUPPORTED ENVIRONMENTAL PROJECTS WITH INDIGENOUS PEOPLE

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Traditional Knowledge and Farm Technology	810052	3 months	$4,800	Peru	Ing. Jose R. Sabogal-Wiesse, Lima, PE	Closed
Technology Use in Andean Indigenous Communities	810029	12 months	$70,000	Ecuador	Centro de Arte y Accion Popular (CAAP), Quito, EC	Closed
Farmers' Participation in Rural Development (Sierra Leone)	831033	24 months	$64,020	Sierra Leone	CUSO-Sierra Leone, Freetown SL	Closed
Pastoral Systems of the Maghreb-Phase I	870290	15 months	$71,400	Tunisia	Ministre de l`Agriculture, TN	Closed
Pastoral Systems of the Maghreb-Phase I	870291	15 months	$99,200	Algeria	Ministre de lÈnseignement Superieur, Alger	Closed
Pastoral Systems of the Maghreb-Phase I	880004	15 months	$100,000	Morocco	Institut Agronomique et Veterinaire Hassan II, Rabat, MA	Closed
Sustainable Agriculture Newsletter	880065	69 months	$36,100	Malaysia	CUSO, Ottawa, ON CA	Closed
Pastoral Systems of the Maghreb-Phase II	890265	36 months	$249,830	Algeria	Centre de Recherches en Economie Applique pour le Developpement (CREAD), Alger	Closed
Pastoral Systems of the Maghreb-Phase II	890266	36 months	$248,850	Morocco	Institut Agronomique et Veterinaire Hassan II, Rabat, MA	Closed
Pastoral Systems of the Maghreb-Phase II	890267	36 months	$248,760	Tunisia	Ministre de l`Agriculture, TN	Closed

TABLE 1: IDRC-SUPPORTED ENVIRONMENTAL PROJECTS WITH INDIGENOUS PEOPLE

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Local Organizations Support	890279	32 months	$560,979	West Africa	Innovations et réseaux pour le développement (IRED), Genève, CH	Closed
Indian Agendas for Tropical Forest Protection	900160	12 months	$63,000	Colombia	Centro de Cooperation al Indigena (CECOIN)	Closed
Quinoa Production/ Processing	900160	36 months	$450,500	Ecuador	Instituto Nacional de Investigaciones Agropecuarias (INIAP), Quito	Closed
ONG Initiatives	900294	21 months	$88,057	Cote d'Ivoire	Centre de formation et de recherches en animation rurale (CFRAR), Abidjan CI	Closed
Research Network on Land Tenure and Semi-Arid Lands	910151	36 months	$607,600	Ethiopia/ Kenya/ Tanzania/ Uganda	African Centre for Technology Studies (ACTS), Nairobi, Kenya	Active
Highland Farming Systems	910005	42 months	$491,000	Bolivia	Instituto Boliviano de Technologia Agropecuaria (IBTA), La Paz, BO	Closed
Amazon Information and Documentation Centre	910004	36 months	$144,440	Ecuador	Fundacion Natura, Quito, EC	Closed
Mountain Resource Management	911042	62 months	$423,883	Nepal	1) University of British Columbia, Vancouver, BC CA 2) International Centre for Integrated Mountain Development, Kathmandu NP	Closed
Rapeseed (Agriculture Canada/China) - Phase III	911037	56 months	$374,000	global	1) Agriculture and Agri-Food Canada, Ottawa, ON CA 2) Ministry of Agriculture, Beijing CN	Closed

TABLE 1: IDRC-SUPPORTED ENVIRONMENTAL PROJECTS WITH INDIGENOUS PEOPLE

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Ethnoveterinary Practices	910194	42 months	$140,000	Nigeria	National Animal Production Research Institute, Ahmadu Bello University, Zaria, NG	Closed
Sustainable Land and Forest Use	910074	72 months	$231,264	Philippines	University of the Philippines College Baguio. Cordillera Studies Center, Baguio City PH	Closed
Traditional Farming	911056	72 months	$48,382	Ethiopia	Carleton University, Ottawa, Ontario, Canada	Closed
Kenya Forest Dwellers and Sustainable Development	928451	15 months	$136,750	Kenya	National Museums of Kenya, Nairobi, KE	Closed
Sustainable Highland Agriculture	928762	24 months	$316,400	Peru	Centro Internacional de la Papa, Lima, PE	Closed
Biodiversity and Sustainable Development of Swidden Agriculture in Vietnam	920003	24 months	$50,000	Vietnam	Institute of Ethnology, Hanoi, VN	Closed
Uplands Farming Systems	928013	24 months	$233,630	Myanmar	International Rice Research Institute (IRRI), Manila, PH	Closed
Elangata Wuas Ecosystem Management Program- Phase I	928454	12 months	$43,600	Kenya	National Museums of Kenya, Nairobi, KE	Closed
Food Security in Arid Uplands (Indonesia)	928021	72 months	$239,120	Indonesia	Universitas Udayana, Denpaser ID	Closed
Social and Natural Resource Use in West Bengal	928305	72 months	$86,714	India	Visva-Bharati, Birbhum, West Bengal IN	Closed

TABLE 1: IDRC-SUPPORTED ENVIRONMENTAL PROJECTS WITH INDIGENOUS PEOPLE

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Documenting Traditional Conservation Practices and Hunting Ethics	93410204	6 months	$74,015	Canada	Mushkegowuk Council, Moose Factory, ON	Closed
Fish Gene Banking	931013	12 months	$98,688	Canada/ Venezuela/ Colombia	International Fisheries Gene Bank (IFGB), Vancouver, BC	Closed
First Nations Environmental Knowledge and Approaches to Natural Resources- Phase I	930012	8 months	$100,000	Canada	1) University of Ottawa, ON 2) Mohawk Council of Akwesasne, ON	Closed
Environmental Action Centres	938754	36 months	$510,000	Paraguay/ Bolivia/ Uruguay	1) Amigos de la Tierra, UY 2) Centro de Estudios Rurales Interdisciplinarios, Asunción, PY 3) Centro Regional de Acción Ambiental y Organización Social, Cochabamba, BO	Closed
Survival Food Management in Arid Areas	930044	24 months	$15,580	Botswana	Veld Products Research, Gaborone, BW	Closed
Documentation of Indigenous Farming Practices	930031	12 months	$19,000	Philippines	Benguet State University, La Trinidad, PH	Closed
The Forest Challenge in Vietnam	931006	24 months	$346,092	Vietnam	Universite Laval, PQ	Closed
Indigenous Knowledge and Innovation Network	930013	24 months	$247,170	global	1) Society for Research and Initiatives for Sustainable Technologies and Institutions (SRISTI), Ahmedabad, IN 2) Indian Institute of Management, Ahmedabad, IN	Closed
Socioeconomics and Biodiversity of Home Gardens	930005	32 months	$197,200	Central America	Tropical Agricultural Research and Higher Education Center, Turrialba CR	Closed

TABLE 1: IDRC-SUPPORTED ENVIRONMENTAL PROJECTS WITH INDIGENOUS PEOPLE

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Recuperating Genetic Research-Home Gardens	930004	36 months	$35,000	Ecuador	Accion Ecologica, Quito EC	Closed
Canadian Aboriginal Case Studies for Amazon Eco-tourism Workshop	930033	7 months	$20,000	Venezuela	Canadian National Aboriginal Tourism Association (CNATA), Ottawa	Closed
Indigenous Environment Management, Pirakua (Mato Grosso)	948757 (050057)	35 months	$131,500	Brazil	Centro de Documentacao e Apoio Aos Movimentos Populares, Brazil	Closed
Traditional and Contemporary Fisheries Knowledge in the Shoal Lake Watershed	940005 (001552)	19 months	$12,900	Canada	University of Manitoba	Closed
Valuation of Biodiversity	940008 (001553)	50 months	$94,500	Kenya	National Council for Science and Technology, Nairobi, KE	Closed
Biodiversity Research and Capacity Building for Third World Network	940023 (002219)	22 months	$87,000	Global	Third World Network, Penang MY	Closed
Indigenous Land Use Practices in Southern Africa	940006 (001498)	26 months	$40,987	Botswana	Permaculture Trust of Botswana, Serowe, BW	Closed
First Nations Environmental Knowledge and Approaches to Natural Resources - Phase II	94100 (001950)	40 months	$100,000	Canada	1) University of Ottawa, ON 2) Mohawk Council of Akwesasne, ON	Closed
Management of Natural Resources and Biodiversity	941004 (001874)	55 months	$307,292	Nicaragua	1) University of Guelph, Guelph, ON, CA 2) Central American University, Managua, NI	Active

TABLE 1: IDRC-SUPPORTED ENVIRONMENTAL PROJECTS WITH INDIGENOUS PEOPLE

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Indigenous Community Knowledge of Natural Resources (Tanzania)	948496 (055068)	42 months	$239,684	Tanzania	1) McGill University, Montréal, QC, CA 2) Korongoro Integrated Peoples Oriented to Conservation, Loliondo, TZ	Active
Exploring New Canadian Partnerships 1994 - 1995	940811 (000955)		$10,000	Canada	NWT Treaty #8 Tribal Council, Fort Resolution, NT, CA	Closed
Community-Based Indicators for Indigenous Peoples in the Great Lakes Basin	944819 (001911) RSA	9 months	$8,975	global		Closed
Sustainable Land Use Options for Shifting Cultivation (Nagaland)	948308 (001772)	72 months	$490,000	Nagaland, India	India. Office of the Agricultural Production Commissioner, Nagaland, IN	Active
Local Knowledge of Wild Species in Rio San Juan	940007 (001692)	27 months	$89,001	Nicaragua	Guises Montana Experimental, Managua NI	Closed
Comparative Analysis on Shifting Cultivation	948014 (040167)	52 months	$90,080	Indonesia/ Philippines/ Thailand/	International Centre for Research in Agroforestry, Nairobi KE	Closed
Environmental Participatory Protection	940024 (001674)	38 months	$50,670	Ecuador	Centro para el Desarrollo Social, Quito EC	Closed
African Highlands Resource Management	948509 (001770)	38 months	$548,340	East Africa	International Centre for Research in Agroforestry, Nairobi KE	Closed
Biodiversity Conservation and Sustainable Development in Xishuangbanna Biosphere Reserve	948011 (100094)	49 months	$389,445	China	Chinese National Committee for Man and the Biosphere, Beijing CN	Active
PROJECT TITLE	**FILE NUMBER**	**DURATION**	**AMOUNT OF GRANT**	**COUNTRY**	**RECIPIENT**	**STATUS**

TABLE 1: IDRC-SUPPORTED ENVIRONMENTAL PROJECTS WITH INDIGENOUS PEOPLE

Resource Management by Fishing Communities	940002 (000218)	52 months	$135,210	Brazil	Museu Paraense Emilio Goeldi, Belem BR	Active
New Canadian Partnerships: 1995-1996	950803	n/a	$5,000	Canada	Inuit Tapirisat of Canada (ITC)	Closed
Indigenous Management of Eco-Tourism in the Amazon	958757 (001880)	37 months	$261,720	Venezuela	Organización Regional de Pueblos Indigenas de Amazonas, Puerto Ayacucho, VE	Active
Fish Gene Banking (Global) II	951003 (002375)	31 months	$60,000	global	Vancouver Aquarium, Vancouver, BC, CA	Closed
Indigenous People's Resource Management in Yucatan	951006 (002644)	32 months	$62,478	Mexico	1) University of Ottawa, Ottawa, ON, CA 2) Xpujil Regional Council, Campeche, MX 3) Onake Corporation, Cornwall, ON, CA	Closed
Eco-Production for Artisanal Wood Industries	950001 (000438)	35 months	$205,380	Mexico	Grupo Interdisciplinario de Tecnologia Rural Apropiada, México, MX	Closed
Participative Management of the Paraguay-Parana River Basin, Hidrovia	958760 (050032)	25 months	$240,500	Bolivia/ /Brazil/ /Paraguay/ /Uruguay	1) Asociación Latinoamericana de Integración, Montevideo, UY 2) Instituto Centro de Vida, Cuiaba, BR	Active
Indigenous Peoples Biodiversity Research Program	951007 (002614)	36 months	$130,000	global	Cultural survival Canada	Closed
Coastal Area Monitoring II	950023 (002306)	50 months	$167,620	Nicaragua	Central American University, Managua, NI	Active

TABLE 1: IDRC-SUPPORTED ENVIRONMENTAL PROJECTS WITH INDIGENOUS PEOPLE

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
IWOKRAMA International Rainforest Programme: Information and Communication Unit	950605 (000384)	36 months	$420,000	Guyana	Iwokrama International Rain Forest Centre, Georgetown	Active
Maasai Women`s View	950802-01 (00960-01)		$10,000	Kenya	National Museums of Kenya, Nairobi, KE	Closed
Management Indigenous Development Areas, Mapuche	958765 (050159)	24 months	$104,000	Chile	Instituto de Estudios Indigenas, Temuco, CL	Closed
Indigenous Knowledge and Land Use Workshop	954013 (002904) RSA	24 months	$31,000	Belize	Inuit Circumpolar Conference (ICC), Ottawa	Closed
Environmental Management Practices, M'bya-Guarani	958761 (050063)	32 months	$111,000	Argentina/ /Bolivia/ /Brazil/ /Paraguay/ /Uruguay	Centro de Estudios Rurales Interdisciplinarios, Asunción, PY	Closed
Utilization of Indigenous Knowledge in Survival Strategies in Arid Environment	955505 (055203) RSA	24 months	$15,500	Kenya	Pastoralist Shelter Organization	Closed
Cooperatives for Land Rehabilitation	950022 (001626)	27 months	$150,070	Kenya	Rehabilitation of Arid Environments Charitable Trust, Nakuru, KE	Closed
Assessment of Indigenous Technical Knowledge (ITK) on Sloping Agricultural Land in Vietnam	958018 (040329)	48 months	$100,010	Viet Nam	Forest Science Institute of Vietnam, Hanoi, VN	Active

TABLE 1: IDRC-SUPPORTED ENVIRONMENTAL PROJECTS WITH INDIGENOUS PEOPLE

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Management of Indigenous Development Areas, Mapuche	958765 (050159)	24 months	$104,000	Chile	Instituto de Estudios Indigenas, Temuco, CL	Closed
International Communications and Networking System (ICONS)	950609 (002655)	26 months	$100,000	global	International Union for Conservation of Nature and Natural Resources - World Conservation Union, Gland, CH	Closed
Indigenous Knowledge and Land Use Workshop-Belize	954013 (002904) RSA	24 months	$31,000	Belize	1) The Ketchi Council of Belize 2) The Inuit Circumpolar Conference 3) UNAAQ (an Inuit-owned community development NGO)	Closed
Indigenous Vegetables for Food Security	950006 (002757)	59 months	$191,390	Zimbabwe	Community Technology Development Association, Harare ZW	Closed
Useful Species from the Humid Tropics	950002 (002668)	29 months	$314,210	Nicaragua	Guises Montana Experimental, Managua NI Guises Montana Experimental, Managua NI	Closed
Wild Biodiversity Conservation, Indigenous Knowledge and Alternative Livelihoods	955007 (040299) RSA	21 months	$20,000	Indochina		Closed
Institutional Development for Natural Resource Management	958513 (055121)	51 months	$303,600	Mozambique	Mozambique. National Directorate of Forestry and Wildlife, Maputo MZ	Active
CBRM - Indigenous Fisheries Development and Management	968005 (040366)	48 months	$134,512	Laos	Lao People's Democratic Republic. Ministry of Agriculture and Forestry, Department of Livestock and Fisheries, Lao PDR	Active
Assessing the Sustainability of Community-Managed Forests	960030 (003418)	40 months	$311,610	global	Center for International Forestry Research, Bogor, ID	Active

TABLE 1: IDRC-SUPPORTED ENVIRONMENTAL PROJECTS WITH INDIGENOUS PEOPLE

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Indigenous Traditional Production Systems	968759 (050214)	20 months	$144,000	Brazil	Instituto Centro de Vida, Cuiaba, BR	Active
Improvement of Slash / Mulch Systems Phase II	961005 (002839)	38 months	$234,548	Costa Rica	Universidad de Costa Rica, San José, CR	Active
Generating Incentives for Sustainable Natural Resource Management (Phase II)	960023 (003267)	36 months	$252,490	India	Society for Research and Initiatives for Sustainable Technologies and Institutions, Ahmedabad, IN	Active
Traditional Community Organization for Sustainable Natural Resources Development	961002 (003136)	37 months	$199,790	Mexico	1) International Secretariat for Water, Montréal, QC, CA 2) Comunalidad, A.C., Oaxaca, MX	Active
Supplemental Irrigation With Brackish Water	968604 (060001)	48 months	$249,670	Syria	International Center for Agricultural Research in the Dry Areas, Aleppo, SY	Active
Ancestral Domain and Resource Management	968007 (040368)	48 months	$248,320	Philippines	University of the Philippines, Quezon City, PH	Active
Collaboration Research Network on Conservation and Utilization of the African Tilapias	960028 (003404)	37 months	$235,000	Africa	International Center for Living Aquatic Resources Management, Manila, PH	Active
Development of Iwokrama Biodiversity "Exploration"	964012 (003131) RSA	21 months	$1,000	Guyana	Iwokrama International Rainforest Programme	Closed
Desert Margins Initiative	960020 (003347)	36 months	$483,170	Burkina Faso/ /Botswana/ /Kenya/ /Africa South of Sahara	International Crops Research Institute for the Semi-Arid Tropics(ICRISAT). Sahelian Center, Niamey, Niger	Active

TABLE 1: IDRC-SUPPORTED ENVIRONMENTAL PROJECTS WITH INDIGENOUS PEOPLE

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Environmental Action Centers, Phase II	968755 (050211)	34 months	$380,100	Brazil/ /Chile/ /Ecuador/ /Paraguay	1) Amigos de la Tierra, Montevideo,UY 2) Centro de Estudios Rurales Interdisciplinarios, Asunción, PY	Active
Sustainability of Green Forest Products II	970024 (003747)	38 months	$250,000	Guatemala	Conservation International - Guatemala, Flores, GT	Active
Participatory Land and Water in Dryland Agropastoral Areas (Phase II)	978603 (060080)	50 months	$230,993	Egypt	1) University of Guelph, Guelph, ON, CA 2) Alexandria University. Faculty of Agriculture, Alexandria, EG	Active
Agrobiodiversity and Indigenous Knowledge	971003 (003685)	50 months	$370,270	Malawi	1) Malawi. Ministry of Forestry, Fisheries and Environmental Affairs, Lilongwe, MW 2) Laurentian University of Sudbury, Sudbury, ON, CA	Active
CBNRM - Resource Management Policy, Ratanakiri Phase II	978003 (040392)	42 months	$365,010	Cambodia	United Nations Development Program, Phnom Penh, KH	Active
An Institutional Analysis of the 'Sasi Laut' System in Maluku Province	978001 (040386)	40 months	$41,100	Indonesia	International Center for Living Aquatic Resources Management, Manila, PH	Active
Improving crop-livestock productivity through efficient nutrient management in mixed farming systems of semi-arid Africa	970013 (003894)	50 months	$544,530	West Africa	International Livestock Research Institute, Addis Ababa, ET	Active
Sustainable Utilization of the Baringo Drylands	978537 (055289)	48 months	$355,000	Kenya	Rehabilitation of Arid Environments Charitable Trust, Nakuru, KE	Active

TABLE 1: IDRC-SUPPORTED ENVIRONMENTAL PROJECTS WITH INDIGENOUS PEOPLE

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Traditional Water Management in Africa	971051 (001989)	18 months	$80,174	Djibouti/ /Egypt/ /Tanzania	International Secretariat for Water, Montréal, PQ, CA	Active
Indigenous knowledge tool kit with an emphasis on desertification in sub-Saharan Africa	984059 (004628) RSA	12 months	$3,500	Africa South of Sahara		Active
In-situ conservation & use of genetic resources by Afro-Colombian communities	980017 (003462)	36 months	$131,100	Colombia	Fundación Herencia Verde, Calli-Valle, CO	Active
Plant Biodiversity of the Embera & Kuna People of Darien	980008 (004195)	38 months	$99,606	Panama	1) McGill University. Biology Dept., Montréal, PQ, CA 2) Fundacion Dobbo Yala, Panama, PA	Active
Forging Links Between Agroforestry Research and Development in the Semi-Arid Lowlands of West Africa	980001 (003429)	48 months	$498,450	West Africa	1) International Centre for Research in Agroforestry, Nairobi, KE 2) Université Laval, Québec, PQ, CA	Active
Local Natural Resource Management Network	988910 (003989)	51 months	$300,000	Southern Africa	1) University of Zimbabwe, Harare, ZW 2) University of the Western Cape, Bellville, ZA	Active

2. HEALTH PROJECTS

IDRC has long been interested and involved in Indigenous peoples' health development. What has become evident over time is that individual countries have generally neglected Indigenous peoples' health and health-related issues. Typically, high rates of infant mortality and infectious disease are exacerbated by limited access to culturally appropriate 'on the ground' government health care services. IDRC has funded 37 projects aimed at improving the health and well-being of Indigenous communities in Oceania, Latin America, Africa and Southeast Asia over the last three decades.

2.1 Projects

Health projects in Indigenous communities have explored a variety of important themes. A number of projects focused on diagnostic studies of existing health and healthcare in Indigenous communities. Six projects examined the health problems, needs and current resources available in Indigenous communities, with a view to designing appropriate interventions (78-0020, 78-0067, 82-0217, 88-0387, 89-0232, 89-1038). Three projects explored the relationship between health and environment, looking at the Indigenous understanding of 'health' and its impact on the local social, physical and cultural environment (91-0242), and at the impact of development on the environment and human health (93-8750, 94-0206). Several other projects went a step further and established and evaluated community-based health care systems (84-0227, 85-0043, 92-0203).

Four projects looked at improving sanitation in Indigenous communities through an understanding of local beliefs about hygiene and disease control. Projects examined local acceptance and effectiveness of waste recycling technologies (78-0015), Indigenous attitudes towards the use of introduced latrines (83-0203), traditional knowledge and methods of water use/ sanitation and their effect on the use of piped water systems and sanitary facilities (83-0310), ways to design an educational program to change attitudes so that Indigenous people will adopt latrine technology (84-0042), ways to improve the sanitary behavior of mothers to address the problem of diarrheal diseases in children (89-0304), and Indigenous beliefs, attitudes and practices related to water use and the perceived benefits and disadvantages of piped water (92-1050).

There were a number of projects which focused on traditional medicine and its efficacy for healthcare. In many areas of the world, Indigenous people still rely on traditional healers and local medicinal plants as an affordable, accessible and culturally-relevant source of primary healthcare. Early projects examined the relationship between the traditional and formal health systems in an indigenous community (83-0214), assessed Indigenous knowledge of family planning (78-0013, 87-0159) and explored the possibility of using traditional medical practitioners to promote effective family-planning methods (88-0037).
Later projects looked at the use of medicinal plants for treating particular diseases, such as traditional

curative methods for drepanocytic anemia (90-0097), the use of anti-mosquito plants for malaria control (94-8492) and plants used for eye-medicines (97-0019). Three projects in Africa promoted the sustainable use of medicinal plants and biodiversity conservation. In Malawi, traditional herbalists were involved in a systematic collection of baseline information on medicinal plants (94-8490). This contributed to the conservation and valorization of the plants and their habitats. In Uganda, researchers worked to increase the accessibility of the most endangered plants to traditional healers (94-8489). In Madagascar, researchers set up a primary health care clinic staffed by traditional healers using medicinal plants for treatments (94-8491). Other projects supported the establishment of research networks to promote and co-ordinate multidisciplinary efforts to conserve medicinal plants, document and evaluate their effectiveness, and disseminate research findings both locally and internationally (94-0020, 95-8300, 97-0031, 97-8758). IDRC also funded a series of regional workshops on traditional medicine (94-4227, 94-4245, 94-4218).

In some cases, traditional medicine and beliefs can be dysfunctional and thus a hindrance to effective health care. Several projects looked at specific diseases and the traditional knowledge, attitudes and practices associated with them, in order to design more appropriate treatment strategies. One project looked at the medical knowledge of parents with children who have 'open mole'— a disease caused by dehydration which results in a characteristic indentation of the forehead (87-0158). Two other projects looked at community knowledge, attitudes and beliefs related to HIV/AIDS (89-0324, 90-0328).

In addition to the projects described above, IDRC's Ecosystem Approaches to Human Health (ECOHEALTH) Program Initiative has funded a number of projects in Indigenous communities which explore the intimate relationship between ecosystems and human health. The aim of the initiative, based on a recognition that humans are intimately tied to and dependent upon the natural environment for their well-being, is to support research that focuses on ecosystem management interventions that lead to the improvement of human health and well-being while maintaining or improving the health of the ecosystem as a whole.

2.2 Discussion

The emphasis in health projects over the last three decades has tended to shift from externally-imposed solutions based on scientific medicine to a more community-oriented approach which stresses the development of local capacities to provide health services, utilizes traditional knowledge and approaches to health care and recognizes the unique cultural context of Indigenous communities. Projects on traditional medicine and medicinal plants highlight the primary role that Indigenous people can and should play in both preventative and curative health care in their own communities. Such projects underscore the importance of encouraging and building upon the positive elements of traditional medicine to improve health care in Indigenous communities.

Several earlier projects also saw the necessity of involving Indigenous people in decision-making and training them to provide health services in their own communities. One project highlighted the need to train village leaders in nutrition, agriculture and housing as a means of addressing the broader determinants of health (78-0020). According to the project completion report, the greatest strength of the project lay in allowing the people themselves to have a voice in the improvement of medical facilities (PCR: 78-0020). In another project, the formation of leadership skills in the community and the strengthening of village organizations was seen as a "necessary key ingredient to the long-term success of a primary health program" (PCR: 84-0227). In other projects, men and women were trained as village health workers to provide both preventive and curative health services (82-0217), and a traditional communication system was used to disseminate health information to other communities (89-0304). Projects considered successful in one area were often used as blueprints to design appropriate interventions in other areas. For example, the Primary Health Care (PHC) project in Malaysia (82-0217 phase I, 85-0043 phase II) developed a PHC model among the Penan people, which was then replicated in other areas of Malaysia with different social, cultural and health service patterns. Likewise, a project in Eastern Colombia promoted the dissemination of research methodologies for health care in other regions not only for more appropriate health services, but also to strengthen the cultural identity and community autonomy of Indigenous peoples (92-0203).

Other projects were not so successful in building local capacities for health care. For example, one project's attempts to establish a 'community-based health care system' and a 'culturally relevant' training program were marred by a lack of community involvement (84-0227). According to the project completion report, "one of the major obstacles to the success of this project was the lukewarm participation of the community. This may have been overcome if greater attention had been paid to community preparation prior to the planning and implementation phase." (PCR: 84-0227). As well, many projects, particularly earlier ones, have ignored women and their role in health care, a serious oversight since women are the primary providers of health care in Indigenous communities. Only four earlier projects made reference to the engagement of women. In one

project, women as well as men were trained as Village Health Promoters (82-0217), and in another women were selected to "change their knowledge and behavior" about sanitation for the sake of their children and the community (89-0304). Other projects focused on women as the main beneficiaries and participants in the research (92-0203), sought the participation of women in their role as traditional birth attendants (94-8490), and documented gender-specific ecological knowledge with special effort made to involve women in the research (94-8496). Nevertheless, more research on the role of Indigenous women is needed and, at the same time, spaces for their active participation within the research design, process and implementation are critical.

Emphasis has also shifted from health sector interventions to a more holistic ecosystem approach to human health, which seeks to improve human health through better natural resource management.

TABLE 2: IDRC-SUPPORTED HEALTH PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Traditional Medicine	770066	12 months	$70,600	Ecuador	Fundacion Ciencias para el Estudio del Hombre y La Naturaleza, Quito	Closed
Excreta Reuse	780015	18 months	$128,240	Guatemala	Centro de Estudios Mesoamericano sobre Tecnologia Apropiada (CEMAT), Guatemala	Closed
Health Needs	780067	18 months	$117,148	Bolivia	Universidad Mayor de San Andres, La Paz	Closed
Fertility and Family Planning	780013	36 months	$24,000	Sierra Leone	Njala University College, Freetown SL	Closed
Rural Health Centres	780020	37 months	$118,600	Papua New Guinea	College of Applied Health Sciences, Madang District	Closed
Primary Health Care - Phase I	820217	18 months	$29,570	Malaysia	University of Malaya, Kuala Lumpur	Closed
Toilet Usage	830203	50 months	$32,670	Philippines	Mountain State Agricultural College, Benguet, PH	Closed
Traditional Medicine	830214	28 months	$133,390	Tanzania	Muhimbili Medical Centre, Dar es Salaam, TZ	Closed
Water Supply and Sanitation	830310	?	$151,000	Korea	Seoul Ntional University, Seoul, Korea	Closed
Primary Health Care in Tribal Communities	840227	42 months	$150,460	Philippines	De La Salle University, Manila	Closed
School Sanitation	840042	44 months	$217,000	Lesotho	Recipient: Central Planning and Development Office, Maseru LS	Closed
Primary Health Care - Phase II	850043	24 months	$190,630	Malaysia	University of Malaya, Kuala Lumpur	Closed
Child-rearing Practices	860314	20 months	$52,200	Thailand	Chulalongkorn University, Bangkok TH	Closed
Open Mole	870158	17 months	$38,860	Liberia	Cuttington University College, Monrovia LR	Closed

TABLE 2: IDRC-SUPPORTED HEALTH PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Fertility and Adolescent Sociopsychological Behaviour	870159	24 months	$93,700	Mali	Ecole normale superieure, Bamako ML	Closed
Ecology of Leishmaniasis	880387	24 months	$97,350	Colombia	Universidad de Antioquia, Medellin	Closed
Traditional Fertility Regulation	880037	43 months	$60,768	Nigeria	Obafami Awolowo University, Ile-Ife NG	Closed
Indigenous Culture and Health Services Utilization Among Indian Migrants	890232	12 months	$53,100	Guatemala	Universidad del Valle de Guatemala, Guatemala	Closed
Health Communication	890304	36 months	$115,416	Papua New Guinea	Department of Enga, Papua New Guinea	Closed
Social Analysis of AIDS	890324	12 months	$61,250	Uganda	Makerere University. Department of Social Work and Social Administration, Kampala UG	Closed
Health / Nutrition Impact on Plantation Workers' Families	891038	65 months	$266,884	Dominican Republic	Centro de Promociπn Integral y de Salud Educacional, Santo Domingo DO	Closed
Nutrition Education For Young Women (India) - Phase I	890111	22 months	$241,700	India	Nutrition Foundation of India, New Delhi IN	Closed
Socio-cultural Determinants of AIDS	900328	39 months	$118,670	Zimbabwe	University of Zimbabwe, Harare ZW	Active
Drepanocytic Anemia and Traditional Medicine - ASAFED Publications	900097	12 months	$82,689	Africa	Association africaine pour l'education au service du d'eveloppement, Lome TG	Active
Indigenous Perceptions of Health and the Environment	910242	24 months	$98,540	Chile	Programa de Apoyo y Extension en Salud Materno Infantil (PAESMI), Santiago	Closed

TABLE 2: IDRC-SUPPORTED HEALTH PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Health of Ethnic Minorities in Eastern Colombia	920203	36 months	$244,590	Colombia	Fundacion Ethnollano	Closed
Social and Biological Impact of Piped Water	921050	24 months	$201,735	Guatemala	1) McGill University, Montreal 2) Institute of Nutrition of Central America and Panama, Guatemala	Closed
Psychosocial Study of Child Health	920206	34 months	$89,240	India	Centre for Research in Health, Dindigul IN	Closed
Environmental Health Impact Assessment in the Amazon	938750	30 months	$785,000	Brazil, Guyana Bolovia, Colombia, Ecuador, Peru, Suriname, Venezuela	Association of Amazonian Universities UNAMAZ, Brazil	Closed
Medicinal Plants and Biodiversity	948490	36 months	$147,903	Malawi	National Herbarium and Botanic Gardens, Zomba, MW	Closed
Indigenous Community Knowledge of Natural Resources	948496	30 months	$239,684	Tanzania	1) McGill University, Centre for Nutrition and Environment of Indigenous Peoples (CINE) 2) Korongoro Integrated Peoples Oriented to Conservation, Tanzania	Closed
Medicinal Plants and Biodiversity	948491	36 months	$149,315	Madagascar	Recherche sur les resources naturelles pour la conservation et un developpement approprie, Antananarivo, MG	Active
Medicinal Plants and Biodiversity	948489	36 months	$124,359	Uganda	Natural Chemotherpeutics Research Laboratory, Kampala	Closed
TRAMIL : Central American Network on Medicinal Plants	940020 (001930)	38 months	$238,960	Central America	ENDA-Caribe, Santo Domingo DO	Closed

TABLE 2: IDRC-SUPPORTED HEALTH PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Land Use and Health	940206 (001027)	53 months	$798,350	Brazil	Universidade Federal de Minas Gerais. Centro de Desenvolvimento e Planejamento Regional, Belo Horizonte,BR	Closed
Regional Workshop on Traditional Medicine	944218 (001808) RSA	24 months	$10,000	Latin America		Closed
Linking Mongolian Traditional Medicine Data with the AHEAD CD-ROM	945016 (040184) RSA	20 months	$20,000	Mongolia		Closed
Regional Workshop on Herbal and Traditional Medicine (West Indies)	944245 (001618) RSA	14 months	$49,886	Caribbean		Closed
Latin American Workshop on Traditional Medicine (NPAC)	944227 (002091) RSA	15 months	$3,000	Latin America		Closed
Anti-Malarial Plants	948492 (055063)	51 months	$176,003	East Africa	African Biodiversity Institute, Nairobi KE	Closed
Medicinal Plants Network (South Asia) Phase II	958300 (045021)	39 months	$249,292	South Asia	International Development Research Centre, Ottawa, ON, CA	Active
Medicinal Plants Used by Palestinian Farmers in the Galilee	960224 (003386)	20 months	$40,000	Israel	Galilee Society for Health Research and Services, Elabon, IL	Active
TRAMIL : Central American Network on Medicinal Plants II	960012 (003233)	48 months	$470,241	Central America	ENDA-Caribe, Santo Domingo, DO	Active

TABLE 2: IDRC-SUPPORTED HEALTH PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Medicinal Plants South American Proposal Development	974032 (003814) RSA	18 months	$20,703	South America		Active
Support to medicinal plants research activities	974007 (003561) RSA	20 months	$46,795	global		Closed
Medicinal Plants South American Network	978758 (050308)	38 months	$333,000	Argentina/ /Brazil/ /Chile/ /Paraguay	Centro de Estudios sobre Tecnologias Apropriadas de la Argentina, Buenos Aires, AR	Active
Conserving Medicinal and Aromatic Plant Species: Identifying IPGRI's Contribution	970031 (004114)	19 months	$50,000	global	International Plant Genetic Resources Institute, Roma, IT	Active
Traditional Eye Medicines in Malawi: Biodiversity and Utilization	970019 (003955)	40 months	$176,086	Malawi	WHO Collaborating Centre for the Prevention of Blindness, Lilongwe, MW	Active
Health, Nutrition and Biodiversity Resource Management - Nepal	988302 (004487)	?	$149,997	Nepal	Rural Reconstruction Nepal, Kathmandu, NP	Active
Ethnomedicine and Medicinal Plants Conservation in Rachuonyo District	985581 (055418) RSA	21 months	$11,875	Kenya		Active

3. SOCIO-ECONOMIC PROJECTS

The second half of the twentieth century has seen an increasing pressure on Indigenous communities to integrate with larger societies. Modernization and the effects of wider market and cultural forces have greatly altered traditional social and economic structures, often with dire consequences for the well-being and self-determination of Indigenous peoples. Twenty-nine projects have been funded by IDRC in an attempt to understand the complex social and economic conditions which exist in Indigenous communities, and determine what actions can be taken to secure their cultures, livelihoods and futures.

3.1 Projects

Indigenous peoples in all parts of the world are facing many challenges which threaten the cohesion of their communities and their economic, ecological, social, political and cultural spaces. Economic exploitation, land appropriation, and cultural assimilation have led to the marginalization and underdevelopment of most Indigenous communities. New market economies within an increasingly global system are relegating traditional subsistence economies and social structures to subordinate positions, despite efforts by Indigenous people to resist. Some have been forced to migrate to cities or resettle in unfamiliar environments, while others are becoming land poor as a consequence of encroachment by non-Indigenous peoples.

A number of projects focused on assessing the impact of various forces of 'modernization' in Indigenous communities. In Latin America, projects looked at the market economy and its impact on peasant farmers (80-0213, 83-0049), agricultural colonization policies for population redistribution (81-0164), the needs of peasant communities with regard to rural credit programs (86-0296), the socio-economic organization and living conditions of Indigenous people who have been forced to migrate from tribal rural areas to the city (91-0051), and the relationship between economic, social and political processes and the degradation of environmental resources (94-0002). In Africa, projects examined the government's management of resettlement programs for semi-nomadic peoples (77-0129), the socio-economic impact of the transition from nomadic pastoralism to settled agriculture (78-0063, 84-0325), and the impact of poorly planned government development programs on the life patterns and production systems of nomadic peasants (91-0264). In Southeast Asia, a project studied the impact of regional development programs on Indigenous minorities in several countries (88-0124).

Projects also attempted to elicit a deeper understanding of traditional economic and social structures, in order to identify key features which could potentially contribute to development programs and strengthen self-determination. In Latin America, projects recorded local histories of land and resource use, farming practices, land tenure patterns, economic relationships and the development

of Indigenous organizations (81-0153, 83-0184), studied and compared existing forms of peasant organization to determine which forms are most viable for future development programs (81-0037), examined how certain Indigenous communities successfully adapted to the changing socioeconomic environment while at the same time maintaining their cultural identity (83-0117), looked at the key characteristics of Indigenous communities which could facilitate development in the face of rapid social change (87-0002), and described the 'survival strategies' of Indigenous communities in the face of changing ecological and socio-economic conditions (87-0005). In Asia, researchers recorded information on minority national languages and promoted their use in the regions where they are spoken (88-1009 & 90-1026), and fostered the development of cooperatives (91-1045). One early project in Oceania assessed the economic role of Indigenous and non-Indigenous peoples in the local distribution system, in order to encourage Indigenous involvement within the system (74-0117).

Several projects focused on state legal systems and their effects on Indigenous institutions. In Southeast Asia, projects looked at developing a system of land tenure to allow communal titles to land for Indigenous people (85-0335) and the relationship between state law and collective land rights to ancestral domain (90-0335). In Africa, researchers examined the impact of social and economic changes on traditional family laws related to succession, inheritance, marriage and divorce (84-0326), and in Latin America, a project studied the interplay between state and Indigenous legal culture, in order to identify appropriate approaches to conflict resolution (86-0153).

Only two projects, both in India, focused specifically on Indigenous women and the effects which modernization has had on their lives. One project aimed to improve the status of poor urban women by gathering economic and social data on health education, migrant children and income generation (87-0337), while another sought similar results through an assessment of women's reproductive choices, decision-making, household labour and alternate sources of employment (91-0217). This latter project set out to find ways of providing the women with economic independence, security, and self confidence. It was unique in that "it actively involves the participation of Indian men, together with women, in discussions of women's status" (Appraisal, p. iii).

In Canada, the Leadership Support Program for Canadian Indigenous Youth (95-0811) has a separately funded action-research provided by the Gender Unit of IDRC (95-0802-04). This parallel project is to enhance and ensure the gender component of the Leadership Support Program project. Directed to the particular needs and aspirations of young Indigenous women, it seeks to strengthen their ability to participate in, and benefit more fully from, leadership development within their communities.

3.2 Discussion

Over the last decade, IDRC has moved away from funding projects with a strictly socio-economic

orientation, preferring research which takes a more holistic approach regarding the problems faced by Indigenous peoples. Nevertheless, projects which focused on the social and economic conditions of Indigenous communities did make some interesting contributions towards an overall understanding of the factors which have inhibited sustainable development.

For example, a number of projects pointed out that development strategies have largely ignored the needs, traditions and knowledge of Indigenous peoples. For example, in research carried out in Ecuador on agricultural colonization programs, the project team recommended that the state consider the needs and proposals of Indigenous peoples before establishing colonization programs (81-0164). Researchers also found that, in terms of the community's ability to deal with market activity, both the availability of natural resources and the degree of cultural cohesion within communities were important variables that needed to be considered as well. In Panama, researchers found that Indigenous peoples who migrate to the cities become the 'marginalized of the marginalized', facing a number of problems associated with finding adequate shelter and earning a living (91-0051). In the projects investigating the resettlement of nomadic peoples in Africa, researchers made it clear that the involvement of settlement populations was essential to the success of future resettlement programs (77-0129), that Indigenous perceptions of relocation were important (78-0063), and that an understanding of the social and economic impact after resettlement was also essential (84-0325, 91-0264).

Projects also emphasized the importance of development schemes which allow Indigenous peoples to retain their unique cultural identities. In Peru, researchers looked at communities which had managed to retain key features of their traditional cultures, in order to identify the variables which make this possible (83-0117). In the project in Ecuador, researchers examined the creative "survival strategies" developed by the community in the face of social and economic change (87-0005). This project reinforced Indigenous peoples' sense of identity and cultural pride and emphasized community participation in identifying and solving social, economic and environmental problems. As well, the project attempted to fill a gap in rural development research by "combining anthropological and economic approaches in order to develop an interdisciplinary perspective which combines the culture-specific and systematic insights of anthropology with the strengths of economic modeling and policy-formulation" (PCR 87-0005 p. 4). The Cooperative Development project in China (91-1045) involved the establishment of joint ventures between Yunnan researchers and Indigenous peoples in western Canada to develop local co-operatives to increase Indigenous control over local development, preserve traditional cultures, and facilitate development by stimulating self respect and cooperation between ethnic groups.

Unfortunately, projects have not paid satisfactory attention to the issue of gender and the differing impacts of social and economic change on Indigenous men and women. There is, in fact, little accounting for women and their socio-economic experiences despite the fact that the process of

modernization has had, by and large, a more negative effect on women than on men. Out of 29 projects in this section, only two are committed to the betterment of women (87-0337,91-0217).

As well, although many project proposals have emphasized the "importance of listening to the local people" and "having greater confidence in them" (PCR 83-0124, p.3), the actual participation of Indigenous people has frequently been unsatisfactory. For example, although proponents of the project Regional Development and Indigenous Minorities in Southeast Asia claimed that it was of a participatory nature, little evidence surfaced to suggest that Indigenous people's "active participation has been sought outside of their being interviewed in the process of data collection" (Evaluation 88-0124, p. 4). This may have been due, in part, to a poor selection of research organizations and the possibility that the project officer "...did not have a good enough idea of which groups [were] doing really good work with Indigenous minorities in the region" (PCR 88-0124). The result, according to the evaluation, was that the "...[project's] concrete contribution to the Indigenous minorities that were under the study has been minimal....participation of Indigenous minorities' representatives...was merely limited to the menial jobs as local field assistants" (Evaluation 88-0124, p.15-16).

Researchers have also shown bias based on their own perceptions of society and economy. In the project which examined the participation of Indigenous peoples in the non-Indigenous dominated economies of the South Pacific (74-0117), researchers focused only on the "monetized sector of the economy with very little attention being given either to the positive aspects of the traditional food production and distribution systems or to their interface with the modern sector. Lacking [such] information...the project [was] in no position to formulate appropriate policies to project or complement them" (Evaluation 74-0117, p.16). In the project on Indigenous customary law in Peru, researchers unexpectedly concluded that there did not really exist a customary law, but just customary ways of resolving issues without reference to norms (86-0153). According to evaluations, these results may have been due to faulty research methodology and a lack of community consultation for idea development and research design (PCR 86-0153).

TABLE 3: IDRC-SUPPORTED SOCIO-ECONOMIC PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Distribution Systems	74-0117	30 months	$160,000	Fiji, Tonga and New Hebrides	1) University of the South Pacific, Fiji 2) Australian National University, Canberra	Closed
Resettlement Management	77-0129	48 months	$31,000	Sudan	National Council for Research, Kharatoum	Closed
Nomad Resettlement	78-0063	12 months	$69,000	Somalia	Settlement Development Agency (SDA), Mogadishu	Closed
Regional Development and Indigenous Social Structure	80-0213	18 months	$72,000	Chile	Centro de Investigacion y Planificacion del Medio Ambiente (CIPMA), Santiago	Closed
Agricultural Colonization	81-0164	18 months	$88,000	Ecuador	Centro de Investigaciones y Estudios Socio-Economicos (CIESE), Quito	Closed
Peasant Organization and Rural Development	81-0037	15 months	$57,000	Ecuador	Centro de Planificacion y Estudios Sociales (CEPLAES), Quito	Closed
Social Awareness and Rural Development - Phase I	81-0153	18 months	$32,000	Colombia	Fundacion Punta de Lanza, Bogota	Closed
Social Awareness and Rural Development - Phase II	83-0184	16 months	$55,000	Colombia	Fundacion Punta de Lanza, Bogota	Closed
Market Impact on Amazon Communities	83-0049	15 months	$54,300	Peru	Centro de Investigacion y Promocion Amazonica (CIPA), Lima	Closed
Leading Communities	83-0117	24 months	$86,500	Peru	Instituto de Estudios Peruanos (IEP), Lima	Closed
Indigenous Participation and Resource Management in the Colombian Amazon	84-0179	24 months	$98,700	Colombia	Fundacion Estacion de Puerto Rastrojo, Bogota	Closed

TABLE 3: IDRC-SUPPORTED SOCIO-ECONOMIC PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Sedentation of Nomads	84-0325	21 months	$128,000	Mali	Office Malien du bétail et de la viande (OMBEVI), Bamako	Closed
Common law and the Congolese Family	84-0326		$74,200	Congo	Direction generale de la recherche scientifique et technique, Brazzaville	Closed
Communal Titling	85-0335	24 months	$26,617	Philippines	Philippine Association for Intercultural Development (PAFID), Quezon City	Closed
Peasant Law	86-0153	24 months	$51,710	Peru	Andean Commission of Jurists, Lima	Closed
Rural Credit	86-0296	15 months	$74,500	Peru	Centro Regional de Estudios Socio-Economicos (CRESE), Lima	Closed
Small Regional Grants - Phase II	87-0002	24 months	$108,000	Peru	Asociacion Peruana para el Fomenti de las Ciencias Sociales (FOMCIENCIAS), Lima	Closed
Socioeconomic Adaptation in Indian Communities	87-0005	18 months	$87,000	Ecuador	Centro Andino de Accion Popular (CAAP), Quito	Closed
Women and Urban Poverty	870337	36 months	$149,290	India	Society for the Promotion of Area Resource Centres (SPARC), Bombay IN	Closed
Written Languages of China - Phase I	88-1009	24 months	$230,000	China	1) Université Laval, Quebec 2) Institute of Nationality Studies, Peking	Closed
Regional Development and Indigenous Minorities in Southeast Asia	88-0124	24 months	$258,800	Thailand, Malaysia, Philippines	1) University of Malaya, Kuala Lumpur 2) Thai University Research Association (TURA), Bangkok 3) Akha Association for Education and Culture, Chiangmai 4) Segada Community Development Centre, Segada	Closed

TABLE 3: IDRC-SUPPORTED SOCIO-ECONOMIC PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Ancestral Land Rights: Status and Prospects	90-0335	24 months	$16,880	Philippines	Center for Development Programs in the Cordillera (CDPC), Baguio	Closed
Written Languages of China - Phase II	90-1026	24 months	$243,282	China	1) Université Laval, Quebec 2) Institute of Nationality Studies, Peking	Active
Socioeconomic Organization of the Embera Indians	91-0051	12 months	$77,020	Panama	Fundacion TECHO, Panama City	Closed
Modernization and Life Patterns Among Nomads	91-0264	24 months	$38,290	Nigeria	University of Maiduguri, Nigeria	Closed
Participation Rate of Tribal Women in Rural Employment and Poverty Alleviation Programmes	91-0217	12 months	$11,005	India	Centre for Communication and Action Research for Rural Development, New Delhi	Active
Cooperative Development	91-1045	18 months	$161,555	Yunnan, China	1) Simon Fraser University, B.C. 2) Yunnan Academy of Social Sciences, China	Active
UN Beijing 1995 Initiative	930811	48 months	$352,600	global	IDRC, Ottawa, ON CA	Closed
Environmental Degradation : Socioeconomic and Political Context (Andes) - Phase II	94002 (000195)	40 months	$250,000	Andean Region	1) Instituto de Investigaci≤n Universidad y Regi≤n, Cuzco PE 2) Centro Andino de Acci≤n Popular, Quito EC	Active
Leadership Support Program for Canadian Indigenous Youth	95-0811/ 02955	24 months	$95,000	Canada	International Secretariat for Water	Active
Special Expert and Advisory Services fund for Mainstreaming Gender in IDRC Programs	95-0802-04/ 00960-04	24 months	$15,300	Canada	International Secretariat for Water	Active

4. EDUCATION PROJECTS

Typically, mainstream educational systems are poorly designed to meet the needs of Indigenous peoples, resulting in low educational attainment, high adult illiteracy and high drop out rates. Educators from different cultural backgrounds are often not properly trained to work in Indigenous communities, school infrastructure and supplies are often inadequate, and curricula emphasize the dominant language and national culture. IDRC has responded to this situation by supporting 24 studies aimed not only at obtaining a better understanding of Indigenous peoples' education problems, but also at developing effective alternatives.

4.1 Projects

Early projects examined conventional educational programs in the living contexts of the Indigenous peoples of Latin America, attempting to identify major problems and how to overcome them. One three-phase project involving three countries looked at teacher qualifications and roles, the availability of educational resources, the effect of cultural context on learning, and alternative teaching methods (80-0074, 82-0046, 84-0165). Projects also surveyed the overall condition of educational services in communities (81-0075), compared the effectiveness of an informal pre-school program based on Indigenous culture with a more conventional pre-school service (85-0300), collected and analyzed information on the needs and views of peasant communities related to the primary school system (86-0223), identified the problems faced by Indigenous children in reading and made recommendations to develop appropriate curricula (87-0166), and examined teaching practices and their effectiveness for bilingual students (88-0335). Other projects had a more specific focus, with one investigating Indigenous understandings of the role of women in community life in order to design appropriate ways to encourage greater participation of women in the educational system (90-0094), and another examining the clash between Indigenous and national language and its effect on children's learning (84-0161).

By the mid-80s, a notable shift towards incorporating traditional culture, knowledge and approaches into alternative educational strategies began to take place. Such a trend was indicative of the general recognition that conventional approaches to education were unsuccessful, culturally inappropriate and contributing to the erosion of local languages and the distinct cultural identities of Indigenous peoples. Projects identified traditional ways of acquiring knowledge in local communities in order to develop an alternative educational program (85-0062), utilized traditional children's activities and games to produce an inexpensive and practical pre-school program (86-0146), investigated Indigenous child-rearing practices as a guide to the development of early childhood education programs (86-0314), encouraged Indigenous people to produce their own culturally-appropriate

literature and make it available to other community members through small learning networks (87-0265), studied the effects of education on Indigenous culture and traditional knowledge (88-0374).

Several projects emphasized the building of Indigenous capacity to perform educational research and participate in the development of alternative learning strategies in a more meaningful manner. The Ecuadorean organization MACAC, a non-Indigenous NGO that has a number of Quechuan researchers, trained Indigenous community members so that they could participate directly in the research process, from project development to implementation (86-0290, 90-0094). The impact of training was immediate, and researchers were able to study the cultural characteristics of Indigenous communities in order to develop appropriate post-primary educational programs. A Canadian Indigenous organization, the Saskatchewan Indian Federated College (SIFC), provided training in management, administration and research for the leaders of several countries of South and Central America through a two-phased project held in Canada (86-0050, 89-0085). The program, based on lessons learned by the native communities of Canada, not only contributed to capacity-building in the participating Latin American countries, but to the SIFC itself, in that it provided insight in how best to capture and transfer such knowledge to other communities. The program was also notable in that it represented the first attempt by IDRC to extend its mandate to include the development of Canada's Indigenous peoples, and was the first time that Canada's Indigenous peoples were linked with those of Latin America.

Later projects continued this emphasis on local capacity-building and the use of Indigenous knowledge to enhance learning and education. One project supported the travel of a Cree woman who had extensive work experience with Indigenous communities in Canada, to Tanzania, where she assisted in the development of curricula in pastoral ecology in two secondary schools (95-0802-06). Another project supported an Indigenous youth organization in Canada to identify effective approaches to local education which incorporated Indigenous knowledge and values, and design appropriate curriculum packages for use both locally and abroad (95-0811). In Africa, a project brought together key players from selected countries to examine a learning approach which integrates formal and traditional learning processes, as well as scientific and Indigenous knowledge (96-8534). In Tanzania, researchers assessed the extent to which traditional media enhances learning, and how such techniques can be used to improve learning (97-0220). In South Africa, researchers analyzed and evaluated the innovative approaches to learning used by local governments, in order to design training programs which would better instill a capacity for continuous learning (98-0206).

4.2 Discussion

Projects related to education have generally shifted from an emphasis on strengthening conventional,

state-run educational systems to exploring alternative forms of education which incorporate Indigenous knowledge and traditional approaches to learning. Emphasis has also shifted from external control to a more community-oriented approach to education, where Indigenous people are encouraged to become involved in educational programs in their own communities and to share their experiences and expertise with other Indigenous communities. It is critical that Indigenous communities own their education initiatives and that they are a faithful reflection of their lives and aspirations. Indigenous involvement and the development of curricula and teaching materials which are culturally relevant and appropriate, can contribute to self-determination and facilitate the protection of cultural identity. Presenting Indigenous knowledge in a format that puts it on equal footing with national and international knowledge systems, preferably through the use of Indigenous teachers, legitimizes it in the eyes of younger generations, creating a greater motivation to preserve it and pass it on to future generations.

TABLE 4: IDRC-SUPPORTED EDUCATION PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
School and Community in Latin America	80-0074	20 months	$202,000	Colombia, Bolivia, and Venezuela	1) Universidad Pedagoicca Nacional, Bogota 2) Centro Boliviano de Investigacion y Accion Educativas (CEBIAE), La Paz 3) Ministerio de Educacion, Caracas	Closed
Ethnicity and Adult Education	81-0075	6 months	$15,000	Latin America	Artes y Ciencias, Buenos Aires	Closed
School and Community - Phase II	82-0046	12 months	$66,500	Bolivia	Centro Boliviano de Investigacion y Accion Educativas (CEBIAE), La Paz	Closed
School and Community - Phase III	84-0165	24 months		Bolivia	Centro Boliviano de Investigacion y Accion Educativas (CEBIAE), La Paz	Closed
Teaching Reading in Bilingual Classrooms	84-0161	18 months	$80,300	Paraguay	Centro Paraguayo de Estudios Sociologicos, Asuncion	Closed
Indian Peasants' Education in Ecuador	85-0062	24 months	$84,400	Ecuador	Centro Andino de Accion Popular (CAAP), Quito	Closed
Alternative Pre-Schools and Primary Education in Rural Areas	85-0300	21 months	$68,765	Ecuador	Instituto de Investigaciones socio Economicas y Tecnologicas (INSOTEC), Quito	Closed
Social Effects of Community Education in Indian Populations	86-0290	15 months	$56,760	Ecuador	Corporacion Educativa MACAC, Quito	Closed
Radio Rural Education	86-0223	18 months	$56,390	Peru	Centro Peruano de Estudios Sociales (CEPES), Lima	Closed

TABLE 4: IDRC-SUPPORTED EDUCATION PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Indian Peasant Games and Pre-School Curricula in the Andean Region	86-0146	11 months	$32,600	Colombia	Centro de Investigacion sobre el Desarrollo Infantil (CIDIE), Bogota	Closed
Educational Software Development for Rural Schools	86-0141	12 months	$32,700	Colombia	Instituto SER de Investigacion, Bogota	Closed
Child-rearing Practices	86-0314	20 months	$52,200	Thailand	Chulalongkorn University, Bangkok, TH	Closed
Models for Native Education in Latin America - Phase I	86-0050	18 months	$89,400	Latin America	Saskatchewan Indian Federated College (SIFC), Canada	Closed
Rural Indian and Peasant Education	86-0312	6 months	$34,090	Ecuador	Centro Andino de Accion Popular (CAAP), Quito	Closed
School-Community System for Literacy	87-0265	24 months	$157,000	Uganda	Institute of Teacher Education, Kampala UG	Closed
Indian Children and Reading in Guatemalan Primary Schools	87-0166	12 months	$21,230	Guatemala	Universidad del Valle de Guatemala, Guatemala	Closed
Teaching and Learning in Aymara Urban Schools	88-0335	30 months	$102,700	Bolivia	Centro Boliviano de Investigacion y Accion Educativas (CEBIAE), La Paz	Closed
Education and Cultural Transformations of Andean Indians	88-0374	36 months	$190,500	Ecuador	Centro Andino de Accion Popular (CAAP), Quito	Closed
Models for Native Education in Latin America - Phase II	89-0085	10 months	$98,780	Latin America	Saskatchewan Indian Federated College (SIFC), Canada	Closed

TABLE 4: IDRC-SUPPORTED EDUCATION PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Culture and Education Among Quecuan Populations	90-0094	18 months	$52,780	Ecuador	Corporacion Educativa MACAC, Quito	Closed
Institutionalizing the Indigenous Capacity in West Africa	91-0288	6 months	$41,353	West Africa	Nigerian Institute of Social and Economic Research (NISER), Ibadan NG	Closed
Small Rural Business Management	91-0277	38 months	$60,425	Côte d'Ivoire	Institut africain pour le developpement Economique et social - Centre africain de formation, Abidjan CI	Active
Improving Elementary Education in Bolivia`s Andean Region	92-8758	36 months	$319,800	Bolivia	Centro Boliviano de Investigacion y Accion Educativas (CEBIAE), La Paz	Closed
Exploring New Canadian Partnerships 1994-1995: Traditional Education in Woodlands Cree Community	94-0811		$8,000	Northern Alberta, Canada	Christina Mader	Active
Canadian Native Youth - Project Development	94-4813 (000950) RSA	9 months	$20,800	Canada		Closed
Environmental Education Workshop Support	94-4047 (002025) RSA	8 months	$3,343	East Africa		Closed
New Canadian Partnerships: 1995-1996	95-0802-06			Tanzania	Doreen Spence	Active
Leadership Support Program for Canadian Indigenous	95-0811 (002955)	38 months	$95,000	Canada	International Secretariat for Water, Montréal, PQ, CA	Active

TABLE 4: IDRC-SUPPORTED EDUCATION PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Environmental Learning in Communities and Schools in Eastern and Southern Africa	96-8534 (055264)	44 months	$245,625	East Africa/ Southern Africa	EcoNews Africa, Nairobi, KE	Active
Traditional Media in Learning for Change	97-0220 (003979)	30 months	$149,990	Tanzania	University of Dar es Salaam, Dar es Salaam, TZ	Active
Boundaries and Horizons in Community Education	97-5547 (055302) RSA	17 months	$15,777	Africa		Closed
Learning for Local Governance and Development	98-0206 (003933)	32 months	$147,630	Mozambique/ /Namibia/ /South Africa	Local Governance Learning Network Trust, Cape Town, ZA	Active

5. COMMUNICATION PROJECTS

Sufficient access to knowledge and effective communication of information are important aspects of any plan for sustainable development in indigenous communities. Indigenous people must not only have access to sustainable development information, they must also be able to share their knowledge and experiences with other communities both locally and internationally. Furthermore, they must be able to participate in a meaningful way in decision-making processes which directly affect their livelihood. Such activities, however, must be based on an understanding of the local socio-cultural context and on the needs of Indigenous peoples themselves.

5.1 Projects

IDRC has funded 10 projects related to communications in Indigenous communities. Radio has been one way of providing development information to Indigenous peoples, especially in rural areas where there is an acute shortage of schools. With most households having access to a radio, programs can be transmitted in the local languages on diverse topics such as: literacy opportunities; agricultural and health issues; and news and entertainment. IDRC has supported non-Indigenous grassroots NGOs in the Andean region of South America in five projects over a period of nine years, 1975-1984, to examine the content of radio programs and to assess their impact on communities (75-0089, 81-0044, 81-0148, 84-0118, 84-0123). The aim was to find ways of improving radio programs to make them relevant to the socio-cultural needs of the Indigenous listening audience.

Other IDRC projects have focused on improving the local storage, transfer and use of information related to sustainable development. One project identified the factors affecting the provision of development information in several rural communities in Africa, in order to design a more effective information provision strategy (88-0197). In a second phase, the project looked at participatory approaches to information delivery, storage and management at the village level, establishing 'village information centres' as a means of disseminating development information (93-8488). Other projects have focused on women and their specific environmental information and communication needs (93-8160) and examined and analyzed the place of 'environment' in the African media and the use of radio and television for sustainable development (93-8159). Of course, access to knowledge depends on the availability of publications in locally understood languages. One project allowed an African organization to promote the use of Indigenous languages in its monthly journal on sustainable development (93-8150).

5.2 Discussion

In 1997 IDRC launched the **Acacia Initiative**, an international effort to empower sub-Saharan African communities with the ability to apply information and communication technologies (ICTs)

to their own social and economic development. The initiative is based on the premise that by utilizing ICTs to their own ends, disadvantaged communities in Africa may be able to shift some of the decision-making away from metropolitan centres and international development organizations towards the places where development challenges are faced most acutely. By sharing information and communicating among themselves and with others, these communities can hopefully remove certain barriers to development and speed up its progress. Acacia has funded a number of projects and activities throughout Africa related to ICTs and their application to rural development, on topics such as agriculture, natural resource management, health, education and gender.

TABLE 5: IDRC-SUPPORTED COMMUNICATION PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
General Survey of Bolivian Radiophonic Schools (ERBOL)	75-0089	24 months	$37,965	Bolivia	Universidad Catolica Boliviana (UCB), La Paz	Closed
Rural Technological Communication Study	80-0099	24 months	$57,000	Peru	Talpuy Grupo de Investigaci≤n y Extensi≤n de Tecnologφa Popular (TGIETP), Huancayo PE	Closed
Aymaran Radio Programs	81-0044	6 months	$20,100	Bolivia	Universidad Catolica Boliviana (UCB), La Paz	Closed
Rural Radio programs	81-0148	7 months	$28,500	Peru	Centro Peruano de Estudios Sociales (CEPES), Lima	Closed
Quechua Songs for Radio Programs	84-0118	12 months	$30,100	Peru	Centro Peruano de Estudios Sociales (CEPES), Lima	Closed
Assessment of Educational Radio Programs	84-0123	6 months	$24,000	Peru	Centro Peruano de Estudios Sociales (CEPES), Lima	Closed
Information Provision for Rural Development - Phase I	88-0197	24 months	$50,465	Botswana/ Malawi/ Tanzania	University of Botswana. Department of Library Studies, Gaborone BW	Closed
Empowering Women Through Environmental Communications	93-8160	n/a	$82,548	Nigeria	Nigerian Institute of International Affairs (NIIA), Lagos NG	Active
Promotion of Journalism in National Languages	93-8150	35 months	$140,818	Senegal	Association des chercheurs s n galais, Dakar SN	Closed
Information Provision for Rural Development (Botswana) - Phase II	93-8488 (938488)	50 months	$145,951	Botswana/ /Malawi/ /Tanzania	University of Botswana, Gaborone BW	Active

TABLE 5: IDRC-SUPPORTED COMMUNICATION PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Communication for Environment and Development	93-8159	29 months	$271,617	Burkina Faso/ Côte d'Ivoire/ Cameroon/ Senegal	Université nationale de Côte d'Ivoire, Abidjan CI	Active
Exploring New Canadian Partnerships 1994-1995	94-0811-0/ 02581	n/a	$10,000	Canada	Inuit Broadcasting Corporation	Closed
African Discovery	94-4027 (001508) RSA	11 months	$75,262	global		Closed

6. TECHNOLOGY TRANSFER

With the rapid environmental, social, economic and political changes occurring in many areas inhabited by Indigenous people comes the reality that traditional technologies and approaches may no longer be viable. Technologies that were once well-adapted and effective for securing a livelihood in a particular environment can become inappropriate under the conditions of ecological and cultural change. Although Indigenous technologies have a certain amount of flexibility in adapting to such changes, when change is particularly rapid or drastic, they may be rendered unsuitable and possibly damaging in the altered conditions. New, innovative technologies must be developed and it is here that both Indigenous knowledge and science can contribute.

6.1 Projects

IDRC has supported nine projects which explored important themes related to technology transfer. Several projects in Latin America focussed on the importance of matching a proposed technological innovation with the needs of Indigenous people and the conditions which exist in their communities. One project examined how local people use fuelwood for their energy needs, in order to develop a more efficient cookstove (88-0067). Researchers found that stove improvements had to take into account Indigenous perceptions, which emphasized cleanliness and convenience, rather than ecological considerations. Another project carried out an energy survey in a peasant community to determine the quality and quantity of energy needs, so that potential energy sources could be matched for more optimum resource use (85-0176). Project results were seen as contributing to understanding the technical aspects of energy use, which researchers noted was only part of a process to develop appropriate technologies for community use. Another project looked at how imported technologies are adapted in Indigenous communities, focussing on the interactions between the different agents involved
(93-0819).

Other projects in Latin America emphasized the efficacy of traditional technologies and the importance of considering them when exploring technological alternatives. One project looked at the socio-economic aspects of potato technology in an Indigenous area, concluding that traditional practices were often equal or superior to modern methods (77-0064). Researchers also noted that, while farmers were receptive to new technologies, they preferred to select and modify technology to suit their own needs. Another project evaluated the effectiveness of an organization whose objective was to identify and promote knowledge about older farming methods that can improve production for farmers who cannot afford newer techniques (80-0099).

Indigenous participation in technology development is also important in the context of capacity-building and encouraging self-reliance. The successful development of microbiological water quality

testing capacity in the Cree community of Split Lake, Manitoba (89-0320, 91-1014) was significant in that it not only ensured a safe water supply for the community, it also provided a means of empowerment because the responsibility for the operation and maintenance of the water monitoring system was delegated to the community. Using the knowledge they had gained through the two phases of the previous project, the Manitoban Cree technicians of Split Lake helped transfer the technology to two Mapuche communities in Chile so they too would be able to perform their own drinking water quality testing (92-1058). This exchange represented a benchmark in that it made practical the concept of community to community knowledge transfer. For the first time, research results were disseminated between Indigenous groups in the Americas and were used to the benefit of both parties. This experience led to an international project which developed and tested integrated approaches for monitoring and protecting safe drinking waters in rural and peri-urban communities (95-0205).

6.2 Discussion

Over the last decade, IDRC has chosen to focus more on the introduction of appropriate information and communication technologies (ICTs) to Indigenous communities than on other technology types[4]. However, developing sustainable technologies is still an important component of many projects dealing with farming, pastoralism and natural resource management within Indigenous communities.

[4] See discussion of Acacia Initiative in *Communication Projects* section of this report.

TABLE 6: IDRC SUPPORTED TECHNOLOGY TRANSFER PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Agroeconomic Research on Potato Production Constraints and Postharvest Technology	77-0064	36 months	$295,000	Peru	International Potato Centre (CIP)	Closed
Rural Technological Communication Study	80-0099	12 months	$57,000	Peru	Talpuy Grupo de Investigacion y Extension de Technologia Popular (TGIETP), Huancayo, PE	Closed
Energy Use and Technology Assimilation	85-0176	12 months	$39,555	Mexico	Universidad Nacional Autonoma de Mexico, (UNAM)	Closed
Natural Resource Use and Technology Diffusion in Rural Mexico - The Case of Cheranatzicurin	88-0067	24 months	$149,150	Mexico	Grupo Interdisciplinario de Tecnologia Rural Apropiada (GIRO), Mexico	Closed
Development of Microbiological Water Quality Testing Capability	89-0320	24 months	$34,500	Canada	1) Split Lake Cree Nation, Manitoba 2) National Water Research Institute, Ontario	Closed
Development of Microbiological Water Quality Testing Capability - Phase II	91-1014	15 months	$65,575	Canada	1) Split Lake Cree Nation, Manitoba 2) National Water Research Institute, Ontario	Closed
Community Based Water Quality Testing	92-1058	24 months	$210,340	Global - Canada and Chile	1) Centro para el Desarrollo de la Aracunia Limitada (TRAFKIN), Temuco, Chile 2) National Water Research Institute, Ontario, 3) Split Lake Cree First Nation, Manitoba, & 4) Universidad de Chile, Santiago.	Closed

TABLE 6: IDRC SUPPORTED TECHNOLOGY TRANSFER PROJECTS WITH INDIGENOUS PEOPLES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Developing Technology Matrix for Innovative Activities	93-0819 (001126)	29 months	$170,630	global	Université du Québec α Montréal, Montréal, PQ CA	Closed
Water Quality Assessment and Protection	95-0205	24 months	$66,000	Canada/ Global	To be determined	Active
ICTR Communities and the Information Society in Africa (ACACIA): Preparatory Phase	96-4028 (003230) RSA	30 months	$1,000,000	Africa South of Sahara		Active
Community Empowerment Through The Use of Information and Communication Technologies	97-8545 (055377)	36 months	$365,191	Uganda	Uganda National Council for Science and Technology, Kampala, UG	Active

7. PROJECTS ON RESEARCH ISSUES

The recent international interest in Indigenous knowledge means that a great deal of field research is being done in Indigenous communities. Many ethical as well as methodological questions have arisen as a result of these activities, and both Indigenous people and researchers alike have been trying to come to terms with a number of important issues.

7.1 Projects

IDRC has funded 22 projects which explore several important issues related to IK research. One issue which has become important is the issue of protecting Indigenous people's rights over their resources and knowledge. Indigenous people want mechanisms in place so that they can retain control of the knowledge and resources they share with outsiders, and be properly compensated for sharing them. To this end, IDRC has funded eight projects related to exploring solutions to this issue. The Crucible Project (94-0025, 97-0029) aims to come up with policy options for the legal regulation of genetic resources by bringing a variety of stakeholders together to contribute to the debate. Other projects have focussed on:

- developing new legislation and approaches to protecting rights to plant genetic resources (94-4071, 97-0020), aquatic genetic resources (98-0015), and biodiversity and traditional knowledge and practices (97-8006)
- ensuring Indigenous representation in the debate (96-0025)
- informing Indigenous people of the potential to develop a local anti-malarial plant and devising a strategy to empower them to protect the resource for continued local use (96-4023)
- providing a sourcebook to inform Indigenous peoples about the intellectual property rights debate (94-4072)

Another important research issue in Indigenous communities involves gender and designing approaches which recognize the different but equally important knowledge and roles of both women and men. Conventional development research has shown a male-bias in which researchers, usually male, focus almost exclusively on men's labor and knowledge, with little consideration for the fact that women also possess important and relevant knowledge. IDRC has funded three projects which look specifically at women's knowledge of the environment and local natural resources. In Asia, projects focussed on community- and household-level gender roles in agricultural subsistence and utilization of natural resources (95-8008), and documented the knowledge systems of Indigenous women in mountain communities (98-0002). In Africa, a project explored women's role in conserving food germplasm and herbal medicines in four ecological zones (93-0034).
Another issue involves research methodology, and the most effective, ethical approach to take when carrying out projects in Indigenous communities. IDRC has funded the production of two training

manuals on Indigenous knowledge research: *Lore: Capturing Traditional Environmental Knowledge* (89-1041), and *Working With Indigenous Knowledge: A Guide For Researchers* (97-0426). Other projects looked at the feasibility of using a participatory approach in farmer extension (91-0231), local participation in environmental impact assessment (94-8002), building capacity to facilitate community-based participatory development research on resource and environmental management (95-1301, 97-5551, 98-0030), building awareness and capacity for IK research (91-0288) and recording indigenous knowledge of the environment using Geographic Information Systems (GIS) technology (92-1501, 93-1002).

7.2 Discussion

Efforts to establish mechanisms to protect Indigenous rights to knowledge and resources are on-going. While the Convention on Biological Diversity (CBD) makes general normative statements that national governments should respect indigenous knowledge and encourage the sharing of any benefits arising from its use, it does not create any specific obligations on governments concerning the mechanisms they should use to implement these norms. Intellectual property rights (IPR) laws are used in the North to grant legal monopoly protection to those who create knowledge or ideas. Generally speaking, though, these laws are not useful for protecting Indigenous knowledge. There has been some effort made by governments and organizations to develop separate or 'sui generis' intellectual property laws for protecting Indigenous knowledge, but such efforts have not yet reached the point of practical application.

Earlier projects funded by IDRC have generally overlooked gender as an important topic of investigation. However, more recently, projects have begun to pay greater attention to developing approaches which are sensitive to the differentiation of community knowledge along gender lines. This is due in part to the efforts of IDRC's Gender and Sustainable Development Unit, whose mandate is to integrate a gender perspective into all IDRC programs and initiatives. The Gender and Sustainable Development Unit has helped to fund or has encouraged a number of IDRC projects relating to gender and Indigenous women's development issues. An overview of this history points to the following areas of concentration: women's access to land ownership; introducing/promoting gender research methods; training and awards; role of women in natural resources management; role of women in industry; communication for development; gender and the environment; and women's health.

Projects in the past have often not encouraged the active participation of local people. The conventional approach was characterized by control by outside scientists and development specialists who set project agendas and carried out information gathering activities without any input from local community members. The argument is that this lack of community involvement and knowledge can lead to inappropriate project goals, community apathy and a lack of understanding of local social

and ecological systems. More recently, IDRC has encouraged the use of participatory research (PR) in its projects. PR seeks to involve Indigenous people in every step of the research process, and is characterized by a cyclical, ongoing process of research, reflection and action in which local people participate in planning the project, gathering the information, analysing data and taking action. An important assumption of this approach is that utilizing Indigenous knowledge and encouraging participation leads to local empowerment and capacity-building, where Indigenous people learn to solve local problems with their own ingenuity and resources.

TABLE 7: IDRC-SUPPORTED PROJECTS ON INDIGENOUS KNOWLEDGE RESEARCH ISSUES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Documentation and Application of Traditional Environmental Knowledge	891041	12 months	$74,200	Canada	The Dene Cultural Institute, Yellowknife	Closed
Participatory Extension	910231	52 months	$109,850	Thailand	Ministry of Agriculture and Cooperatives TH	Closed
Water / Land Management (UBC / Egypt / Guelph)	921501	59 months	$405,400	Egypt	1) University of British Columbia, Vancouver, BC, CA 2) Alexandria University, Alexandria, EG	Closed
Women and Biodiversity of Food Crops and Medicinal Herbs	930034	18 months	$50,000	Ghana/ Uganda/ Madagascar/ Ethiopia	Eartcare Africa, Nairobi, KE	Closed
Public Participation in Environmental Impact Assessment	948002	24 months	$205,850	Thailand/ Malaysia/ Indonesia/ Philippines	Thailand Environment Institute (TEI), Bangkok TH	Closed
Research and Map Production of Natural Areas and Indigenous Use of the Andes	931002 (000109)	39 months	$149,750	South America	1) Western Canada Wilderness Committee, Vancouver, BC CA 2) Fundacion Peruana para la Conservacin de la Naturaleza, Lima PE	Closed
Alternative Legislation on Intellectual Property Rights	940025 (002044)	35 months	$110,700	global	Rural Advancement Foundation International, Ottawa, ON, CA	Closed
Intellectual Property Legislation	944071 (001857) RSA	36 months	$18,032	Zimbabwe		Closed

TABLE 7: IDRC-SUPPORTED PROJECTS ON INDIGENOUS KNOWLEDGE RESEARCH ISSUES

PROJECT TITLE	FILE NUMBER	DURATION	AMOUNT OF GRANT	COUNTRY	RECIPIENT	STATUS
Traditional Resource Rights Toolkit	944072 (002433) RSA	42 months	$46,360	global	Dr. Darrell A. Posey Oxford Centre for the Environment, Ethics and Society, Oxford University, UK	Closed
Gender, Environment and Sustainable Livelihoods	958008 (002177)	36 months	$338,000	Asia	Centre for Environment, Gender and Development, Singapore	Active
Cooperative Development Phase II	951301 (040308)	35 months	$145,880	China	1) Yunnan Academy of Social Sciences, Kunming CN 2) Simon Fraser University, Burnaby, BC CA	Active
Strategy for Community Intellectual Property, Indonesia	964023 (002805) RSA	28 months	$64,400	Indonesia		Active
Intellectual Property and Indigenous Knowledge	960025 (003127)	17 months	$103,600	global	Cultural Survival Productions Canada Inc., Ottawa, ON, CA	Closed
Working with Indigenous Knowledge: A Manual for Researchers	974026 (003766) RSA	19 months	$29,745	global		Closed
Sui-generis Legislation on Intellectual Property Rights and Patents II	970020 (003355)	21 months	$117,410	Southern Africa	Scientific and Industrial Research and Development Centre, Harare, ZW	Active
Olepolos Community Capacity Building and Learning in Development	975551 (055380) RSA	14 months	$8,400	Kenya		Closed
PROJECT TITLE	**FILE NUMBER**	**DURATION**	**AMOUNT OF GRANT**	**COUNTRY**	**RECIPIENT**	**STATUS**

TABLE 7: IDRC-SUPPORTED PROJECTS ON INDIGENOUS KNOWLEDGE RESEARCH ISSUES						
Program for the Protection and Promotion of Biodiversity and Community Rights	978006 (003353)	36 months	$483,590	global	Third World Network, Penang, MY	Active
The Crucible Project: Alternative Legislation on Intellectual Property Rights II	970029 (004015)	27 months	$200,000	global	International Development Research Centre, Ottawa, ON, CA	Active
Aquatic Genetic Resource Policy (Global)	980015 (004122)		$106,170	global	World Fisheries Trust, Victoria, BC, CA	Active
Gender, Genetic Resources & Indigenous Minorities (NEPAL)	980002 (003743)	36 months	$282,280	Nepal	Resources Nepal, Kathmandu, NP	Active
Food Security in South Asia: Enhancing Community Capacity to Generate Knowledge and Influence Policy	980030 (004373)	49 months	$712,620	South Asia	Policy Research for Development Alternatives, Dhaka, BD	Active

8. GENERAL TRENDS IN RESEARCH WITH INDIGENOUS PEOPLES

- There has been a surge in interest and research regarding Indigenous peoples' practices and knowledge systems, especially with respect to natural resource management

- There is increasing effort to include Indigenous peoples and their knowledge in the research process, from problem identification to utilization of results.

- Research has gone from a reliance on scientific knowledge and solutions to an emphasis on finding alternative strategies for living based on Indigenous knowledge, community involvement and ecological appropriateness.

- While research originally emphasized Indigenous *technical* knowledge of the environment, more recent projects have gone beyond this narrow interpretation to a more holistic approach which looks at IK as *cultural* knowledge in its broadest sense, including all of the social, political, economic and spiritual aspects of making a living in a particular environment.

- Despite a sceptical attitude within IDRC to fund research within Canada, there has been a marked trend towards the involvement of Canadian Indigenous peoples as recipients, partners and subjects.

- Partnerships between Indigenous groups from different parts of the world are being encouraged to facilitate capacity-building and the exchange of information and experience.

- Despite present funding constraints, IDRC is taking more risks in supporting weak Indigenous peoples' institutions, both North and South, in research initiatives.

- Indigenous women are beginning to be noticed as important stakeholders in research. This may be attributed in part to the recently established Gender and Sustainable Development Unit at IDRC.

- Given that Project Completion Reports (PCRs) are now completed by the Program Officers, they tend to be more insightful and comprehensive than the PCRs of the past.

9. GAPS IN RESEARCH

- **Spirituality** underpins Indigenous societies. It is the knowledge that guides social, education and economic systems, health practices, and the way ecosystems are managed. Its role should be acknowledged and accounted for.

- Like scientific knowledge, Indigenous knowledge and practices should be properly **evaluated** for effectiveness and sustainability. General guidelines for assessment need to be developed and utilized.

- Greater attention needs to be paid to the knowledge and experiences of **women, children and youth.**

- Although work has been done with both the Inuit and the First Nations of Canada, none has been undertaken with **Metis peoples**. They have unique insights to offer and should be involved in future research endeavours.

- The topic of **community violence** within Indigenous communities has been overlooked. References were made in past projects to it as a factor of project failure. This may have important implications for community capacity building and successful project outcomes.

- The need for **longitudinal studies** must be recognized.

- The severe lack of evaluation reports, along with inadequate Project Completion Reports (PCRs) compromises future research.

10. STRATEGIC DIRECTIONS AND PROGRAM PRIORITIES

- Develop a separate set of **ethical guidelines** for research with Indigenous peoples and for documenting their knowledge systems. Ensure that project researchers are aware of appropriate social science methodologies (e.g. participatory research, gender analysis, institutional analysis, etc.) for doing research in Indigenous communities.

- Continue to integrate Indigenous **women** into research as subjects, participants, researchers and project planners.

- Continue to strengthen and develop local Indigenous peoples' **research capacity**. Increase undertakings in which documentation, distribution and management of Indigenous knowledge is done for and by Indigenous peoples.

- Continue to fund Indigenous communities' exploration of the use of **communication technology**, including the Internet, computer databases, and GIS.

- Ensure that communities have appropriate **access** to project results.

- Ensure that the collection of Indigenous knowledge is of **benefit** to the community from which it originates.

- Ensure that individual projects take measures to **protect Indigenous rights** over knowledge and resources, and that Indigenous people are properly compensated for their participation.

- Increase the accessibility of IDRC's funds by making greater use of **small grants**.

- Develop IDRC's role as a **facilitator** in the development of networks and partnerships among independent Indigenous stakeholders

- Undertake more **comparative work** between and among Indigenous communities and peoples. This may help in the development of networks for exchange of information and dialogue between Indigenous groups.

- Establish a separate **Indigenous Peoples' Research Unit** that includes Indigenous peoples as Project Officers.

- Include an **Indigenous representative** on IDRC's Board of Directors.

- **Monitor** past projects, reviewing them at different points after completion in order to assess their impacts and long term sustainability.

- Integrate into Project Completion Reports (PCRs) a **community assessment**, in which the relative success and/or failure of the project is reviewed from the community's point of view.