ICRISAT REPORT TO COP3

Joining hands to implement the CCD Convention in the desert margins of sub-Saharan Africa

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Desertification convention and the Desert Margins Program (DMP)

Following the invitation in July 1993 to participate in the United Nations sessions of the Intergovernmental Negotiating Committee on Desertification (INCD) to prepare the Desertification Convention, the CGIAR nominated ICRISAT as the lead center to take part in the elaboration of the Convention, and ICRISAT was accredited as an Intergovernmental Organization to the INCD. ICRISAT took an active part in the INCD process and was represented at the INCD sessions held in Geneva (13-24 September 1993), New York City (17-28 January 1994), and Paris (6-17 June 1994) and has continued to be represented at CCD meetings through the DMP.

When was the Desert Margins Program (DMP) created?

DMP first took shape as the Desert Margins Initiative in 1994, following a chain of international events that culminated in 1992. The United Nations Conference on Environment and Development (UNCED) or the Earth Summit was held that year and the Agenda 21, which devotes a specific chapter on desertification and drought was adopted. Another important outcome of the Earth Summit was an agreement to draw up an International Convention to Combat Desertification (CCD).

When all these momentous events were taking place, the international community realized that research centers within the Consultative Group on International Agricultural Research (CGIAR) had the expertise that was directly relevant to the fight against desertification. These centers were well-positioned to address immediately some of the major concerns raised in the Agenda 21. The International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), a CGIAR center that had garnered over 2 decades of experience in natural resource management research relating to dryland agriculture, proposed the establishment of a systemwide ecoregional Desert Margins Initiative to address such concerns. The proposal was widely endorsed and ICRISAT was chosen as the Convening Center for the Initiative, which in 1998 transformed itself into a full-fledged Program.

What is unique about DMP?

DMP was born out of an international commitment to contribute to the efforts of the CCD and to help the people living in affected desertification prone areas attain sustainable livelihoods. Drawing inspiration from the best minds in the world, the Desert Margins Program was conceived as part of an ecoregional initiative, which allowed it to combine physical, biological, economical and sociological dimensions of the production environment. The founders of DMP knew well that the physical mechanisms that lead to desertification are natural scientific phenomena, but these are driven by social and economic forces. DMP's strength lies in seeking to blend natural sciences and socioeconomic research, while giving due importance to the fundamental wisdom that lies within the people of the desert margins who for millennia have fine-tuned their survival to the vagaries of the land.

DMP has consciously adopted an approach that is holistic and based on popular participation, because the top-down method used in the past by various institutions to halt desertification had failed miserably. All along its long planning phase and its implementation, special care has been taken to consult closely all the stakeholders of this initiative and to integrate upfront the perspectives of the national agricultural research systems (NARS) and NGOs and the needs of the local communities.

What are DMP's mission and objectives?

DMP's mission is to enhance food security and reduce poverty in the desert margins of sub-Saharan Africa by promoting innovative and action-oriented dryland management research to arrest land degradation.

DMP seeks to carry out its mission by focusing on the following specific objectives:

- Understand the causes, extent, severity, and physical processes of land degradation;
- Assess current dryland management practices;
- Develop improved natural resource management technologies that are ecologically sound, economically viable, and acceptable to the people of the desert margins;
- Design policies, programs, and institutional options that would serve as incentives to people living in the desert margins to adopt improved resource management technologies;
- Promote more efficient drought-management strategies;
- Enhance the institutional capacities of DMP member countries to conduct research on land degradation;
- Facilitate the exchange of relevant information and technologies among people of the desert margins, development workers, scientists, and policymakers committed to this cause;

What strategy does DMP use to follow its objectives?

Drawing strength from an ecoregional and a multi-institutional consortium approach, because the challenge of halting desertification is too formidable and complex for any single institute to tackle, DMP focuses its work on carefully selected targeted environments in the desert margins of sub-Saharan Africa. It is participatory in spirit and lays emphasis on on-farm research and demonstrations, taking into account social issues, local needs, and institutional options. Research under DMP is carried out by a multi-disciplinary team of scientists in each member country in close association with the national, regional, and international research programs, NGOs, and local communities.

Where does DMP work?

DMP operates in three sub-Saharan regions: eastern Africa (Kenya), western Africa (Burkina Faso, Mali, Niger, and Senegal) and southern Africa (Botswana, Namibia, South Africa, and Zimbabwe).

What are DMP's priority thrusts

DMP has undertaken a series of short term activities as part of its commitments to contribute to the implementation of the CCD.

- Compilation and use of existing dryland management technologies
- Studies on selected representative benchmark sites
- Development of multi-scale decision support systems
- Participation to the CST network survey
- Direct collaboration with the CCD Secretariat

Compilation and use of existing dryland management technologies

Over the years, many institutes scattered all over the world have carried out research on dryland agriculture and have presumably developed improved resource management technologies. Not wishing to waste time reinventing the wheel, DMP has taken upon itself as its first task the documentation and evaluation of such knowledge and technologies and eventually their transfer to real situations. For example, in the framework of DMP in Niger, the Institut national de recherches agronomiques du Niger (INRAN) and ICRISAT have compiled and published a catalog of existing transferable technologies in formats designed for sharing through extension services. In a similar context, in South Africa, DMP has documented information on technologies that have already proven successful in restoring degraded lands. It is exploring ways to effectively transfer such technologies to farming communities and analyzing socioeconomic and policy aspects that influence the adoption and transfer of such technologies. Preliminary reports are available to the CCD for distribution if warranted.

Studies on selected representative benchmark sites

To gather a critical mass of data in order to better understand the complex problem of land degradation, DMP has initiated some work focusing on selected sites where the work of the soil, plant, and animal scientists is integrated with the studies by socio-economists and policy analysts.

Each DMP member country has agreed to assign selected benchmark demonstration sites for such in-depth studies. These benchmark sites will be used as representative samples to study resource management practices and related problems (over-grazing, over-cultivation, use of marginal land, deforestation, and mismanagement of irrigated land). Burkina Faso, Botswana, Kenya, Mali, and Niger are among the member countries where benchmark sites have been selected and impactive results have been obtained, leading to the development of recommendations and action plans. In Kenya, for example, the changing life style of the desert community was found to be clearly linked to land degradation. This study has also revealed that some of the desert communities possess a wealth of local knowledge on natural resource management, which is valuable and needs to be integrated with new technologies. Preliminary reports are available.

Development of multi-scale decision support systems

In Burkina Faso, Niger, and Mali, multi-scale decision support models are being developed and tested which will help scientists better understand the dynamics of farmer decision-making and the possible role of alternative policies.

Participation to the CST network survey
The DMP is a focal point for the CST study on survey of networks. It has prepared a draft report of his work to UNEP for inclusion into the general report to the presented to the CST at COP3.

Direct collaboration with the CCD Secretariat
ICRISAT through the DMP has participated to four thematic workshops organized by the CCD Secretariat and has organized itself the sixth workshop on "A network for promoting sustainable agricultural farming systems in the context of the Regional Action Programme to combat desertification in Africa" 23-26 March 1999 at ICRISAT Sadore. The proceedings of that workshop have been edited by the DMP/ICRISAT and will be published soon for wider distribution.

Who are the DMP's partners?

DMP's sole identity is its web of worldwide partners through whom it operates:

- NARS of nine member countries
- NGOs
- Regional organizations
  - Inter-governmental Authority on Drought and Development (IGADD) and Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA)
  - Comité permanent inter-Etats de lutte contre la sécheresse dans le Sahel (CILSS)/Institut du Sahel (INSAH)
  - Southern African Development Community (SADC)/Southern African Centre for Cooperation in Agricultural and Natural Resources Research and Training (SACCAR)
- International agricultural research institutes
  - ICRISAT
  - International Centre for Research in Agroforestry (ICRAF)
  - International Livestock Research Institute (ILRI)
  - International Food Policy Research Institute (IFPRI)
  - International Plant Genetic Resources Institute (IPGRI)
  - International Center for Agricultural Research in Dry Areas (ICARDA)
  - International Fertilizer Development Center (IFDC)
  - International Board for Soil Research and Management (IBSRAM)
- Advanced research institutes
  - Institute of Hydrology (IH)
  - Institut français de recherche scientifique pour le développement en coopération (ORSTOM)
  - Institute of Terrestrial Technology (ITE)
  - Centre de coopération internationale en recherche agronomique pour le développement (CIRAD)

The United Nations Environment Programme (UNEP) and the United Nations Development Programme (UNDP) provide the overall guidance for its plans and operations.

Who funds DMP?

CCD (through UNEP)
EcoRegional Trust Fund, managed through the International Service for National Agricultural Research (ISNAR)
France
Global Environment Facility (GEF)
International Development Research Centre (IDRC)
Israel
Norway
United States Agency for International Development (USAID)
World Bank

How is DMP governed?

DMP governance is organized at four complementary levels: national, sub-regional (eastern, western, and southern Africa), regional (Africa), and global (e.g., UNEP, GEF). The Governing Body is a Steering Committee that provides policy guidance and direction. NARS and NGOs are at the center of the organizational structure. Activities in each member country are carried out through national coordinating committees (NCC).

The DMP Coordination Unit comprising the Global Coordinator and a secretary carries out the overall coordination of the Program. The Coordination Unit is located at the ICRISAT research center at Niamey, Niger. As part of his duties, the Global Coordinator:

- Supervises the scientific and administrative aspects of the Program
- Reports to the Steering Committee and acts as its Ex-officio Member-Secretary
- Interacts with NCCs and regional organizations to review research activities and ensure that research results are effectively reported
- Develops project proposals for submission to donors
- Monitors and evaluates ongoing projects
- Submits annual reports to the Steering Committee and to donors, and
- Organizes meetings and workshops

What are DMP's future plans?

DMP is exploring possibilities for promoting crop diversification in the desert margins of sub-Saharan Africa. As part of this exercise, it is studying the potential of date palms for commercial cultivation in the Sahel. In 1997, it organized a workshop on date palm cultivation in collaboration with regional, national, and international research organizations with support from IDRC. The concept for a regional project was formulated at that time and is now being finalized

by DMP, Food and Agriculture Organization of the United Nations (FAO), and the International Program for Arid Land (IPALAC).

What are DMP's future challenges?

DMP's major challenges are to maintain the present momentum and enthusiasm among its stakeholders, to remain linked to the CCD efforts and to get continuous support. The long-term nature and magnitude of the desertification problem is such that sustained, predictable, and assured resources will be needed. The international community should continue to recognize its responsibility and mobilize adequate resources for such a vital endeavor. Otherwise, problems related to desertification will become even more costly and more compounded with the passage of time.