

GENDER AND SUSTAINABLE DEVELOPMENT IN DRYLANDS: AN ANALYSIS OF FIELD EXPERIENCES



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Cover photographs: FAO/Chazine, Faidutti, Bizzarri, Van Acker.

Gender and Sustainable Development in Drylands: an Analysis of Field Experiences

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2003

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1. Overview: challenges in drylands and gender considerations

Introduction

The drylands of the world cover approximately 40 percent of the earth's land surface and are a direct source of livelihood for about one billion people, especially in developing countries. However, nearly all drylands are at risk of land degradation as a result of climate change, increasing human population, land over-use and poverty. This represents a threat to the food security and survival of the people living in these areas as well as to the conservation of the biomass and biodiversity.

Drylands pose different challenges for rural men and women because of their different roles, relations and responsibilities, opportunities and constraints, and uneven access and control of resources. Furthermore, agricultural, environmental and related policies and programmes often fail to recognise women's particular needs and crucial contribution in the use and management of dryland resources.

By incorporating a gender perspective in policy, projects and programmes, innovative ways of combating dryland degradation and food insecurity can be promoted, notably through a better understanding of men's and women's roles, and their respective concerns and needs. The result is a more sustainable, relevant and equitable development based on women's and men's full and equal participation, on their respective local knowledge, and on ecological and socio-cultural factors. Such a gender-sensitive dryland development represents a great opportunity for rural men and women to join their strengths to preserve food security and the natural resource base in ways that are sustainable.

This document looks at the relationship between gender and dryland management, based on an analysis of relevant field experiences in Africa and Asia, identified on the Internet, highlighting the role of women and men in dryland areas for food security, land conservation/desertification and the conservation of biodiversity. It makes available key findings related to these issues in a number of projects and programmes in Africa and Asia. It also outlines different aspects to be considered for achieving a gender-sensitive and sustainable dryland management.

This document is thus intended to assist development practitioners, planners and technical experts engaged in dryland management in the process of integrating a gender perspective in the assessment, formulation, implementation and evaluation of policies, projects and programmes for the sustainable and gender-sensitive development of drylands.

Section 1 briefly reviews the main characteristics of drylands, introduces the theoretical framework of the document, explains gender-related terminology and outlines the roles of relevant UN agreements and conventions related to gender and dryland management as well as FAO's activities in this field. Section 2 summarizes the key findings of the field experiences, presents lessons learned and recommends ways of improving gender-responsive dryland management. Finally, Section 3 summarises 12 of the 50 case studies from which these findings were drawn.

What are drylands?

Drylands is the common term for three agro-climatic zones: arid, semi-arid and sub-humid, where water resources are limited. Aridity and climate variability are dominant characteristics of drylands. Rainfall is scarce, unreliable and concentrated during a short rainy season, while the remaining period tends to be relatively or absolutely dry. The climates are however sufficient to sustain vegetation and human settlement.

Approximately 40 percent of the world's land area is dryland, encompassing savannah, grassland, woodland and shrub land. Drylands are found in all continents except Antarctica. More commonly recognized drylands include the African Sahel and the Australian outback. Australia, the United States, the Russian Federation, China and Kazakhstan are the countries with the most extensive drylands.

Drylands are a vital part of the earth's human and physical environments. Their ecosystems play a major role in global biophysical processes by reflecting and absorbing solar radiation and maintaining the balance of atmospheric constituents. They provide much of the world's grain and livestock, and form the habitat that supports many vegetable species and micro-organisms. Typical crops in drylands include sorghum, maize, cotton, sweet potato, cassava, coffee, banana, tea and sugar cane.

An estimated 40 percent of people in Africa, South America and Asia live in drylands (UNEP, 2000). The human population of the drylands lives in increasing insecurity as productive land per capita diminishes. Soil degradation in drylands, referred to as desertification, affects or puts at risk the livelihoods of people who are directly dependent on the land for their habitat and source of livelihood. The sustainable development of drylands is essential to achieving food security and the conservation of biomass and biodiversity (UNEP, 2000).

Main issues in drylands

Desertification, the process of arable land changing into unproductive soil or desert, threatens one-quarter of the earth's land and costs US\$42 billion every year (UNEP, 2000). It is caused by climate change, including global warming (UNEP, 2000), and unsustainable land management practices, which result from either inadequate techniques or increasing population pressure, and which lead to land degradation. About 65 percent of all arable land has already lost some of its biological and physical functions (UNSO, 2002) and drylands are particularly susceptible.

There is a link between **Poverty** and environmental degradation which has been signaled often in the literature of the 1990s (Agarwal, 1989; Dankelman and Davidson, 1988; UNSO, 1994). It was thought that women and men farmers who eked out an existence on marginal lands with little education and no access to agricultural resources, could have been driven to adapt practices that may have harmed the environment. However, further studies have shown that this relationship is much more complex and there is no direct linear causality between gender, poverty and environmental degradation. When men and women farmers do not own the land they cultivate, there may also be little incentive for them to make environmentally sound decisions. In addition, lack of access to credit may hamper them from buying technologies and inputs that would be less damaging to natural resources (UNSO, 1994).

As **food producers, women and men** have a stake in the preservation of the environment and in environmentally sustainable development. Land and water resources form the basis of all farming systems, and their preservation is crucial to sustained and improved food production. A lack of understanding and appreciation of women's and men's knowledge of dryland preservation techniques, as well as a disregard for their priorities as resource users, has led many development interventions to fail or to be rejected by local communities. In view of this, planners are now recognizing the value of learning from women's and men's local knowledge in order to protect and sustain the environment, and are aiming more to ensure their full and equal participation.

The international community's efforts to cope with the earth's deteriorating environment have led to a far-reaching debate on environmentalism and activism, which involves developing and developed countries working at the international, national and local levels. Discussions on gender, environment and sustainable development have been nurtured by increased interest in such problems as deforestation and desertification and by the observation that increasing scarcities of fuelwood, animal fodder and water in certain parts of the world affect women most of all (Braidotti *et al.*, 1994). Governments, development agencies and civil society organizations are increasingly incorporating a **gender perspective** in their policies, programmes and projects aimed at protecting drylands. However, the road to achieving sustainable development of drylands is still a long and arduous

one, and the commitments made at international conferences and conventions need to be translated into practice, with the full and equal participation of women and men at the local, national and international levels.

Theoretical framework of the document

This document reflects the evolution in the way development organisations deal with the human factor, particularly with women, and the broad-based international consensus on the “gender and development” approach.

Over recent decades, the discourse on the advancement of women and gender equality in relation to the development process has evolved from the *women in development* (WID) to the *gender and development* (GAD) approach. In the WID approach development resources were used to improve women’s conditions and make their contributions visible, but this approach did not address the basic structure of inequality in relations between women and men, as it tended to focus solely on women.

The shift in theoretical approach places gender as a central category of analysis and has opened up a new debate (Braidotti *et al.*, 1994; Moser, 1993; UN, 1999). The point of the GAD approach is to examine how the relative positions of men and women in society, and the system governing the relations between them, affect their ability to participate in development (FAO, 1997). The issue is no longer that of incorporating women (who are involved in much of the work, yet continue to be left out of most of the benefits), but rather of empowering them in order to transform unequal relations: “empowerment cannot be given, it must be self-generated, by facilitating women’s access to enabling resources which will allow them to take greater control of their lives, to determine what kind of relations they would want to live within” (Kabeer, 1995). The GAD approach requires that social, political and economic structures and development policies be re-examined from the perspective of gender relations (Jackson and Pearson, 1998; Molyneux, 1998; UN, 1999).

Basic gender-sensitive questions

- Who performs which tasks?
- Who has access to, and who has control of, resources (e.g. land, water, seeds)?
- Who has access to, and who has control of, income and benefits?
- Who decides what?
- What are the expectations and needs of each member of the household?

Gender-related terminology

- **Gender** refers to the social, economic and cultural roles and relations between women and men, including their different responsibilities in a given culture or location and in different population groups (children, aged people, ethnic groups, etc.). Gender is socially constructed and can change over time and vary according to geographic location and social context.
- **Gender mainstreaming** in FAO involves ensuring that attention to gender equality is a central part of all agricultural and rural development interventions, including analyses, policy advice, advocacy, legislation, research and the planning, implementation, monitoring and evaluation of programmes and projects.
- **Gender analysis** is a tool to assist in the strengthening of development planning, implementation, monitoring and evaluation in order to make programmes and projects more efficient and relevant. The current situation of rural women and men in relation to different issues and problems is analysed. Gender analysis should go beyond cataloguing differences and should identify inequalities and assess relationships between women and men. Gender analysis helps people to avoid making assumptions about who does what, when and why. Its aim is to formulate development interventions that are better targeted.
- A **gender-blind** approach strategy/framework/programme is one that does not consider the gender dimension, although there is clear scope to do so. Gender blindness is often a result of a lack of training in, knowledge of and sensitisation to gender issues. It leads to an incomplete picture of the situation and, consequently, to failure.
- The **empowerment of women** is essential to the achievement of gender equality and requires a transformative change, whereby women participate in policy-making and decision-making at all levels of society.

Source: FAO, 2001

The human dimension in UN environmental and related conventions

Since the early 1980s, considerable attention has been devoted to women's and men's different roles in preserving the environment, and extensive efforts have been made to identify the effects of the international environmental crisis on women. Momentum was reached at the workshop of non-governmental organizations (NGOs) that ran parallel to the first World Conference on Women (Nairobi, 1985), when it was recognized that the themes of "women and development" and "the environment" are interlinked and must be incorporated into policy planning.

Since then, several international conventions and agreements have been adopted by the international community, all including commitments reflecting a broad-based consensus on the need to remove the obstacles to women's and men's equal and active participation in and benefit from development initiatives. The following are the most important of these.

Agenda 21 (UNCED): The UN Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 clearly acknowledged the important role that women need to play in regard to sustainable development. Chapter 24 of Agenda 21 outlines the necessary increased involvement of women at all levels of decision-making. Around the world and in most cultural and social contexts, women traditionally are responsible for the management of natural resources and the social life of communities.

Convention on Biological Diversity (CBD): The 1992 CBD is designed to protect the planet's biodiversity, including genes, species (plant and animal) and ecosystems. It is based on the recognition that biodiversity is a global asset under threat and commits governments to conservation, the sustainable use of biodiversity and the sharing of benefits. The Convention recognizes women's "vital role in the conservation and sustainable use of biological diversity" and affirms the need for the "full participation of women at all levels of policy-making and implementation for biological diversity conservation".

Beijing Platform for Action: The Platform for Action adopted by the Fourth World Conference on Women in Beijing in 1995 identified the need to involve women actively in environmental decision-making at all levels, and to incorporate a gender perspective in all strategies for sustainable development, as one of 12 critical areas of concern requiring action by states, the international community and civil society. Under Strategic Objective K.1 in the Beijing Platform for Action (1995), governments agreed to encourage the protection, use and promotion of the knowledge, innovations and practices of women in indigenous and local communities, ensuring that they are preserved in an ecologically sustainable manner and that women's intellectual property rights are protected under national and international law (paragraph 253.c; SIDA, 1998).

Convention to Combat Desertification (CCD): The International Convention to Combat Desertification (CCD), adopted in June 1994, expressly highlights the essential role that women play in the sustainable management of drylands. The signatory parties committed themselves to promoting awareness and facilitating the participation of local populations, particularly women, in the decisions that affect them. Although the concept of gender is not specifically mentioned in the convention, it is considered to be an underlying principle (UNSO, 1999). CCD takes equal account of both sexes so as to ensure the participation of women and men in programmes to combat desertification. It emphasizes the need to expand women's opportunities to learn about the conservation and sustainable utilization of natural resources, and addresses the issue of female literacy. Literacy increases women's ability to take part in the conservation and sustainable use of natural resources, giving them greater power to bring their experiences and perspectives to bear on the search for effective answers (GTZ, 1999).

Rome Declaration on World Food Security and World Food Summit (WFS) Plan of Action (1995): Both recognize that full and equal participation of men and women are essential for achieving sustainable food security for all and acknowledge the fundamental contribution to food security by women, particularly in rural areas of developing countries, and the need to ensure equality between men and women. Gender is not specifically mentioned in the objective 3.2. related to combating "environmental threats to food security, in particular, drought and desertification, pests, erosion of biological diversity, and degradation of land (...), and restoring and rehabilitating the natural resource base, including water and watersheds, in depleted and overexploited areas to achieve greater production". However, it is considered to be an underlying

principle of the Rome Declaration on World Food Security and the World Food Summit Plan of Action.

UN Framework Convention on Climate Change/Kyoto Protocol (UNFCC): The Convention (1992) on Climate Change and the Kyoto Protocol (1997) have, to a large extent, magnified the North-South divide and exposed cracks in the South-South alliance. An overall assessment of the climate change debate to date shows that women are absent from the decision-making process. Their contribution to environmental policies is largely ignored, and women benefit less from and suffer more of the adverse effects of energy projects. Increasingly, women's participation is being recognized as a key component in climate change issues. It is necessary to shift the focus from women towards the adoption of a broader gender approach. Gender issues in the energy sector are complex and multifaceted and should be addressed from all levels, including decision-making, policy and regulation, financing, awareness-raising and capacity building, and service delivery. Overall, progressive gender-sensitive policies and capacity building should recognize and acknowledge the division of labour and the differing energy needs of men and women (RABEDE, 2001).

From words to action

There is a need to translate the commitments emanating from the environmental conventions into concrete action. Sustainable development of drylands must take place at the local level with the full and equal participation of both rural women and men in decision-making processes and project planning and implementation.

Yet despite all these efforts, gender discrimination in access to, and control of, resources and services persists – as does the neglect of women's rights – because of political and cultural impediments that are difficult to eradicate and that require resources and a strong

political will. These impediments have also hindered the signatory parties' and development agents' efforts to mainstream gender in sustainable dryland development. In Agenda 21, for example, significant gaps remain between the goals and strategies agreed in Chapter 24 and practical implementation; there are gaps of knowledge with regard to the complex structural relationships between environmental policy goals and gender issues. Neither the decisions of CBD's Conferences of the Parties (COP) nor the recommendations of its Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) have taken much account of the significance of gender in the attainment of CBD's objectives (GTZ, 2001).

The successful implementation of the Conventions still depends on addressing issues such as the collection and use of sex-disaggregated data, the understanding of gender, the capacities and tools to ensure integration of the gender dimension, as well as the knowledge of existing resources and expertise on gender issues.

FAO's activities related to drylands

FAO's response to land degradation and desertification reflects its mandate; i.e. **to increase and sustain food security**, particularly for populations in affected areas, and in line with the principle of gender equality. Although both rural men and women have different and complementary roles in guaranteeing food security, women often play a greater role in ensuring

nutrition, food safety and quality. Through its *Gender and Development Plan of Action*, FAO promotes gender equality in access to food, productive resources, support services and decision-making at all levels. FAO also recognises that development in the drylands needs to take into account the different activities to be implemented by the various groups of men, women, young and elders, and that the difficulties faced by the poor in raising their level of livelihood are particularly acute for women.

Through the establishment of an interdepartmental working group (IDWG) on Desertification in 1993, the Organization has been implementing numerous projects and programmes which combine the objectives of food security and combating land degradation and desertification. Such activities range from local development projects, to policy advice to governments, training and capacity building at all levels, and cover topics such as soil and water conservation, agroforestry, promotion of sustainable energy sources, rehabilitation of agriculture biodiversity and increasing of food production at the household level, etc.

Field experience in combating dryland degradation has demonstrated that **women and men's full and equal participation** is essential for the success of sustainable development and the management of drylands. The integration of socioeconomic factors and driving forces in land degradation assessment and participatory resources assessment and planning forms a cornerstone of the approach of the Dryland Land Degradation Assessment (LADA) project, a major international initiative that FAO is leading for the provision of basic, standardized maps, data bases and methodologies on state, causes, impacts of land degradation and possible remedial measures to combat it at national, regional and global levels.

2. Findings of the field experiences, lessons learned and recommendations

The findings presented in this section are based on some 50 field experiences dealing with gender and drylands that were identified through a search on the Internet. The main aim of all field activities taken into account in the analysis was to exploit drylands' potential while conserving and regenerating the natural resource base and ensuring the participation of local women and men in project activities.

The selection criteria for field experiences to be included in the analysis were:

- **Where** - the development programme/project or study/survey should be implemented in dryland areas of Africa or Asia.
- **What** - it should deal with the priority areas of food security, land degradation/ desertification, land conservation and biodiversity.
- **How** - it should highlight gender issues, specifically gender-based roles and relations in dryland management;
- **Why** - it should aim to address technical areas in which gender discrimination is a problem (e.g. in terms of access to resources and services, employment opportunities or distribution of the positive and negative impacts of an activity).

This section also outlines the lessons learned regarding specific issues such as sustainability, awareness raising, income generation, etc., as well as recommendations to ensure gender-responsive development and management of drylands.

Key findings

The gender-based roles, relations, concerns and obstacles that rural women and men face in drylands development are also found in non-dryland areas of the developing world, so the findings reported here are relevant to a wide range of situations. Gender discrimination in drylands (as in many other areas of the developing world) is a result of an unequal social, cultural and economic structure and limited political and organizational influence, which translate into marginalisation, poverty, food insecurity and limited access to resources.

The findings have been classified in the following three main categories: (i) drylands, desertification and poverty; (ii) gender roles in drylands; (iii) gender roles in biodiversity and land conservation. [The countries into brackets refer to the case studies presented in section 3].

Drylands, desertification and poverty

Worldwide, one billion people in 110 nations earn directly their livelihoods in drylands. Nearly all of these people, and the drylands on which they depend, are at constant risk from land degradation/desertification, which can be the result of climate change or natural phenomena but is more likely to arise from human activity.

Desertification and poverty are closely and directly linked to each other. While desertification can lead to famine, malnutrition, under-nourishment, epidemics, economic and social instability and migrations, these can, in turn, cause or increase desertification. In addition, poverty contributes to land degradation in drylands by inducing poor women and men to exploit the natural resource base in an unsustainable manner. Degradation then lowers productivity and incomes, thereby increasing poverty and further exacerbating pressure on the natural resource base. [*China; India – Telengana, Andhra Pradesh; Mauritania; Niger; South Africa*]

The survival strategies adopted to combat desertification include the overexploitation of accessible natural resources and migration from rural to urban areas or to other countries, which usually involves men leaving for seasonal or longer-term work elsewhere. [*China; India – Telengana, Andhra Pradesh; Niger; Sudan*]. The analysis of field experiences shows the link between population growth and land degradation in dryland areas. The advancement of women and gender equality are likely to help reduce fertility rates, thereby having an indirect affect on the sustainable development of drylands. [*China, Sudan*]

Gender roles in drylands

There is a **lack of reliable sex- and age-disaggregated statistics on roles** in dryland management activities. In general, men are responsible for decision-making and the planning of farming activities, while women have little authority and have to seek their husbands' permission before they commit family resources or make decisions. Nonetheless, rural women in dryland areas play a key role in natural resource management and achieving food security. They often grow, process, manage and market food and other natural resources. They are generally responsible for small livestock, vegetable gardens and collecting fuel, fodder and water, as well as carrying out their traditional reproductive roles.

Women's traditional roles (e.g. collecting water, growing food, etc.) are particularly crucial in drylands in terms of natural resource management and food security. Men have usually been responsible for decision-making and planning of farming activities, but they increasingly leave the degraded areas to look for jobs in urban areas, leaving women to assume new roles and responsibilities on the farm. In such a changing context, it is fundamental to be aware of the obstacles hindering full participation of disadvantaged groups, including women.

However, despite their multiple roles in dryland management, **women's access to and control over** natural resources (such as land) and agricultural support services (including credit, extension services, etc.) are often restricted. [*Burkina Faso, Niger and Senegal; India – Telengana, Andhra Pradesh; Kenya*]. This limited access to agricultural resources and

services is caused by a series of interrelated social, economic and cultural factors that force rural women into a subordinate role and hamper their productivity, as well as limiting their participation in decision-making processes and development initiatives. In some cases, customary practices and laws that limit women's rights to land prevail over legislation that guarantees those rights. Particularly pressing to the issue of dryland management is the fact that **insecure land tenure reduces women's and men's incentives to maintain soil quality** because they have no permanent rights to the land. Without secure land rights, farmers have little or no access to credit, rural organizations and other agricultural inputs and services. [*Burkina Faso; Burkina Faso, Niger and Senegal; India – Telengana, Andhra Pradesh*]

Drylands degradation can lead to **changes in gender roles**. Such factors as migration, population pressure, education and market forces have resulted in women taking more responsibility. In response to change, for instance when they are left behind in the migration process, women readily assume most of men's traditional roles – in addition to their existing agricultural, domestic and reproductive roles. This extra work and responsibility leads women to demand more equal access to land and fertility control. Consequently, control over resources may change, or women may become increasingly involved in decision-making. Many field experiences illustrate how women and men have taken on new roles to combat desertification (Heyzer, 1995), such as through reforestation and land reclamation activities. [*China; Kenya; Mauritania; Niger*]

Environmental change frequently has a differentiated impact on men and women and leads to changes in gender roles, with women assuming more work and responsibility.

Given that women and men have different roles in dryland management, the **impact of desertification** affects them in different ways, and the field experiences suggest that environmental change has a far greater impact on women. For example, deforestation and desertification increase the amount of time that rural dwellers have to spend gathering fuelwood and fodder and fetching water. This is one of the most widely cited examples of the impact of land degradation on women, as many societies traditionally see these as women's tasks. At the same time as women are assuming more tasks and responsibilities, desertification is leading to loss of efficiency in such tasks as cooking (owing to diminishing fuelwood sources) and farming activities (as increased labour is needed to combat desertification). [*India – Telengana, Andhra Pradesh; Kenya; Mauritania; South Africa*]

The field experiences suggest that an interesting **social and economic transition** is under way. An increasing number of households in drylands are relying less on agricultural activities for income and more on off-farm employment (as well as on remittances from migrant labour). This is enabling households to meet their food security needs in an environment of declining land productivity and, at the same time, it reduces the pressure on drylands natural resources.

Numerous projects promoted **income-generating activities** for women as a vital source of household food security. These projects provided women with management and organizational skills and empowered them through increased revenues and self-esteem. As a result, women are participating more in decision-making processes and project activities at the community level. [*Burkina Faso, Niger and Senegal; China; India – Telengana, Andhra Pradesh; Mauritania; Morocco; South Africa; Sudan*]

Smallholders, particularly women, often face difficulties in obtaining credit. This is a direct consequence of their lacking access to land and to their low involvement in development projects and membership in rural organizations.

While men are overwhelmingly represented in traditional farmers' organizations and are the recipients of most extension initiatives, many field experiences found that establishing and **supporting women's groups** helps women to improve their own livelihoods. Through these groups, women are able to deal with their problems, voice their concerns and increase their confidence. In particular, groups help women to tackle the extreme conditions that derive from drylands degradation, including reforestation and irrigation activities. Women's groups can also overcome barriers to income-generating activities (linkages to markets, credit, etc.). [*Burkina Faso; Kenya; Mali; Mauritania; Sudan*]

Gender roles in biodiversity and land conservation

There is increased recognition of the value of **indigenous knowledge**, as well as women's and men's roles as innovators regarding biodiversity conservation and farming techniques. Field experiences stressed the need to build on such knowledge and to ensure the participation of local women and men (as innovators and end users) in order to improve tools and techniques aimed at combating desertification. In addition, many projects sought to create incentives for investment in land improvement and for the adoption of technology that conserves land, water and energy. For instance, the economic incentives to produce butter from the karite tree in *Burkina Faso* or oil from the argan tree in *Morocco* have improved land conservation practices. [*Burkina Faso, Niger and Senegal; India – Telengana, Andhra Pradesh; India – Tamil Nadu; Sudan*]

The field experiences stress that **women's participation** in project activities is generally low unless they are targeted specifically. Historically, there has been a male bias in development programme research, planning and implementation activities, which ignores women's role in dryland development and the challenges that they face. Moreover, women generally do not participate in the decision-making processes in the community. However, it should also be noted that an overemphasis of women's roles can be equally detrimental. Many of the projects analysed for this document focused on women's roles as resource managers whose indigenous knowledge is critical for land and biodiversity conservation, while

Many projects tend to focus on women's traditional roles and do not have a true gender approach that looks both at women and men and that includes rural women in mainstream development activities. Instead, they were women-specific, looking only at women as victims of desertification or as resource managers, without considering their relations with men. Both women and men should be viewed as the agents and beneficiaries of change.

completely overlooking the important roles and indigenous knowledge of men. [*Burkina Faso; Burkina Faso, Niger and Senegal; China; India – Tamil Nadu; India – Telengana, Andhra Pradesh; Kenya; Mauritania*]

Involving rural communities, especially the “voiceless”, in resource management and in decisions regarding environmentally sound practices and techniques aimed at combating desertification (such as rainwater harvesting, insect control, post-harvest storage, etc.) is a powerful way to mitigate the conditions and the impact of land degradation.

As gender roles change over time and in response to changing circumstances (Rocheleau, 1995), no particular kind of knowledge can be associated with men or women as such, but with their culturally constructed and sanctioned behaviour and attributes. Women’s relationship with nature, as well as the attributes that would make them develop more sustainable practices, are culturally defined and thus evolve with cultural change. Gender roles in resource management vary from setting to setting, and over time within the same setting. Environmental change has, itself, changed gender roles. Women’s increased access to (and control over) resources helps them to gain confidence, to participate actively in decision-making and policy-making and to deal better with the impacts of environmental change, especially in poor degraded dryland areas. It allows women to negotiate their extra work burden and thus attain a more balanced division of labour in a redefinition of roles. Increased access to and control over resources also helps women to make up for detrimental environmental impacts (Heyzer, 1995) because empowered women can select from a wider range of ways to deal with degradation. In turn, women’s efforts to combat desertification (land reclamation, reforestation, irrigation systems) lead to increased self-confidence as well as improved natural resource management, financial management and negotiating skills. [*Burkina Faso; Burkina Faso, Niger and Senegal; India – Telengana, Andhra Pradesh; Kenya; Mauritania; Morocco*]

Removing gender-related barriers for greater access to resources

Access to, and control of resources, are particularly pressing to the issue of dryland management, and should be addressed through a gender perspective to examine how and why men and women have different rights and benefits in the following areas, as seen in figure 1.

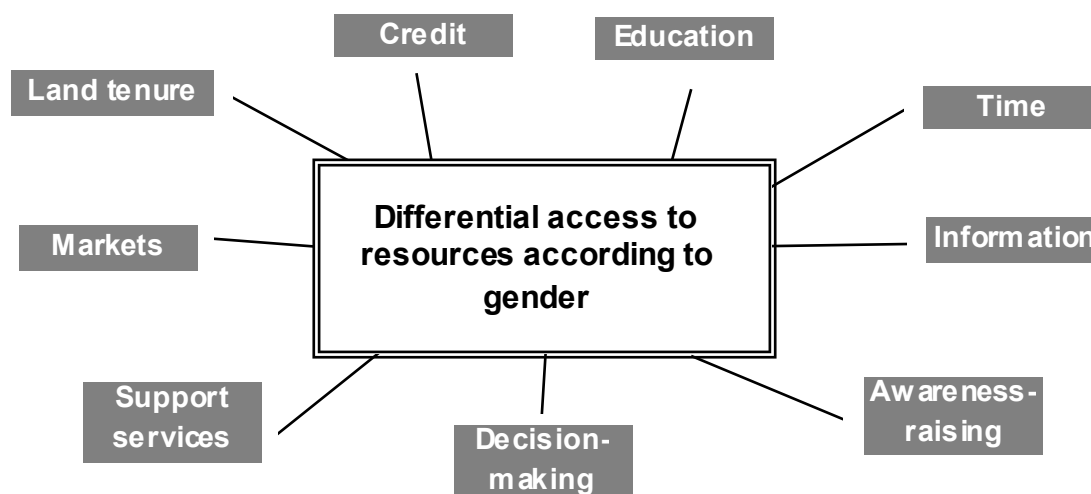


Figure 1

Insecure **LAND TENURE** reduces people's incentives to make long-term investments in land rehabilitation and maintain soil quality because they have no long-term or permanent rights to the land. Women usually have even less access to land (and control) than men. Customary practices and laws that limit women's right to land may prevail over legislation that guarantees their right (FAO/IFAD/ILC, 2003)

Providing **CREDIT** is one of the best ways of encouraging rural women and men to take an interest in environmentally sound activities. Smallholders, particularly women, often face difficulties in obtaining credit due to lack of collateral. There is a need to develop informal sector enterprises and alternative livelihood possibilities through making credit available to smallfarmers, especially to women.

Women's access to **AGRICULTURAL SUPPORT SERVICES** (extension services, inputs, etc.) is often restricted despite their multiple roles in dryland management. Women's groups have, however, proven capable of tackling extreme livelihood conditions deriving from dryland degradation, including through reforestation and irrigation activities.

AWARENESS RAISING AND EDUCATION concerning desertification can lead to changes in attitudes and longer term social change. In fact, understanding the value of protecting one resource (tree species, water source, fodder crop or skill), encourages men and women to see the value of sustaining and protecting the environment in general. In the meantime, however, specifically targeted strategies to empower women are necessary.

Smallholders in drylands face the difficulty of turning surplus products into cash income because of their lack of transport and access to **MARKETS**; access to market information such as consumption patterns and price fluctuations; and to marketing opportunities and techniques. Women face particular constraints as marketing infrastructure and organizations are rarely geared towards small-scale production or to crops grown by womenfarmers.

Projects that provide women with management and organizational skills help them to participate in **DECISION-MAKING PROCESSES** and project activities.

TIME is a precious resource. Freeing up rural people from heavy workloads, such as the search for water and fuel wood, is crucial if they are to spend more time on the gardens, fields and conservation agriculture. Women living in drylands are particularly concerned as they usually have to walk longer distances to collect water and fuel wood and take on more farming responsibilities in the absence of men.

What lessons can we draw from the case studies?

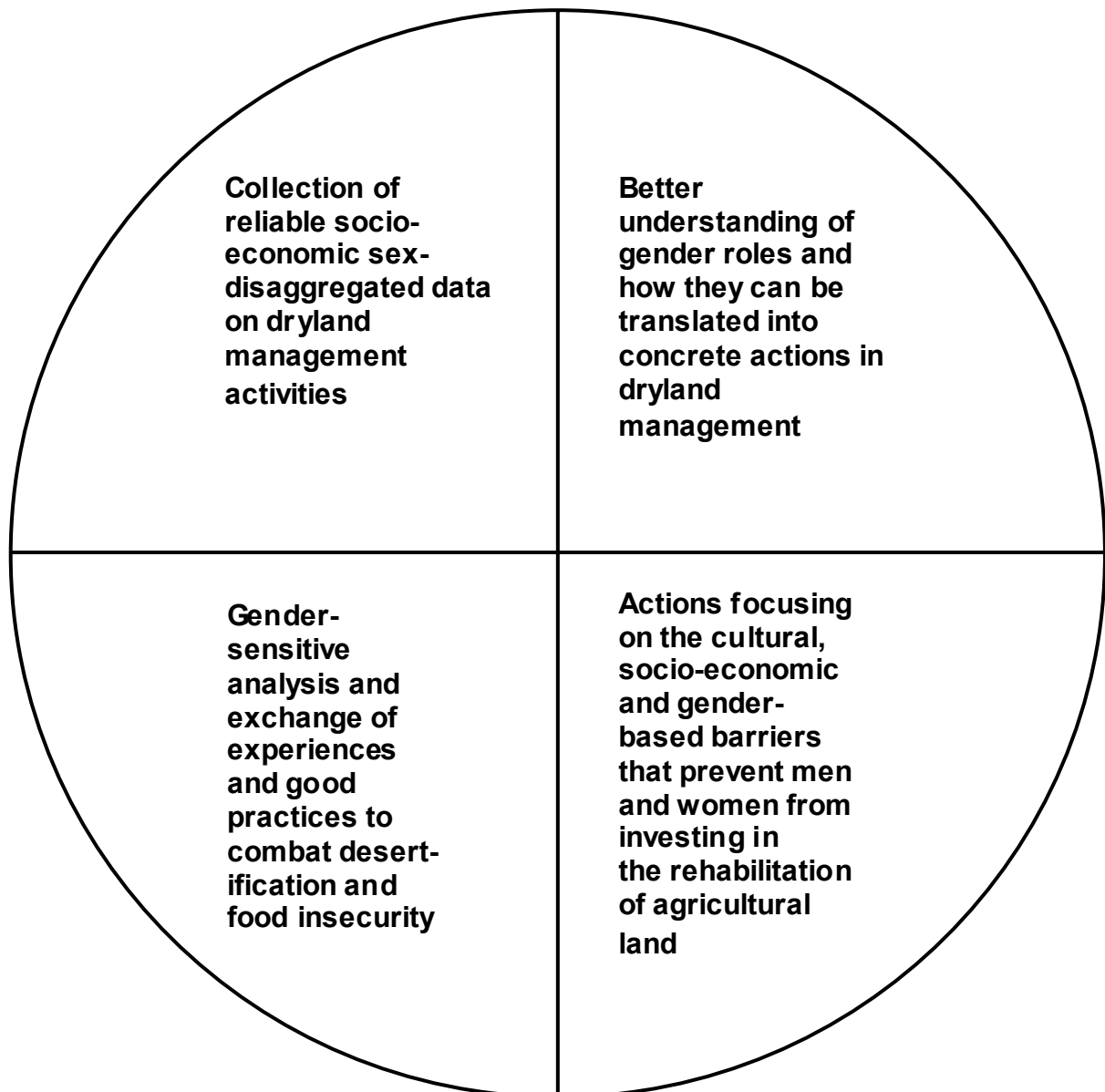
The 50 case studies that were examined show how it is important to:

- ❖ **Involve local women and men.** In the design of dryland management projects, a lack of understanding and appreciation of complex social and cultural factors is often coupled with disregard for the priorities of the resource users, both women and men, who are the targets of programmes. Recognition of the weaknesses of such a top-down approach led many projects to undertake intensive participatory exercises. As a result, local land use management arrangements that increase women's and men's authority over resources were promoted, indigenous knowledge was valued and special attention to local priorities was given. This demonstrates how local women and men can be empowered and supported to assume greater local control over resources. [*Burkina Faso; Niger; Niger and Senegal; India – Tamil Nadu; Mali*]
- ❖ **Raise awareness and provide education.** Cultural values, social practices, indigenous knowledge and a clear understanding of the environmental issues and economic status of the communities determine the acceptance rate of improved technology in any given community. Awareness raising and education aimed at attitudinal change is effective in bringing about change. For instance, the *Burkina Faso, Niger and Senegal* field experience promoted improved cooking stove designs as a way of combating deforestation. Women rejected some of the new stoves because they did not take specific technical food preparation factors into account, while other models were widely adopted and resulted in dramatic savings in wood biomass and in women's fuel procurement efforts. In *India – Tamil Nadu* local women rejected improved post-harvest technologies (which are very important in drylands where agricultural production is mostly seasonal and storage is necessary) and continued to use traditional tools and techniques.
- ❖ **Encourage conservation through income generation.** Associating credit facilities with natural resource management efforts is one of the best ways of encouraging rural women and men to take an interest in environmentally sound activities. Some projects used economic activities as a way of encouraging the conservation of specific trees and shrubs that help to combat desertification, thereby improving land conservation practices (karite butter in *Burkina Faso* or oil from the argan tree in *Morocco*). The *Burkina Faso, Niger and Senegal* programme promoted dry-season gardening, which was virtually unknown in most of the Sahel before the current reduced rainfall period began in the late 1960s and has since become a vital source of household nutrition and women's revenue, where the availability of irrigation water permits. In Senegal more than 80 percent of garden production was commercialised in programme-assisted areas.

- ❖ **Strengthen local institutions.** Some field experiences promoted credit facilities through traditional women's mutual assistance groups and were successful in increasing household food security. However, when the programme interventions ended, the local institutions were often not yet strong enough to continue the credit schemes, resulting in declining repayment rates and little new activity. [*Burkina Faso, Niger and Senegal*]
- ❖ **Promote sustainability.** The field experiences show that it is essential to promote both empowerment and the cultural traits that lead to sustainability. However, focusing on the traditional roles in order to improve the sustainability of drylands carries the built-in danger of reinforcing gender gaps. Both men and women will have to work hard at developing the values and fostering the attitudes and behaviour patterns consonant with more sustainable forms of development (FAO, 1997).
- ❖ **Integrate and coordinate projects.** Although the interlinkages among agricultural production, poverty alleviation, land conservation and gender mainstreaming are understood and accepted, most projects (and policies) addressing desertification have lacked coordination and stem from separate initiatives in the social, economic and environmental spheres. In order to achieve greater impact and effectiveness, projects and policies will need to integrate these spheres. [*Burkina Faso, Niger, Niger and Senegal; China*]

Recommendations

In order to encourage a gender-responsive and sustainable development of drylands, four key-priorities **for immediate gender-responsive action** are presented, to be undertaken and coordinated at international and national levels. These priorities should be associated with the more specific recommendations illustrated below.



The following recommendations emerge from an analysis of the field experiences. Possible actions in the drylands should consider the following:

☑ Sex-disaggregated data on dryland management activities

- collect reliable socio-economic sex- and age-disaggregated data on dryland management activities, making them available for decision-making processes. Increased gender-sensitive analysis, capitalisation and dissemination of knowledge are required with emphasis on sharing experiences and good practices to combat food insecurity and desertification.

☑ Integrated and gender-responsive approaches

- ensure that an integrated approach is used and that projects and policies integrate the agricultural production, poverty alleviation and environmental protection spheres. In order to combat land degradation in a sustainable and viable way, human activities and natural variations also need to be considered in an integrated manner. Although the inter-linkages are widely understood and accepted, most projects (and policies) developed to address desertification lack coordination and stem from separate initiatives in the economic, social and environmental spheres.
- ensure that projects are designed and implemented with a true gender approach that takes into account the relations between men and women and their impact on dryland management practices, while avoiding separate women-specific activities that risk marginalizing women further and reinforcing traditional roles. It is important to transform mainstream development activities so that they take into account the wider socio-economic context, genuinely promote gender equality and address gender gaps.

☑ Programmes and projects with a gender perspective

- promote full participation of rural women and men in research, planning and decision-making at all levels, especially the most disadvantaged and the voiceless, including women. As women and men play a key role in preserving their land, the land will be more likely to meet their needs, and the needs of their families and communities, for food security;
- take into consideration rural women's and men's indigenous knowledge (e.g. biodiversity, technological innovations), as well as the challenges they face;
- promote and build on local dryland use management, with the aim of supporting local women and men in combating desertification;

☑ Gender-sensitive knowledge of the environment, degradation and poverty nexus

- increase awareness and knowledge concerning desertification and drought;
- gain knowledge about the ideal and the real roles of rural men and women in dryland management, notably through a gender analysis, and of the various difficulties that different individuals and groups face in gaining access to productive resources;
- encourage further research and information from which to obtain a solid understanding of these roles and relationships with environmental resources, as well as their rights and roles in resource planning and management;
- sensitise project staff and extensionists, as well as technical experts to gender issues in dryland management. This is particularly critical in dryland areas where men and women may have to adopt new roles, survival strategies and techniques to achieve food security for their households, exploiting the dryland's potential while conserving and regenerating the natural resource base;
- acknowledge and incorporate the gender-specific impacts of drylands degradation and misuse.

☑ Removing barriers to women's and men's efficient management of drylands

- improve women's and men's access to and control over productive resources, such as land, agricultural support services, as well as access to education, markets, etc. Promoting a better access to resources can contribute to women's and men's empowerment, and makes them better equipped to deal with the extreme conditions of degraded drylands;
- free up rural people, especially women, from heavy workloads, such as the search for water and fuel wood. Enormous improvements in land productivity can be achieved if women are freed up from the search for water and fuel so that they can spend more time on their gardens and fields and caring for their families.
- develop informal sector enterprises and alternative livelihood possibilities through making credit available to both women and men, and to ensure that local institutions are able to continue providing credit facilities in the post-project phase, for instance through financial training and continued on-site technical assistance.

3. The field experience case studies

The following descriptions of 12 case studies were selected from a total of 50 field experiences dealing with gender and drylands, which were identified via a search on the Internet. The field experiences are presented in alphabetical order of country and each is followed by an Internet address from which further details can be obtained.

Burkina Faso

Burkina Faso is one of the poorest countries in the world, with more women than men living in poverty. One of its most important resources is the karite nut, which is its third largest agricultural product export and has many uses, including processing into karite butter.

Although the production of karite butter is traditionally an exclusively female activity, women have had no control over its marketing and have been limited to selling small quantities locally. Recently, however, the Songtaaba Women's Group has been transforming karite butter from a subsistence, informal sector activity into a systematized cottage industry, in which men have started to participate.

Under the Songtaaba system, karite is processed by semi-industrial machinery in urban areas and by manual presses in rural areas. Throughout Burkina Faso, 2 000 women have been trained to treat, collect and transform karite into butter and related products. Women workers are paid according to the task and their availability. They are given flexible working hours and are organized into teams. Through the association, women are able to gain access to credit for the first time. The association has also established a special fund to help members who are experiencing particular difficulties, such as a death in the family, medical emergencies or the need for help with school fees. In addition, Songtaaba gives training in management, literacy and family planning.

As well as generating increased incomes, new jobs, new skills and opportunities, the commercialisation of karite is helping to fight desertification and abusive woodcutting. Now that the tree's economic value is increasingly recognized, landowners and farmers are determined to protect it, and people are being sensitised to the need to preserve natural resources in general. This leads them to find ways to reduce deforestation, including improved wood-burning stoves.

Source: Ashoka. 1998. *Songtaaba Women's Group – Case Study*:
{ HYPERLINK "http://www.solutions-site.org/cat9_sol66.htm" }

Burkina Faso, Niger, Senegal

The Sahel Programme was financed by SIDA and implemented, in collaboration with UNSO, between 1983 and 1994 in Senegal, Burkina Faso and Niger. It aimed to address declining productivity and a degraded natural resource base – significant problems in these countries, where most of the population is dependent on rain-fed agriculture and/or herding activities.

After a shaky start, in which a top-down approach to increasing woody biomass failed to include resource users in decision-making or address their concerns, programme activities were reoriented at the start of the third phase

in 1990. The programme evolved by advocating the promotion of local land use management arrangements that increase women and men users' authority over resources, value indigenous knowledge and meet local priorities through agroforestry, natural regeneration of local tree species, soil and water conservation, credit and on- and off-farm income-generating opportunities.

Its main activities and achievements were:

- income-generating activities, through the support of dry-seasoning gardening which has become a vital source of household nutrition and women's revenues throughout the region;
- energy conservation, through the design and diffusion of 100 000 improved cooking stoves in Burkina Faso (and 1 692 in Niger), resulting in annual fuelwood savings of 210 kg per household;
- resource management, through introducing women to the possibilities for agroforestry and environmental action, including the training of 1 200 village women in nursery and tree planting techniques;
- land reclamation, through the rehabilitation of a 900-ha watershed in Senegal by some 200 local farmers (mostly women) who worked for four years to slow water runoff and establish tree seedlings in what has now become a green and productive valley;
- credit, through traditional women's mutual assistance groups in Niger, which allowed women to establish animal fattening enterprises, dry-season vegetable gardening and dryland development activities, and through a similar programme in Senegal in which 60 percent of the funds were allocated to women.

The main conclusion that can be drawn from the programme is that the resource users, men and women, constitute both the start point and the end point of all efforts to combat desertification. Women and men resource users are motivated by both self-interest and solidarity, stimulated by new opportunities, enabled by adequate policies and supported by facilitating partners in development.

Source: UNSO. 1997. Lessons from the field for the Implementation of the UNCCD. { HYPERLINK "http://www.undp.org/seed/uns/lessons.htm" }

China

More than 80 million Chinese people live in poverty, mostly in the rural areas of central and western China or in the remote mountains where drylands are prevalent. Increasing population, industrialization and urbanization are leading to a continuously rising demand for land resources, and the decreasing availability of usable land sets a limit for the country's sustainable development. The need for sustainable agricultural production techniques that can be used by local communities to ensure food production without endangering natural resources has led women's groups to engage in efforts to develop new methods for combating desertification and eradicating poverty.

Local women recognize that desertification can only be combated successfully when efforts are focused on integrated dryland development. In addition to their land reclamation efforts, women lead development efforts in other fields such as health and education. As one woman leader says: "If we want to be richer, not poor like today, we must increase the education

and knowledge of our younger people. Because if they are educated, they will understand the seriousness of desertification and, if they want to reclaim the desert, they must have the knowledge, they must be educated.” In striving to ensure quality education for the children in the local villages, this woman leader obtained a grant from a donor in Hong Kong and a new school is now preparing boys and girls for their future participation in dryland development.

Source: UNSO. 2001. Women and desertification in China.

{ HYPERLINK "<http://www.undp.org/seed/unso/women/>" }

India – Tamil Nadu

In India, dryland agriculture is an important source of livelihood but, while it accounts for more than 70 percent of the country’s cultivated area, it contributes only 42 percent of the national food basket. One important aspect of dryland agriculture is that production is seasonal, which means that grains must be stored for long periods by traders, procurement agencies and consumers. Research into post-harvest practices in Tamil Nadu, India has revealed that these activities – as with most of the key operations in agriculture – are largely the responsibility of women. For this reason, local women should be consulted when new post-harvest techniques are devised.

Numerous post-harvest technologies, including improved material and better equipment, have been introduced to make processes faster, easier and more profitable. However, the majority of rural women continue to use traditional tools and techniques for many post-harvest operations. Such indigenous knowledge is highly valued, since in many cases the new tools and techniques are not available or are beyond the means of the farmers.

Research identified 19 indigenous post-harvest technologies used by local farmers. According to the rural women, traditional practices are handed down from generation to generation, usually by word of mouth. They are perceived to be economically feasible and user-friendly. Indigenous post-harvest tools are made by local artisans, using low-cost resources that are locally available, and they are easy to repair and maintain. As a result of these advantages, traditional post-harvest operations became the starting point for designing appropriate and improved new technology for sustainable agriculture.

These experiences demonstrate clearly that local women and men are the innovators of agricultural technologies. When new post-harvest technologies are devised, they should be consulted first, because they are the real experts, as well as the ultimate users.

Source: Indigenous Knowledge and Development Monitor (IKDM). 2000.

Dryland and post-harvesting practices in Tamil Nadu, India.

{ HYPERLINK "<http://www.nuffic.nl/ciran/ikdm/8-1/parvathi.html>" }

India – Telengana, Andhra Pradesh

The rain-fed drylands of the Telengana region are among the poorest and least developed in the Indian state of Andhra Pradesh. Agriculture in these areas is constrained by low productivity, lack of an assured supply of inputs, lack of technologies and cropping systems suited to dryland conditions, poor resources and inadequate extension and support services; and the situation is deteriorating as rapid desertification takes hold. As is often the case, women

are the worst affected by the resulting conditions of chronic hunger and poverty and male migration in search of work.

The UNDP Food Security programme aims to promote self-sufficiency in food availability and raise the purchasing power of the poor through the endowment of land and non-land assets and the generation of employment opportunities. It also addresses the feminisation of agriculture and the increasing burden of household food security on women in Telengana. The overall objective is to enable women farmers to exploit the productive potential of rain-fed drylands and achieve household food security while conserving and regenerating the natural resource base.

The focus of the project's strategy is to create synergy between women's labour and degraded fallow lands. By investing their labour in using sustainable technologies and practices to grow staple food crops on fallow lands, landless women farmers can address the following critical issues:

- Bringing fallow lands under cultivation will result in increased overall food production.
- When they cultivate food crops for their own consumption, women become less reliant on market mechanisms for household food security.
- Sustainable practices help to improve the productivity of fallow lands and regenerate natural resources.
- Increased access to work opportunities and foodgrains leads to increased bargaining power with employers/landlords, particularly regarding equal and minimum wages.
- When women use their existing knowledge and skills while they learn new ways of farming and experimenting with new technologies, they gain recognition as farmers in their own right.
- Given the vagaries of the monsoon, it is necessary to reduce women's total dependence on agriculture by supporting them in setting up small enterprises and business ventures, often using their traditional non-farming skills.

As women build their competence in agriculture, they feel more confident to diversify into animal husbandry and horticulture. The programme provides direct support to women farmers to set up backyard poultries and small vegetable gardens to provide supplementary food for their families, with surpluses sold in the village market.

Source: UNDP. 2001. Sustainable dryland agriculture in Andhra Pradesh.

{ HYPERLINK

"<http://www.undp.org.in/Programme/FOODSEC/apwomen.htm>" }

Kenya

In Ngurunit, a rural community in the semi-arid lands of Kenya's Northeastern Province, women are largely responsible for collecting fuelwood and water, among other farming activities, which include herding, and managing livestock. In the past, it took a trip of about four hours from Ngurunit to reach water sources, and when resources dried up, women had to carry out the extra work involved.

In response to this, and in order to improve their livelihoods, rural women have organized themselves into groups with the aim of overcoming the obstacles to their activities: lack of access to water; low agricultural production; and the under-representation of women in decision-making for a.

They have tackled the water shortage in Ngurunit by trapping water from the Ndoto Mountains and piping it to three tanks to supply a source of drinking-water. In doing this, the women have also launched a successful collective effort to combat desertification.

This is not the only example of rural women's successful community participation in Kenya. The Harambee (self-help) movement has existed since independence and has greatly contributed to development activities initiated by women. One of its most famous initiatives is the Green Belt Movement, started in 1977, which aims to prevent the destruction of forest areas. As well as conserving trees, many women are involved in replanting areas of deforestation or desertification. One of Harambee's strategies is to mobilize women to take charge of their environment and meet their needs and those of their families.

Source: EU. 1998. Women tackle desertification in Kenya. *The Courier*, No. 172, nov 98.

{ HYPERLINK

"http://europa.eu.int/comm/development/publicat/courier/courier172/en/076_en.pdf" }

Mali

In order to mainstream gender in natural resource management projects, the World Bank's Natural Resource Management Project in Mali does not address gender issues by targeting separate components to women. Rather, the entire project staff handles gender issues in day-to-day operations. The project pays particular attention to gender in its skills development programme, decision-making and management processes. It specifically provides for village-level consultation with women and women's groups on community development activities related to: location and operation of water points; land-use planning; livestock movement and management choice; and location and operation of collective infrastructure, such as food-processing equipment. To ensure that the conclusions of these consultations are observed, a "women's veto right" has been instituted in these key areas. In addition, the project addresses gender issues in:

- promoting village participation;
- training;
- land tenure;
- choice of appropriate technology;
- monitoring and evaluating.

Source: World Bank. 2001b. *Mainstreaming gender in natural resource management in Mali*. { HYPERLINK

"<http://www.worldbank.org/gender/module/cases/mainstrm.htm>" }

Mauritania

Mauritania is a vast country, mostly covered by the Sahara desert. After two severe and prolonged droughts in the last 20 years, many nomads have been forced to give up their nomadic lifestyle and settle where they could get aid. The resulting pressure on natural resources (e.g. ten times as much wood is cut for fuel than is replanted) has led to new challenges, but also new hopes for the settled nomadic women and men.

Through a programme supported by UNSO/UNDP, women have taken the lead in the crucial stabilization of sand dunes by organizing themselves into planning committees that provide vital links between the village and the

authorities. In just three years, the women in one small settlement have covered 80 ha of dune, enclosing it with brushwood fencing that they made themselves. Within the protected enclosures, the women have planted trees which stabilize the sand dunes. The women also produce vegetables to ensure proper nutrition for their families.

In this very traditional culture, women's involvement in the project has earned them new status. As one woman says, "The best part of it is my life today. Before all a woman did was prepare the food her husband brought her. Today I know what's going on. I work, and my work is worth a lot to me and earns me money. My husband doesn't even know where it comes from."

Source: UNSO. 2001a. Women and desertification in Mauritania.

{ HYPERLINK "<http://www.undp.org/seed/unsowomen/>" }

Morocco

The argan tree is the second most common tree in Morocco. It is very resistant to drought and heat and grows wild in the arid and semi-arid regions of south-western Morocco, where it plays a vital role in maintaining the ecological balance and preserving biodiversity. It also helps to retain soil and assists in combating water and wind erosion. In addition, the argan tree is important to the local economy: wood is used for fuel, leaves and fruits provide forage for goats, and oil extract is used in cooking, traditional medicine and cosmetics. The tree supports some 3 million people.

Unfortunately, in less than a decade, more than a third of the argan forest has disappeared, and its average density has declined from 100 to 30 trees per hectare. In collaboration with the Université Mohammed V of Rabat and the Institut Agronomique et Vétérinaire Hassan II of Rabat, IDRC has initiated a project to improve the tree's production potential, so that it can regain its key position in the agricultural systems of the region, thereby preventing further environmental degradation and improving the economic well-being of people in south-western Morocco, particularly women.

The project's main objective is to establish and support local women's cooperatives that will work to increase the production and marketing of argan oil. Project activities focus on training women in techniques for processing argan products, management and accounting, and literacy. So far, the project has had some very significant results, including:

- improving Moroccan women's socio-economic situation, through job creation and income-generation;
- raising women's awareness of their rights;
- reforesting argan forests, with the support of women's cooperatives;
- promoting regional tourism.

Source: CGIAR. 2000. Helping Moroccan Women Preserve the Argan Tree at the Gateway of the Sahara. IDRC Project Number 978602.

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"http://www.idrc.ca/reports/read_article_english.cfm?article_num=659" }

Niger

In the early 80s, Keita District (Tahoua Department) was considered to be a region with grave problems of land degradation. A major effort was needed to reverse degradation and improve the local economy. The "Keita Project" was financed by the Italian Government and implemented by FAO, with support from the World Food Programme (WFP). Desertification

control was a vital element of the project, and the planting of trees and the participatory approach have played a constant and major role. Between 1984 and 1993, the project benefited from 6 million man- and woman- days of work on planting trees, digging wells, erecting dune fences, etc. (men only represented 5 per cent of the labour force, mainly because of immigration, a proportion that changed into 35 per cent in 1989). The project also provided training and helped villagers construct new schools, roads, community centres, clinics and mills.

From the very first phase, it was clear that it would be essential to work with the people and to understand issues such as husbandry and land use, the mechanisms of land degradation, the various roles of trees and the potential of people and communities. This analysis resulted in a better understanding of the real problems and potential of the region - which were very different from the initial assumptions - and guided the subsequent choice of methods for rural development. The project recognised the crucial role played by women in combating desertification. It facilitated women's access to income-generating activities (garden and fruit production fruit, sheep production, etc.) and promoted their participation to local and national organisation activities. Time-saving technologies, based on surveys were introduced by the project.

Experience in Keita has shown that the popular recognition of the many products and socio-economic services provided by trees in the region, makes it easy for extension services to develop readiness and generate interest for introduction or reintroduction of trees by local communities.

Source: FAO. 1994. Le projet de développement rural intégré de Keita –

Projet financé par la coopération italienne { HYPERLINK

"http://www.fao.org/docrep/x5306f/x5306f00.htm" }

South Africa

The Herschel district in the eastern drylands of South Africa suffered vast degradation during apartheid as people were forced to settle in generally low-productive areas. The decline of the rural economy of this district had a major impact on the urban environment as generation after generation migrated to the city in search of an income.

In its implementation of the Convention to Combat Desertification, South Africa is emphasizing the role of women in the National Action Programme process. Work has been initiated to promote alternative livelihood strategies. Among the many new income-generating activities that women in rural communities have developed is the production of traditional reed mats, which is being commercialised for use in the construction of a campsite for tourists. This is leading to new income for rural families, reduced pressure on natural resources and the increased active participation of women in planning and decision-making.

Source: UNSO. 2001b *Women and desertification in South Africa*.

{ HYPERLINK "http://www.undp.org/seed/unso/women/" }

Sudan

Land in the El Odaya area of Sudan is intensively used for agricultural production and livestock raising. Overgrazing and agricultural expansion have contributed to significant land degradation. A general decline in soil fertility caused by the reduction of fallow periods has also occurred.

Continued population growth, livestock raising and increasing demand for agricultural land are likely to intensify land degradation.

The basic aim of the UNDP/UNSO project was to establish an institutional structure to promote individual and community involvement in the regeneration, conservation and proper management of natural resources. This was achieved through the establishment of Village Council Development Committees (VCDCs) that provided a framework through which local people would be able to manage environmental resources in a sustainable way. The project was designed to follow a “bottom-up”, participatory approach incorporating the following activities:

- facilitating the establishment of women’s subcommittees within each VCDC;
- involving VCDCs in strategic resource management planning for water harvesting and conservation, range management, village nursery establishment, soil conservation, range rehabilitation, agroforestry, construction of grazing enclosures, creation of fire lines and reservoirs;
- training communities in environmental management methods, income-generating activities and VCDC organization;
- establishing a revolving fund to support income-generating activities (at least 25 percent of the fund was devoted to activities undertaken by women).

Through the women’s subcommittees, women were integrated into local environmental activities, thereby gaining power, access to and control over community resources. Training and access to revolving funds facilitated women’s participation in income-generating activities, and they participated in health activities, improved stove fabrication, soap making, tailoring and leather craft training. Access to credit represented another key method of strengthening the role of women.

Source: UNSO. 1990. Integrated resource management for desertification control.

{ HYPERLINK "<http://www.undp.org/seed/unso/lessons.htm>" }

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This document, prepared for the FAO Gender and Population Division, looks at the relationship between gender and dryland management, based on an analysis of relevant field experiences identified through a wide search of available materials on the Internet. The analysis focuses on gender and sustainable development in drylands in Africa and Asia, highlighting the roles of women and men for food security and land conservation.

Overall, the analysis of the field experiences in the dryland areas clearly demonstrates that transformation of gender roles due to environmental change are commonplace. In fact, in the face of dryland degradation processes, local women and men have adopted new roles, survival strategies and techniques to achieve food security for their households, exploiting the drylands potential while conserving and regenerating the natural resource base.

The document also outlines the main findings related to drylands, desertification and poverty; gender roles in drylands and gender roles in biodiversity and land conservation; as well as key lessons learned regarding sustainability, awareness raising, income generation, participation and empowerment.

Priorities for immediate action include: collection of reliable socio-economic sex-disaggregated data on dryland management activities; better understanding of gender roles and how they can be translated into concrete actions in dryland management; gender-sensitive analysis and exchange of experiences and good practices to combat desertification and food insecurity; implementation of actions focusing on the cultural, socio-economic and gender-based barriers that prevent men and women from investing in the rehabilitation of agricultural land.

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