

The DESERT MARGINS PROGRAM (DMP)

**Towards sustainable management of the desert
margins of sub-Saharan Africa**

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- Poverty and food insecurity continue to create suffering across Africa's drylands
- Unpredictable droughts cause food shortages for both humans and the livestock



- Increasing human populations cause more livestock to be kept and an expansion of the cropped area into ever-more-marginal lands
- This places increasing stress on the natural resource base, degrading soils and biodiversity



Goal of the DMP

The overall objective is to arrest land degradation in Africa's desert margins





Main objectives of DMP

- Characterize existing state of land degradation
- Develop and implement strategies for:
 - conservation,
 - restoration, and
 - sustainable use

... of dryland biodiversity

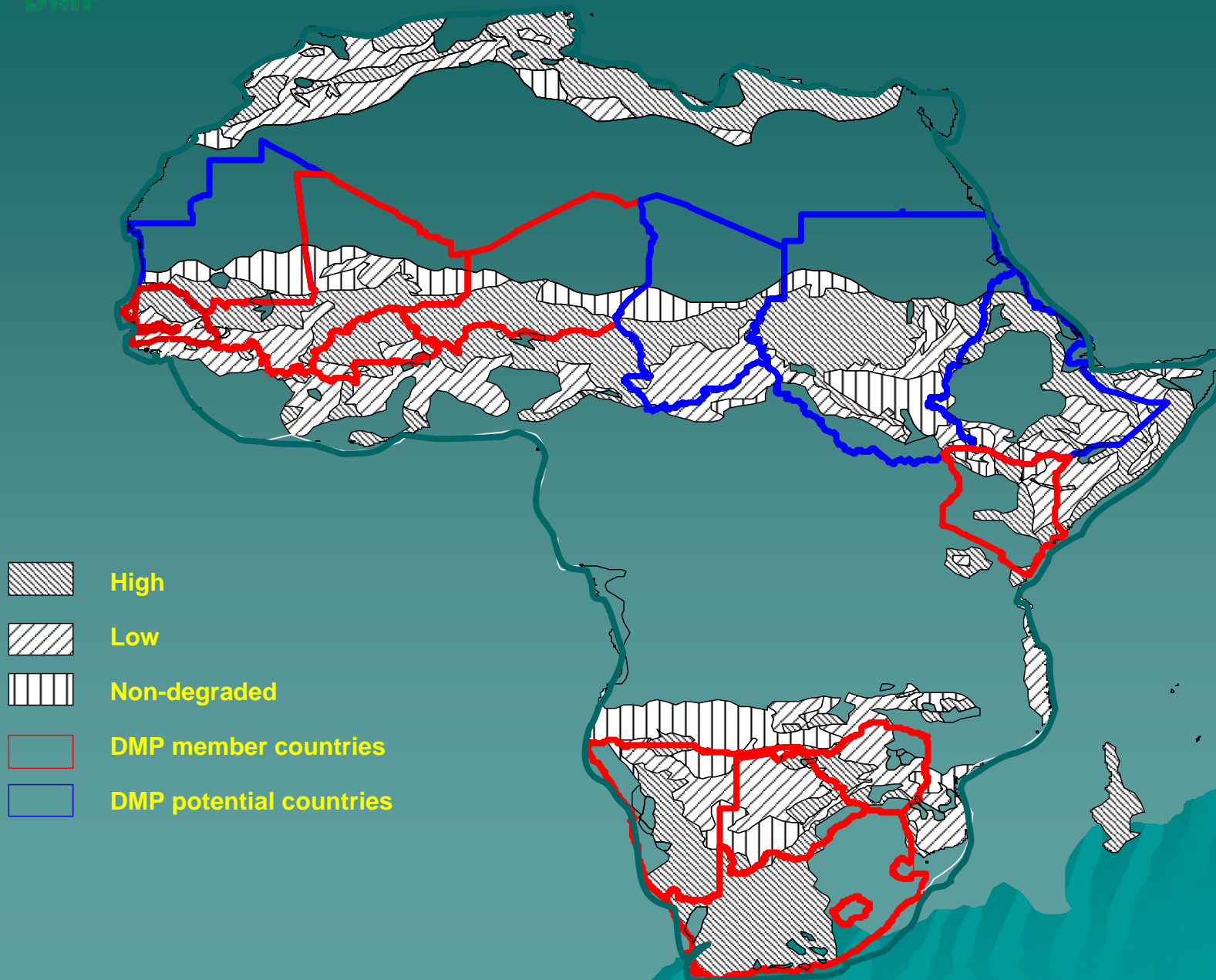







DMP, A Consortium

- ◆ NARS and NGOs in 9 countries (Burkina Faso, Botswana, Kenya, Mali, Niger, Namibia, Senegal, South Africa, and Zimbabwe)
- ◆ Three sub-Regional Organizations (CORAF/WECARD, SADC/FNR, and ASARECA)
- ◆ Five IARCs (ICRISAT, ICRAF, ILRI, TSBF/CIAT, IFDC)
- ◆ Three ARIs (CEH, IRD and CIRAD)
- ◆ UNEP and UNDP



Land degradation severity in desert margins of SSA



-  High
-  Low
-  Non-degraded
-  DMP member countries
-  DMP potential countries

Specific priorities

- ◆ Understand the physical mechanisms of land degradation
- ◆ Improve dryland natural-resource management (NRM)
- ◆ Formulate drought management strategies
- ◆ Promote conservation and sustainable use of biodiversity
- ◆ Exchange technologies and information

Roles of partners

- ◆ NARS and NGOs: developing, assessing and extending suitable technologies and policy options
- ◆ IARCs: technology development and validation in partnership with NARS
- ◆ Sub-regional organizations: setting up regional priorities
- ◆ ARIs: provide strategic research input



DMP Central Hypothesis

Desertification can be countered by:

- i) Enhancing agro-ecosystem resilience, and
- ii) Giving farmers options that increase incomes



Understanding the ecosystem through benchmark sites characterization

- Thorough site characterization in all countries (20 sites)
- Indicators of degradation and biodiversity status identified (e.g birds or invertebrates)
- Soil fertility baseline studies done
- Linkages made between land degradation, loss of biodiversity and climate change

New DMP Website www.dmpafrica.net

The screenshot shows the homepage of the Desert Margins Program (DMP) website. The browser address bar displays <http://www.dmpafrica.net/>. The page title is "Desert Margins Program Home Page".

The Desert Margins Program



Home | Mission | Achievements | Activities | Partnerships | About Us | Links | Site Map | Search



Mission

Help Africa stop the degradation of its drylands, particularly its biodiversity, soils, and carbon stocks, by sharing sustainable practices and strengthening human capacities.



Strategy

Analyze the root causes of dryland degradation in Africa; document indigenous knowledge; improve farming and livestock management practices;

[▶...more](#)

News and Events

DMP Steering Committee to [meet](#)

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New DMP Newsletter *On the Edge*

On the Edge - The DMP Newsletter - April/May 2005 - Message (HTML)

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You forwarded this message on 04/04/05 2:36 PM.

From: The Coordinator [dmp-global@cgjcr.org]
To: m.window@t-online.de
Cc:
Subject: On the Edge - The DMP Newsletter - April/May 2005

Sent: Thu 31/03/05 8:00 AM

The Desert Margins Program

On the Edge - The DMP Newsletter - April/May 2005

<p><u>NEPAD and G8 Meet to Advance Africa</u></p> <p>Global players met in Bamako in March, seeking early actions to jump-start NEPAD's Comprehensive Africa Agricultural Development Programme (CAADP). The DMP was in the thick of it.</p> <p>NEPAD-G8 action planning</p>		 <p><u>DMP Steering Committee to Meet</u></p>
<p><u>Measuring Global Benefits from Local Actions</u></p> <p>Impact is the lifeblood from which new projects flow. DMP participated in GEF's global consultation in Washington, DC during 5-6 March to discuss how the world benefits from local efforts to combat land degradation. (Photo: dust storm seen from space crosses the Sahel - and carries</p>		<p>The DMP Steering Committee will have a full plate during 5 to 7 April, 2005 in Potchefstroom, South Africa as it reviews Phase I and makes critical choices for Phase II. Overview of agenda</p>



THANK YOU



Main learnings to date

1. Soil degradation + land fragmentation → biodiversity loss
2. Crop and system diversification → land investment, biodiversity preservation
3. Community cooperation and credit are major opportunities



Conservation, restoration and sustainable use of degraded agro-ecosystems

Technological options identified on:

- Integration of crops and livestock for higher resource use efficiency and functional stability of ecosystem done
- Diversification of crop and livestock production



Technology options refined, adapted and promoted

- Eco_Restore in SA and Namibia
- Water harvesting , N2 fixation in Kenya
- Integrated soil nutrient management
- Fodder conservation
- Dunes stabilization



Technology options refined, adapted and promoted (cont'd)

- Up-scaling of soil, water and nutrient management technologies at all DMP sites
- Re-vegetation using micro-catchments and reseeding with grasses and forages
- Biodiversity gardens disseminated in BF, Mali and Senegal



Technology options refined, adapted and promoted (cont'd)

- Rehabilitation of “mangroves” ecosystems in Senegal
- Participatory drafting of management guidelines for 3 ecosystems in Senegal



Technology options refined, adapted and promoted (cont'd)

- Fertilizer micro-dosing technology in WCA
- Soil, water and nutrient management technologies (tied ridges, zai)
- Sahelian Eco-Farm (SEF)

A DEAD ECOSYSTEM IS NOT THE HOME TO BIODIVERSITY





Land and biodiversity degradation





Chain reaction of degradation

More people:



more crops & livestock on marginal lands



Soils and biodiversity degraded



Priority knowledge gaps

- Standardized, cost-efficient site characterization methodologies
- Scaling up and out of promising technologies approaches/tools
- Institutional innovations are needed for greater impact (e.g. warrantage, micro-credit)



The DMP has conceptualized its approach in three phases.

Phase I concentrated on the characterization of the different study sites in order to understand the challenges, opportunities and options to combat desertification



Phase II concentrating on up and out scaling of technological options

while phase III will emphasize community participation for impact and sustainability