

Promoting Sustainable Livelihoods, Reducing Vulnerability and Building Resilience in the Drylands

LESSONS FROM THE UNDP INTEGRATED
DRYLANDS DEVELOPMENT PROGRAMME



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United Nations Development Programme (UNDP)

UNDP partners with people at all levels of society to help build nations that can withstand crisis, and drive and sustain the kind of growth that improves the quality of life for everyone. On the ground in 177 countries and territories, we offer global perspective and local insight to help empower lives and build resilient nations.

The UNDP Drylands Development Centre is a unique global thematic centre that provides technical expertise, practical policy advice and programme support for poverty reduction and development in the drylands of the world. The Centre's work bridges between global policy issues and on-the-ground activities, and helps governments to establish and institutionalize the link between grassroots development activities and pro-poor policy reform. The main areas of focus are mainstreaming of drylands issues into national development frameworks; land governance; making markets work for the poor; decentralized governance of natural resources; and drought risk management.

http://www.undp.org/content/undp/en/home/ourwork/environmentandenergy/focus_areas/sustainable_landmanagement.html



Acronyms

CBD	Convention on Biological Diversity
CERUM	Multiple Use Resource Centre – Mozambique
CONAFIL	Benin local finance committee
DARIDAS	Department for the Development of Arid and Semi-arid Zones – Mozambique
DDC	UNDP Drylands Development Centre
EC	European Commission
EU	European Union
IDDP	Integrated Drylands Development Programme
INGC	National Institute for Disaster Management – Mozambique
GDP	Gross Domestic Product
GEF	Global Environment Facility
GSPR	Growth Strategy for Poverty Reduction
MAP	IDDP Market Access Project in Kenya
MICOA	Ministry for Coordination of Environmental Affairs – Mozambique
MDGs	Millennium Development Goals
NAP	National Action Plan to Combat Drought and Desertification
NGO	Non-government Organization
PADZAB	Programme to Support Drylands Development Activities in Benin
PLAGE	Local environmental development and management programme - Benin
PRSD	Poverty Reduction Strategy Document
SEA	Strategic Environmental Assessment
SDGs	Sustainable Development Goals
UNCCD	United Nations Convention to Combat Desertification
UNDP	United Nations Development Programme
UNDP/GEF-SGP	UNDP/GEF Small Grants Programme
UNFCCC	United Nations Framework Convention on Climate Change

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Acknowledgements

This document is a synthesis of lessons learnt, experiences and good practices drawn from case studies in six countries implementing the Integrated Drylands Development Programme. These countries include Benin, Ghana, Kenya, Mozambique, Namibia and Tunisia.

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Executive Summary

Widespread views of drylands as unproductive wastelands have created barriers to their economic development. In fact, these regions are culturally and environmentally valuable areas with assets – such as pasture lands, drought-resistant plants, energy and mineral resources, and unique ecosystems – that can contribute significantly to overall national poverty reduction and development plans.

There are close to 2 billion people living in drylands areas, and many of them pursue local livelihoods adapted to their distinct environments. However, in most cases their productivity and wellbeing could be improved through increased access to basic services, materials and infrastructure, along with training and capacity building regarding sustainable management of vulnerable land and water resources. This is particularly important as climatic variability and extreme weather events are threatening traditional farming and livestock-raising practices, leading to new challenges and conflicts related to desertification, land degradation, droughts and natural disasters.

Since 2002, UNDP's Integrated Drylands Development Programme (IDDP) has been working with governments, civil society and local communities in the drylands to build and strengthen their capacity for sustainable natural resources management as a basis for building resilience, reducing vulnerability and improving livelihoods. This work is managed by the UNDP Drylands Development Centre (DDC), a thematic centre of excellence that works with UNDP Country Offices in Africa, the Arab States and West Asia to implement the UN Convention to Combat Desertification (UNCCD). Most of the countries with dryland areas have adopted national action plans under the UNCCD, but progress in their implementation has been slow, especially where they have been developed as stand-alone strategies without clear links to other national planning frameworks and budgets.

In December 2008, the European Commission (EC) entered into an agreement with UNDP to fund additional activities under phase two of the IDDP. Building on on-going IDDP projects, the European Union has supported:

- a) mainstreaming drylands issues into development policies, plans and budgets;
- b) enhancing the capacity for local governance of natural resources as a basis for mitigating conflicts and promoting resource-based economic opportunities;
- c) improving the ability of local communities to manage disaster risks and adapt to the effects of climate change in the drylands; and
- d) increasing the capacity of people living in the drylands to participate in entrepreneurial enterprises and other economic activities.

IDDP activities, results, lessons and good practices in Benin, Ghana, Kenya, Mozambique, Namibia, and Tunisia are discussed in detail in this publication, based on reports prepared for each of those countries.

The IDDP has been effective in raising awareness about needs and opportunities in these drylands countries, and in building the capacity of government officials to integrate measures for economic development and sustainable management of drylands resources into their

policies, planning frameworks and implementation strategies. This has been accomplished through activities such as preparation of country-specific guidebooks, training workshops and advocacy that targeted government officials, and application of different mainstreaming tools, including for example the Strategic Environmental Assessment methodology as a means of promoting participation in planning processes. Capacity building for governmental entities was complemented by actions to build public and local institutional support, including media campaigns, community dialogues, and engagement of schools and other civic organizations.

Within drylands communities, IDDP-supported community workshops and hands-on demonstrations of soil conservation, water harvesting, irrigation, improved farming techniques, and crop processing helped build a foundation for greater community resilience to the socioeconomic impacts of changes in seasonal rainfall patterns, as well as flooding, droughts, bushfires and other natural disasters. Sharing of experiences and South-South cooperation activities provided valuable opportunities for capacity building and acquisition of information and expertise.

The IDDP has also addressed the needs of communities in the drylands for improved and/or alternative livelihoods and enhanced market access as a way of building incomes and economic diversification to improve their resilience. This work has included: identifying existing enterprises, opportunities and challenges in producing and marketing various products; providing training on agricultural productivity, enterprise development, and business management; supplying materials and technologies such as underground water cisterns, drought-resistant seeds and beekeeping equipment; establishing micro-finance facilities, promoting links to markets and suppliers, and creating opportunities for peer learning and site visits. In this work, the IDDP is committed to promoting gender equality and women's empowerment since discrimination against women and stereotypical gender roles are deeply entrenched in many regions, limiting women's current economic potential and decision-making opportunities.

Despite the considerable success of these IDDP initiatives, much more work is needed to reach affected drylands communities and assist them in building their disaster preparedness, improving their livelihoods, and creating greater resilience to the impacts of climate change. One of the greatest challenges is to mobilize sufficient support and financial resources for needed actions at the local level. It is therefore important to continue focusing on mainstreaming drylands measures in general development planning frameworks that are used for public resource allocation, while also exploring avenues for engaging private sector financial institutions, and for establishing innovative community-based funds and micro-finance systems.

The unrealized economic potential and underutilized natural resources within the drylands can be used to help countries achieve their long-term sustainable development targets through improvements in drylands enterprises and market access, food security, energy production, and environmental conservation. But the benefits of successful drylands programmes have international impacts as well. The long-term costs of neglecting dryland development may include increases in political instability, conflicts, migrations and refugees. Strategic capacity building, training and investments in these areas, therefore, offer globally significant returns, and broader strategic partnerships are needed to support development programmes focused on drylands needs.



Introduction

1.1 Drylands challenges and potential for development

Drylands represent a variety of diverse landscapes that receive relatively low levels of rain or snow, including cultivated areas, grasslands and savannas, as well as deserts. Drylands cover approximately 40 percent of the world's territory and are occupied by close to two billion people, 90% of them in developing countries.¹ Contrary to common perception, drylands are culturally and environmentally rich, home to vibrant communities and complex ecosystems, and hold the potential to drive national growth and sustainable human development.²

Drylands are being degraded, however, due to unsustainable use of land and water resources compounded by recurrent droughts and climate variability. This is threatening the wellbeing of a large number of communities and cultures. Almost half of drylands inhabitants depend on ecosystem services for their livelihoods, which are primarily based on pastoralism and farming. The scarcity of water and natural resources, low agricultural productivity, and lack of alternative livelihoods particularly limit the economic situation of women and the livelihood prospects for young people, and contribute to conflicts within and between communities.

There are important economic and ecological assets in the drylands– including pasture lands, forest areas, drought-resistant plants, valuable minerals, and energy resources – that can contribute to poverty reduction and economic development if they are effectively managed and marketed. Yet national policy-makers have tended to view the drylands as relatively unimportant in terms of development plans and often omit the potential of these areas in economic growth strategies.

The physical remoteness of some of the dryland areas has contributed to their poverty and marginalization in national affairs. There has been little public or private investment in roads or other infrastructure that would provide access to basic services and potential markets.

1 *Global Drylands: A UN System-wide Response*, UN, 2011.

2 *The Forgotten Billion: MDG Achievement in the Drylands*, UNDP, 2011.

Most investments have been concentrated in areas considered to have higher potential for economic development. But if the needs of drylands people are ignored, it will not be possible to achieve the Millennium Development Goals in many of the affected countries. Consideration of drylands issues must therefore be included at all levels of development planning and implementation.

People living in the drylands have already shown their capacity for resilience over many generations, adapting to environmental challenges and accumulating valuable knowledge about dryland ecosystems. On semi-arid rangelands, pastoralists move their herds from place to place to take maximum advantage of the sparse vegetation, supporting close to 50 percent of the world's livestock. Despite the relatively low fertility of the soil, drylands are used to produce food crops, as well as medicinal plants such as aloe vera and specialty products like gum Arabic, frankincense and myrrh.

However, increases in desertification, land degradation and drought are creating new challenges for the large rural populations living in the drylands. Desertification currently affects approximately six million square kilometres and six percent of drylands inhabitants, and many more people are living with the threat of desertification.³ Desertification is caused when plants and trees are removed, and the underlying soil blows away. Agricultural productivity is reduced, and eventually the land can become degraded and completely infertile. Dryland degradation reduces the gross domestic product of some developing countries by as much as 48 percent.⁴ Meanwhile, climatic changes are increasing the frequency, duration and impacts of droughts, floods and other extreme weather events, and climate variability is affecting rainfall levels and timing, resulting in significant decreases in crop yields within some rain-fed African agricultural lands.

Through planning processes with a longer term perspective, improved resource management mechanisms and adoption of alternative economic opportunities, people in the drylands can better adapt to climate change and cope more effectively with desertification, droughts and natural disasters.

Traditional livelihood activities and related enterprises can be enhanced through management arrangements and investments designed to enable drylands areas to become more productive and economically diverse. These can include large-scale public and private initiatives, as well as activities of communities, households and small businesses. Investments are particularly needed to promote conservation and improved management and use of water resources, farmland, pastures, and trees. More general focus areas include improvements in renewable energy, education, health, and urban development. In relation to energy, the drylands offer unexploited potential for renewable energy (solar and wind), which could be harnessed to reduce over-dependence on biomass and support income-generating activities through water pumping, agro-processing, cell phone charging, etc. Drylands also offer significant possibilities for development of local livelihoods related to tourism, as they support unique ethnic communities, culturally important heritage sites, and rare wildlife species and habitats.

3 *Global Drylands: A UN System-wide Response*, UN, 2011.

4 *Ibid.*

Most of the countries with dryland areas have adopted National Action Plans under the UN Convention to Combat Desertification, but progress in their implementation has been slow and limited in scope. According to the 10-year strategic plan and framework to enhance the implementation of the Convention (2008-2018), limiting factors include: relatively low levels of financing compared with the other Rio Conventions (the UN Framework Convention on Climate Change and the UN Convention on Biological Diversity); a weak scientific basis; insufficient advocacy and awareness among various constituencies; institutional weaknesses; and difficulties in reaching consensus among the Parties to the UNCCD. In most cases, the NAPs have been developed as stand-alone strategies without clear links to other national planning and development budgets and frameworks. As a result, there has been little or no budgetary support for implementation of these action plans. This is now slowly changing: Drylands countries have begun or are in the process of reviewing their NAPs to realign these to the 10-year Strategy as a basis for addressing the above challenges and revitalizing the implementation of the Convention.

Notwithstanding these new developments, there have also been few resources available for local planning and implementation of activities. Many of the affected countries are classified by the UN as Least Developed Countries, defined as low income countries that are suffering from high levels of poverty and long-term handicaps to growth. They thus have weak overall economic and institutional capacity and resources to tackle their developmental challenges.

1.2 UNDP and the Integrated Drylands Development Programme

UNDP initiated the Integrated Drylands Development Programme (IDDP) to assist governments, civil society and local communities in the drylands to build and strengthen their capacity for sustainable natural resources management as a basis for building resilience, reducing vulnerability and improving livelihoods. The IDDP's resilience-building efforts are guided by the three key principles on which UNDP bases its work: improving people's lives by empowering individuals and communities and reducing inequalities and marginalization; establishing or strengthening institutions, structures, and human capacities to ensure long-term impacts and sustainability; and commitment to long-term partnerships and national ownership.

The programme is being managed by the UNDP Drylands Development Centre (DDC), a thematic centre of excellence that specializes in assisting countries in fighting poverty and promoting development aimed at reducing vulnerability and building resilience in the drylands. The DDC works with UNDP Country Offices in Africa, the Arab States and West Asia to implement the UNCCD. It provides support services for programme development and implementation, policy advice, capacity building, resource mobilization, building partnerships, and knowledge management.

The IDDP was launched in 2002, and is currently in its second phase of implementation. The IDDP combines policy analysis, institutional capacity building and concrete interventions on the ground to support three outcomes:

- i) *mainstreaming drylands issues, climate change adaptation and mitigation* into national policies, planning and development frameworks and contributing to the effective implementation of the UNCCD;
- ii) *reducing the vulnerability of drylands communities* to environmental, economic and socio-cultural challenges (such as climate risks, drought, land degradation, poor markets and migration) and building their adaptation and mitigation capacity; and
- iii) *improving local governance, management and utilization of natural resources.*

The IDDP supports countries in implementing the UNCCD as a pathway towards achievement of the Millennium Development Goals in the drylands. A critical element of this work is integration of the needs of drylands populations into national planning processes and economic development frameworks, including National Poverty Reduction Strategies. This requires strengthening of national and local capacities for planning, developing and implementing drylands programmes. It also involves establishing effective networks, partnerships and funding resources for implementing and monitoring drylands development interventions.

Some of the results that can be seen from the IDDP activities include the following:

- i) Drylands and environmental issues have been mainstreamed into development frameworks at the national and local levels (including provincial and district) in 17 countries;
- ii) Community capacity has been improved with regard to livelihood enhancement and diversification;
- iii) There is greater community resilience to withstand climatic shocks and corresponding socioeconomic stresses;
- iv) There is better management and decentralized governance of land and natural resources;
- v) Policy advocacy has been promoted on land governance issues, and national and sub-regional capacity has been developed in land and agrarian reform processes;
- vi) Peer learning networks have been established across communities, countries and regions, offering opportunities for cross-fertilization of approaches, and knowledge sharing to transfer information, experiences, and technologies through South-South cooperation;
- vii) Global advocacy and outreach has been undertaken to improve people's understanding of the relationships between environmental conditions and livelihoods possibilities for drylands communities;
- viii) Awareness about the productive potential of the drylands and their contributions to national GDP has been promoted through evidence-based policy advocacy targeted towards decision-makers and designed to ensure that the identified needs and priorities of drylands communities are adequately integrated into policy deliberations and long-term drylands development planning processes;
- ix) Partnerships have been built and catalytic funding mobilized for implementation of programme activities in 17 countries.

One important aspect of the IDDP's work is to promote the establishment of peer learning through 'people' networks across communities, countries and regions that can be used to facilitate exchange of experiences, knowledge sharing, and adoption of technologies

based on South-South cooperation. The premise is that improving people's understanding of the relationships between environmental conditions and the livelihood possibilities for drylands communities – emphasizing the productive potential of these areas – will lead to better decision-making, policies, and legal and institutional frameworks for the sustainable development of drylands. Face-to-face peer learning through study tours/exchange visits, forums and workshops and active electronic platforms allow people and groups in different countries to identify, document and share lessons, experiences, best practices and successful interventions. The evidence-based knowledge generated within the IDDP not only allows people to learn from each other, and transfer and adapt best practices and technologies that are working, it can also be used to inform policy development, decision-making processes, and budgetary allocations relating to drylands areas, as well as to create tools for policy advocacy and guidelines to support effective programming and implementation.

The overall goal of IDDP is to contribute to poverty reduction through the sustainable development of drylands leading to reduced vulnerability and improved livelihoods. The IDDP:

- ❑ Targets marginal (arid, semi-arid, and dry sub-humid) areas and communities affected by desertification, drought and land degradation, where poverty is the highest.
- ❑ Works at national, sub-national and local levels helping countries and communities to build capacity for integrating drylands issues into planning and development frameworks and budgetary systems.
- ❑ Uses an integrated approach that combines three approaches to drylands development: policy analysis with institutional capacity building and concrete programme interventions at national and local levels.
- ❑ Works to ensure that the drylands' potential is reflected in policy making processes in the programme countries and translated into livelihoods options
- ❑ Applies policy analysis to guide the design and implementation of participatory actions at community level
- ❑ Focuses on building resilience of drylands communities to shocks, including drought, climate variability, climate change and socio-economic stresses and is thus a good vehicle to promote synergies in the implementation of all three Rio Conventions (the UN Convention to Combat Desertification, UNCCD; the United Nations Framework Convention on Climate Change, UNFCCC; and the Convention on Biological Diversity, CBD).
- ❑ Places emphasis on the productive potential of drylands and its people and supports activities on sustainable land management practices/approaches/technologies that help to restore the land's productive potential and assist small holder farmers to better adapt to short-term climate variability and long-term climate change thus mitigating impacts on their livelihoods.
- ❑ Promotes livelihoods enhancement activities using market based approaches recognizing that limited market access for commodities produced by pastoralists and agropastoralists is a major constraint to sustainable livelihoods in the drylands.
- ❑ Promotes knowledge management and peer-learning, experience sharing and technology transfer through South-South cooperation.
- ❑ Builds partnerships and mobilizes resources to support drylands programmes.

1.3 European Union support for the IDDP

In December 2008, UNDP signed an agreement with the European Commission (EC) regarding funding for phase two of the IDDP. Building on on-going IDDP projects, the European Union (EU) has supported:

- i) mainstreaming drylands issues into development policies, plans and budgets;
- ii) enhancing the capacity for local governance of natural resources as a basis for mitigating conflicts and promoting resource-based economic opportunities;
- iii) improving the ability of local communities to manage disaster risks and adapt to the effects of climate change in the drylands; and
- iv) increasing the capacity of people living in the drylands to participate in entrepreneurial enterprises and other economic activities.

The EC agreement was developed to support activities in nine countries – Benin, Ghana, Kenya, Mali, Mozambique, Namibia, Tanzania, Tunisia and Yemen. In eight of these countries the EC agreement was designed to build on existing IDDP activities supported by other donors (including Denmark, Finland, Norway and Turkey) through DDC and UNDP country offices; the programme in Namibia was initiated under the EC agreement. The Government of Denmark supported five countries in Sub-Saharan Africa (Benin, Ghana, Mozambique, Sudan and Tanzania) from 2006 to 2011 to mainstream drylands development issues into national development strategies in the context of UNCCD implementation. The Action funded by the EC builds on these activities and the achievements of the programmes implemented in four of the above mentioned five countries.

The IDDP activities in **Benin, Ghana, Kenya, Mozambique, Namibia, and Tunisia** are discussed in detail in this publication, based on reports prepared for each of those countries. The report from Tanzania was not finalized in time for inclusion. In Yemen and Mali, IDDP work had to be put on hold due to political instability, which affected implementation of the activities.

Activities in **Tanzania** supported by the EU built on IDDP work funded with resources from the governments of Denmark and Norway, and the United Kingdom's Department for International Development. The IDDP has promoted more efficient utilization of rangelands in Tanzania and empowerment of pastoralists through improved livestock productivity and market access. The programme has enhanced the capacity of government and non-government actors to influence national policies on pastoral livelihoods and built the capacity of selected community groups in scaling up traditional land management systems, production, and market access for indigenous drylands products. A 2009 stakeholders workshop sponsored by Tanzania's Ministry of Livestock reviewed and recommended changes in government policies and legislation affecting pastoral production, land use, and water management. The ministry also organized an advocacy initiative, including radio and television outreach, to influence policies on pastoral livelihoods and make relevant information accessible to decentralized local level institutions. Activities promoting alternative livelihoods included a baseline assessment of potential products and market opportunities, and training for local groups on poultry rearing, beekeeping, handicrafts and leather goods, as well as business management,

bookkeeping, and production and marketing skills. Incomes and land management have also been enhanced by better management of traditional woodlots, which has led to an increase in usable and marketable forest products.

Some of the impacts in the Tanzania programme include: empowerment of women by increasing their ability to earn their own funds, including through alternative income-generating activities such as improved poultry production; enhancement of traditional livelihoods based on beekeeping, livestock products, and handicrafts (bead making and basket weaving); acquisition of knowledge through exposure to trade fairs and exchange visits; better housing as a result of extra income generated; increased school attendance because families are able to afford to pay school fees; rangeland improvements allowing livestock to continue feeding in the same localities during dry season thus allowing for regeneration of degraded lands; advocacy and information sharing regarding dryland production possibilities through documentaries, television shows, and newsletter articles; improved knowledge and skills for production and storage of quality hides and skins; expanded areas of woodlots planted in individual compounds, reducing time spent for collection of firewood; and scaling up of activities to neighbouring villages through self-motivation and leadership from the local government authorities.

In **Yemen**, the focus of the EU support was on improving local governance of natural resources for conflict resolution. This work was meant to build on previous DDC achievements in successfully promoting a model for decentralized water governance in Yemen's Amran basin. The model involved the establishment of a water basin committee and capacity building for various stakeholders on integrated water resource management. Within the framework of EU support, a needs assessment was undertaken regarding the Amran Water Basin Committee, the National Water Resource Authority, local councils, and water user associations. The findings were to be used to prepare for the development and implementation of on-the-ground actions. However, the political and security situation deteriorated in October 2009, and the activities had to be put on hold. Subsequent conditions continued to be unstable and only essential missions were authorized by the UN Department of Safety and Security. In January 2012, the DDC asked the EU for permission to reallocate the Yemen funds and use them to support activities in other countries.

In **Mali**, the other country where the IDDP focused on support to local governance of natural resources for conflict resolution, the work also had to be suspended (in March 2012) due to political instability.

Starting in 2010, baseline studies were undertaken at selected project sites in Goa and Timbuktu to evaluate economic, social and environmental conditions, particularly the land use situation and the sources of inter-community conflict. Aridity and advancing desertification have reduced the available living space, and conflicts primarily arise around water access points. There is also contention over use of land for grazing, farming and gathering of natural resources. Women generally are the most economically vulnerable, especially those who must rely only on what they can gather in order to survive. An increasing scarcity of resources results from a combination of climate factors (droughts, as well as floods) and human factors (overgrazing, and overharvesting of forest products). Despite the imminent danger resulting

from natural resource degradation, environmental issues are generally not addressed in local planning processes.

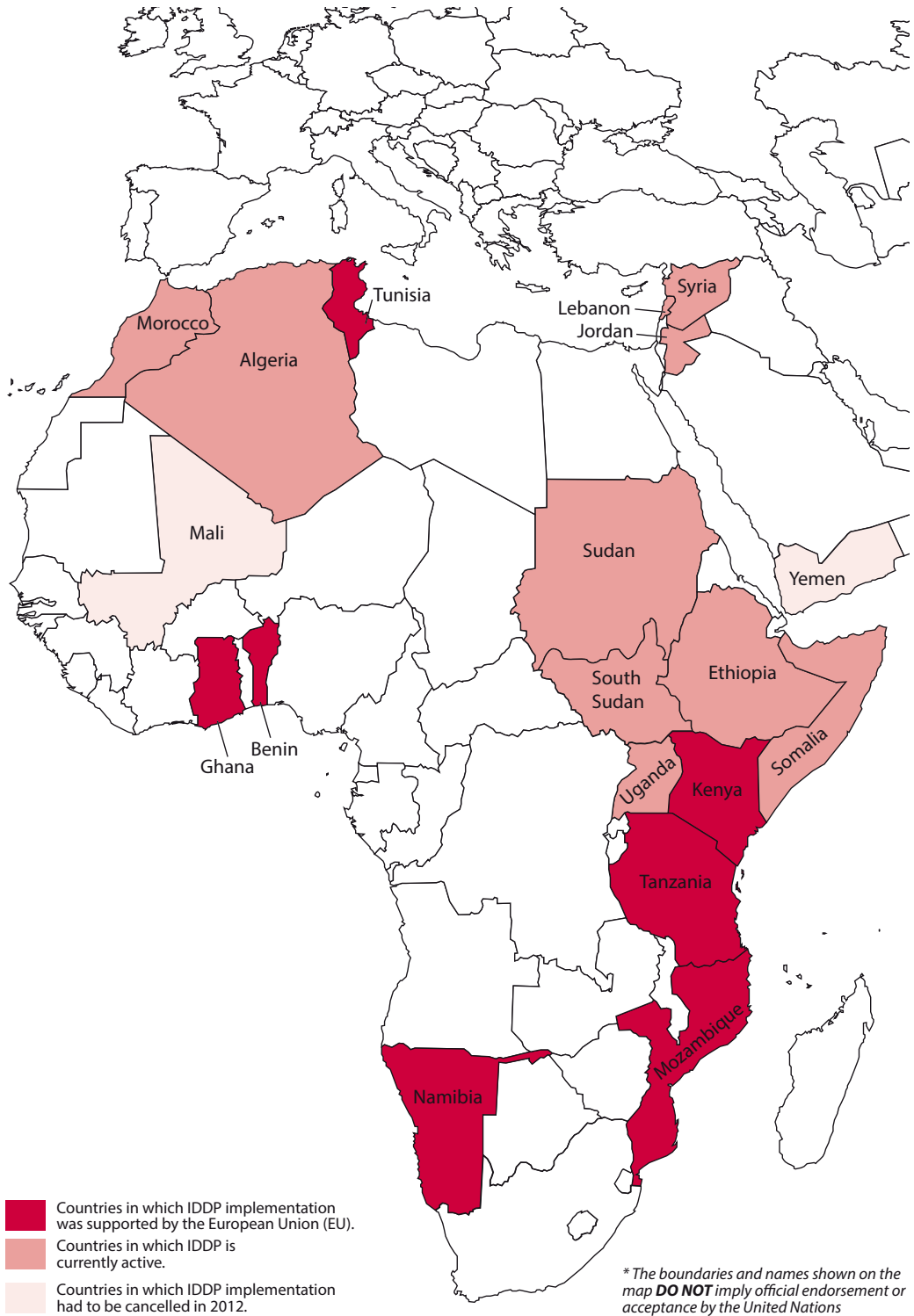
A report drawn from the baseline studies in Mali proposed stronger local natural resource management plans designed to protect the assets needed for survival, and to address conflicts. It also identified local livelihood options and opportunities for market access, including enterprises based on forestry (for fuel, fruits, medicines, and rubber), irrigated market gardens, and fodder production (burgu grass) for fattening livestock. A number of activities were planned for 2012 but then put on hold, including workshops on conflict management, village assemblies in pilot villages, training workshops for committees, and a feasibility study for a village action plan.

1.4 Structure of the document

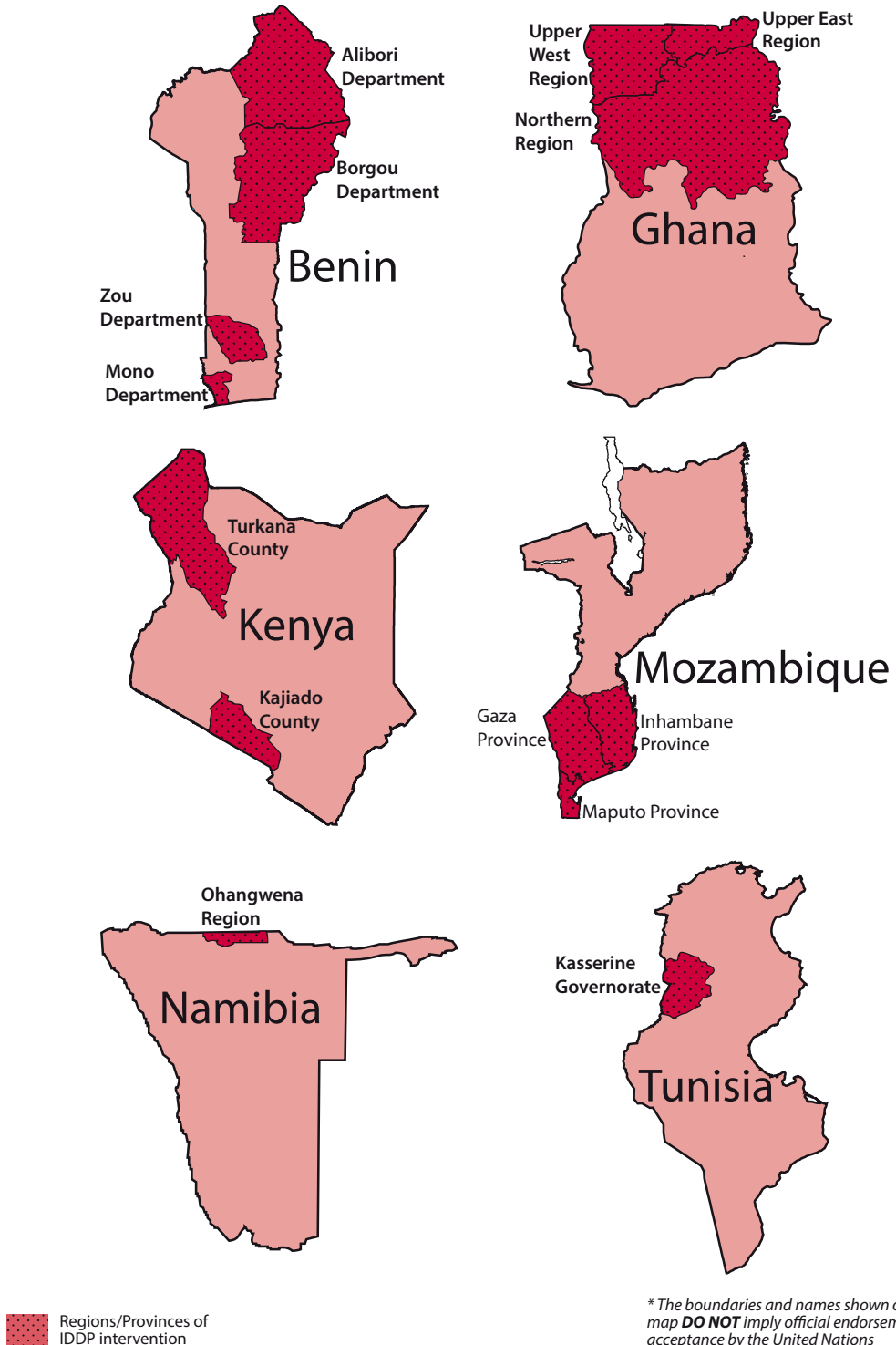
This publication presents some of the key activities, achievements, lessons and good practices to date based on IDDP programme work supported by the European Commission in Benin, Ghana, Kenya, Mozambique, and Tunisia, building on the activities supported through funding from other donors, and in Namibia, where activities were initiated pursuant to the EC agreement. The publication is expected to be useful to practitioners and partners working on or supporting drylands development, UNDP Country Offices, and other stakeholders. It will also serve as a tool for creating more general awareness about the opportunities and challenges in the drylands.

Section 2 reports on the integration of drylands development priorities in planning and budgeting frameworks in Benin, Ghana, Mozambique and Tunisia. Section 3 discusses efforts to develop the capacities of communities in Benin, Ghana, Kenya and Tunisia to participate in entrepreneurship and other economic activities. Section 4 describes work on improving local responses to natural disasters and climate change in Mozambique and Namibia. Section 5 offers overall conclusions about the IDDP work in these countries.

Map 1: EU-supported IDDP implementation at country level



Map 2: EU-supported IDDP implementation in the countries discussed in this publication (sub-national level)





2

Integration of drylands development priorities into planning and budgeting frameworks: Achievements, lessons and good practices

2.1 Introduction

The IDDP programme facilitates the translation of drylands development strategies included in National Action Plans and other frameworks into concrete, effective activities that benefit people in the dryland areas. It has identified and analyzed policies that are relevant to development in the drylands, including those relating to land reform, pastoralism, decentralized governance of natural resources, and strengthened market systems. Based on this research, the DDC has produced policy and information briefs that have been disseminated to governments and development partners through electronic communications, workshops, conferences and consultations. It has also assisted countries in identifying and addressing specific policy gaps, institutional weaknesses, and resource mobilization requirements related to promoting sustainable development in the drylands. For example, the DDC collaborated with the UNCCD Secretariat on an assessment of progress on the Millennium Development Goals in the drylands, which was presented at the 2011 UNCCD Conference of the Parties in Korea: “The Forgotten Billion: MDG Achievement in the Drylands”. The joint assessment report

highlights that “in certain regions, human well-being, particularly female adult literacy and child survival, decline in parallel with the aridity gradient,” which is related to water scarcity. It stresses development challenges faced by people in the drylands and concludes that “it will be impossible to halve the world’s poverty and hunger by 2015 unless life is improved for the poor people of the drylands.” The report also calls for concerted political will and a coordinated commitment of all development partners in support of the “Forgotten Billion” since impressive successes can be attained with the right mix of leadership, policy and financial investments.

In collaboration with the International Union for Conservation of Nature (IUCN), and the International Institute for Environment and Development (IIED), DDC also produced “Drylands Opportunities: A new paradigm for people, ecosystems and development”. This publication emphasizes the adaptive potentials of drylands people, the value of drylands ecosystem services, their investment and marketing opportunities and the possibilities of strengthening the institutional environment for managing risk and rewarding resilience.

The DDC has defined drylands mainstreaming as “a systematic practice and culture to integrate drylands in all decision-making processes, policies and laws, institutions, technologies, standards, planning frameworks, etc., and ensuring that they continue to be part of the agenda in subsequent decision-making processes, implementation and revision of all the above”.⁵ Generic guidelines for drylands mainstreaming processes developed by the DDC describe the main steps involved, which can be structured within five phases:

- a) an assessment phase, to gather information and evaluate the sociopolitical and economic situation;
- b) an awareness raising, participation and partnership building phase, in which communication strategies are developed, consultative processes are elaborated and partnerships identified and engaged;
- c) a planning phase, which must be participatory, and also link plans with government budgetary frameworks;
- d) an implementation phase, which involves national capacity enhancement as a key objective, as well as monitoring mechanisms to track changes, assess achievements and readjust plans where possible; and
- e) an evaluation phase, which examines the impacts of the plans and programmes and assesses the effectiveness of the mainstreaming process.⁶

During the first years of implementation, the IDDP made significant achievements in mainstreaming environment and drylands issues into broader national development policies and strategies. The programme worked with national governments to ensure that the vulnerabilities and risks affecting the drylands were taken into account, emphasizing long-term measures for managing natural resources and facilitating alternative livelihoods and market access, rather than short-term crisis interventions.

Building on those national policy achievements, over the last few years the IDDP has focused on greater integration of drylands priorities into institutional actions, sectoral initiatives, and

5 *Mainstreaming Drylands Issues into National Development Frameworks: Generic Guidelines and Lessons Learnt*, UNDP, 2008.

6 *Ibid.*

planning and budgetary systems, especially in the context of district and local governance. The goal is to more effectively link the national policies and plans that address drylands challenges with structural frameworks and budgets that support actual implementation at the local and community levels.

2.2 Benin

2.2.1. Benin overview

The IDDP activities were undertaken between 2006 and 2012 through the Programme to Support Drylands Development Activities in Benin (PADZAB), which seeks to mainstream desertification and climate change issues into the country's development plans and strategies. The key objectives of the programme were:

- i) to help Benin carry out the strategic actions necessary to implement the National Action Plan to Combat Desertification; and
- ii) to place the policy, programme, decision-making and implementation systems for each policy sector within a sustainable human development framework. The main implementing partner of IDDP in Benin is Le Ministère de l'Environnement de la Protection de la Nature.

Activities have been undertaken to 'green' the country's Growth Strategy for Poverty Reduction (GSPR), improve local governance of environmental resources, and implement integrated development micro-projects. These actions have produced positive results. Improvements can be seen in the inclusion of environmental management considerations in the actions of ministries, and in strategic documents, particularly the national GSPR for 2007-2009, and Communal Development Plans. The living conditions among women in certain communities have also been improved due to the benefits from the introduction of multifunctional platforms.

Through the 'greening' process, PADZAB has helped to develop expertise in Benin in the area of sustainable management of natural resources and the environment, and to establish relationships and mobilize actors to participate in activities to address environmental degradation and related issues. However, PADZAB faced some challenges that hindered the attainment of a much larger impact. These included not adequately taking into account the need to create a mechanism for following up and motivating the actors at various levels to take concrete steps, as well as inadequate allocation of resources needed for implementation.

2.2.2. Desertification and climate change issues in Benin

In Benin, the regions affected the most by desertification are in the north, notably in Borgou and Atacora, especially the areas of Ouaké, Karimama and Kalalé. In the south, desertification is also advanced in Djidja and Savalou. Agriculture is the main source of livelihoods for nearly 70 percent of the country's workforce, and accounts for 35 percent of GDP. Poverty affects more than 35 percent of the population, and is most pronounced in rural areas. Approximately 70 percent of the women in Benin live and work in rural areas, and they contribute the largest share of labour, performing 60 to 80 percent of the agricultural work.

Dryland conditions in Benin have been compounded by the country's poor socioeconomic condition and slow political action to take environmental risks into account, as well as inappropriate farming practices and outdated production equipment. The most visible impacts of environmental degradation include loss of forest cover, expanded erosion, loss of soil fertility, reduced water levels, lower water quality and availability, and uncontrolled urban development. Climate change has contributed to irregular rainfall, with periods of both excessive and insufficient rain. This situation is adversely affecting the productivity of agriculture, which is the country's primary economic activity.

With high poverty and unemployment rates, and a large youth population, Benin faces growing concerns related to unsustainable environmental management. Pressures on farmland will be strong, increasing the current problems associated with limited access to land. Bodies of water are also likely to be affected, with environmentally unsound fishing practices leading to lower production. Home energy needs – particularly demand for firewood – will require cutting increasing amounts of vegetation, which will speed deforestation.

2.2.3. Benin poverty and development plans

The Growth Strategy for Poverty Reduction for 2007-2009 (GSPR2) was designed to consolidate the achievements of the prior 2003-2005 framework, while emphasizing economic diversification and growth and achievement of the Millennium Development Goals. It is in keeping with Benin's long-term strategic vision, known as Benin 2025: Alafia (Peace and Happiness) which led to the formulation of medium and long-term action plans in 2000. These included environmental protection actions, although few resources were allocated to address desertification and climate change.

2.2.4. Main activities and impacts on planning and policies in Benin

- a) **A methodological guide on 'greening' the Growth Strategy for Poverty Reduction** was prepared as a tool for mainstreaming environmental concerns into sectoral plans and programmes, and was used by various ministries with regard to current and future projects.
- b) **A study evaluating the economic costs of environmental degradation in drylands** provided decision-makers with information needed to understand the value of natural resources and the environment, and to make decisions about sustainable environmental management. The cost of environmental degradation was estimated at approximately 60 percent of Benin's GDP.
- c) **Capacity building for environmental units within various ministries improved their ability to monitor the country's Growth Strategy for Poverty Reduction (GSPR2).** Training workshops for staff members of the environmental units within various ministries strengthened their understanding of the greening process and use of strategic environmental evaluations. Thanks to the training and awareness-building activities, sustainable management of natural resources and the environment was incorporated more fully into the second Growth Strategy for Poverty Reduction, as well as specific projects, budgets and activities. In addition, sustainable management of natural resources and the environment now occupy an important position in the third-generation Growth Strategy for Poverty Reduction (GSPR3). Drylands issues were integrated into the work plan for the

Ministry of the Environment and Protection of Nature, while the environmental unit of the Ministry of Agriculture, Livestock and Fisheries trained managers of projects, divisions, and regional agricultural promotion centres to include environmental considerations. Other strategy documents developed during the IDDP period also addressed environmental issues, including the 2006-2011 Strategic Development Orientations document (developed based on long-term forecasting studies conducted in 2000 that led to the Benin 2025 Alafia strategy) and a 10-year forecasting strategy document (2006-2015) highlighting major challenges in connection with the MDGs and the Benin 2025 Alafia vision (which is a more operational medium-term planning document for Benin than the Benin 2025 Alafia strategy).

- d) **Information provided to deputies serving in the National Assembly and to members of the Economic and Social Council** promoted inclusion of drylands issues in government policies and legislative action. These issues were raised as a matter of national concern in the context of addressing poverty. A group of National Assembly deputies later came together to work on a bill to establish a national reforestation fund to support implementation of better-coordinated, long-term actions. This group of deputies and the Minister of the Environment held meetings to help speed passage of the reforestation fund bill, and encouraged the government to control timber exports and allocate 40 percent of forest revenues to reforestation investments.
- e) **Implementation of decentralized environmental management was enhanced by designing local environmental development and management programmes (PLAGEs) and environmental profiles**, which have helped local authorities define environmental problems more clearly and identify approaches to solving them. The solutions chosen included efforts to combat unhealthy conditions, and protect ponds and water retention basins, including by giving local residents the responsibility for monitoring usage on the opening day of fishing season. This is increasing the productivity of the protected bodies of water. Forest reserves are also being created to meet wood-energy needs. Project plans were drafted in connection with the implementation of the Karimama PLAGE, but the micro-projects planned were not implemented because sufficient funds could not be raised from the government and the technical and financial partners.
- f) **The capacity of actors, groups and institutions involved in the process of mainstreaming drylands issues into the PRSD2 was strengthened.** Mayors and environmental affairs programme managers in Borgou and Alibori communes were involved in the work of 'greening' the PRSD2. This enabled them to acquire skills and tools that led to the greening of the second generation Communal Development Plans. Karimama's second generation Communal Development Plan now contains a strategic direction devoted specifically to environmental protection. Karimama took advantage of the opportunity provided by the W Park to promote tourism and is involving local people in environmental protection in order to slow desertification and improve their quality of life. However, full implementation still remains a challenge given the other developmental problems that must be addressed; environmental protection is often not the highest priority when Communal Development Plans are implemented. According to the director of the local development planning and decentralized development department of Banikoara commune, efforts to improve mayors' environmental protection actions should target the national local finance committee (CONAFIL), which analyzes communes' financial needs and provides resources to communal development funds based on each commune's needs.
- g) **Public awareness-raising was promoted through training of civil society organizations, journalists and young people.** To raise awareness about the importance of drylands,

'environmental protection ambassadors' were selected from schools in Malanville, Kandi, Karimama, Banikoara and Kalalé communes and provided with training. The young ambassadors in Banikoara who move on to middle school are replaced by other children who continue the awareness-raising activities, and plant and maintain reforestation trees. As of February 2012, the impacts of the child ambassadors' activities could still be seen in some places. The ambassadors from Dérou Ganro school (Banikoara) were able to maintain some of the trees planted in 2009 at their school and at their houses. In addition, they planted additional endangered plant species, such as the *nééré*, whose seeds are used throughout Benin. The Kpagaguédou school, next to the school that the child ambassadors attend, similarly gave students the responsibility for planting and maintaining trees in the school courtyard. However, the children complained that the population resisted their efforts because most people still did not adequately understand the need to protect trees and the environment. The plantings remain at risk of destruction by humans and animals. Civil society organizations and local journalists were also engaged through awareness-raising activities, such as a celebration of the World Day to Combat Desertification and an event at the Polytechnic School of Abomey discussing drylands and the links between desertification and climate change. Broadcasts on local radio stations contributed to educating people about environmental issues, including the new rural landholding law. Twenty-six press officers received training on the greening of the PRSD2 to enable them to inform people and create awareness about environmental issues. As a result, broadcasts on local radio stations contributed to educating the population about environmental issues. Journalists were also targeted to help create awareness among grassroots communities on the implementation of rural landholding plans. Approximately 30 journalists were introduced to tools they could use to improve grassroots communities' understanding of the implementation of rural landholding plans. The key actors developed a shared vision of the implications of the new landholding law in order to facilitate its implementation.



Small ruminants, Borgou Department, Benin

This resulted in the local communities and the actors concerned gaining a better understanding of rural landholding plans.

- h) **Community projects to reduce deforestation** included establishing a ‘young pioneers’ group (men, women and youth) to promote agro-forestry and prevent erosion. The group also acquired skills on participatory best practices for managing land in an arid climate, and basic natural resources (vegetation, soil and water). There were also activities involving the production and use of energy-efficient stoves, and plans to make briquettes and other wood-fuel substitutes. In addition, women’s groups in four communities have benefited from multifunctional platforms to provide motorized power. (See section 3 for further discussion of these activities.)

2.2.5 Key lessons and good practices – planning and policies in Benin

- a) Concrete results can be obtained by *targeting national decision-makers at the highest levels who have the authority to change policies* (e.g., members of the National Assembly), through awareness-raising activities, using effective communications materials and experienced communication professionals.
- b) *Awareness-raising activities should use specifically targeted materials* that provide significant and credible information on the environment and its contribution to the GDP to help convince decision-makers to pay attention to desertification and climate change issues. Even with minimal resources, establishing a strong communications system can help create the collective awareness necessary to change behaviour with regard to natural resource management.
- c) *Training of environmental units within national ministries* can have a positive effect on integrating environmental concerns into policies, projects and activities – particularly if those units have the support of opinion leaders in their working environment and adequate resources with which to create awareness among their colleagues.
- d) The ability of local government managers, groups and institutions to mainstream environmental issues into local development plans and actions is strengthened by providing *training for authorities and creating awareness among the population* along with motivation to work for environmental protection.
- e) *Mobilizing and educating all segments of the community, e.g., through school activities and radio programs*, raises awareness about the importance of protecting drylands, preventing erosion and planting trees.
- f) Achieving widespread, sustainable outcomes and impacts requires *sustained actions (beyond plans and policy documents) and ongoing monitoring* to ensure that the actors involved follow through on their commitments.
- g) Given other problems that must be addressed, environmental protection often moves down on the agenda when development plans are implemented. According to the director of a local development department, *efforts to improve mayors’ environmental actions should target the national finance committee for communes, CONAFIL*, which analyses local financial needs and provides resources for local development.
- h) *Engagement of the media can be a very important tool for educating the public about environmental issues*. For example, the capacity building initiatives for journalists, and the tools put at their disposal, enabled them to provide local communities and actors with a better understanding of rural landholding plans.

2.3 Ghana

2.3.1 Ghana overview

The IDDP programme started in Ghana in 2006 and combined policy-related actions with institutional capacity building and concrete actions at the community level. (The integrated community livelihood support initiatives are outlined in detail in section 3.) The main goal was to mainstream drylands development issues in national, district and local plans as a means of implementing the National Action Programme to Combat Desertification and Drought, the 2006-2009 Growth and Poverty Reduction Strategy, and the 2010-2013 Ghana Shared Growth and Development Agenda, as well as the Millennium Development Goals.

The introduction of the IDDP in Ghana has influenced development planning and helped to make sustainability a central theme in development practice in the country. It has also enhanced the understanding and appreciation among decision-makers and planners regarding the unique challenges facing dryland communities, and built the environmental awareness and skills of communities in dealing with district authorities and development partners.

The main implementing agency is the Ghana Environmental Protection Agency. Other partners include the National Development Planning Commission; the Ministry of Local Government and Rural Development; Metropolitan, Municipal and District Assemblies (local authorities) in the northern savannah belt; District Agricultural Development Units of the Ministry of Food and Agriculture; and the Forestry Services Division of the Forestry Commission of Ghana.

2.3.2 Desertification and climate change issues in Ghana

The drylands in the northern savannah zone cover over half of the country. In this area, a yearly dry period lasting about six to seven months is generally followed by seasonal rains during the remaining months. The dry season is characterized by winds blowing across the Sahara desert, bringing hot temperatures and significant reductions in humidity and soil moisture. The ecosystem is quite marginal and hence vulnerable to droughts, desertification and land degradation.

Land degradation remains a major environmental challenge in the drylands in the northern savannah belt. It often leads to soil erosion, water scarcity, reduced agricultural productivity and decreased nutritional value of food crops. Unsustainable agricultural practices, bushfires, a high rate of tree felling for fuel wood, and charcoal production have been identified as the major factors contributing to widespread land degradation in this area. If not addressed, these challenges could contribute to a worsening of the living conditions of poor households. It is therefore important for these challenges to be accorded a high priority in district and local level development plans in order to prevent further environmental and economic decline in the area, and the country as a whole.

Approximately 17 percent of Ghana's people live in the northern savanna area. According to the Ghana Living Standards Survey, poverty is highest here, particularly among rural food crop subsistence farmers in the Upper West, Upper East and Northern regions.

Agriculture is the predominant livelihood activity, mainly rain-fed, low input subsistence farming of millet, guinea corn, maize, sorghum, beans, groundnuts, soya beans, yams, tomatoes, mangoes, cashew, tomatoes, onions, and cotton. Many of the households also keep livestock, such as cattle, sheep, goats, pigs, and guinea fowl. There is some commercial farming of rice, cotton, mangoes, tomatoes, cashew and yams. Other sources of livelihoods include hunting, fishing, forestry, and collection of Shea nuts, wild fruits and medicinal plants. Biomass fuels are the major source of energy. Small-scale and cottage level activities involve the use of simple technologies for Shea butter extraction and various forms of food processing, charcoal production, and craft industries such as pottery, basketry, leather work, furniture making and weaving.

Many of the poor households in the drylands depend directly on the health and productivity of the natural ecosystems, and their diversity of goods and ecological services, for livelihoods and food security. The poorest of the farmers, particularly women, have unequal rights and insecure access to land and other natural resources and are often compelled to depend on the most fragile areas and resources for their survival. Their poverty often gives them little alternative but to extract whatever they can from the already fragile ecosystem. Over time, unsustainable exploitation results in further degradation and worsening in the living conditions of the poor.

2.3.3 Ghana poverty and development plans

Starting in the late 1980s, Ghana embarked on a decentralization programme centred on District Assemblies. The aim was to provide avenues for local people to participate in the development of their communities and to influence decisions relating to the sustainable use and management of the natural resources. The programme also provides for a decentralized development planning system coupled with policies aimed at ensuring that resources are transferred from the national government to the districts in order to finance development activities at that level.

The country's current medium-term development blueprint, the Ghana Shared Growth and Development Agenda 2010-2013 clearly endorses the adoption of environmentally sound resource management strategies, since the country's development is strongly related to natural resources. The agenda promotes alternative livelihoods as a strategy for reducing the vulnerability of the national economy, the population and important ecosystems to the impacts of climate change. It also recommends use of the Strategic Environmental Assessment (SEA) methodology as a strategy for ensuring that poverty reduction and other development goals are not undermined by unsustainable use of natural resources.

2.3.4 Main activities and impacts – planning and policies in Ghana

- a) **Building capacity among elected District Assembly officials on drylands development issues.** A training workshop improved the understanding of poverty-environment linkages among policy-makers and planners and enhanced the capacities of District Assemblies in the northern savanna belt in conducting sustainability appraisals and mainstreaming drylands development issues into their District Medium Term Development Plans. The project has also improved the ability of District Assemblies to use the Strategic Environmental Assessment methodology, which has helped to enhance the understanding

of decision-makers about the relationship between the environment in drylands and the livelihood conditions of the people living there.

- b) **District Assemblies organized awareness-raising events to educate stakeholders** on environmental concerns and natural resource management in the project areas. They have also facilitated community consultations on livelihood support activities, mobilization to prevent bush fires, and protection of sacred groves and water bodies.
- c) **Mainstreaming of environment and drylands development issues** into national and local planning was undertaken, including through use of the Strategic Environmental Assessment methodology as a tool for mainstreaming drylands development issues into development plans.
 - ❑ Twenty four District Assemblies reviewed their development plans using the Strategic Environmental Assessment methodology and mainstreamed drylands development and environment issues into their District Medium Term Development Plans as the basis for implementation of the National Action Programme to Combat Desertification and Drought, the 2006-2009 Growth and Poverty Reduction Strategy, and the 2010-2013 Ghana Shared Growth and Development Agenda, and the MDGs. Six District Assemblies received specific support and training in designing and implementing Integrated Sustainable Livelihood Support Initiatives, which were mainstreamed into their 2009-2011 District Medium Term Development Plans. (See subsection d below)
 - ❑ At the local level, the project contributed to giving beneficiary communities a voice in district decisions and thus helped to build bridges between the people and policy-makers. In one district, Lawra, eleven of the local communities subsequently received support for developing their own land use development plans; six of them organized volunteer squads to mobilize communities to fight wildfires. The SEA methodology



Courtesy call to the Chief, Savelugu -Nanton District, Ghana, Official from the District Assembly speaking

calls for dialogue and community participation in the planning and management of resources in the drylands. This provides people in drylands communities with a way to directly participate in and influence decisions that affect their lives, ensuring that interventions implemented are in line with their needs and priorities.

- ❑ Since the IDDP began, the government of Ghana has adopted three major initiatives in an effort to address land degradation and other drylands development issues. These are the Ghana Environmental Management Programme, the Sustainable Land and Water Management Programme and the Savannah Accelerated Development Authority.
 - ❑ At the sectoral level, due to the proven benefits of sustainable land use practices promoted by the IDDP, the Ministry of Food and Agriculture has incorporated a number of these strategies into its plans and programmes for agricultural development. Other ministries and agencies have also initiated steps toward mainstreaming sustainable natural resource management into development plans for their sectors, including those responsible for water and sanitation, housing, tourism, and mining.
- d) Implementing community livelihood support initiatives. An Integrated Community Livelihood Support Initiative was developed in 2008 to implement environmental/drylands issues mainstreamed by participating District Assemblies into their 2009-2011 District Medium Term Development Plans. Implementation of this work is discussed further in section 3. The initiative was designed to improve the living standards of rural people, enhance food security, generate rural employment, and contribute to the protection of environmentally sensitive areas and critical ecological services. It combines capacity building with implementation of income-generating activities, such as raising guinea fowl and small ruminants, establishing tree nurseries, planting economically valuable trees, woodlots and riverine vegetation, and crop production. This initiative has been implemented by six District Assemblies: Lawra and Jirapa-Lambussie in the Upper West region; Bawku West and Garu-Tempane in the Upper East region; and West Mamprusi and Savelugu-Nanton in the Northern Region.

2.3.5 Key lessons and good practices – planning and policies in Ghana

- a) *The introduction of the SEA methodology has caused a paradigm shift in development planning and made sustainability assessment mandatory in the formulation of policies for economic development and poverty alleviation at the local level. In particular, it has allowed people living in the drylands, including women and marginalized groups, to communicate their needs and priorities and participate in decision-making processes. This helps to foster a sense of ownership and empowerment at the community level and contributes to programme effectiveness and sustainability.*
- b) *Additional resource mobilization is needed for sustainability and up-scaling of initiatives being implemented under the IDDP. Following the policy directive requiring all district assemblies to mainstream the environment into their medium-term planning frameworks, a number of assemblies in the programme area made formal requests to the Ghana Environmental Protection Agency for support for the implementation of alternative livelihood components of their medium-term development plans. Although interventions such as the Ghana Environmental Management Programme and the Sustainable Land Management Programme are helping to address the severe resource constraints, there still remain significant gaps. There is therefore a need for the Ghana Environmental Protection Agency to collaborate with the IDDP implementing partners to develop innovative*

strategies for the mobilization of additional resources for the planned livelihood support initiatives.

- c) It is important to *ensure that transfers and turnovers of key personnel educated and trained by the IDDP do not undermine efforts of beneficiary districts* and other implementing partners to develop the critical human resource required for the effective implementation of key poverty alleviation initiatives.

2.4 Mozambique

2.4.1 Mozambique overview

The IDDP programme in Mozambique began in 2006 and was primarily implemented by the Ministry for Coordination of Environmental Affairs (MICOA). It was developed based on the priorities and guidelines of Mozambique's national development strategies, particularly taking into consideration the National Action Plan for Combating Drought and Desertification (NAP). The main objective of the project was to mainstream environmental and drylands issues specifically related to drought and desertification so as to ensure sustainable use of natural resources and sustainable development. Training workshops were organized to build capacity for mainstreaming environmental and drylands issues at the central, provincial and local levels.

The programme in Mozambique experienced slow delivery and achievement of outputs. To address this, in 2009 UNDP expanded the number of implementing partners. Within MICOA, two Directorates were engaged as opposed to one, and INGC was added as a new partner to manage disaster related activities under the expanded IDDP programme. INGC has a specialized mandate to support development in arid and semi-arid areas under DARIDAS. Subsequently, activities on mainstreaming and disaster risks were integrated into the INGC work plan.

The IDDP was implemented in Gaza, Inhambane and Maputo provinces, combining training activities with information on natural resources management and community activities on forestry and beekeeping. The IDDP also supported community-based natural resources management and utilization in two Districts of Maputo Province through the UNDP/GEF Small Grants Programme (UNDP/GEF-SGP). The community-based activities were co-financed with resources from UNDP/GEF-SGP. The demonstration activities at the local level are discussed in more detail in section 4.

At the policy level, the IDDP facilitated the alignment of drylands issues with the Master Plan for Natural Disaster Prevention and Mitigation, which places great emphasis on the strong links between development policies and plans for preparedness, prevention, mitigation and vulnerability reduction. Under the Master Plan, significant attention is placed on developing arid and semi-arid zones through the introduction of conservation agriculture, non-agricultural income-generating activities, rainwater harvesting and increased water supplies. Furthermore, it has enabled the mainstreaming of drought responses into District Development Plans as a basis for addressing this challenge in arid and semi-arid districts. In addition, the programme

has built capacity at the district and community levels on natural resources management and livelihoods enhancement, including afforestation (native tree planting) and apiculture.

The National Disaster Management Institute (INGC) established **CERUMs (Centros de Recursos e de Uso Múltiplo** or Community Multiple Resource Use Centre) at District level to specialize in reducing vulnerability of communities to drought. CERUMs managed under INGC's Department for the Development of Arid and Semi-arid Areas (*DARIDAS*) help to develop human capacity at district levels, to build self-esteem and also works towards changing attitudes. They help connect knowledge and promote the exchange of experiences among the inhabitants of the Arid and Semi-Arid Districts. Each CERUM is built on at least 6 hectares of land and is manned by a multi-disciplinary team. As a result of the establishment of CERUMs the capacities of communities have been built with regard to conservation agriculture, water harvesting, small-scale irrigation technologies, post-harvest management, non-agricultural income-generating activities, including agro-processing and preservation of a diversity of wild and domesticated natural resources. Agro-processing has focused mainly on wild fruits (made into jams and liqueurs), roots, tubers, vegetables, meat and milk, which can be stored and used at home during lean times or otherwise sold to earn extra income.

2.4.2 Climate and drought issues in Mozambique

Mozambique is exposed to risks from multiple weather-related hazards, including droughts, floods and tropical cyclones. Droughts are frequent and devastating in the arid and semi-arid areas in the central and southern parts of the country, often extending for more than a year and causing long-term poverty and economic disruption. Inadequate water for domestic consumption, agricultural production, and maintaining animals, has become a permanent condition in these areas. The IDDP in Mozambique is meant to help reduce the vulnerability of drylands communities to drought through mechanisms that will improve their capacity to be self-reliant.

Over the years, some households and communities developed strong forms of resilience to mitigate the impacts of drought. However, they report that rainfall was more predictable in the past, when the rainy season could be expected to come between November and March. As climate conditions have changed, they need to find new options to survive. Meanwhile, one District Permanent Secretary reported that due to the relationship between hunger and drought, some people in the semi-arid and arid zone have become dependent on donations, for example from the World Food Programme and the National Institute for Disaster Management.

Mozambique has a 10-year National Master Plan for Prevention and Mitigation of Natural Calamities, under which the CERUMS were established to help develop people's capacities to deal with disasters (see above).

2.4.3 Mozambique poverty and development plans

Mozambique is among the poorest countries in the world and has major challenges related to a high prevalence of HIV/AIDS, chronic malnutrition, and lack of schools and qualified teachers, as well as insufficient health services and inadequate infrastructure to stimulate private sector activities. Based on the results of the last poverty evaluation report, Mozambique developed a

Poverty Reduction Plan, which includes activities for increasing agricultural productivity, and employment opportunities. The government also approved an Irrigation Strategy in 2010, and a ten-year Agriculture Plan in 2011. In recent years, significant achievements with regard to the Millennium Development Goals have been recorded in Mozambique, particularly within the context of reducing poverty and extreme hunger.

However, Mozambique's commitments to reducing poverty and achieving food security will be undermined if the country fails to control the negative effects of climate change. In an effort to introduce new practices that contribute to climate adaptation, a Presidential Initiative was launched in 2008 that encouraged each citizen to use every available opportunity to plant a tree. This was aimed at instilling new values about the environment and mitigating the effects of climate change.

When the programme started, the government of Mozambique was embracing a decentralization process. The formulation of District Development Plans was under way using a participatory approach to identify main priorities at the district level and explore existing and potential and opportunities. This process was a driving force for mainstreaming environmental issues within district plans, given the institutional weaknesses at the local level and lack of tools to plan for drought-related activities.

2.4.4 Main activities and impacts – planning and policies in Mozambique

- a) **Training workshops for the national Ministry for Coordination of Environmental Affairs (MICOA), the Ministry of Planning and National Development, and Permanent Secretaries and Directors of all districts in the country (56 in total)** led to improved capacity for policy formulation, implementation and monitoring of territorial planning, and mainstreaming of environmental and drylands issues in development planning. MICOA's National Directorate for Environment Management has also improved its capacity to manage an inter-sectoral working group and promote greater interaction between all sectors involved in drought and desertification issues.

The National Institute for Disaster Management (INGC) provided additional training for the district government staff from the project areas, and provincial staff from Gaza and Inhambane, on mainstreaming drought responses into district development plans. The new district plans in these districts benefited from the knowledge obtained through this training. Additionally, INGC contributed to the development of the Poverty Reduction Plan's cross-cutting matrix.

- b) **Training workshops organized in three provinces (Maputo, Gaza and Tete) built the capacity of local government officials, planners, municipal councillors, community-based organizations, and UNDP country office staff** on mainstreaming of environmental and drylands issues into planning processes. In Maputo province, environmental awareness was also raised at the community level through radio shows put on by a community-based organization, AJUCOM, supported by funds channelled through the UNDP-GEF Small Grants Programme. The radio shows were aired in different local languages and provided environmental education together with information about other socioeconomic issues. The organization also sent representatives to communities and individual households to demonstrate the use of sound environmental technologies and share best practices in natural resources management.

- c) **Technical assistance for preparation of a Guide Book for Arid and Semi-Arid Regions** helped make information available about managing the development of the arid and semi-arid zones. In 2009, three preparatory seminars were held at which various drafts of the proposal for the guide book were presented. Two of them were attended by specialists from the Ministry of Agriculture, Universidade Eduardo Mondlane and the Ministry of Public Works and Housing, and one included people representing various INGC partners operating in dry districts of southern Mozambique. The guide book (first published in Portuguese) was presented to a wide audience in January 2012 at a regional seminar co-financed by the World Food Programme and the government. Group discussions were undertaken on how the districts would apply the guide book and what support would be given by INGC.
- d) **Support for preparation of the first Mozambique Environmental Outlook Report ensured that it included information and recommendations on drought and desertification** and other environmental and socioeconomic issues. The report was developed by the Ministry for Environmental Coordination under the leadership of the Directorate of Planning and Studies through an inclusive process. There are chapters on land use, disasters, climate change, bushfires and biodiversity. During the preparatory process, the IDDP project funded a number of thematic group meetings and small workshops on drought-related issues to gather input.
- e) Peer learning was promoted through South-South cooperation (exchange visits/study tours between countries).
- ❑ The coordinating team from MICOA went to Tanzania to meet with the Poverty Reduction Strategy Plan team and learn from them about how they had mainstreamed environmental issues into their second generation Poverty Reduction Strategy. This experience contributed to the design and development of Mozambique's Poverty Environment Initiative II.
 - ❑ Mozambique participated in the Making Markets Work for the Poor Roundtable held in Nairobi, Kenya, in 2010. The roundtable provided an opportunity for all stakeholders in different aspects of drylands livelihoods enhancement to share knowledge, information and experiences.
 - ❑ DARIDAS, INGC representatives from the Districts of Chigubo and Mabote, District Administrations, local communities and the CENOE, (Centro Nacional Operative de Emergencia) team in Vilanculos hosted the Ghana IDDP study tour team in 2011. The tour team was composed of four representatives, two from the Environmental Protection Agency (Ghana's national implementing and coordinating partner) and two technical experts from the beneficiary District Assemblies. Experiences were shared about interventions and activities underway to reduce the vulnerability of communities in arid and semi-arid districts affected by drought and desertification. At Chigubo and Mabote Districts, the team visited the Community Multiple Resource Use Centre and studied the IDDP-supported nurseries of native plants, experimental agricultural plots, and food crops being grown using mulching techniques, ridges and trenches. The group also visited the Catine Women's group in Chigubo, which was producing and marketing handcrafts, the Women's Association - Cashew Nut Processing in Mabote, and CENOE, Mozambique's national emergency operations system in Vilanculos.
 - ❑ Mozambique participated in and shared experiences, lessons and best practices in disaster risk management at the Africa Asia Drought Adaptation Forum held in Bangkok, Thailand, in 2012 as part of the Africa-Asia Drought Risk Management Peer Assistance Project.

2.4.5 Key lessons and good practices – planning and policies in Mozambique

- a) *Building the capacity of key decision-makers at the national and provincial levels, technical staff at the district and municipal levels, councillors, community-based organizations, and UNDP staff at the country level is essential for mainstreaming of drylands and environment issues into planning and development frameworks. In Mozambique this led to improved capacity for policy formulation, implementation and monitoring of territorial planning, and mainstreaming of environmental and drylands issues into development planning at various levels.*
- b) *It is critical to make information available to local government officials, beneficiary communities and practitioners to promote the effective management of development of the arid and semi-arid zones. This support should include guidelines and tools, such as Mozambique's Guide Book for Arid and Semi-Arid Regions, as well as **measures to build capacity for application of the tools and guidelines on the ground.***
- c) *The programme should put in place implementation arrangements that facilitate further capacity building for the implementing partners where this is needed to carry out the activities and avoid delays in the implementation process. In Mozambique, diversification of implementing partners was needed in 2009 to advance the programmes' management and operations. To address the challenges and constraints related to the low delivery of IDDP outputs, MICOA's leadership was strengthened by the inclusion of another Directorate, and the INGC was added as a new partner to manage the disaster-related component of the programme. Strict operational timelines for fund disbursement should also be put in place, as delays in the disbursement of funds result in negative impacts on the implementation of activities.*



Nursery of indigenous/native plants and wild fruit trees - INGC Technical Officer - INGC CERUM (Centros de Recursos e de Uso Múltiplo), Mabote District, Mozambique

- d) *Changes in personnel, especially loss of trained technicians, should be avoided where possible to ensure that the activities planned can be carried out in a timely manner.*
- e) *Training, information and policy support are not sufficient, and need to be complemented by actual implementation of activities and infrastructure improvements.* The IDDP combines policy analysis with institutional capacity building and concrete interventions on the ground. (See section 4 for more information on Mozambique's local level activities.)

2.5 Tunisia

2.5.1 Tunisia programme overview

IDDP interventions in Tunisia started in 2004 with support for Regional Action Programmes to Combat Desertification for the governorates of Kasserine, El Kef, Siliana, and Zaghuan. Plans for these programmes were successfully formulated within the framework of the governorate planning process, leading to their inclusion in the 11th National Socioeconomic Development Plan (2007-2011). The integration of the Regional Action Programmes into the major national planning and budgeting framework was crucial in mobilizing national resources for the area to combat desertification and alleviate poverty. This activity greatly supported the implementation of the UNCCD in Tunisia and ensured better synergy between sector strategies and drylands development efforts.

The IDDP then responded to a request from the government to support implementation of the Regional Action Programme in the governorate of Kasserine, a poor and marginal area in Central West Tunisia which later became a hot spot for the Tunisian revolution. Kasserine is in a remote region affected by poverty, desertification and drought. The situation in Kasserine was challenging given its precarious baseline situation, its marginalization on the national development agenda, the limited activity of development partners in the area and the helplessness of local communities basically left on their own in a precarious environment. This presented both challenges and opportunities for the IDDC intervention. DDC pooled its resources with allocated national resources in supporting the implementation of Regional Action Programme priorities in the district of El Brek.

The project objectives were to:

- 1) support the Kasserine Regional Action Programme through implementation of priority actions in the district of El Brek;
- 2) enhance the institutional mechanisms related to implementation of the UNCCD through support to national and regional committees; and
- 3) build the capacity of local actors for the implementation of development initiatives.

Local implementation activities in El Brek included promotion of income-generating activities, soil conservation, and water harvesting. These are discussed in more detail in section 3.

2.5.2 Main activities and impacts – planning and policies in Tunisia

- a) **Support for development of Regional Action Programmes for four governorates:** Kasserine, El Kef, Siliana, and Zaghouan. This exercise created an opening for advocacy on attention to drylands issues on the national agenda, and mobilization of national attention and resources for development in the region. The plans were then included within the 11th National Socioeconomic Development Plan (2007-2011). The integration of the Regional Action Programmes to Combat Desertification into the national planning and budgeting framework provided support for implementation of the UNCCD in Tunisia and integration of drylands development efforts into sectoral strategies.
- b) **Capacity building for institutions engaged in the regional planning process** (through on-the-job training), resulted in greater understanding and expertise on integrated planning and budgeting, promotion of sustainable natural resource management practices and techniques, and livelihood enhancement and diversification for local communities built on local know-how, opportunities and traditional knowledge.
- c) **Support for implementation of the Regional Action Programme for Kasserine.** A baseline report and a local development plan were developed, in close consultation with local communities, to guide interventions. A national non-government organization, Union Tunisienne de Solidarite Sociale, was hired to implement activities in the field. A local producer group was established to bring small producers together and facilitate their role in decision-making and engagement with local authorities. Awareness raising and capacity building activities were implemented to promote the role of local institutions in driving the local development process. Women's socioeconomic empowerment was also enhanced through support for women's cooperatives and income-generating activities (See section 3 for further information on livelihood enhancement activities in Kasserine).



Community children on their way to school - El-Brek district, Kasserine, Tunisia

2.5.3 Key lessons and good practices – planning and policies in Tunisia

- a) There was a *close linkage between policy and practice* evidenced by the elaboration of Regional Action Programmes to Combat Desertification in collaboration with local communities, and the integration of these priorities within the National Socioeconomic Development Plan.
- b) *Mobilization and pooling of resources* from the IDDP programme, national funds and international development assistance led to synergies, and greater efficiency and support to the local development process.
- c) *An important innovation in the IDDP intervention was that it called for a collaborative arrangement with a national NGO that enhanced local participation in planning processes* for the implementation of activities in Kasserine. Prior to the revolution, the NGO sector in Tunisia was underdeveloped and dormant. Approaches to development were mostly top-down. National level planning and implementation for the communities was undertaken without due consideration to the needs, priorities and perspectives of local communities. The collaboration with the NGO allowed for closer interactions and consultations with affected communities.
- d) *Capacity building for local institutions and mobilization of the community* in Kasserine into a structured producer group strengthened their roles in negotiations and local decision-making processes.
- e) *A responsive, flexible approach allowed adjustments based on feedback from communities.* Proposed activities were evaluated by local communities regarding the potential for their success, and work plans were revisited based on priorities voiced by communities. This greatly enhanced the effectiveness, efficiency and impact of the intervention.

2.6 Summary - integration of drylands development priorities into planning and budgeting frameworks

The activities described in this section mostly fall into four main categories:

- a) research and preparation of guides, and reports;
- b) training and capacity building for government officials and institutions;
- c) education and engagement of local communities and authorities; and
- d) development of environmental management plans (national, sectoral, district and local).

In Benin, a guide on ‘greening’ the national Growth Strategy for Poverty Reduction was prepared as a tool for mainstreaming environmental concerns into sectoral plans, and was used by several ministries in planning projects. A study on evaluating the economic costs of environmental degradation in the drylands helped decision-makers understand the value of natural resources. In Mozambique, a Guide Book of Arid and Semi-Arid Regions provided information for decision-makers as well as a wider audience. In addition, the IDDP supported the preparation of the first Mozambique Environmental Outlook Report.

There were training and capacity building activities in all the countries covered in this section. Benin organized training workshops for environmental units within national ministries, and also provided information to National Assembly members, which contributed to the incorporation of environmental management provisions in the national Growth Strategy for Poverty Reduction 2, as well as a national reforestation fund, and specific projects and budgets prepared by ministries. In Ghana, the training was directed towards members of the District Assembly, and aimed at influencing District Medium Term Development Plans to incorporate environmental and drylands issues. In Mozambique, training workshops on mainstreaming of drylands issues were offered to national ministries, provincial and district government staff members, planners, municipal councillors, community-based organizations, and UNDP country office staff. Tunisia received support for the development of Regional Action Programmes for four governates, and on-the-job training was provided for the institutions involved in the planning and budgeting process.

At the local level, a variety of strategies were employed to educate and mobilize communities, authorities and institutions regarding drylands planning and management. Benin undertook a public awareness campaign involving civil society organizations, journalists, school children and local radio stations. Ghana used the Strategic Environmental Assessment methodology as a means of promoting community level dialogue and participation in planning and management processes. In Mozambique, there were training workshops in three provinces for local and district officials and community-based organizations, as well as environmental radio shows in Maputo province. Tunisia used the non-government organization Union Tunisienne de Solidarite Sociale to organize local activities, including establishment of a producers group to work with local authorities, and awareness-raising to promote the role of local institutions in planning processes.

As a result of these efforts, environmental and drylands issues have been better reflected in planning and budgetary frameworks in these countries. In Benin, they have been incorporated into the national Growth Strategy for Poverty Reduction 2, the work plans of national ministries, and legislation on reforestation, as well as some local development plans. In Ghana, 24 District Assemblies included drylands issues in their District Medium Term Development Plans, and one district supported the development of local land use plans in eleven communities. In Mozambique, mainstreaming of drought responses was included in new district plans, experience obtained during the programme contributed to the design and development of the Poverty and Environment Initiative (PEI) II and the Poverty Reduction Plan's cross-cutting matrix, and the first Environmental Outlook report was produced with IDDP support. Tunisia developed Regional Action Programmes for four governates, and a local development plan for Kasserine.



3

Building capacities of communities for entrepreneurship and economic activities: Achievements, lessons and good practices

3.1 Introduction

The IDDP has promoted a market-based approach for increasing food security, improving living conditions, and reducing the vulnerabilities of people in the drylands. Through the pursuit of entrepreneurial activities and alternative, sustainable livelihoods, drylands communities can strengthen the overall rural economy and create new opportunities to build economic and social resilience in areas increasingly affected by climatic variability and environmental degradation. Livelihoods that are less directly dependent on ecosystem resources and environmental conditions will help offset the effects of droughts and natural disasters.

Some countries supported by the EC agreement, including Ghana, Kenya, Mali and Tanzania, have undertaken programmes designed to build the capacity of people and communities in the drylands to pursue entrepreneurial enterprises and income-generating activities.

However, limited market access for drylands commodities is a major constraint limiting economic development in these areas. The lack of basic public investments in transportation infrastructure and market facilities creates barriers to sales of products, even when high-value goods are produced. There has been little interest in drylands enterprises from private sector companies, as investments in these areas are not seen as providing sufficient returns.

Drylands economic development programmes have supported the engagement of communities in producing and marketing livestock products (meat, milk, and hides/skins), drylands crops and related value-added products (soaps, shampoos and lotions), as well as handicrafts and honey. Key elements of this work include market research, value addition, creation of a culture of entrepreneurship and savings, and links to suppliers, sales outlets, and financial facilities or institutions (or establishment of community revolving funds). Some communities have also been able to lobby district and national governments to help establish better market environments, and generate greater interest in investing in the drylands.

3.2 Benin

3.2.1 Overview of community initiatives in Benin

In addition to the activities in Benin discussed in section 2, which focused on integrating environmental issues into developments plans and policies, the Programme to Support Drylands Development Activities in Benin also supported the implementation of community level projects. These included activities to protect soil for productive agricultural use and promote reforestation. The introduction of energy efficient cooking stoves was intended to reduce firewood consumption, which can contribute to deforestation and erosion, by improving



Multifunctional Platform, Women Grinding Shea Butter, Women's Group, Sinendé, Benin

energy efficiency, while at the same time freeing up women's time spent collecting fuel for more productive uses. Meanwhile, women's groups saw benefits from new opportunities for income generation based on managing and utilizing multifunctional platforms that supply motorized power and support improved productivity and energy efficiency.

3.2.2 Main activities and impacts – community initiatives in Benin

- a) **Training and organizing a 'young pioneers' group to protect drylands by promoting agro-forestry** and efforts to combat erosion. Two training sessions were held for 120 people (men, women and youth) from the Karimana and Banikoara communes. The first session was theoretical and involved presentations and discussions about managing land, vegetation, soil and water in an arid climate. The second involved practical skills, with demonstrations at one of the trainee's fields. This training was well-received by the trainees. The training also enabled the young pioneers to learn about participatory best practices for managing land and natural resources in an arid climate. However, they face significant obstacles, including destruction of plantings by animals and people.
- b) **Training women to produce and use energy efficient stoves.** Approximately ten women from Sinendé and Lokossa were trained to produce and use new energy efficient stoves, and they in turn trained other local women. All these women now use less wood and spend less time collecting fuel.
- c) **Promoting energy recovery from agricultural residues through production of briquettes, wood fuel substitutes and charcoal** in Banikoara commune. A feasibility study was conducted, which evaluated the socioeconomic and technical practicability of energy recovery from agricultural residues and determined the conditions necessary for installing an experiment recovery unit. It is expected that the experimental recovery unit will be installed once resources become available.
- d) **Installing multifunctional platforms using diesel engines** to improve energy efficiency and productivity of women's groups in Ségbana, Sinendé, Kalalé, and Lokossa. The motorized power provided by the platforms can help reduce the time women have to spend grinding cereals, Shea nuts, and manioc. The platforms also provide income and benefits to those managing the systems. To improve on the management of the current systems, a study tour team from Benin, including members of the Ministry of Environment and UNDP, and project managers, visited Mali in October 2011 to observe the operation of multifunctional platforms and learn about their potential uses, as well as the systems for accounting, monitoring and evaluation used by women's groups managing the platforms.

3.2.3 Key lessons and good practices – community initiatives in Benin

- a) If efforts to protect land against erosion are to succeed, *there need to be local trainers and managers in each production basin* who can mobilize, inform, train, coach and support people in order to create a critical mass of practitioners who will help each other to adopt and institutionalize the new practices.
- b) *Mechanisms for maintaining and replicating activities are needed to ensure that the support the programme provides has a large-scale impact.* When trainers in sustainable land management techniques create beneficiary groups in communities but there are not local support mechanisms for adopting and expanding the use of the techniques, there is a high risk that beneficiaries will drop out and the techniques will not be widely used.

- c) *Adequate financing is required to promote large-scale application and replication of the knowledge that the target groups have acquired. Ensuring that improved land management practices are adopted requires organizational resources to provide coaching at the local level and encourage local managers and leaders to provide peer support for new behaviours. These resources may include compensating individuals who assume this responsibility for their time or paying for post-training gatherings needed to ensure a solid grasp of the new skills and knowledge. Failing to take these costs into account can lead to less long-term use of the new practices. The greatest challenge, however, is to mobilize adequate resources to carry out the planned drylands protection activities.*
- d) *Women's groups need support and follow-up on how to manage and maintain the multifunctional platforms themselves, and on ways to use them most effectively.*
- e) *Objective criteria should be applied in choosing host villages and groups to ensure that the multifunctional platforms are profitable and successful, as most of the ones installed by the project are underused, in terms of providing grinding services, etc.*

3.3 Ghana

3.3.1 Overview of community initiatives in Ghana

Building on the work of mainstreaming drylands development issues into national and local planning described in section 2, IDDP promoted the improvement of local livelihoods and sustainable management of natural resources through support for the implementation of Integrated Community Livelihood Support Initiative activities that were mainstreamed into District Medium Term Development Plans. A particular priority was to increase the productive capacity of farmers in order to create rural employment and reduce food insecurity in drylands districts. Six pilot districts were engaged in development and implementation of integrated community livelihood support activities: Savelugu-Nanton, West Mamprusi, Talensi-Nabdam, Bawku-West, Garu-Tempene and Lawra.

The activities were designed to enhance the employment, productivity and incomes of people in drylands areas through training and resources to promote the development of livelihood strategies that are less degrading to the environment and less affected by variations in climatic conditions - such as raising livestock, and growing drought-tolerant economically valuable trees. At the same time, support was provided for agricultural improvements through sustainable land and natural resource management, including conservation farming techniques to increase soil fertility and productivity such as the application of animal manure and crop residues, avoidance of the practice of bush burning, cultivation of leguminous crops that improve productivity of the soil, and integration of nitrogen-fixing crop rotations into crop farming practices.

Capacity building related to the development and implementation of integrated community livelihood support activities in the pilot districts led to a number of important achievements:

- a) At the institutional level there was:
 - i) enhanced capacity of policy-makers in the six districts in the design and implementation of integrated sustainable livelihood support initiatives; and

- ii) improved capabilities of district assemblies in the facilitation of community consultations and empowerment of communities for sustainable environmental management.
- b) At the community level there was:
 - i) greater environmental consciousness within beneficiary communities;
 - ii) enhancement of the skills and confidence of beneficiary communities in dealing with district authorities and other development partners; and
 - iii) stimulation of the innovative capacities of local communities – as evidenced by the number of non-participating farmers who independently started their own plantations of economic trees and production of guinea fowls using techniques promoted under the programme.
- c) At the individual level there was:
 - i) an increase in the environmental consciousness of beneficiaries, e.g., through exposure visits, community sensitization, and environmental education programmes;
 - ii) development of individual knowledge and skills in sustainable land management and crop and livestock production techniques; and
 - iii) enhancement of productive capacities of poor farmers through the provision of improved livestock breeds, construction materials, seedlings and improved seed varieties.

3.3.2 Main activities and impacts of community initiatives in Ghana

- a) **Consultation processes allowed beneficiary communities to discuss their needs with district decision-makers** and make recommendations on community livelihood support activities to be included in District Medium Term Development Plans. Use of the SEA methodology allowed members of drylands communities, including women and marginalized groups, to communicate their needs and priorities and participate in decision-making processes. This promoted ownership and empowerment for both men and women within the communities and contributed to overall programme effectiveness and sustainability.
- b) **A roundtable meeting was organized in 2011 to map the opportunities and constraints** affecting the livelihood support activities and to make recommendations on the market access component. Stakeholders involved in the implementation of the activities participated in a baseline survey and assessment of policies and institutional capacity needs, and identified existing enterprises, technologies, market linkages, and micro-financing systems that could support the livelihood support activities.
- c) **Livelihood support involved providing farmers with alternative plants and animals, including:**
 - (i) hybrid or early maturing seeds for food crops such as maize, soya beans and peanuts;
 - (ii) seedlings of drought-tolerant and economically valuable trees, e.g., mango, moringa, kapok, cassia and cashew; and
 - (iii) livestock such as guinea fowl and goats, and donkeys to assist in carrying water for watering the trees that were planted.

Use of improved seeds, and leguminous crops to increase soil fertility and productivity, stabilize household food security in the short term and deliver relatively quick visible



Farmer, Integrated Support Livelihood Activities, Bawku West District, Ghana

results, thereby building interest in the programme. Over the longer term, farmers who were previously inactive during the long dry season can become engaged in economic activities related to livestock breeding and tending productive trees.

Those who received livestock were asked to pass on offspring to others, thereby establishing a sustainable mechanism for wealth generation and transfer – one that particularly benefits women, who generally manage the goats and poultry. The system also involves passing on practical knowledge about livestock management, and provides opportunities for empowerment and solidarity among community members. In addition, some communities and all participating farmers received materials to construct pens to protect the livestock.

Farmers involved in the economically valuable tree planting activities received information and fencing materials to help protect the tree seedlings and poly tanks to store water for them. They also learned about creating fire belts to protect trees from wildfires.

- d) **Training of farmers on sustainable land management led to increased crop productivity and soil fertility.** Techniques to reduce and/or reverse the process of land degradation and conserve soil fertility included application of animal manure, composting, mulching, crop rotation, cultivation of nitrogen-fixing crops, and avoidance of bush burning.
- e) **Increasing the environmental knowledge of farmers and communities through exposure tours.** Site visits are particularly in tune with traditional mechanisms of acquiring new production know-how and training techniques for people with few resources and low literacy levels. Study tour teams from Ghana went to Mozambique to share experiences about interventions to reduce the vulnerability of communities affected by drought. This included visits to CERUMs established by INGC where there are agricultural

experimentation plots and nurseries of native plants. The visiting teams also met with women's handicraft and cashew nut processing groups. In addition, they learned about the national emergency operation system for disaster response and management.

- f) **Participation in the March 2010 Making Markets Work for the Poor Roundtable in Nairobi**, Kenya, by representatives from Ghana's Environmental Protection Agency. The roundtable emphasized the need for sustainable market access that would enable drylands producers to grow their businesses beyond a marginal level, and encouraged local governments to focus on policies and programmes that link community products and services to lucrative local, national and international markets as a way of achieving sustainable poverty reduction.

3.3.3 Key lessons and good practices from community initiatives in Ghana

- a) *Community empowerment is promoted through the extensive community consultation, sensitization and capacity building processes associated with the application of the Strategic Environmental Assessment methodology.* These are important tools for building local capacity and for the adaptation of programme interventions to fit local conditions. The processes also help foster inclusive planning and local ownership of programme interventions.
- b) *The beneficiary selection process is a critical step in ensuring the effectiveness and sustainability of alternative livelihood activities.* Successful participant farmers appear to have three things in common:
- i) personal commitment, drive, and a determination to be winners and justify the trust placed in them by their communities and officials of the programme;
 - ii) willingness to take risks; and
 - iii) willingness to take personal responsibility for mistakes and draw lessons from them for improved performance.
- c) *The alternative livelihood support system involving the production and passing on of offspring of livestock (especially small ruminants) by beneficiary farmers can be a highly sustainable and replicable strategy for building economic and social capital among poor rural communities.* There is low barrier to entry and participation, and experience in the field indicates that it has the potential to be a valuable mechanism for wealth generation and transfer among the poor and vulnerable, including women. In addition to the transfer of livestock, this system also involves sharing of practical knowledge about livestock management, and provides opportunities for community empowerment and solidarity among community members. However, the effectiveness and sustainability of the process depends to a large extent on clear definition and strict enforcement of:
- i) rules governing eligibility for participation in the scheme, and
 - ii) transfer obligations. Some beneficiary farmers appear to be uncertain as to how and when to pass on offspring of their animals due to inadequacies in the rules and management of the system.
- d) *Exposure tours provide an effective mechanism for knowledge sharing on sustainable natural resource management and livelihoods.* For local communities, tours and site visits provide hands-on and participatory opportunities for acquiring new production techniques, and market information. At the international level, officials from the EPA and focal persons from partner institutions found the opportunity to observe approaches to drylands

development in Mozambique very instructive. Of specific interest were efforts to widen economic opportunities for drylands communities through the promotion of small-scale processing of indigenous fruits and other crops and the improvement of agricultural productivity through innovative small-scale irrigation techniques. Some valuable lessons acquired through the EPA's participation in the Making Markets Work for the Poor Roundtable were:

- i) sustainable market access is a critical need that if met, could enable the productive poor in drylands to grow their businesses beyond a marginal level; and
 - ii) there is the need for local governments in dryland areas to focus on policies and programmes that enhance access of local products and services to lucrative local and international markets for sustainable poverty reduction. It would therefore be helpful for the programme management to consider including training for development of basic entrepreneurial attributes such as profit-orientation, risk-taking, drive and creativity.
- e) *The strategy of combining short-term visible results with long-term asset building improves the acceptance rate of programmes to promote changes in community practices.* Interventions that aim to build the long-term asset base of the poor and also enhance their resilience to climate change, such as the cultivation of economic trees on degraded land, have a higher acceptance rate when they are combined with initiatives for addressing short-term household food security challenges. The strategy of providing beneficiary farmers with improved seeds of local grain and leguminous crops helped to stabilize household food security, and encouraged them to take a long-term view of their living conditions and the environment. It also helped to deliver relatively quick visible results and thereby facilitate acceptance by people who may be risk averse.
- f) *The group-based approach to the promotion of sustainable livelihoods offers higher promise in terms of outreach, cost efficiency, effectiveness and gender equity than training individual entrepreneurs.* Group activities have significant potential to contribute to the reduction of poverty among drylands communities. They can also increase women's access to land and productive resources, and build their confidence, thereby promoting their increased participation in decision-making at home and within the community. For example, the Yemeriga Women's Group in the Talensi-Nabdam District has been successful in enhancing the access of poor and marginalized women to land and resources. Given the highly patriarchal structure of communities in the area, the women, particularly widows and female heads of households, are virtually excluded from ownership, secure access to and control over land, and by extension direct participation in alternative livelihood opportunities such as cultivation of economic tree crops. The Yamirega group, with the support of the Ghana EPA, successfully lobbied the traditional authorities for an allocation of land on which they have established a four-acre mango plantation, a woodlot and tree nursery. The coming together of the women has also improved their access to agricultural extension training and other livelihood support services, in addition to boosting their confidence and self-worth.
- g) *A partnership approach in the implementation of the programme in the districts promoted collaboration among key stakeholders at the local level for sharing resources and building capacity. However, severe resource and capacity limitations undermined their ability,* and that of the District Agricultural Development Units of the Ministry of Food and Agriculture, to complement the efforts and capacity of the EPA in implementation. Through government contributions, the District Assemblies were able to continue with systematic monitoring of the work in progress and providing technical backstopping to the participants. It would be useful for the EPA to explore the possibility of entering into strategic partnerships with

Transforming Living Conditions of Female-Headed Households in Ghana

Azara, a woman in her mid-sixties is the head of a household consisting of six dependents. She is one of the lucky few individual female beneficiaries of IDDP's integrated livelihood support programme. The support package consisted of an initial set of 5 goats, a quantity of certified seeds of local staples (maize and cowpeas) and materials for the construction of durable housing for the animals. She also received training in conservation agriculture and sustainable animal management techniques.

Madam Azara sees her selection to participate in the programme as a rare opportunity to demonstrate that when given the chance, women can rise to the challenge of lifting their households and community out of poverty. She expressed her readiness to contribute to the empowerment of other members of the community by giving away some of her animals to other deprived women for the extension of the circle of production and also to share her rich knowledge and experience in livestock management.

Prior to her participation in the programme, Madam Azara, a smallholder farmer could hardly make ends meet. The harvest from her food crop farm was just enough for household consumption with virtually no surplus for the market to earn extra income to meet other basic needs. She has now become the proud owner of a small livestock production business with a herd of 25 animals - goats and a few sheep. The livestock business provides cash for the school fees of her grandchildren, healthcare and other basic needs of the family. She has also hired additional labour and bought improved seeds and fertilizer to boost the productivity of the family farm.



Madam Azara (second from left) in front of her small livestock herd, Savelugu-Nanton District, Ghana

other facilitating institutions, including the recently established Savannah Accelerated Development, an independent agency for coordinating a comprehensive development agenda in the northern savannah ecological zone of Ghana.

- h) *A number of beneficiary farmers have a clear need for greater extension support* in tackling basic livestock and crop management problems. A number of beneficiaries involved in guinea fowl production, for example, complain of lack of access to technical advisory services in the management of recurrent challenges with the health of young birds.
- i) Farmers who have been assisted to establish fruit tree *farms need linkages with large-scale commercial firms* involved in exports and agro-processing, such as the Integrated Tamale Fruit Company, to enhance their access to lucrative value chains and market channels.
- j) *Links to institutions involved in micro-finance* are essential for farmers and communities to access additional resources to scale up the investments made, and further enhance their resilience to climate variability and change.
- k) *Mechanisms for on-going dialogue and knowledge sharing between beneficiary communities* could extend productive activities beyond the life of the programme.

3.4 Kenya

3.4.1 Kenya overview

In Kenya, approximately 88 percent of the land surface is dry arid and semi-arid, and particularly vulnerable to desertification and drought. These drylands support over 10 million people (more than 30 percent of Kenya's total population) and host about 70 percent of the national livestock population with an estimated value of about Kshs 70 billion, as well as much of the wildlife that forms the basis of Kenya's tourism industry. The drylands also hold great potential for sustainable energy generation: 365 wind turbines in Marsabit alone are scheduled to send the equivalent of about one-fifth of Kenya's current electricity generating capacity to the national grid in 2013.

On average, the drylands receive an annual rainfall of between 150mm and 1000mm. The rains are typically of short duration but of high intensity and therefore highly erosive. The rate of evapotranspiration is high. The arid and semi-arid lands of Kenya are characterized by widespread poverty, chronic food shortages and high malnutrition levels caused by a complex and interrelated range of social, economic, political and environmental changes. For example, inadequate basic facilities and infrastructure, and limited market access for commodities, plus increasing drought events and desertification are major constraints to sustainable development of pastoral production systems in these regions.

3.4.2 Desertification and drought issues in Kenya

The effects of recurrent droughts in Kenya have become more visible across the drylands through alternating cycles of drought (associated with La Nina) and floods (associated with El-Nino). The droughts in 2004, 2006, 2009 and 2011 have destroyed livelihoods and severely impacted resilience of people living in the drylands. The local communities who depend on water and pasture to sustain their livelihoods, mainly pastoralists, are the worst affected.

The increase in the frequency, intensity and duration of drought is putting additional pressure on already over-stretched dryland resources, and is a threat to the livelihoods of its people. Moreover, the increasing demographic, socio-economic and climatic challenges have induced poor and unsustainable land use practises which have accelerated degradation of the drylands and, in turn, led to resource conflicts, agriculture failure and food insecurity. In the drylands, drought may trigger desertification but human factors also play a significant role: over-cultivation, over- grazing, deforestation and poorly drained irrigation can destroy productive soil at a very fast pace.

A combination of extreme climatic conditions such as drought and human activities may lead to desertification of vulnerable arid and semi-arid areas in Kenya. In this process, the soil structure and soil fertility are degraded and bio-productive resources decrease or disappear. With the aim of countering land degradation and desertification in the country, the government of Kenya signed the UNCCD in October 1994 and ratified it in June 1997. The National Action Programme was developed in 2002, and has focused on effective management of the environment, enhancement of sustainable livelihoods, and reduction of poverty.

However, according to existing reports desertification is intensifying in Kenya, threatening millions of inhabitants and severely reducing productivity of the land. Recent droughts have accelerated soil degradation and reduced per-capita food production. The drought of 2011 was considered as one of the worst droughts in the last 60 years. It affected about 3.75 million people in Kenya, mainly pastoralists and farmers in marginal agricultural areas, as well as the poor people in urban areas.

In February 2013, the Government of Kenya launched the National Policy for the Sustainable Development of Northern Kenya and other Arid Lands as a key legal document for the sustainable development and promotion of climate-resilient livelihoods in the arid and semi-arid lands (ASALs) as part of Kenya's Vision 2030. It sets out targeted action to fast-track sustainable development by increasing investment in a way that is fully reconciled with the realities of people's lives and able to tap the enormous economic potential in livestock production, mining, tourism and biodiversity in these regions.

3.4.3 Community initiatives in Kenya

In Kenya, the Improving Market Access for Drylands Commodities project, known as the Market Access Project (MAP), has focused on improving the livelihoods of drylands communities by increasing the capacity of communities and local institutions in the Kajiado and Turkana districts for production and marketing of local goods.

The Market Access Project began in 2004, building on the East Africa Cross-Border Biodiversity Project in Kenya, Uganda and Tanzania, which had aimed to reduce the loss of biodiversity at cross-border sites by introducing strategies to support the conservation and sustainable use of natural resources. These strategies included support for beekeeping, pasture management, diversified handicrafts and introduction of energy saving technologies, but did not include a component for helping communities to access markets for their products. A market access approach can be used to enhance the coping abilities of people in drylands, especially in communities without diversified production systems.



Training of Handicraft Group members, Namanga, Kenya.

During phase one of the MAP (2004-2008)⁷ baseline surveys identified major challenges affecting drylands communities, including: poverty, lack of markets and market information, limited public and private sector investments, low levels of business development skills among drylands communities, poor access to financial services, and policies that were not responsive to the marketing challenges facing the poor. Communities surveyed were found to be very enthusiastic about the initiative and dispelled misconceptions that there were no commercially viable products by identifying 34 products readily available for production and processing for sale. The MAP has built the skills, capacities and organization of drylands communities in producing and marketing livestock and livestock products, plant-based products, and honey.

In Kenya, the second phase of the project, launched in 2009, included plans to undertake: assessments of needs and market opportunities for producers in the Kajiado and Turkana Districts (for handicrafts, ecotourism, honey, aloe products, livestock and livestock products); build capacities for already-established product and marketing groups in the use of appropriate technologies for value addition; establish and strengthen links to financing institutions; produce promotional materials and events for various products; and organize exchange visits within and between target sites.

3.4.4 Socioeconomic conditions affecting community initiatives in Kenya

Infrastructure: The project areas are located in the most remote parts of Kenya. These are areas lacking access to water, electricity, hospitals and adequate roads. The poor road

⁷ Phase one of MAP Kenya was also supported by the European Union.

network presents challenges to the communities in marketing their products, deters private investments, and makes project implementation difficult and costly.

Conflicts: In the project areas in Northern Kenya, there are cultural conflicts as well as competition over natural resources, especially pasture land. Recurrent droughts have also heightened cattle rustling as a means of restocking. Conflicts have contributed to the low level of investments by the private sector, poor infrastructural network and low purchasing power in the area. The project therefore introduced a peace and conflict management component.

Gender roles: A high percentage of the target beneficiaries are women, and capacity development was somewhat constrained due to the women's cultural roles. The project's training workshops had to allow time for women to carry out their daily chores - fetching water, watering the small stock, cooking, etc. – and had to be held on-site so women would not have to travel overnight. Women also have low literacy and numeracy rates in pastoral and agro-pastoral communities. Girls do not generally attend school and are instead often forced into early marriages.

Influence of group leaders: Due to high illiteracy levels some groups were dominated by opinion leaders, some of whom did not understand the programme and wanted to control the implementation of activities.

Dependency syndrome: Some areas have become accustomed to receiving relief handouts, which affected the project's efforts to develop a culture of entrepreneurship.

3.4.5 Main activities and impacts – community initiatives in Kenya

- a) Before the project was implemented, **baseline surveys were carried out in all the project sites**, and the information was applied in the design of the project, implementation of project activities, and monitoring and evaluation.
- b) **Government officers and extension workers were trained during the first phase of the project**, which helped them in day-to-day management of the group initiatives on the ground. This has fostered the sustainability of the project.
- c) **Analysis and development of value chains was undertaken for selected drylands products:** aloe in Turkana; handicrafts, honey, livestock, and livestock products in Kajiado. The project study identified opportunities and challenges faced in production and marketing of these products. Then the value chains were developed through participatory processes. Activities of the project were designed to address challenges in production and marketing of drylands products such as access to financial and business development services, value addition, and improved production processes.
- d) **Existing social and environmental groups were organized into commercial groups** and subcommittees in preparation for efficient production and involvement of all members in the production and marketing activities. Group capacities were developed with regard to group dynamics, leadership and business development skills, and basic entrepreneurial strategies.
- e) **The groups received training in production skills and links to potential markets and suppliers from experts and successful entrepreneurs.** Most groups in the project area were using traditional production methods that were not competitive and effective. Cosmetic experts from the Kenya Industrial and Research Development Institute helped

train the aloe group in Turkana to produce lotions, soap, detergent and shampoos. In Kajiado, the handicraft group visited shops and learned about contemporary bead designs and market-specific product development. Livestock groups went to tanneries and learned about curing hides and skins (as treated hides have a higher value), and also visited a beekeeping entrepreneur in Nairobi for training on processing honey. The entrepreneurs offer guidance on links to markets, input suppliers and financing, which can help the groups maintain their production after the project ends.

f) **Adoption of appropriate technology and acquisition of equipment facilitated production and improved the quality of products.**

- ❑ *Handicraft making:* Use of scissors instead of teeth to cut thread, and acquisition of assorted needles, threads and fishing lines for fabric beading.
- ❑ *Aloe production:* Use of soap moulding machines and a mixing machine to blend lotion and shampoo ingredients for commercial production.
- ❑ *Hides and skins:* Use of fraying knives, and industrial salt in treatment rather than common salt.
- ❑ *Honey production:* The beekeeping group acquired 'Kenya top bar' hives instead of the traditional log hives, and improved their harvesting processes through use of honey harvesting gear/kits. The group has also acquired skills in honey processing, use of a honey press machine, and better packaging.

g) **Development of business skills for entrepreneurship, marketing and enterprise management** was quite a slow process but the groups gradually came to understand how to operate their businesses with the aim of making profits, rather than as social entities. Capacities of the product groups were developed in market research, record keeping, costing, pricing, negotiations with customers, branding, product promotions, packaging, and printing brochures, labels, business cards. This has transformed individual businesses and also sparked



Aloe vera propagation field, Turkana, Kenya.

new start-ups as a result of opportunity recognition (e.g., young women from the Ilmejooli group started micro-businesses dealing with milk in addition to products by the group). There has also been a multiplier effect of the skills to non-members of the groups; for example, groups from the Kakuma refugee camp and host communities visited the Namoruputh Bio Aloe Organization in order to learn more about aloe production and value addition.

- h) **Training on savings mobilization and financial management skills, including record keeping** helped the product groups manage to open savings accounts in various banks operating in their locations. A pilot pro-poor financing intervention involving the IlparakuoMaasai Handicraft Women group led to a group savings account in the Equity Bank in Namanga. Subsequently, the project linked more groups to financial service providers and increased the credit-worthiness of the groups. The groups have also been able to start their own micro-credit facilities and lending systems. For the Ilparakuo group, a member borrowing Kes 1,000 is supposed to repay Kes 1,100 after one month (applying a ten percent interest rate). The Namanga Livestock Traders Association has established their own revolving fund of Kes 34,000 that group members can borrow from at an interest rate determined by the group. From the assessment conducted in July 2012, the culture of savings has taken root in the groups, with average savings since the MAP interventions growing from Kes 468 to Kes 8,844.
- i) **Needs assessments to identify gaps in the selected value chains, evaluate the achievements** and challenges from the first phase of the project, and solicit recommendations from the beneficiaries, were conducted prior to the MAP round table in Nairobi in March 2010. The findings were incorporated into phase two of the project.

3.4.6 Key lessons and good practices – community initiatives in Kenya

- a) *Conducting a baseline survey with regard to the target groups' socioeconomic status is necessary in order to establish the impacts of the interventions on the lives of the beneficiaries.*
Over five comprehensive assessments were undertaken by the project to collect information and identify existing gaps in the capacities of communities and local institutions regarding enterprise development, and processing and marketing of drylands products. This provided a good basis for tailoring activities to the communities. However, a comprehensive baseline survey on the socioeconomic status of the target beneficiaries was not carried out before implementation of the interventions. As a result the project cannot quantitatively measure changes in the economic status of the groups since the interventions.
- b) The project focused on women's groups because *building the capacities of women to boost their incomes and cope with drought by being able to buy food is an important way to reduce the vulnerability of pastoralist and agro-pastoralists communities* to climatic shocks and natural disasters. For example during the 2008/2009 drought in Kenya, the Ilparakuo Maasai Handicraft Women group on their own devised ways of coping with the drought using skills acquired through the project. The women leased out their production facility unit at Kes 12,000 per month, operating it as a hotel, and constructed an alternative *manyatta* using local materials, which they used as a store, display space and production facility.
- c) *Participation of community members and stakeholders in planning workshops* ensured that the activities implemented were owned by the communities and reflected their needs. Involvement of government officers and the local provincial administration in the project sites has also been crucial for effective implementation.

- d) At the start of the project, *community members greatly benefited from training and mentoring by experienced, practicing entrepreneurs and interactive hands-on sessions* with regard to making specific products and using improved techniques and technologies. The selection of the value chains was made by the communities, but with guidance from experts to ensure that the products were actually marketable. Exposure visits and value addition capacity building activities were avenues for imparting skills that could lead to the development of sustainable businesses either individually or in groups. Some of the general business skills shared included financial management, costing and pricing, promotion and marketing, value addition through efficient production, branding and packaging, and savings mobilization. Learning about saving money and opening bank accounts particularly increased the ability of participants to access financing.
- e) *Working with groups is highly recommended*, especially in pastoral and agro-pastoral areas. Projects involving group initiatives should be designed so that the production units are managed by the group, and members pay some fee and produce their own goods, but *services like marketing, training, and procurement of raw materials are done collectively* to take advantage of economies of scale. Cost sharing fostered ownership in the project; for example members of beekeeping groups each contributed Kes 100 in order to acquire one beehive. Building capacities in terms of group dynamics and leadership skills was also found to be critical for successful management of community initiatives.
- f) *Fostering links between the production groups and the private sector has been important for moving the groups towards being able to operate independently*, thereby improving the long-term sustainability of the initiatives. Networking and information sharing was also found to be very useful for creating links.
- g) A key element of the project is *enabling participants to recognize and pursue potential business opportunities and value chain development* to enhance their livelihoods, individually and as group members. This has multiplier effects, as these skills can be passed on to neighbours or spouses. For example the officials of Ilmejooli Self Help Group went out to find a common market for milk after the training on entrepreneurship and marketing workshop that was held in July 2011. The group officials visited and held discussions with New Kenya Cooperative Creameries and Brookside Ltd., officials based in the Bisil market centre. New Kenya Cooperative Creameries offered to buy milk at Kes 26 per litre, but Brookside Ltd offered a better price of Kes 30 per litre. Other women besides the group members are now selling to Brookside and receiving higher prices for their milk. In addition, one member was able to see an opportunity to sell milk fat. She started preparing it and selling it at Kes 300 per kilogram during market days. This is an activity outside group activities and not supported by the project which has led to an increase in her income of Kes 1200 per week since she is able to sell four kilograms of milk fat per week.

3.5 Tunisia

3.5.1 Overview of community initiatives in Tunisia

The IDDP supported implementation of the Regional Action Programme for the Governorate of Kasserine through activities in the district of El Brek. Kasserine is a remote semi-arid area in Central West Tunisia that had been marginalized in terms of the national development agenda and activities of international development partners. Local communities are challenged by poverty, desertification and drought.

UNDP Tunisia, the national Ministry of the Environment, and the Regional Council for the Governorate of Kasserine agreed that it would be best to engage an NGO to implement activities to enhance drylands livelihoods in El Brek. The Union Tunisienne de Solidarite Sociale (UTSS) was selected for this role.

The programme pooled its resources with national and international funding to support local activities in El Brek focusing on livelihood enhancement and soil and water conservation. The population of El Brek consists of about 4000 people belonging to the Ouled Ghilène tribe, which is of Arab origin.

Livelihood enhancement activities were selected based on input from local community members. The activities supported farming, livestock rearing, tree planting and handicrafts production. Improvements were made in soil conservation and rehabilitation, as well as access to water, energy and micro-credit funding.

3.5.2 Main activities and impacts of community initiatives in Tunisia

- a) **Soil conservation and tree planting activities** increased local productivity. Land rehabilitation was undertaken by means of terracing on about 18 hectares of land. This activity was done using local labour, which contributed to local job creation. About 3000 olive trees were then planted in this area.
- b) **Construction of underground water cisterns** provided capability for water collection. The cisterns were used to supply water for farming and household needs, greatly reducing the effort and time invested by women to bring water to their houses and families. Additionally, an exploratory study identified seven potential water sources in the area. The results of the study were disseminated among national partners and potential donors with the objective of mobilizing partners and resources for implementing much-needed water projects in the area.
- c) **A micro-credit fund was established to support livelihood diversification**, mainly through fruit tree cultivation, animal fattening, and local handicrafts. The rotational nature of the fund proved to be successful, with a nearly 100 percent reimbursement rate and the potential to reach an ever-increasing number of people. So far, about 130 families have benefited from the fund.
- d) **Access to energy was improved through the provision of energy-efficient gas stoves** to 60 families. This reduced demand on the ecosystem for firewood collection (otherwise about six tons of wood per month) and the related time and labour expended in this activity.
- e) **An exchange visit to Lebanon** by the UTSS project manager and the UNCCD Focal Point at the Ministry of Environment in November 2011 introduced them to the Sustainable Land Management Programme within the Ministry of Agriculture in Lebanon, which is an institutional good practice model for coordination of UNCCD-related activities. At the field level, they were introduced to water harvesting and management techniques, as well as capacity building capacities for women's cooperatives on processing, packaging and access to markets. They were also able to participate in a DDC regional meeting held in Lebanon, which enabled them to learn about and share good practices in the local development process.



El-Brek, Kasserine, Tunisia, a marginal remote area affected by poverty and drought

3.5.3 Key lessons and good practices – community initiatives in Tunisia

- a) *Organization of a local producer group facilitated community mobilization, awareness, capacity building, information sharing, and access to services and markets. It also provided a vehicle for an effective role in decision-making about programme activities.*
- b) *Engagement of the community in developing and revising the work plans greatly enhanced the effectiveness, efficiency and impact of the intervention. Activities were proposed and evaluated by local communities, increasing the potential for their success.*
- c) *Activities implemented were designed to build on traditional knowledge and local know-how related to land rehabilitation, terracing for the conservation of water and soil, underground cisterns for water harvesting, and tree planting. The same holds true for the selection of livelihood enhancement activities, such as animal fattening and local handicrafts. The reliance and trust in indigenous knowledge coupled with newly available techniques was a key determinant in the success of the interventions.*
- d) *Sustainability of the activities is ensured by community ownership, the good practices and techniques promoted and the rotational nature of the micro-credit fund. The intervention was demand-driven; activities were jointly agreed by the community and executing NGO, building on existing capacities and the cultural context of the people involved.*
- e) *The activities have the potential to be replicated in other areas in Tunisia and in other dryland areas. Lessons from this intervention were used within the country to support the elaboration of the 11th National Socioeconomic Plan and to drive the local development process in other areas. They were also shared in a regional exchange meeting organized by the DDC for the Arab States.*

- f) *Gender equity was improved through activities that had positive impacts on women. Access to water cisterns greatly reduced women's effort and time in providing water. Their firewood collection time and labour was also reduced through access to energy efficient cooking stoves. Additionally, women were beneficiaries of the livelihood enhancement activities implemented, including the rotational micro-credit fund, which contributed to their economic empowerment and involvement in local decision-making.*

Improving family livelihoods in El Brek, Tunisia

The family of Hadia Boughdiri benefited from use of the rotational micro-credit fund to get feed for fattening their sheep. They received about US\$3,200 in two six-month rotations. The intervention was life-changing for this woman and her family, providing them with the necessary cash to take care of their basic needs for food, energy and shelter.

Yasmina Souidi used the micro-credit fund to get wool and necessary tools for carpet weaving. She is now able to earn cash from selling carpets.

Saleh Kortli is a wage labourer, currently unable to work for health reasons, with five children, including a handicapped daughter. The family has five hectares of land primarily used for cereal production. They have benefited from the IDDP through receipt of 50 olive trees and 52 chicks, as well as a water cistern so they do not have to travel two kilometres to fetch water. The chickens provide eggs and meat that increase their daily protein intake. The olive trees offer the promise of a brighter economic future. They have already planted 14 more trees.



Hadia Boughdiri among her animals in the enclosed sheep pen, El Brek, Tunisia



A happy Yasmina Souidi (far right) chats with colleagues, El Brek, Tunisia



Saleh Kortli with his wife stand in front of a young Olive tree on his farm, El Brek, Tunisia

3.6 Summary - building capacities of communities for entrepreneurship and economic activities

The IDDP works to build the capacity of communities for entrepreneurship and improved or alternative livelihoods in the drylands as a way of building incomes and economic diversification, thereby strengthening the abilities of communities to cope with drought, natural disasters and climate change. One key challenge in this context is to connect local producers with markets for their products.

Important elements of IDDP activities in this area include:

- a) gathering information about the needs and concerns and existing activities of local communities;
- b) providing training on methods of improving land use and farming production and/or starting new enterprises;
- c) addressing financing requirements and building savings and financial management skills;
- d) supplying resources or equipment to support alternative livelihoods, including livestock and energy technologies;
- e) promoting links with entrepreneurs, markets, suppliers and financing; and
- f) peer learning and sharing of information, experiences, know-how and technologies.

Local consultations allow community members to identify and discuss their needs with regard to potential livelihood support activities. In Ghana, a roundtable meeting was organized to map opportunities and constraints and make recommendations on market access, while a baseline survey and assessment identified existing micro-enterprises, technologies, market linkages, and micro-finance systems that could support the livelihood activities. In Kenya also, information from baseline surveys was used to design and plan the project activities, develop value chains for selected products, and identify opportunities and challenges in producing and marketing various products.

Training activities related to sustainable land management were intended to boost food production and conserve topsoil. Farmers in Ghana received training on increasing productivity and soil fertility by applying animal manure, composting, mulching, rotating crops, cultivating nitrogen-fixing crops, and avoiding bushfires. In Benin, a 'young pioneers' group was trained to combat erosion and plant trees for agro-forestry, while women learned how to produce and use energy efficient stoves to reduce wood collection and consumption. Tunisia also supported land rehabilitation through soil conservation and planting olive trees on terraced areas.

Some communities received training in new production skills. In Kenya, experts and successful entrepreneurs showed groups how to produce handicrafts, cosmetics and livestock products in more effective ways and provided guidance on establishing links to markets, suppliers and financing institutions. The groups also learned business skills needed for entrepreneurship, marketing and management of business enterprises. A related and extremely important type of training involved learning about how to save money and develop the financial management skills

needed to run a business. In Tunisia, the project organized a rotating micro-credit fund to support livelihood activities related to fruit tree cultivation, animal fattening, and local handicrafts.

In addition to training, in some cases the IDDP supported delivery of particular resources or equipment to get people started in new types of enterprises. In Ghana, farmers received seeds for food crops, seedlings of drought-tolerant and economically valuable trees, and livestock (guinea fowl and goats). In Kenya, handicrafts groups received scissors, aloe producers got soap moulding machines and mixers for making shampoos and lotions, and beekeepers were supplied with new hives. In Tunisia, the project supported construction of underground water cisterns that could be used for irrigation, and provided energy-efficient gas stoves for some families to reduce wood collection. In Benin, women's groups were assisted in installing multifunctional platforms with diesel engines to improve their productivity.

In 2010, UNDP hosted the Making Markets Work for the Poor Roundtable in Kenya. The roundtable brought together 109 participants from 6 drylands countries (Kenya, Ghana, Mali, Mozambique, Tanzania and Uganda). The participants included policy makers at national and/or local levels (Districts) from the six countries, 22 representatives from various drylands communities (product groups producing honey, handicrafts, livestock and livestock products and aloe products), non-governmental organizations, 18 Parastatal and Government Institutions, 12 private sector organizations, focal points from 6 UNDP country offices, United Nations Agencies and other development agencies and 7 donor partners (Australia, UK-DFID, EC, Germany, Norway, Switzerland and USAID).

There were many examples and lessons shared from various communities and countries on entrepreneurial initiatives and policy frameworks that have worked (and not worked) regarding market access for drylands commodities. The plenary discussions outlined the similarities and differences in policies, agro-ecological conditions, and technical and marketing opportunities and constraints for communities in production and marketing of specific products. In addition, five clinics were organized to address key challenges:

- a) availability and access to financial services;
- b) business skills needed to build capacity and market competitiveness;
- c) development of sustainable market linkages;
- d) improvement of competitiveness of dryland commodities through value addition; and
- e) standardization, and quality control and assurance.

The Roundtable allowed project participants, decision-makers, development partners, NGOs and representatives of the private sector from different countries to share lessons and experiences, display their products, and develop contacts.



4

Improving local responses to natural disasters and climate change: Achievements, lessons and good practices

4.1 Introduction

One of the elements of the IDDP support has been action to build the capacity of local communities to manage disaster risk and adapt to the effects of climate change. Most drylands communities are already dealing with climatic and ecological challenges, but mostly without adequate information, skills and opportunities to engage effectively in institutional planning and policy making processes. They also generally lack the resources needed for organizing and implementing new coping strategies.

The vulnerability of drylands communities to natural disasters such as droughts, flooding, and fires can be reduced through adoption of measures such as water harvesting, limits on burning activities that lead to bushfires, conversion to varieties of crops that are resistant to drought or flooding, improvements in food storage and processing, protections against soil erosion, and better management mechanisms to prevent ecosystem degradation and limit unsustainable practices.

The IDDP has built awareness and capacity in drylands areas on more effective coping measures through informational materials, training workshops, consultations, demonstration projects, and

support for integrating relevant activities into local development and risk management plans.

4.2 Mozambique

4.2.1 IDDP support for improving local risk responses in Mozambique

Mozambique adopted a National Master Plan for Prevention and Mitigation of Natural Calamities in 2006, which contains the country's operative strategy for disaster risk management and prevention of serious impacts from future droughts on the environment and people's livelihoods. It specifically emphasizes the links between development policies and preparedness, prevention, mitigation and vulnerability reduction. The Master Plan is an important part of the country's efforts to combat poverty, as success in terms of addressing extreme poverty levels depends on reducing the vulnerability of people most exposed to natural disasters.

The National Action Plan for Combating Drought and Desertification classified six districts in Mozambique as semi-arid and arid zones. The plan's operational strategy includes among its priority actions training for rural community members and institutions, and mobilization of local communities, in order to raise their awareness about the serious environmental problems resulting from poor management of local land and resources (including deforestation, uncontrolled fires, and soil erosion and depletion).

The IDDP combined training activities in the semi-arid and arid zones with distribution of information on natural resources management, and demonstration community activities on forestry and beekeeping. However, the National Disaster Management Institute (INGC) and government partners at the local level recognized that the IDDP funding and activities supported were limited in scope and did not cover all the needs of the beneficiary communities. Therefore, INGC used other funds from the government to complement the IDDP activities by introducing water harvesting technologies, improved processing techniques, irrigation and agricultural conservation technologies.

4.2.2 Main activities and impacts – improving local risk responses in Mozambique

- a) **A training workshop on the national bushfire prevention plan** was conducted in Moamba District, Maputo Province. The plan was presented by local authorities and its implementation discussed with community leaders. A leader from one community presented and shared a successful experience in bushfire prevention in his district.
- b) **Tree planting was introduced as a means of adaptation to drought conditions.** Training on native fruit tree seedling production and planting was provided to local agriculture officers who then trained communities in four districts: Massagena, Chigubo, Mabote and Funhalouro through multiple use centres (Centros de Recursos de Usos Múltiplos - CERUMs). The project provided the equipment and material to establish nurseries in CERUMs, and a team of experts from the National Institute for Agricultural Research went to the districts to inventory materials, and identify seed areas, mother trees and locations where the plants would be harvested for the production of seedlings. They trained CERUM staff on seed collection, processing and treatment, with the main species promoted being

Moringaoleifera, *Vangueria Infausta*, and *Cacuts*. CERUM nurseries were established in the four districts, each of which reported production of more than 3000 seedlings a year, for a total of over 12,000. The nurseries were also used to demonstrate use of irrigation systems for production of vegetables. Local trainees were taught drought-adapted techniques they could use and also disseminate to others in their communities.

In addition, seedlings were distributed to primary and secondary schools in Mabote and Funhalouro as a contribution to the Presidential Initiative on afforestation. Teachers confirmed that as a result students gained a better understanding of the role of plants in their environment, and that people who learned about the benefits of *Moringa Oleifera* are now collecting them. However, there were not enough seedlings for all the students, and due to the scarcity of water, the teachers requested that the plants be distributed during the rainy season to avoid the need for irrigation.

In Massangena and Funhalouro districts, an inventory of native plants was conducted and a report produced on various fruits, leaves, roots and tubers that have potential food value (nutritious and not toxic) with the goal of expanding food alternatives during the famine season (July to November).

- c) **Training and equipment for beekeeping was provided to enhance alternative livelihoods.** With co-financing from the government, 45 beekeepers from different communities in Funhalouro (Manhiça) received five improved hives each, as well as protective clothing, masks and gloves, and training on how to attract swarms of bees (by laying strips of beeswax into hives) and how to harvest and process honey. FRUTIMEL, a honey production company, is the potential buyer of the honey. The beekeepers are happy with the new technology, which protects them from being stung by bees, and also reduces the probability of bushfires or harm to the bees during the honey collection. They indicated that five hives are not enough for them and they would like to know where to buy more.

- d) **NGO activities to build the capacities of local communities:**

In Xinavane, AJUCOM, a civil society organization, visited communities and individual households, demonstrated how to use sound environmental technologies, and shared best practices for natural resources management. It also demonstrated income-generating activities, such as poultry farming, small vegetable gardens. Activities were implemented in close collaboration with local authorities. The group visited communities and individual households and demonstrated how to promote the use of sound environmental technologies and shared best practices in natural resources management. Regularly scheduled radio programmes were also aired in different languages to promote environmental education and discuss other socioeconomic issues (implemented in collaboration with UNDP GEF Small Grants Programme).

In Mahoche, a community-based tree planting and farming improvement project was implemented by a local NGO (Associação dos Camponeses de Mahoche) in association with the UNDP GEF Small Grants Programme. Soil conditions and water availability were not good in Mahoche, and the project had to construct a small dam and reservoir for watering the trees. Farmers received training in innovative farming techniques, along with tools and oxen. Collaborative resource and water management committees were established, and activities undertaken to promote environmental awareness and sustainable resource use.

- e) **Complementary activities undertaken by INGC to increase people's resilience to drought⁸:**

- ❑ *Conservation agriculture* practices (minimal soil disturbance, and maintenance of permanent cover with organic matter) were implemented in the district of Mabote

8 Activities supported through Government resources and co-financing from Australia Aid and UNDP Bureau for Crisis Prevention and Recovery.



Conservation Agriculture, Farmer in his cassava field, Mabote District, Mozambique

by 94 farmers in Macura, Tomo and Pangue. They received equipment, planting and fencing material, together with technical assistance. Although these practices involve hard work using manual equipment, the farmers reported that the results observed so far are encouraging. However, they need better ongoing access to information, equipment and planting material.

- ❑ *Water harvesting* is an important way to enhance access to potable water. In Mabote, a demonstration project allowed 30 people to benefit from collection of rain water off zinc roofs into plastic or concrete tanks. The beneficiaries indicated that this programme responds to their main priority, which is access to water. For the demonstration, INGC selected elderly people, intending to reduce their work loads, but in some cases this led to abandonment of the water harvesting systems when they died, due to traditional local beliefs associated with death. Others interested on the technology can adopt it at their own expense and INGC will provide technical assistance, but the cost of the equipment is far beyond the capacity of those who need it most.
- ❑ *Improved grain storage* (post-harvest management) using technology that provides improved protection of crops from weather conditions, pests and diseases. The beneficiaries of this technology report good results. Reduction of losses contributes to the available food supply and reduces food insecurity during the lean months of the year.
- ❑ *Native fruit processing* techniques are being demonstrated at the CERUM in Mabote, which is running a factory that produces jam, liquor and dried meat. Farmers are trained on how to collect and classify fruit, and they then sell it to the factory at agreed prices. A group of community members were trained on processing and they are working in the factory. The impacts of the activities to the community where INGC established a fruit collection points have been positive. However, due to the drought the production of fruit was low, affecting factory operations.

- ❑ *Irrigation technologies* (classic drip irrigation and use of pots for irrigation) are also being demonstrated at the CERUM nursery. Farmers come together to establish small plots and grow vegetables, and receive technical assistance and planting materials.

4.2.3 Key lessons and good practices – improving local risk responses in Mozambique

- a) *A baseline assessment of target groups is needed to identify gaps and needs. This information can also be used later to monitor and evaluate programme activities.* The formulation phase of the programme was based on existing policies and strategies at the national level. Therefore, the design did not undertake a baseline assessment to identify needs and target groups. Beneficiaries of the programme were selected by local leaders and district government officials. The districts were selected based on the National Action Plan, which identified six districts in semi-arid and arid zones. No participatory approach was followed in the formulation and design.
- b) *Local activities to improve drought resilience need to address the key priorities of the communities.* Water is the most critical resource for development of these areas, and due to limited finances the project did not consider ways to increase local water supplies. In addition, the arid and semi-arid districts have livestock and native forest resources, but the demonstration activities proposed did not fully make use of these resources, which have the potential to bring more benefits for the entire community, and to be sustainable. Therefore, the scaling up of the activities could face some challenges.
- c) *Communities need demonstration sites close to their homes.* The demonstration of technologies within CERUMs is very useful. However, the high level of population dispersion and long distances to CERUMs is a constraint limiting community participation. Community nurseries and other mobile demonstration technologies closer to communities would be helpful and would be put to greater use.
- d) *The dissemination strategy adopted by INGC based on training and technical assistance had good results for the targeted people.* Those who receive training and equipment are expected to disseminate the technology and reach more farmers. However, lack of equipment and material is a major constraint to adoption of new technologies. Additional assistance is needed to consolidate the results achieved so far.
- e) *Working with community organizations rather than individuals has more potential to produce benefits and positive results – if they are well organized and connected to markets, and have additional assistance from locally-based institutions through the development of partnerships.* The project activities implemented by INGC identified individuals, and no organizational component was developed. The individuals came together during the training and INGC supplied them with equipment, but without a follow-up process or creation of a community-based organization, the knowledge sharing and development among community members is not strong.
- f) *Delays in funds disbursements and high staff mobility hinder the implementation of activities.* Interventions at the local level require timely action and financing. When farmers receive planting materials during the dry season and there is no water for watering, seedlings have a lower rate of survival. Late disbursements may mean that the activities planned for a specific year have to be implemented in the following year.

4.3 Namibia

4.3.1 Namibia overview

After gaining independence from South Africa in 1990, Namibia's economy remained closely linked to its southern neighbor, and was characterized by four interrelated challenges: low economic growth, a high rate of poverty, inequitable distribution of wealth and income, and high unemployment. The new, democratically-elected government began addressing these challenges through a series of economic and social development plans. Namibia is currently known for its institutionalized democracy, peace and stability, and well-managed economy. However, although Namibia is now classified as an upper middle income country, its Human Development Index is still below the world average and there is high unemployment, especially affecting young people and women. Over one third of the people live below the national poverty line. The economy remains relatively limited and resource-based, with the country known largely as a supplier of minerals, fish and beef.

Namibia has adopted a national vision document, Vision 2030, which sets out a goal of reaching the level of a developed country by the year 2030. The vision is based on the country's natural, material and financial resources, and its cultural, regional and international context. Eight major themes are: inequalities and social welfare; political stability, peace and sustainable development; human resources, institutional and capacity building; macro-economic issues; population, health and development; natural resources and environment; knowledge, information and technology; and factors of the external environment.

The current Fourth National Development Plan (2012/13 to 2016/17), identifies environmental management as one of the main foundations for successful development. The plan also targets agriculture as a priority economic sector, since it represents one of the main areas for potential expansion of production and employment. Strategies for agricultural development include initiatives to increase the land's carrying capacity for livestock, establish fresh produce markets, and expand agricultural infrastructure.

4.3.2 Desertification and climate change issues in Namibia

Namibia is the most arid country south of the Sahara. Agricultural productivity is generally low, due to the dry climate and poor soil. Natural disasters, including persistent droughts and recurrent floods, add to the difficulty of the environmental conditions, and cause disruptions to food production. Food insecurity is closely related to poverty and income inequality.

Namibia's Programme to Combat Desertification was launched in 1994. Protection of the environment is intrinsically inter-linked with the country's efforts to address cultural and socioeconomic issues. The environment is an important cornerstone of Namibia's economy, a source of food, and a means of empowerment for many people, mostly the rural poor. However, **rural communities in northern Namibia are facing increased climate variability and unpredictable rainfall patterns, as well as more frequent and severe floods, droughts, and increased temperatures. These bring threats to food and water security, disrupt traditional crop production and livestock grazing practices, and increase vulnerability to land degradation, deforestation and desertification.**

4.3.3 IDDP support for improving local risk responses in Namibia

Namibia is the newest country in the IDDP, having joined in 2011. Previously Namibia had participated in and contributed to various activities funded under the IDDP, such as a workshop and country case studies on mainstreaming drylands and environmental issues, the Africa Drought Forum, and land tenure workshops.

In Namibia, the IDDP focused on the management of disaster risks, primarily natural or hydro-meteorological disasters such as droughts and floods. The programme has built the capacity of local communities in the Ondobe constituency, Ohangwena region, in North-Central Namibia on how to address risks through proactive planning, adaptation and mitigation. This work was undertaken in line with the disaster risk management policy adopted by the Namibian government in 2009, which was designed to minimize vulnerabilities by building resilience within the broad context of sustainable development, rather than just responding to disasters after they occur.

Over the years, communities have developed their own strategies to adapt to climate risks based on collective knowledge acquired through past experience of weather patterns and disasters. However, communities are discovering that their traditional coping strategies are less effective for managing current conditions, and they need better preparation for coping with disasters, e.g., by improving community capacity in planning and development of disaster risk management and/or adaptation strategies.

Activities were managed by the Desert Research Foundation of Namibia, building on the results of a study conducted by the foundation on, 'Understanding Climate Change in the Ohangwena Region'. That study had compiled valuable information on climate change and variability, and the impacts on the farming systems in the Ohangwena Region. It also highlighted key disaster risks faced by local communities.

4.3.4 Main activities and impacts – improving local risk responses in Namibia

- a) **Mobilization and sensitization meetings were held with stakeholder institutions in the Ohangwena Region:** the Ohangwena Regional Council; the Directorate of Engineering and Extension Services within the Ministry of Agriculture, Water and Forestry; Ondobe Constituency Development Committees; and the Regional Disaster Risk Management Committee. The purpose of the meetings was to introduce the IDDP project and to discuss ideas on project implementation, as well as to agree on how a baseline assessment should be carried out. The stakeholders provided valuable inputs and contributions to the project implementation based on their experiences.

The Ondobe Constituency Development Committees advised the project team to include at least four out of the twelve centres in the Ondobe Constituency in the baseline assessment in order to ensure representative participation from different parts of the constituency: specifically, the Onamunhama, Oilyateko, Oshandi and Onanghulo centres. The Ohangwena Regional Council gave its support to the project by committing the Emergency Management unit to take part in all project activities in the region.

b) **Assessments of baseline conditions and community training needs** were conducted in June 2011, focusing on the biophysical and socioeconomic conditions in the four centres. The baseline assessment gathered information about the disasters risks affecting the Ondobe Constituency and about how, and how well, communities had been coping with disasters. The capacity needs assessment was designed to determine through discussions with community members what they would need to reduce the risks caused by natural disasters. The capacity needs assessment specifically asked:

- What types of skills do the community members need to better deal with disaster risks?
- What can be done to reduce disaster risks and impacts within their constituency?
- What should happen in order for them to be better equipped to deal with disaster risks?

Participatory rural appraisal tools such as village mapping, focus group discussions and observation walks were applied to ensure maximum participation of community members and collect relevant socioeconomic information.

A total of 135 community members from the four centres took part in the baseline assessment (93 women and 42 men) and 24 community members answered the socioeconomic survey questions. They reported that the Ondobe Constituency experiences floods, heavy rainfall, droughts, and pest outbreaks. Community members indicated that sometimes these hazards result in poor crop yields and destruction of properties and houses. The community members stated that the disasters affecting them the most are floods and heavy rainfall, since these have occurred during the past few years.

When discussing what skills would be required to deal with disasters more effectively, the community members stated that they needed training on appropriate crop production techniques to ensure food security during floods and heavy rainfall. They also indicated that they would benefit from training on basic livestock management in order to increase livestock production. More generally, they wanted to learn about the causes and effects of climate change, and potential measures for climate change adaptation.

Development partners were also involved in the baseline assessment. Their disaster preparedness was evaluated, as well as their understanding of the government's Disaster Risk Management Policy, and their respective roles in the implementation of the policy. The discussions with development partners revealed that there is limited awareness of the Disaster Risk Management Policy; few even knew about it. Similarly, few of the development partners knew about their expected roles in the implementation of the policy. There is also limited involvement of local communities in the planning and preparation for disasters. Consequently, there is a gap between the plans and the real needs of the local communities at times of disasters.

- c) **Capacity building tools and training materials were developed on disaster risk management and climate change adaptation, as well as conservation agriculture and basic livestock management.** These were used in training workshops for community members and development partners. They were illustrative and user-friendly, and translated into the local language. These materials were designed to facilitate active participation and sharing of information among the community members, stakeholders and project staff, and are readily available for future use by others.
- d) **Training workshops provided information to community members about how they could actively take part in planning and preparing for disasters** and increase their knowledge and skills on issues relating to disaster risk management. The training workshops were structured to address the current tendency of communities to rely

on assistance from the government to deal with disaster risks. The workshops were conducted in *oshikwanyama*, the national language, and based on the training materials also produced in *oshikwanyama*. Participatory rural appraisal tools were used to encourage community engagement and sharing of disaster risk information and experiences. The training workshops were conducted in two stages: the first with 35 participants (twenty two women and five men, including eight officers from government institutions) and the second with 31 participants (twenty five women and six men).

Phase one of the training focused on Disaster Risk Management and Climate Change, while phase two dealt with Conservation Agriculture and Basic Livestock Management.

The training workshop on Disaster Risk Management and Climate Change covered:

- i) disaster risk management (defining key concepts and discussing risk reduction and the cycle of disaster management);
- ii) climate change and climate change adaptation (explaining climate change, its causes, and how to adapt to it);
- iii) a mapping exercise looking at where people live, the locations of the natural resources they depend on, and sites of community services (police, clinics, schools, extension services) and how these are influenced by disasters; and
- iv) development and drafting of disaster risk management and adaptation strategies.

The training workshops on Conservation Agriculture and Basic Livestock Management covered:

- i) conservation agriculture (definition and explanation of different methods);
 - ii) basic livestock management (key concepts, and disease control); and
 - iii) a review of the disaster risk management and adaptation strategies developed during phase one.
- e) The *disaster risk management and adaptation strategies prepared for the centres* during the training workshops represent commitments by the community members in terms of what should be done before a disaster, during the disaster and afterwards, with timelines, and responsible persons identified for each activity. Participants in the capacity building training workshop are expected to serve as focal points in their respective centres.
- f) A total of five *community champions* per centre (three women and two men) were nominated and selected by community members during the first training workshop. They have started holding community meetings to share information with others about coping with disasters, using the capacity building tools and materials developed by the project. They are expected to continue to facilitate awareness-raising about disaster risks management in their communities, and to encourage communities to implement the community work plans they helped create with support from development partners. The champions perceive this work as a stepping stone towards greater leadership roles in their communities. Progress and challenges in implementing the work plan are being shared by communities through existing local leadership structures such as the Constituency Development Committee (CDC), and through the CDC up to the Regional Development Coordinating Committee for further clarification and support for the process. There are good working relationships between community champions and CDC members, as well as traditional leaders in the constituency.



Namibia, meeting in Oshindi District Offices with community members, Ondobe Constituency, Northern Namibia

4.3.5 Key lessons and good practices – improving local risk responses in Namibia

- a) *Socioeconomic, cultural and environmental aspects of the community setting should be considered when planning for disaster risk management.* It is clear that communities need knowledge and skills on various aspects of disaster preparation and responses that affect their livelihoods.
- b) *The participatory approach adopted throughout the implementation of the project allowed representatives from the broader community to actively share their experiences and ideas,* which gave the project team members a good understanding of the prevalent types of disasters and disaster risks. To avoid having local communities remain passive and wait for the government to provide assistance, it is important to give them ownership of relevant parts of the disaster risk management planning and implementation. A gap was identified between development partners' plans for how to respond to disasters, and the actual needs of the affected communities. It is therefore important to ensure that plans are in line with real needs. This can be achieved through use of an approach in which local community members and service providers sit together and develop plans for addressing specific issues.
- c) *Involvement of the Constituency Development Committee members in the implementation of the project contributed to its success.* Engagement of government institutions in the training workshops allowed them to get first-hand information about the challenges experienced on the local level, and to share information about the government's current disaster risk management plans and strategies. To ensure adequate service delivery, leaders at the Constituency level need constant mentorship and training on elements of disaster risk

management. However, the national government was not very much engaged in the implementation of this project. To address this shortcoming, two fact sheets were prepared with the aim of advocacy and awareness-raising about the project for decision-makers at the national level.

- d) *Existing platforms should be used as the basis for information exchange and planning activities* that engage the local community. The approach of involving community members from different parts of the Constituency in the training workshops allowed information to spread across the Constituency. Experiences from the community meetings and workshops show that community members are willing to learn and share experiences, and are eager and enthusiastic about getting more knowledge and skills to improve their livelihoods.
- e) *Translation of training tools and materials into the local language* contributes to better understanding by the community members receiving the training and better involvement in discussions.
- f) Although the project was well accepted by the community and other stakeholders at the regional level, it did not have room for *implementation of tangible activities* and this might result in stakeholders not applying the knowledge that they have gained. For future projects it is essential to set aside enough time and resources for implementation of demonstrative activities, with people practicing activities under the guidance of the project team.

Additional practical training is needed on:

- Water harvesting techniques to improve access to water even after the rainy season. According to the farmers the harvested water should be used for gardening projects that can create employment opportunities.
 - How to record rainfall data for monitoring purposes.
 - Diversification of livelihoods through income-generating activities, aimed at making rural communities less vulnerable to disasters.
- g) The interactions with both community representatives and development partners revealed that *there is little awareness of the Disaster Risk Management Policy* among development partners. The document should be made available to all development partners, and its content incorporated into planning and implementation of actions. Bringing all development partners together might be required to ensure that there is common understanding of the policy.

4.4 Summary - improving local responses to natural disasters and climate change

As the drylands become increasingly affected by the impacts of droughts, floods and climate variations, it is critical for communities to learn how to mitigate the conditions that contribute to disastrous situations. This is especially challenging in areas where there is little outside investment and a high level of vulnerability. However, there are some relatively low cost measures that can be implemented to collect water, conserve soil, improve farming productivity, and increase household incomes. These activities can provide some buffering and additional resources for dealing with crises. In addition, communities can organize local plans for responding to emergencies.

The IDDP activities in Mozambique and Namibia outlined in this section include mobilization of communities to strengthen community disaster preparedness, prevention and response capabilities, as well as longer term planning to build people's incomes and resilience.

In terms of disaster preparedness, prevention and response, the activity in Mozambique was focused on local implementation of the national bushfire prevention plan. In Namibia, community members were most concerned about drought, flooding, heavy rainfall and pest outbreaks damaging crops and affecting food security. A training workshop on Disaster Risk Management and Climate Change included a mapping exercise to identify risks to important community sites, resources and services, and formulation of local disaster response plans, with specific duties and assignments for members of community centres.

Longer term activities for adaptation and resilience focused on soil conservation, tree planting, water harvesting and management, and income generation. In Namibia, community members received training on conservation agriculture and improved livestock management. In Mozambique, communities learned about planting native fruit tree seedlings and other drought-resistant crops, using conservation agricultural practices and irrigation systems, and improving grain storage and native fruit processing. Beekeepers were able to upgrade their activities through the use of improved hives, and a demonstration project in Mabote showed people how to collect rainwater falling on their roofs and store it in tanks.

Table 1: Summary of key lessons learnt and good practices identified by countries per thematic area

Thematic Area	Summary of key lessons learnt and good practices identified by countries
<p>Integration of drylands development priorities into planning and budgeting frameworks</p>	<p><i>Training and capacity building activities can be effective in providing necessary skills and expertise at the national and local levels for incorporation of environmental concerns and drylands issues into overall development plans. In Benin, information and materials were specifically prepared to reach officials with the ability to make changes. In Ghana, the project organized training workshops for elected District Assembly officials, and also provided useful information on drylands management that influenced national programmes, ministries and agencies. Mozambique provided direct training workshops and guidance materials for national ministries and district directors, as well as local government officials and planners that influenced the development of new district plans, the PEI II and the Poverty Reduction Plan's cross-cutting matrix. In Tunisia, institutions involved in the planning and budgeting process benefited from IDDP guidance on the integration of drylands issues. Policy advocacy is an effective tool for influencing decision-makers to take into account environmental and drylands issues in formulating and implementing development plans. In Benin, concrete results were obtained by targeting national officials at the highest level. In Ghana, use of the Strategic Environmental Assessment methodology provided opportunities for direct advocacy by local community members to influence district decision-makers. In Tunisia, the engagement of a national NGO provided local communities to influence national planners through opportunities to communicate their perspectives and priorities.</i></p> <p>The ability of government managers, groups and institutions to mainstream environmental issues into development plans and actions is strengthened by <i>creating awareness among the population and building public motivation</i> to work for environmental protection. In addition to targeting officials, Benin also organized public awareness activities for civil society organizations, journalists, schools, and community groups. In Ghana, District Assembly officials who received training from the project went on to sponsor community consultations and awareness raising events to educate stakeholders. In Mozambique, a community-based organization in Maputo province produced radio shows to educate and raise the environmental consciousness of local communities towards promoting sustainable resource use and adoption of innovative, environmentally friendly technologies. They also visited communities to present information and demonstrate the use of technologies for the management of natural resources that simultaneously contribute to improved livelihood alternatives.</p> <p><i>Fostering a sense of ownership and empowerment at the local community level</i> contributes to the effectiveness of planning and decision-making activities. In Mozambique, community-based organizations were included in the training workshops conducted at the province level. In Ghana, the Strategic Environmental Assessment methodology allowed members of local communities (including rural women and other marginalized groups) to participate in and influence decisions that directly affected their lives.</p>

Table 1: Summary of key lessons learnt and good practices identified by countries per thematic area

Thematic Area	Summary of key lessons learnt and good practices identified by countries
<p><i>Integration of drylands development priorities into planning and budgeting frameworks (cont.)</i></p>	<p>In Tunisia, similar results were accomplished through collaboration with an NGO able to establish close interactions and effective consultations with communities and formation of local groups that could engage collectively with local authorities. In addition, a responsive, flexible approach that allowed for adjustments based on feedback from communities on proposed activities and work plans improved the effectiveness of the interventions.</p> <p><i>Limited capacities of implementing organizations, and loss of key personnel</i> educated and trained by the IDDP, affect the timing and success of key initiatives. In Ghana, staff transfers and turnovers hindered the implementation of the activities. In Mozambique, the project experienced slow implementation until the management team was expanded.</p> <p><i>Training, information and policy support are not sufficient, and need to be complemented by actual implementation of activities and infrastructure improvements</i>, as well as on-going monitoring to ensure that the actors involved follow through on their commitments. IDDP activities on implementation of local activities to support improved livelihoods and natural resource management are discussed in the next two sections.</p>
<p>Building capacities of communities for entrepreneurship and economic activities</p>	<p><i>Information gathering and planning discussions with target communities</i> provide a strong starting point for livelihood support programmes. In Ghana, the Strategic Environmental Assessment methodology involved extensive community consultations to ensure that proposed activities would be locally appropriate. In Kenya, assessments were conducted to identify existing gaps in the capacities of communities and local institutions in the production, processing, enterprise development and marketing of drylands products. In Tunisia, activities were proposed and evaluated by local communities.</p> <p><i>Participation of community members and stakeholders in project management</i> ensures that the activities implemented are 'owned' by the communities and reflect their needs. In Tunisia, activities built on traditional knowledge and local know-how contributed to the success of the interventions. In Kenya, the communities selected the products for value addition and marketing, and participants both passed on the skills they developed and applied those skills in independent ways. In Benin also, local people who received training passed along skills to others.</p> <p><i>Training producer groups and farmer's cooperatives</i> is more effective and cost efficient than training individual entrepreneurs. Also, if marketing and procurement of raw materials are done collectively, it creates economies of scale. In Kenya, existing social and environmental groups formed the basis for commercial production teams. In Tunisia, organization of a local producer group facilitated information sharing and access to services and markets, and enhanced local decision-making about programme activities.</p>

Table 1: Summary of key lessons learnt and good practices identified by countries per thematic area

Thematic Area	Summary of key lessons learnt and good practices identified by countries
<p><i>Building capacities of communities for entrepreneurship and economic activities (cont.)</i></p>	<p>In Benin, women's groups were organized to manage multifunctional platforms for village power. In Ghana, there was also an emphasis on working with women's groups.</p> <p><i>Organizing women's livelihood groups improves their economic situation and promotes gender equity.</i> In Ghana, women's participation in organizations increased their access to land and agricultural extension services, and boosted their confidence within the patriarchal culture. In Kenya, the project focused on women because they needed support in building alternative sources of income to be able to buy food and reduce their vulnerability. In Tunisia, women benefited from access to water cisterns, which freed up their time for livelihood enhancement activities. In Benin, women benefited from more energy-efficient stoves and diesel engines to reduce their daily workloads and gain time for potential income-generating activities.</p> <p>A key element is <i>enabling participants to recognize and pursue potential business opportunities and value chain development</i> to enhance their livelihoods, individually and as group members. In Kenya, participants received training and mentoring from experienced entrepreneurs, who helped them ensure that the products were actually marketable, and also imparted general business skills related to financial management, costing and pricing, promotion and marketing, value addition through efficient production, branding and packaging, and opening savings accounts. Ghana recommended training for development of basic entrepreneurial skills relating to making profits and taking risks. In Benin, 'young pioneers' learned about the economic potential of agro-forestry enterprises.</p> <p><i>Greater extension support and links with agro-processing firms and exporters</i> are needed to enhance production and marketing efforts. In Ghana, farmers needed additional extension support for implementation of improvements in their basic livestock and crop management. Benin recommended use of local trainers and managers in each production basin to mobilize, coach and support people in order to create a critical mass of producers. In Kenya, in addition to providing training, the project has been actively promoting private sector connections for producer groups to promote access to suppliers and marketing opportunities.</p> <p><i>Mobilization of financial resources</i> for developing livelihoods activities is a major challenge. In Ghana, efforts are being made to consolidate supplement funding for IDDP implementation with budgets from various national agencies and local resources. In Kenya, some producer groups have been able to open group savings accounts to mobilize some funding on their own, and even establish revolving micro-credit systems. In Tunisia also, the project established a micro-credit fund to support livelihood support activities. However, significant additional resources are needed for the development of effective market-based solutions that successfully reduce the vulnerabilities of people in the drylands.</p>

Table 1: Summary of key lessons learnt and good practices identified by countries per thematic area

Thematic Area	Summary of key lessons learnt and good practices identified by countries
<p>Improving local responses to natural disasters and climate change</p>	<p>A <i>baseline assessment with participation of target groups</i> is needed to identify gaps and needs and provide a basis for monitoring and evaluation. A participatory approach throughout the implementation of the project allows representatives from the broader community to actively share their experiences and ideas.</p> <p>Local activities to improve drought resilience need to <i>address the key priorities of the communities</i>. Socioeconomic, cultural and environmental aspects of the community setting should be considered.</p> <p><i>Training and technical assistance are helpful</i>, especially when provided in the local language, <i>but lack of equipment and material is a major constraint</i> to adoption of new technologies.</p> <p><i>Activities involving community organizations</i> have the potential to engage more community members in activities and produce greater benefits and positive results than assistance and training directed only to individuals.</p> <p><i>Delays in funds disbursements and high staff mobility hinder the implementation of activities.</i></p> <p><i>Involvement of the government in distribution of information on disaster planning</i> is needed to reach and help mobilize community action.</p> <p><i>Capacity building and training should be combined with demonstrations of technical skills and or income-generating activities</i> to improve livelihoods.</p> <p><i>Community-based natural resources management can lead to more sustainable resource use and adoption of innovative, environmentally sound technologies</i> that support diversification of the production base and enhanced livelihoods.</p>



5

Conclusions

Perceptions that drylands are unproductive wastelands have created barriers to their development. The IDDP has made significant progress in building awareness about needs and opportunities in the drylands and integrating these issues into development policies, planning frameworks and strategies, especially within national ministries and agencies. Gradually, that work is being expanded into plans and priorities for district level planning and local governance regarding management of land and natural resources and economic development that builds on local assets and expertise.

However, given the fact that there are many types of pressing problems affecting the countries with extensive drylands areas, plans that focus on long-term environmental protection and economic development are often not given the highest priority when budgets are drawn up and development plans are being implemented.

To be successful, mainstreaming of drylands and environmental issues must be adopted as an institutional culture, and reflected in all decision-making processes in order to take advantage of opportunities and avoid negative impacts at an early stage. In addition, it must be supported by adequate budgetary allocations for activities that lead to substantial reductions in vulnerability and enhancements of livelihoods in the drylands. During planning processes, countries also need to undertake realistic management capacity assessments at the systems and organizational levels in order to ensure that sufficient training, skills and resources are available to support implementation.

Within drylands communities, training and capacity building initiatives coupled with hands-on demonstrations on soil conservation, water harvesting, and improved community livelihoods are helping to build a foundation for greater community resilience to the socioeconomic impacts of climate variability and changes in rainfall patterns, as well as droughts, flooding, and

other natural disasters. Peer learning, sharing of experiences, and South-South cooperation activities have also provided valuable opportunities for capacity building and acquisition of information and expertise.

Yet much more work is needed to reach affected drylands communities and assist them in building their disaster preparedness, improving their livelihoods, and creating greater resilience to the impacts of climate change. In addition to targeted training in land and water management techniques and support for undertaking alternative livelihoods, people in the drylands also need basic health and education facilities, as well as infrastructure improvements to facilitate trade, transport, and communications (including market information, weather forecasts, climate change information and disaster warnings), as well as banking services and insurance or other risk management services for crops and livestock to reduce impacts of economic shocks and disasters. Therefore an integrated and holistic development approach is required, going beyond isolated sectoral initiatives.

Mobilizing sufficient support and financial resources for needed actions at the local level is a pressing challenge. While greater efforts are needed to mainstream drylands in planning frameworks that are used for public resource allocation, it is also important to explore avenues for engaging private sector financial institutions, and for establishing innovative community-based funds and micro-finance systems.

Meanwhile, at the international level, broader strategic partnerships are needed to support drylands development programmes. The benefits of addressing drylands issues in development plans and policies extend well beyond the impacts on people living in these areas. The unrealized economic potential and underutilized natural resources within the drylands can be used to help countries achieve their MDG-related targets by providing substantial contributions to national poverty alleviation efforts, food security, energy supplies, environmental conservation, and long-term sustainable development goals. The long-term costs of neglecting dryland development needs may include increases in political instability, conflicts, migrations and refugees. Strategic capacity building, training and investments in these areas, therefore, offer globally significant returns.

Annex 1: Key Reports Reviewed

EuropeAid/UNDP Contribution Agreement, 2008

Drylands Development Centre

- ❑ Project Document: Integrated Drylands Development Programme Phase II, 2010
- ❑ Report on Roundtable on Making Markets Work for the Poor, May 2010
- ❑ Progress Report 1: Support to the Implementation of the IDDP Action Funded by the European Commission, March 2011
- ❑ Progress Report 2: Support to the Implementation of the IDDP Action Funded by the European Commission, March 2012

Benin

- ❑ Capitalization of Experiences, Lessons Learned and Best Practices in Implementing Programme to Support Drylands Development Activities in Benin, Interim Report, April 2012

Ghana

- ❑ Lessons Learnt, Experiences and Best Practices in Implementation of the Integrated Drylands Development Programme in Ghana, August 2012

Kenya

- ❑ Lessons Learnt and Best Practices from the Implementation of Market Access Activities in Kenya, September 2012

Mali

- ❑ Report on Mission to Timbuktu and Gao, December 2010

Mozambique

- ❑ Review, Lessons Learnt, Experiences and Best Practices in the Implementation of the Integrated Drylands Development Programme in Mozambique, September 2012

Namibia

- ❑ Support to the Implementation of the Integrated Drylands Development Programme in Namibia, November 2011

Tunisia

- ❑ IDDP in Tunisia: Good Practices and Lessons Learned, October 2012



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