F-chive 96770 IDRC - LID October 1993 IDRC IN THE REGIONS PERSPECTIVE FROM AFRICA A (HEQ) OTTAW Ø 2 6 VIII 1944 C LIB by Eva M. Rathgeber* Regional Director Eastern and Southern Africa (EARO) Nairobi, Kenya * With the collaboration of Gerald Bourrier, Regional Director, WARO, Fawzy Kishk, Regional Director, MERO, and Marc van Ameringen, Regional Director, ROSA. ARCHIV RATHGE

IDRC IN THE REGIONS: A PERSPECTIVE FROM AFRICA

\$4-08U

During the past year, the Regional Offices in Africa have made concerted efforts to work together in a more systematic way to optimalise Centre staff and resources dedicated to Africa.

The impetus for the present document came from a three-day meeting held in London in May 1993 between the President, the Director-General of Finance and Administration and the Regional Directors of MERO, WARO and EARO. Discussion focussed on modalities for more effective and efficient operation of Centre activities in Africa. Although Centre resources are shrinking and likely to continue to be reduced in real terms in the near future, it was agreed that the African regional offices should aim for maximum impact through the coordination of efforts around some key research themes of importance throughout the continent. Desertification was brought forward as an example of such a theme.

At the end of August, the Regional Directors from WARO, EARO, ROSA and MERO met in Cairo for a two-day program planning session. Based on their regional pipelines, the Directors were able to identify several projects with the potential to become Pan-African Initiatives for IDRC. These are outlined in Section 6 below.

This paper provides an overview of points of congruence in current Regional Office programming in Africa. Within the context of the Centre themes, it identifies ongoing programs, projects and pipeline initiatives with potential for consolidation into a package of Centre responses to African needs. It examines the current staffing structure in the African offices, identifying strengths which could be utilized in the development of Africa-wide programming and it discusses the experience of the regional offices in interacting with other donors in efforts to leverage external funds. Finally, the paper introduces a set of "Pan-African Initiatives" with potential to be developed jointly in different parts of the continent through collaboration between two or more regional offices. This paper does not attempt to describe Ottawabased activities. The focus is on activities developed in the four African regional offices.

INTRODUCTION

The past two decades have witnessed rapid change in all parts of Africa. On the one hand there have been immense political and economic transformations. On the other, the continent has been faced with population pressures, immense strains on existing social services, particularly in education and health, massive rural-urban migration and increasing crime and violence. The population growth rate for sub-Saharan Africa stands at 3.0 percent, down from 3.1 a decade ago but still the highest in the world. In South Asia in contrast, it is 1.8 percent. Moreover, Africa is the most rapidly urbanizing part of the world. By 1990, more than 40 percent of the population of 12 African countries was concentrated in urban areas; in South Africa it was as high as 59 percent.

In general most African countries share to a greater or lesser degree some of the following characteristics:

* ecological, technical, financial and organizational limitations in food production systems, coupled with irrational agricultural economic policies, leading to problems with food security and dependency on external sources for food imports;

* elitist educational systems, based on outdated colonial models, inadequate to meet sustained development demands;

* inefficient and underfinanced health care delivery systems unable to cope with the needs of expanding populations and the pressures created by the AIDS virus;

* political practices that allow states to take full control of the economy and deny effective popular participation in the management of public affairs;

* overly narrow, duplicative and therefore, fragile institutional specialization within the countries; and

* high levels of open and hidden unemployment, due to sluggish economic growth, economic recession, high inflation rates and rapidly growing populations.

South Africa's major concerns differ somewhat at the present time. As apartheid is slowly dismantled, there is an enormous task for local institutions and organizations whose reason d'etre was to struggle against apartheid and the government, to reorient themselves to development objectives and to occupy key positions in post-apartheid state structures. At the same time, there is a need for strategies to reintegrate South Africa into Africa, so it can be included in regional networks and institutions.

In the MERO countries, the Israeli-Palestinian Liberation Organization Peace Accord signed in September 1993 will present immense challenges for the region's future social and economic reconstruction. IDRC will have a role to play and it will be important to determine a niche in the post-conflict environment, particularly in the Occupied Territories. The Centre's experience in South Africa will be quite relevant and lessons learned there could be utilized in this new situation in the Middle East.

At the present time, African debt is almost \$140 billion and debt servicing costs 33.4 percent of the continent's export of goods and services. Net foreign investment into Africa has averaged around \$500 million annually in recent years, less than one percent of the

ł

global total. Most countries in sub-Saharan Africa are implementing structural adjustment programs (SAPs) prescribed by the IMF and the World Bank as a precondition for continued aid. SAPs now constitute the fundamental basis of macroeconomic policy in the continent.

SAPs generally focus on balancing the internal and external accounts (including cuts in government expenditure), market liberalization, removal of trade barriers and export promotion, and institutional reform. especially privatization of public enterprises and common-property land/resource regimes. They have led to significant devaluations of the exchange rate, fewer government controls, elimination of subsidies, and reduction of spending on social services especially in education and health. It must also be noted that structural adjustment measures have adversely affected the low-income groups and ignited discontent in many countries.

Recently, in the wake of UNCED, the environmental implications of SAPs have received attention. There are indications that particularly in the lowest income countries the environmental (and combined social) impacts of SAPs have been largely negative. But firmer conclusions will require careful case studies, now starting to be undertaken in Africa and other developing regions.

While the economic situation in most African countries remains difficult, there is great cause for optimism on some political fronts. Probably the most vivid example of the democratization movement sweeping the continent is the case of South Africa which is in the midst of an historic political transition process. However, there are also important examples in other countries. Single party states increasingly have been or are about to be replaced with multiparty systems, e.g. in Zambia, Kenya, Tanzania, Burundi, Mali, Benin, Niger and Ghana. These changes are reflective of the beginning of a new openness on the part of African governments and perhaps most significantly, of a new assertiveness on the part of African populations, fuelled by a strong desire to establish civil societies.

Increasingly, the civil society is being called upon to assume roles abandoned by the state. Political liberalization has enabled NGOs and others to increase their advocacy roles. Donors are relying on civil society institutions for the delivery of their programs because of endemic corruption in the state apparatus. At the same time, trends are beginning to favour new forms of extending beyond borders and solidarity uniting farmers. researchers, unionists, university scholars, and women and children from different backgrounds. Greater emphasis is being placed on traditional languages and values as vehicles for development, and increased attention is being placed on regional integration. It would seem that at the end of the 20th century, Africa is at a crossroad and some of the continent's current problems could be due to difficulties inherent in liquidating the colonial and post colonial heritages. There is reason for optimism that the continent is moving towards a more suitable and sustainable system.

4

The emphasis in this paper and in the Pan-African Initiatives being recommended is on the commonalities and similarities of African countries. However, it must be underscored that there are pervasive differences of ethnic groups, languages, colonial pasts, cultural heritages, and religion among African countries and it would be disastrous to overlook or minimize these in the overall context of IDRC program planning. It is this very sensitivity to local contexts that in the past has given IDRC much of its competitive advantage over other donors. Consequently the specifics of the initiatives being developed will vary from one region to another.

This then gives an overview of some of the positive and negative factors currently influencing African economies and political systems. However, it begs a question of central concern to IDRC. Why is it that after approximately three decades of considerable human resource development and institutional capacity-building, Africa still is nowhere near an economic breakthrough such as has occurred in Asia and seems to be occurring in Latin America? What factors influence such breakthroughs and how can IDRC as a research-oriented donor organization, better aid Africa to move towards a stronger economic base? With which partners should we be working and what kinds of projects should we be undertaking? How can we best consolidate our resources to assist Africa in achieving sustainable long-term development?

1. KEY RESEARCH ISSUES

)

As noted above, there are research issues of pressing concern in the sub-regions served by EARO, WARO, MERO and ROSA. These have been outlined in previous IDRC documents, including the Regional Strategies prepared during the past three years.¹ To a considerable extent these problems have not changed significantly and emphasis here will not be on repetition of what has already been stated in the past. In this paper, attention is focussed on areas of overlap and common concern within the context of the Centre's current six themes of concentration.

¹. See also, IDRC. Development Research Donors in Sub-Saharan Africa. A Review of Selected Agencies.MR 256e, March 1990; IDRC. Seminar on External Support to Developmental Research. The Case of Sub-Saharan Africa. MR 265e, August 1990; and IDRC. Strategic Choices for Sub-Saharan Africa. MR 289e, April 1991.

1.1 Regional Roundtables.

The Regional Roundtables have been important mechanisms for the articulation of new areas of research that move beyond the former regional strategies. To date there have been five Regional Roundtables in Africa. Three have been held in EARO (October 1992, March 1993, October 1993), and one each in MERO (June 1993) and WARO (January 1993). All of the Regional Roundtables have brought together key IDRC partners, including governments, private sector, NGOs and researchers. Although ROSA has not held a Roundtable per se, key stakeholders have been brought together to discuss major initiatives and a roundtable on Namibia is under consideration.

The Roundtables have had the objective of:

1) introducing the Centre's new thematic concentrations to senior researchers, policymakers and NGO representatives in each region;

2) seeking their input into the specific definition of how the themes might best be explored within each region; and /

3) confirming with a select group of experts from different countries and sectors of the region the pertinence of the Centre's new orientation to broader SED priorities.

At a general level, the Roundtables have identified a number of needs and issues to be incorporated into the Centre's African programming:

* Gender cuts across all themes and should not be considered as a separate issue; rural women are usually not represented as important players or stakeholders, they need to be involved in the formulation and implementation of programs and be provided with suitable training.

* The private sector is emerging as a main player and stakeholder and the business community should be involved in Roundtables with a view to raising its own awareness of its social responsibility.

* The key role of NGOs as advocates, pressure groups, and actors in the civil society needs to be solidified by the results of good research in which the organizations themselves become involved.

Each of the regional offices plans to hold future Roundtables focussing on specific themes. EARO has already had two themespecific Roundtables, one on Information for Sustainable and Equitable Development and one on Food Systems Under Stress. In both cases, because of their specialized expertise, participants were able to make recommendations and suggestions with potential for direct impact on theme programming.

2. PROGRAM AREAS OF REGIONAL COOPERATION

At the Cairo meeting, it was noted that several Regional Offices are already working in theme-related areas where there is some overlap and potential for greater collaboration. These are outlined below to give a flavour of on-going activities. It should be recognized however, that systematic efforts have not yet been made to integrate these activities. This process of integration will begin in earnest at the first Annual Program Meeting in Ottawa, October 25 - November 5, 1993.

2.1 FOOD SYSTEMS UNDER STRESS (FSUS)

2.1.1 Desertification. According to the Agenda 21 definition, desertification comprises land degradation in arid and semi-arid areas induced by human action and/or climatic factors. Desertification processes are influenced by a host of social, institutional, economic, political, bio-physical and technological factors.

Currently, a global Convention on Desertification and Drought is being negotiated for signature in June 1994. African countries have a major interest in influencing the negotiations and contributing to a successful outcome, but their capacity for effective participation is weak. Consequently, WARO, MERO, EARO and Ottawa have jointly developed a project aimed at providing financial and technical backing to African countries as they negotiate the desertification convention. Plans are underway for ROSA to also become a partner with support with support to South African and Namibian NGOS.

In addition, each office will continue to support region-specific projects around the issue of land degradation in arid and semi-arid areas. For example, WARO's "West African Research Foundation (WARF)" project and a proposal on "Reboisement des Sols Salés" now in the pipeline, seek to enhance the capabilities of Sahelian rural communities not only to manage fragile resources to produce food efficiently with minimal damage to the environment, but also to rehabilitate degraded land resources.

MERO's focus is on the integrated management of land and water resources in the threatened ecosystems of the region. It seeks to develop approaches and methodologies for informed decision-making in planning the sustainable management of natural resources at the local and national levels. A meeting was held at the end of 1993 to highlight the commonalities, strengths and weaknesses of a number of active MERO projects under this theme. The follow-up will constitute the basis of MERO program delivery in FY 1994/95. MERO has also concentrated on desertification, with projects such as Integrated Watershed Management (Syria), Irrigation Management (West Bank), Systemes d'information de la Steppe (Algeria). Activities have also been initiated under the component, Fragile Highland Areas, with a project on terrasse management in Yemen.

EARO is supporting the ALARM (Arid Lands and Resource Management) research network which includes Ethiopia, Kenya, Tanzania and Uganda. This initiative focusses on social and institutional issues, notably land tenure. Other projects deal with crops and technical land use practices in arid and semi-arid lands (ASALs).

2.1.2 Water. Numerous projects on water have been funded in WARO, centered on the Sahel(Productivité des aquifères/Burkina Faso, Basin versant de la Marahoué/Côte d'Ivoire, Aquifères discontinus/Niger, Nappes salées/Sénégal, Gestion des nappes des Niayes/Sénégal, Hydrogéologie quaternaire/Bénin, etc.). Surface water is a scarce commodity in the region with most water for domestic and other uses originating from sub-terranian sources. WARO therefore supports activities seeking to quantify available water resources and develop utilisation strategies to meet demand.

The issues are slightly different in EARO, where surface water is generally more available, however some similar projects have been funded, e.g. Hydrogeology/Uganda, Rainwater Catchment/Tanzania. Exchange activities have been planned between the Rainwater Catchment/Tanzania project, the Productivité des aquifères/Burkina Faso project, and the Comité Inter-Etats d'Etudes Hydrauliques in Ouagadougou. There is an ample potential for collaboration in this field.

In the EARO region effective utilization of inland water resources is a major issue. Pressure on water resources comes from the competing requirements of direct human consumption, agricultural irrigation, fisheries production, electricity production, tourism, and environmental cleansing. There is a need for effective management to maximize, sustain and distribute the benefits equitably across the region. Since the distribution of the main water bodies is not uniform and usually affects more than one country, stakeholders range from local communities to entire countries. In this context it is clear that attempts to deal with the sustainable management and development of inland common water resources must be collaborative and participatory.

2.1.3 Rangelands Management. WARO has broadened this concept to encompass an "agricultural land management" research focus which includes the productive and less fragile lands in humid and subhumid zones. Projects seek ways in which these resources can be better used via integrated, environmentally friendly production systems. In this context, WARO is supporting research in agroforestry and integrated crop-livestock systems.

Similarly, EARO is focussing on arid and semi-arid lands management and sustainable development. Rangelands and livestock constitute the main production systems in the predominant ASALs in the region. Their management is an important element of the concern for desertification and the related inter-regional initiative, particularly in relation to the large number of people whose living

8

depends on those fragile productive systems, e.g., pastoralists. Some of the previous related work includes Communal Land Cattle Management (Zimbabwe), Dairy/Beef Production Systems (Botswana), Natural Resources Management in Communal Lands (Zimbabwe), Goat and Sheep (Zimbabwe), and Pasture Improvement (Zimbabwe). Ongoing and emerging initiatives include: Natural Resources Management in Communal Lands (Zimbabwe), the ALARM network, and the African Feed Resources Network.

2.2 INTEGRATING ENVIRONMENT INTO SOCIAL AND ECONOMIC POLICY (INTESEP)

2.2.1 Environmental Policy. Most African countries continue to rely heavily on their natural resource base. Agriculture and animal husbandry are usually the mainstay of formal and informal Traditional land use systems managed the natural economies. sustainable ways, but modernization and base in resource commoditization of local economies, together with population growth and progressive privatization of communally managed land use systems have destabilized traditional systems and contributed to widespread social stratification, poverty and environmental degradation. This has led to growing recognition that environmental considerations must be factored into decision-making systems at all levels.

This new environmental awareness is reinforced, and to some extent driven, by global environmental activism resulting from the Brundtland Commission work (1987) and the UNCED (1992). Several global conventions have been or are being negotiated and environmental considerations are beginning to influence global political and economic systems. Environmental conditionality is being attached to international development assistance and mechanisms are being developed (primarily in the North) to ensure greener trade.

Against this background, there is a need to assess ways to better integrate the environmental dimension into social and economic policy at all levels and to strengthen capacity in environmental analysis, policy formulation and negotiation in Africa. This implies the need for integrating equity and environmental sustainability criteria.

The African regional offices share a concern for ensuring wide participation into the drafting of national environmental plans and for highlighting the roles played by different groups (communities, interest groups, local authorities). There is also an interest in understanding the difficulties associated with the elaboration of national plans/programs, and in resolving contradictions between them and existing policies (e.g., structural adjustment policies; education, health...); social policies: gender, and in strengthening capacity in environmental policy analysis. Projects to address these issues are under development in WARO, MERO and EARO. In WARO, a network on National Environmental Policy is being established. Similarly, MERO is supporting activities that

integrate environmental considerations into policies and planning and analyse policy-making processes influencing sustainable and equitable development. EARO has supported work on SAPS and Environment in Kenya and plans to develop a regional network in the long-term.

Environment has not been a major issue for the democratic movement in South Africa, partly because under the legacy of apartheid those in power expressed more concern with nature conservation and the preservation of wildlife, than with the poverty and oppression experienced by the majority of the population. Indeed for many black South Africans, issues surrounding environment and sustainability have a negative connotation given that they have often been used as justification by the government to forcibly remove people from their land. However, there has been growing environmental awareness on the part of the democratic movement and in this context, ROSA will be organizing a mission focusing on a post-apartheid environmental policy. Activities in the environmental policy area are also being planned in Namibia.

2.2.2 Environmental Education. Although environmental education has developed gradually in the last 20 years, incorporation of environmental issues into school curricula has been sporadic and often fragmented among several school subjects. The challenge is to incorporate environmental knowledge into school curricula and to ensure that teaching and learning of environmental issues is made effective and relevant to Africa. At the same time, there is a need to enhance environmental literacy among individuals, communities and society.

EARO has a project that examines the integration of environmental education into school curricula, how teaching and learning is carried out, and the methodologies and materials being utilised. The project also looks at environmental education outside formal school system and specially as it relates to building public awareness and environmental literacy. The project currently covers seven countries in the region and should have significant impact on policy and practice in this field.

ROSA is developing several initiatives aimed at educating the public on the environment and its links with development. One involves environmentally sensitive research for inclusion in primary and secondary curricula. A second focuses on linking community based organizations with environmental NGOs to introduce environmental education into black townships. For WARO, the focus is on educating and sensitizing the public and educating the children to deal more effectively and appropriately with the environment. Main activities will include (1) the adaptation of school curricula to include environmental concerns, using local/indigenous knowledge; (2) the implementation of information/education/communication activities for educating the broader public; and (3) capacity development strategies aimed at researchers, government policy-makers and NGOS. In this context, a pan-African network on Environmental Education will be established.

2.3 TECHNOLOGY AND THE ENVIRONMENT (T&E)

Most African countries are still at an early stage in developing strong environmental legislation to influence the choice of technology and control pollution. It has been noted that firms sometimes differentiate in their production processes and techniques depending on the environmental requirements of their "dirty industries" that location and some have suggested deliberately migrate to the South to benefit from lax environmental regulations. However, such "dirty industries" are sometimes labour intensive and address important employment considerations. / It is clear that there is a need for comprehensive empirical studies of these issues. Development of a project to examine some "dirty industries" in the EARO region is underway, with the World Bank as a possible partner.

Another regional initiative being planned in EARO (with possible collaboration with ROSA) focusses on issues of technological innovation and international competitiveness of industrial export goods in the context of more stringent environmental policies.

2.3.1 Valorization of Natural Resources. Most African countries are dependent on export agriculture but usually incorporate little or no value-added. MERO has supported research on adding value to natural resource products. EARO also is supporting research aimed at contributing to the diversification of the industrial bases of African economies and to creating additional employment through the transformation of natural plants and primary agricultural products into value-added commodities. Research centres working on this subject exist in most African countries, but frequently their work is carried out at a theoretical level with little attention to commercial practical details of exploitation of developed technologies. WARO has 10 ongoing projects aimed at using naturally occurring plant materials for commercial products such as oils and medicines, while EARO has six and MERO two. A project, Valorisation des matières premières végétales/Afrique will create a pan-African network aimed at increasing cross-fertilization among the projects being supported in Africa.

2.3.2 Technology Management. Both WARO and EARO are developing projects on environmental management issues such as the treatment of urban waste water for use in urban agriculture, the development of viable technologies for management of urban household waste, and collaboration between policymakers and researchers in developing policies to 'promote the application of technology in solving environmental problems. Efforts are underway to develop joint projects, establish complementary networks, organize joint meetings and produce relevant publications.

In MERO projects are already under consideration on Wastewater treatment technologies in the West Bank and Lebanon, and BT Production. MERO also will collaborate with CAID/PRISM, ISSD, and possible CIDA, to expand its activities on access to technology and information on technology through the possible implementation of Technology Assistance Units for Small and Medium-Sized Enterprises (SMES) at kev institutions of The evaluation, the region. utilization and commercialization of technology developed by IDRCsupported activities will be an important component and small complementary activities to on-going projects such as Palm mid-rib (Egypt) and Globesar (Morocco, Tunisia, Jordan and Pakistan) are envisaged.

2.3.3 Technology Needs and Resources. In addressing access issues, MERO is focussing on new remote sensing technologies for sustainable and equitable development. The Canadian RADARSAT program has been identified as an area for Centre involvement and subject to the implementation of the multi-donor GLOBESAR '93 initiative of the Canada Centre for Remote Sensing, MERO will facilitate the participation of countries such as Morocco, Tunisia and Jordan in GLOBESAR. Their scientists will be trained to use the imaging radar and to assess the usefulness of RADARSAT in relevant applications.

2.3.4 Technology Policy Evaluation and Design. ROSA recently released a mission report entitled, "Towards a Science and Technology Policy for a Democratic South Africa". Undertaken by a group of international experts, the mission was coordinated by ROSA at the request of the ANC, Congress of South African Trade Unions, and South Africans Civics Organization. It has resulted in the establishment of a negotiations forum with a specific governmentapproved mandate to recommend a strategy for the restructuring of South Africa's science and technology system. ROSA's other projects in this area focus on nuclear policy, conversion of facilities used for military technology production, and science and technology education and capacity building.

12

2.4 BIODIVERSITY

2.4.1 In-Situ Germplasm Conservation (and Indigenous Knowledge). Traditional resource use systems and economies in Africa have accumulated vast stores of knowledge about the use and management of the natural resource base, including the maintenance and enhancement of biodiversity. Modern forces are threatening this often base and modern technologies have been knowledge unsustainable because they have not sufficiently built on traditional knowledge. There is a need to develop both effective policies and community participation, aimed at non-destructive utilization and conservation of diverse germ plasm. Relevant linkages with IPGRI (Rome), INIBAP (France), the Plant Genetic Resource Centre in Ethiopia and the International Institute of Rural Reconstruction (IIRR) in the Philippines are being made.

2.4.2 Support for Indigenous Knowledge Networks. MERO is supporting several projects relevant to this theme, including Plantes aromatiques (Morocco) which seeks to add value to wild plant genetic resources both to assist the local populations and to encourage plant conservation. In FY 1994/95, MERO will explore activities on the conservation of highland forest resources in Morocco, Lebanon and Yemen and on in-situ germplasm conservation and indigenous knowledge of domesticated biodiversity (in collaboration with ICARDA (Syria) and IPGRI (Rome).

On-going projects in WARO include support to the African Resource Centre for Indigenous Knowledge, dedicated to sharing available information on indigenous knowledge and its utilisation in the subregion; "Ethnoveterinary Practices" (Nigeria); and "Plantes Médécinales" (Mali), which focus on value added utilisation of plants for animal and human health care respectively.

EARO and Ottawa will continue to support WEDNET, a 10-country network spanning West, East and Southern Africa and focussed on women's role in natural resource management. WEDNET has as its objective the codification and legitimization of women's traditional knowledge about natural resource management. In a second phase of support, efforts are being made to translate research findings into usable knowledge packages for NGOs and others. WEDNET also is being expanded to Asia.

In this context also, an EARO project in Kenya is examining local institutional capacities to catalogue and use sustainbly, local biodiversity in arid and semi-arid lands. Another Kenyan project assesses resource use systems in the country's remaining indigenous forests. 2.4.3 Utilization, Valuation and Protection of Natural Biodiversity. The relationship between indigenous knowledge and biodiversity is particularly important in the field of medicinal plants because traditional medicine is still widely used in Africa. Some preliminary explorations are underway in the EARO region on ways of using traditional knowledge of medicinal plants to promote biodiversity.

2.5 HEALTH AND THE ENVIRONMENT

2.5.1 Agricultural Environments. Numerous South African and Namibian workers are employed in commercial agriculture and exposed regularly to high levels of agricultural chemicals. The short-term and chronic effects on the health of workers and their families, are largely unknown. ROSA is supporting a major study at the University of Cape Town to measure the impact of pesticides on the peripheral nervous systems of farm workers in the Cape Province.

In EARO a multidisciplinary project will study the health, environmental and water quality effects of agrochemical pollution in fresh water sources. The development of community-level sustainable solutions is a major focus.

2.5.2 Minimizing Health Effects of Environmental Pollution. Environmental pollution affects the health of millions of people in Africa. Research in the WARO region will examine causal links between environmental pollution (i.e air and water) and health. It will seek to enhance national capacities to make and implement public health policy and to enable communities to develop sustainable solutions. Specific approaches will be directed at the development of strategies and models to promote community awareness through initiatives that involve various actors (industry, researchers, communities and government). In a similar vein, projects in EARO will look pollution control around Lake Victoria.

2.6 INFORMATION AND COMMUNICATION FOR ENVIRONMENT (ICED)

2.6.1 Information and Communication Technologies/ Information for Decision-making. MERO has integrated these themes into several onaoina initiatives. Projects in the West Bank (Irrigation Management) and Algeria (SIG pour la gestion de la steppe) include significant research on information and communication technologies with emphasis on capacity building in geomatics tools and methods (remote sensing and geographic information systems). Information for decision-making relating to improved information products and knowledge representation for decision-making in natural resources management options are also an emphasis. In FY 94/95, MERO will follow up on geomatics projects requiring further research on information management and information technology transfer issues. Proposed projects in this category include GIS (Geographical Information Systems) for Water Resource Management, Egypt and

Système d'information géographique pour la mise en valeur agricole, Morocco (SIGMA). Another initiative shall include the development of tools and procedures for sub-national planning, site selection and environmental impact studies in Syria.

In WARO there is a growing interest in the use of GIS applications in decision-making at various levels. Projects will encourage collaboration between various institutions in the Sahel zone, using available regional expertise to assist other countries to develop their own capabilities. Projects on GIS applications at national and local levels are under development for 1993/94 and 1994/95 (Echographie du Sénégal subsaharien, SIG pour la planification et la gestion des ressources naturelles dans une localité du Sénégal, Observatoire des ressources naturelles au Mali). There are good opportunities for cooperation between MERO and WARO in the promotion of a network of GIS projects to undertake collaborative activities in: exchange of methodologies and tools, development of promotion of applications and standards and GIS methods, sensitization of users, training of professionals and users, data and information exchange, and access to international networks.

EARO is also supporting several projects which use GIS applications and in the area of Geographical Health Information Systems, EARO is developing a community-based risk mapping project that will enable communities and health workers to plan appropriate health delivery according to environmental risks. This will become part of a GIS-Health network being developed in EARO, WARO and ASRO by the Health Sciences Division.

Communications. Adapting communications 2.6.2 Development processes, effects and technologies to on-going development efforts facing development a challenge the regional level is at communications practitioners and thinkers. Efforts both in WARO and EARO aim at improving media content related to development issues, grassroots communities through isolated reaching out to participatory mechanisms, promoting indigenous knowledge systems and languages, exploring new methods of social mobilization aimed infusing vital and relevant information resources into at communities of workers and farmers and, empowering the growing number of independent community radio and television broadcasting systems.

PROGRAMS FOR SUSTAINABLE AND EQUITABLE DEVELOPMENT (SED)

2.7 ENVIRONMENT AND NATURAL RESOURCES PROGRAMS

2.7.1 Low input Sustainable Agriculture (LISA). Because of the importance of agriculture in African economies, all regional offices are active in this area. In the MERO region, projects seek to develop alternatives combining economic efficiency, social acceptability, and environmental protection. Approaches used include the combination of traditional management techniques with modern technological knowledge, local adaptation and utilization of environmentally-sound technologies, and conservation technologies. There is a concentration on integrated pest management and microbial control.

In EARO, LISA is promoted both for environmental conservation and for the production of healthy, low cost food. Previous experience was gained through support of the Banana Cropping Systems (Uganda), Eastern and Southern Africa Root Research Network (IITA) phase II, Rootcrops projects in Zanzibar, Uganda, Malawi, and Rwanda, and Francolites, Uganda. The LISA concerns are more explicit in new and planned projects including, Manioc et Patate Douce II (Rwanda), ESARRN Phase III, Organic Farming (KIOF/KENYA), and Banana Cropping System (Uganda) II.

In WARO, LISA is advocated in the high potential ecosystems of the sub-region to encourage agricultural intensification without accompanying environmental degradation and high cost inputs. Projects that focus on integrated pest management, integrated soil fertility management, composting technology, and integrated croplivestock farming are being developed.

2.7.2 Water Resources Managment. EARO has a strong interest in Lake Victoria water basin management activities. A related concern is wetlands management, as part of an emerging agenda of research on resource management in the highlands of Eastern Africa.

In the past, IDRC has supported projects examining aspects of fisheries, biological, and fish processing in the countries (Kenya, Uganda, Tanzania and Rwanda) around Lake Victoria. More recently there has been an emphasis on the support of wider sectoral approaches and integrated management of the lake basin for environmental protection and sustainable development purposes. Since 1992, EARO has facilitated regular discussions in Nairobi among а group of concerned donors which include Winrock International, USAID, World Bank, UNDP, UNEP, DANIDA, Finnida, SIDA, the Rockefeller Foundation and the Ford Foundation. In late the group will sponsor a consultative workshop of 1993, policymakers, NGOs, and other representatives of stakeholders

concerned with the sustainable management and development of the Lake Victoria Basin. This should lead to the development of multidonor activities. In early 1994 IDRC also will participate in a technical review meeting in Uganda which will discuss the formation of a regional Fisheries Commission for Lake Victoria.

2.7.3 Urban Environment Management. South African cities, including black townships, are characterized by serious environmental degradation. One quarter of the population is squatters, living in substandard housing, with limited access to water and sanitation, and exposed to high levels of air pollution. ROSA is supporting a project with the South African National Civics Organization (SANCO) to establish a strategy to incorporate the concept of sustainable cities into its development strategies.

EARO is supporting a project on urban environmental management in Dar es Salaam in collaboration with HABITAT and the UNDP. The research will examine methods of solid and liquid waste management and air pollution management.

2.8 HEALTH SCIENCES PROGRAMS

WARO continues to address 2.8.1 Malnutrition and Infection. childhood nutrition, household food security and micronutrient nutrition. New projects focus on factors related to poor childhood nutrition and the development of appropriate and sustainable interventions. Household food security will be addressed through production, intersectoral activities promoting sustainable consumption and income generation, e.g. Child Nutrition and Agriculture (Nigeria). The problem of micronutrient nutrition is iodine through projects on vitamin A, iron and addressed malnutrition in susceptible areas.

EARO's focus is on smallholder production and food security, maternal nutrition and energy expenditure, micronutrients, particularly vitamin A and its role in mortality reduction, and on regional training programs in post-graduate applied nutrition and research methods.

2.8.2 AIDS. AIDS continues to be a major health problem in Africa. In some urban areas in the EARO region, up to one in three persons is infected with HIV, and one in 10 cases is found in children. AIDS research support is concentrated on sexuality and behaviour, epidemiology primarily of paediatric AIDS, women and psychosocial aspects of AIDS, and the role of truck drivers in HIV transmission. Support also has been given to the development of a regional AIDS training centre based at the University of Nairobi. The Centre is being developed by Kenyan AIDS specialists in collaboration with the University of Manitoba, with CIDA funding of \$2-\$3 million. Another collaborative project with CIDA is looking at the impact of AIDS on education in Uganda, Kenya, Tanzania and Zimbabwe with a focus productivity of the community and diversion of resources available for education. The special needs of AIDS orphans are also being examined. ROSA is supporting three AIDS projects. One involves a health education campaign to prevent transmission of HIV among South African refuges in Zambia, Tanzania and Uganda. The second is a collaborative activity involving an NGO, the Workplace Information Group (WIG), and the Transport and General Workers Union (TGWU), to establish an AIDS program for the union, especially for truck drivers. The third project, at the University of Western Cape, is investigating factors relevant for prevention of AIDS in women.

Since 1988, the Centre has supported AIDS networks in West and Central and Eastern and Southern Africa. The two networks have promoted collaboration among health researchers at the regional level; influenced regional policies to mitigate the growth and spread of the epidemic; and fostered links between and among African and international researchers. Joint meetings have been held to identify areas for future collaboration and the possibility of establishing a linked North Africa network will be discussed during a forthcoming conference in Morocco in December 1993.

2.8.3 Health Policy Formulation. ROSA is funding an NGO established by an anti-apartheid association of doctors and dentists. The project will develop capacity in applied research, management, planning of health research, and policy formulation for education and training. EARO is supporting various projects examining the effects of structural adjustment programs on health care systems both at the community and policy levels, as/well as the gender-specific effects of SAPs with respect to health care delivery and health-seeking behaviour. In Zimbabwe, EARO is supporting a project on occupational health which looks at the extent of risk and injury at the workplace and the policy environment surrounding occupational health. The project collaborates with workers, managers, and policymakers.

2.9 SOCIAL SCIENCES PROGRAMS

Programming in WARO and EARO includes a range of networking and institutional support activities, all with a strong capacitybuilding orientation. Efforts are being made to collaborate with other donors. Networks have been formed on education policy, policy, social policy, economic national languages policy, including industrial policy, structural adjustment and agriculture, and parastatals reform. Substantial institutional support is being given to pan-African or regional institutions like CODESRIA, OSSREA and the AAU (Association of African Universities), the Programme de Troisième Cycle Interuniversitaire (covering all of francophone Africa), and economic and social research centres in Burkina Faso, Côte d'Ivoire, Nigeria, Uganda and Zimbabwe.

2.9.1 Macroeconomic Policy. EARO and WARO both support research aimed at evaluating the implications of the structural adjustment process for vulnerable groups, especially for those sectors like agriculture and health that impact significantly on the poor. There are on-going, activities in Nigeria, Zimbabwe, Malawi, Uganda as well as a pan-African project (through CODESRIA). Support for policy analysis and training and support for research seeking to understand the institutional framework under which the reform process takes place is essential. Consequently, support will continue to the African Economic Research Consortium (AERC) to build and improve on the stock of African macroeconomists.

IDRC's mission on the South African economy resulted in the establishment of the multi-donor supported Macro-Economic Research Group (MERG) with the objective of guiding economic policy formulation for the democratic movement as it prepares for its future role in government. The MERG, which is the largest economic policy research initiative in South Africa, is receiving major support from IDRC and CIDA via ROSA. Funding is also being provided to projects in the area of industrial policy and trade policy.

2.9.2 Learning Systems for Change. To address the specific issue of restructuring the apartheid education system in South Africa, ROSA (with CIDA) is supporting a large project to build a Centre for Education Policy Development, which will be responsible for drafting a new Education and Training Act for a democratic South Africa. ROSA also is supporting education policy activities and research in science and technology education policy.

Integration. The movement towards regional 2.9.3 Regional integration in Africa has been influenced by the democratization processes underway, the Abuja declaration creating the African Economic Community, the anticipated demise of the apartheid regime in South Africa, and the emergence of trading blocks all over the globe. Regional economic integration offers the opportunity for rationalization, increased regional resource use trade, coordination and harmonization of policies, greater strength to bargain with the North, a common approach to environmental conservation and protection, and opportunity for greater political and social stability.

In the Southern African region there is enormous scope for regional cooperation in trade and investment; water and electricity; mineral policy; transport relations; food security; agriculture and natural resources; and on migrant labour. Critical research issues include both the future role of organizations/agreements such as SADCC, PTA and the Southern African Monetary Union (SAMU) and the future role of South Africa in the region. South Africa, has a GDP of more than

CAD\$100 billion, four times the size of the combined CAD\$25 billion GDP of its 10 neighbouring countries. ROSA is supporting two projects in this area: one via the MERG and a second in collaboration with EARO focusing on the PTA.

2.9.4 Changing State-Civil Society Relations. Most African civil society institutions are weak and have little impact on the democratization and economic liberalization processes. IDRC can play a key role in strengthening the capacity of these institutions to contribute to debate on critical issues effecting sustainable development.

Since the late 1980's the Centre has funded numerous projects in South Africa examining options for urban and local government reconstruction along non-racial and democratic lines. In November 1993, ROSA and the World Bank will co-host a donors meeting to raise funds for the establishment of a National Institute for Local Government and Development. Civil service reform is the most sensitive and critical area of ROSA's program. This component, with financial assistance from CIDA, concentrates on research and policy options for restructuring the apartheid state and building a civil service that represents all South Africans.

2.10 INFORMATION SCIENCES AND SYSTEMS PROGRAMS

2.10.1 Information Policy Research. Communications and information policy research and planning are critical in both WARO and EARO regions. Efforts aim at enabling policymakers and NGOs to develop specialized capabilities to increase access to communication services and information opportunities to master planning mechanisms and procedures leading to better and more equitable utilization of development information resources and services.

2.10.2 Information Capacity Building. WARO is emphasizing capacitybuilding initiatives in development communications training and scientific journalism. In the field of information for development, a regional training program on management and marketing of information systems and services is being developed. It will build on experience gained in a similar activity undertaken in the EARO region. Collaboration with a Canadian information sciences school is anticipated.

2.11 CORPORATE PROGRAMS

2.11.1 Gender and Sustainable Development. During the last decade, efforts have been made to link gender issues more specifically with global social development and environmental concerns. In an effort to contribute to the theoretical and methodological foundations of this approach, WARO and EARO are cofunding a project with AAWORD (a pan-African association of African women researchers) in research capacity building and the articulation of African approaches to gender issues. EARO is also supporting a Nairobi training workshop on Gender and Environment to be co-sponsored by EarthCare Africa and the Summer Institute in Gender and Development

at St. Mary's/ Dalhousie Universities in Halifax. Furthermore, EARO is supporting (with the Rockefeller Foundation) the African Forum of Women Educators (FAWE), a high-level (ministerial) task force gaps in implementing research and policy focussing on recommendations of various fora on access, participation and achievement of girls and women at all levels of education. The results of this activity will be utilised by women educationalists to mobilise and sensitise government policy-makers, communities and non-governmental organisations on needed actions and interventions to improve and sustain gender balance in education. Finally, all of the African regional offices are making efforts to include more women in project research teams.

For ROSA, gender equality is a high priority since both South Africa and Namibia have been characterized by extreme forms of patriarchy, reinforced through policies underpinning apartheid. This crosses all cultural and racial groups, although gender-based oppression has been particularly harsh towards black women. ROSA and CAID have provided support to the National Women's Coalition Charter Campaign in South Africa, a multi-party organization dedicated to empowering women of all groups to have input into the new constitution. Further support is planned for activities such as the Black Women's Research Network.

2.11.2 Canadian Partnerships. The main advantages of cooperative projects with Canadian partners is that they can bring expertise lacking in the African team, provide technical facilities, equipment and services not generally available in Africa and put African researchers in contact with the international scientific community. IDRC has supported projects in all parts of Africa with Canadian partners based in universities, government departments and laboratories, private organizations and NGOS. The Centre's formula apparently has been copied to some extent by USAID and the French technical assistance program (Projets CAMPUS). Specifically in South Africa, ROSA and CAID are supporting the Canadian Consortium on Southern Africa, coordinated by McGill University in Montreal.

2.11.3 Human Resource Development. Human resource development is a critical concern in the ROSA region. As a consequence of apartheid education policies in South Africa and Namibia, there exists only a small cadre of black researchers. Given this context, all Centre projects in South Africa and Namibia place a major emphasis on training and capacity building. In other regional offices, particular emphasis is being placed on the training of researchers with expertise in the Centre's new theme areas.

2.11.4 Evaluation. Ongoing evaluation components are being built into all large projects in the ROSA region (e.g. National Women's Coalition Charter Campaign, National Institute for Local Government and Development). End of project evaluations are planned for a number of projects in the region (e.g. Macro-Economic Research Program, Centre for Education Policy Development, Civil Service Policy Project). Efforts are also being made to undertake systematic project evaluation in EARO, WARO and MERO.

3. COUNTRY CONCENTRATION

The WARO region encompasses 24 countries in West and Central Africa; EARO comprises 20. It is clear that neither office can be active in all, given limited resources and increasing travel costs. There is a need to focus on a relatively small number of countries and institutions, and to ensure that our support will have an impact. WARO has developed the following criteria for country concentration and selection:

i) potential for improvement of local research and for the Centre to provide significant and relevant resources in support of this process;

ii) sufficient political stability to enable IDRC intervention; and

iii) pertinence of the country's portfolio of research to regional and Centre research mandates, coupled with sufficient regional office technical expertise.

These criteria are also indicative of the approaches of EARO and MERO. EARO has concentrated the majority of its funding in Kenya, Zimbabwe, Tanzania, Ethiopia and Uganda, although some of the smaller countries in the region have also been substantial recipients. ROSA's program is mainly concentrated in South Africa, although new projects are being developed in Namibia. South Africa will continue to be the central focus in ROSA, but projects linked to South Africa and Namibia in the SADCC region and other parts of the continent will also receive ROSA support, preferably in collaboration with EARO, WARO and MERO.

In Africa, MERO has identified the following as focal countries: Egypt, Tunisia, Algeria and Morocco. In West Asia there is a focus on Jordan, Syria, Yemen, West Bank, and Pakistan. However MERO has moved beyond country concentration towards project concentration. It aims to take advantage of the strengths of individual projects in specific disciplines and to facilitate a more direct contribution of projects, especially in the design of the regional program on water and land management. MERO will utilize modern networking mechanisms (e-mail, computerconferencing, etc.), technical assistance between projects, roundtables, joint fund raising and fund leveraging as a means of sharing expertise among its projects.

Further details about funding patterns in WARO, EARO and MERO are attached in Appendix 1.

4. AFRICAN REGIONAL OFFICES STAFFING STRUCTURE

A major competitive advantage for IDRC vis-a-vis other donors has always been the high level of professional competence and dedication of its staff. Under the former system of Ottawa-based program spending and decision-making it sometimes was difficult for regional program officers to work as a team and make most effective use of their collective expertise and resources. Under the new system of region-based budgets, the regional offices are beginning to work in a more multidisciplinary way. In all of the offices, pipelines and proposals routinely are discussed by groups of program staff. However, in the larger regional offices (EARO and WARO) there is a need for further attention to teambuilding and possibly for the provision of appropriate training. While there is a high degree of collegiality and good will, most program officers are still uncertain as to how to develop truly multi-disciplinary projects. Perhaps because of the small size of the office, MERO has made faster progress. Most MERO projects are multi-disciplinary and have been developed by MERO staff as a team.

With respect to collaboration with Ottawa, experiences have been uneven. Collaboration has been easiest in those areas where little has changed and where most of the actors both in Ottawa and in the regions have remained the same. In general there seems to be willingness to collaborate and work together, but the terms have not yet been clearly defined, Nor have they been adequately refined through purposive reflection on our experience with their operationalization and implementation. This would appear to be a high priority area for attention.

The existing levels of scientific and technical expertise in most parts of Africa still require the intensive involvement of program officers in project development, especially outside the university communities. This is both labour and cost-intensive, but it continues to be recognized as a significant IDRC contribution in the African sub-continent.

The task of program officers in each region is to develop and support regional projects, but increasingly this is being done with a view to opportunities for collaboration with other regions and Ottawa. There is also increased emphasis on identification of potential pan-African initiatives. Such collaboration will ensure more effective utilization of scarce resources to address problems of common concern and to facilitate intra-continental exchange of human expertise and experience. It also will provide, where appropriate, a larger critical mass of funding, especially where an increased IDRC contribution will enable leveraging from other sources. The Regional Directors' meetings in London and Cairo were important preliminary steps in ensuring more effective intra-continental collaboration.

An analysis of the current staffing structure in the four offices indicates particular strengths in economics, environment and social sciences. There is potential for collaborative work on: i) the social, economic, and environmental dimensions of research and development; ii) the technological, organizational, institutional and informational aspects; and iii) the priority sectors of education, health and agriculture (especially land and water management).

Suggested criteria for pan-African initiatives which can arise out of increased regional office and Ottawa collaboration include the following:

i) that the problem can be understood and addressed more effectively, sustainably and efficiently by a cross-regional approach;

ii) that such projects are not at the expense of regional portfolios and priorities; and

iii) that such projects make the most effective use of regional office capacities and that multi-regional office participation adds identifiable value to the exercise.

5. COLLABORATION WITH OTHER DONORS

Collaboration with other donors has taken many forms, including joint efforts in project identification and development, joint participation in meetings and workshops, and cofunding of initiatives. In the past collaboration was most frequent after projects had been defined and approved. Efforts are now being made by all the regional offices to leverage funding at the project development phase. This has been successful to some extent. For example, in 1992/93 WARO was able to generate about CAD\$14 million in projects, including Ottawa contributions. WARO also successfully persuaded bilateral donors in the Netherlands and Sweden to contribute almost CAD\$1 million each to the Association of African Universities project to which IDRC contributed \$900,000. EARO spearheaded funding for regional projects from numerous other donors including USAID, Ford and Rockefeller Foundations. While IDRC did not directly administer the funds in any of these cases, the Centre's involvement was a major factor in persuading other donors to participate and as such we were able to make significant contributions to institutional development in our regions.

In EARO, a donor group that includes USAID/REDSO, World Bank, UNDP, UNEP, DANIDA, Finnida, SIDA, Rockefeller Foundation and Ford Foundation, meets regularly to discuss sustainable development of the Lake Victoria Basin. Jointly funded activities are being planned. WARO, EARO and Ottawa all participate in the Rockefeller Foundation's Donors to African Education (DAE) and have supported activities of the Working Groups on Higher Education and Educational Research and Policy. A collaborative activity between SAREC, SIDA and IDRC has initiated the Southern Education Research Initiative (SERI) which is currently hosted by Donor collaboration is also expected in carrying the EARO. second stage of projects on the impact of AIDS/HIV infection on Education, Environmental Education. EARO also hosts the African Technology Policy Studies Network, which is co-funded by EARO/ Ottawa, Carnegie Corporation and the Rockefeller Foundation. ROSA has been very successful in generating funds from CIDA for most of its projects.

MERO is trying to leverage funding but the lead time is often two years and with most funding sources personalities seem to carry more weight than institutions or projects. Moreover, regional funds and foundations usually support government-sponsored activities.

6. FUTURE DIRECTIONS: PAN-AFRICAN INITIATIVES

At the Regional Directors' meeting in Cairo a number or pan-African initiatives were identified as having the potential for development across two or more regions. The initiatives were selected on the basis of existing pipeline projects. In each case at least two offices had an interest in the area. In some cases, Ottawa had also identified the issue as being of interest, however the emphasis at this stage was on regional office development. The Regional Directors began discussions as to how these initiatives might be further developed and it was agreed that the Annual Program Meeting in Ottawa would provide the best opportunity for the development of joint action plans.

6.1 Desertification

In response to the need for strengthening the position of African countries, EARO, WARO, MERO and ENR have developed a comprehensive package of support that includes support for:

* review papers and Pan-African workshops on key issues relating to desertification;

* a network of African NGOs to build capacity to assess desertification issues from a grass-roots perspective and to develop sound positions for informed advocacy;

* review of the Centure's own desertification-related work in Africa and; * a meeting with like-minded organizations to discuss opportunities for collaboration.

All activities are intended to reach African officials in charge of negotiating on behalf of their countries and the technical experts working with them.

6.2 Environmental Economics

This initiative will aim to increase the stock of economists in Africa with environmental economics analytical capability. It will up-grade the analytical skills of relevant policy analysts as they strive to understand the interaction between environment and the economy and it will sensitize policymakers responsible for environmental issues in their respective countries on how to integrate environment into economic and social policy. The proposed activities will include:

- * short term intensive environmental economics training in established institutions
- * local training and sensitization workshops
- * research network

6.3 Management of Common Water Resources

MERO will take the lead in developing this Pan-African initiative. Activities will be developed in MERO, EARO, WARO and ROSA relating to the management of common surface and underground resources. Possible areas for collaboration include:

- * Water resource development of river basins
- * Resolution of conflicts over shared water resources
- * Information and data collection and sharing
- * Capacity-building and strengthening of institutions (national and regional) in the area of water resource development and management.
- * Environmental monitoring and assessments

6.4 Technology Assistance for SMEs

There are currently more than 40 projects involving about 100 institutions in WARO, MERO, EARO and Canada, all aimed at the development of small and medium-sized enterprises (SMEs). The main thrust of their activities is to provide assistance to SMEs to enable them to choose viable business activities, operate economically, gain access to information and assistance on their technical, and financial management. An immediate potential area for collaboration between EARO and WARO is within the Network on the Valorization of Vegetable Matter which includes projects from both regions. Another activity is being developed by MERO and WARO with PRISM/CAID. It is designed to increase access to environmentallysound, best-practice technologies by African SMEs. This will be achieved by through industrial technology assistance and the establishment of operation units through a consortia of organizations in LDC countries that are already (or are capable of) engaging in some form of industry assistance. These operational units will be linked with industry technology support systems in Canada and other developed countries.

6.5 Environmental Education

Research on environmental education is intended to break the tendency of treating environmental education as a separate and distinct subject in the school curricula. The research will also promote the incorporation of environmental education into community-based popular education, projects and activities undertaken by governments and non-governmental organisations.

EARO, WARO and ROSA have interest in designing and implementing an environmental education program. It will involve first, an assessment of the status of environmental education in various countries through commissioned reviews. This will be followed by meetings of researchers, educators and other related experts to discuss the papers and to articulate a research agenda on environmental education. Finally, project documents will be prepared for funding in conjunction with key research institutions, networks, NGOS, ministries of education and other government bodies.

This Pan-African initiative will work closely with curriculum developers, policymakers, private sectors, teachers, community leaders and NGOs, and with international agencies working in the field such as UNESCO, UNEP and the proposed International Environmental Education Council (IEEC).

6.6 Environmental and Social Reconstruction

Armed conflict, civil war, drought and socio-econimic or environmental factors have led to massive environmental degradation and social destabilization in a number of countries in Africa. There is a widespread need for environmental and social reconstruction. The Centre has a role to play in this context, through documentation and raising awareness of the detrimental impacts of conflicts on resource bases and sustainable development.

A Pan-African initiative is being developed by MERO and EARO to examine the effects of conflict on environmental degradation and elaborate methods of land rehabilitation following civil war in selected countries like Lebanon, West Bank, Sudan, Eritrea, Mozambique and perhaps Uganda. Papers will be commissioned on key issues, followed by a workshop and possibly creation of a regional network. A conference will be organized on the effects of acute conflicts on environment, and more specifically on land degradation and desertification in Africa and the Middle East.

6.7 Environmental Policy

EARO, WARO and ROSA are developing closely related initiatives. EARO will focus primarily on capacity-building and mobilization in environmental analysis, policy and negotiation in a few selected countries, through training, stakeholder meetings, research, and other means. WARO is establishing a regional environmental policy research network in West Africa. Initial steps will include commissioning of national papers on environmental policy issues and needs and organization of a regional workshop. Finally, ROSA (in collaboration with ENR) is organizing an environmental policy mission to South Africa to identify relevant policy issues in the context of a postapartheid South Africa. The objective is to make inputs into progressive environmental policy which would form the basis for policy initiatives after the upcoming non-racial national elections in April 1994. The three regional initiatives call for close collaboration in exchange of information resource persons among other mechanisms.

CONCLUSION

During the past year, a great deal of progress has been made both in the Centre as a whole and in the regional offices to introduce new areas of thematic concentration and new modalities of collegial interaction. Internal understanding of the Centre's changed philosophy and ideals has developed and strong efforts are being made by staff to clearly define Centre programs and priorities for Africa and other regions.

We are in the process of achieving challenging intellectual directions, new methods of cooperation and collaboration and fresh partnerships with researchers and other donor agencies. IDRC at the end of 1993 has a more explicit commitment to foster and support participatory and collaborative research. We require researchers to develop a clearer set of objectives related to research-results utilizations and expected impacts.

While it is still too early to fully understand the long-term benefits from the process of rebuilding undertaken during the past two years, a number of advantages have already emerged. IDRC is being recognized as a lead agency in the implementation of Agenda 21 and we are beginning to emerge as an organization with a clear vision of its role and of its future. On a global level we are still one of the most important donors in the area of research. As such, the potential for major impact in Africa through collaborative program development among the regional offices and with Ottawa may be greater than ever before.