

Gender and desertification

Expanding roles for women to restore drylands



Enabling the rural poor to overcome poverty



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Introduction

Desertification refers to the process of land degradation that results from various factors in arid, semi-arid and dry sub-humid areas. It is a process by which drylands lose their productive capacity, leading to food insecurity and poverty, in a cause-effect relationship. Characterized by climate variability, these lands sustain pastoralists and small-scale farmers, but are susceptible to desertification as a result of increasing human population, inappropriate government land-use policies, settlement, climate change, deforestation, expropriation of rangelands, land clearance, overgrazing, inappropriate irrigation practices, political instability and poverty. The livelihoods of over 1.2 billion people inhabiting dryland areas in 110 countries are currently threatened by drought and desertification.

Over the past 23 years, IFAD has committed over US\$3.5 billion to support dryland development and combat land degradation in developing countries. Of IFAD-supported projects, 70 per cent assist pastoralists and small farmers in ecologically fragile, marginal environments such as rangelands and rainfed croplands through small-scale irrigation, agroforestry, fruit-tree plantation, community-based natural resource management, rural infrastructure and off-farm income-generating activities.

Recognizing the link between desertification and poverty, the United Nations Convention to Combat Desertification (UNCCD) stresses the importance of a “bottom-up participatory approach in identifying, implementing, monitoring, and evaluating projects that combat desertification and mitigate the effects of drought”. The year 2006 has been designated the International Year of Deserts and Desertification to provide opportunities to highlight the difficult conditions faced by women and men living in areas affected by desertification.

In many of the world’s drylands, including much of Africa, women’s traditional roles and knowledge in natural resource management and food security are particularly crucial. They are thus severely affected when erosion and diminished soil fertility result in decreased crop and livestock productivity and lessen the sources of income derived from these products. Yet, despite their roles and extensive knowledge, women living in drylands (who tend to rank among the poorest of the poor) often face constraints in their efforts to care for their families and for the lands on which they depend.

Desertification has had an impact on women’s lives in various ways. Workloads and responsibilities have increased

significantly, particularly if men have left the home or migrated. In addition, women's already limited access to productive assets, including land, water and livestock, has decreased, straining their abilities to assure the survival of their families and manage natural resources. Because ownership and decision-making over land and livestock have remained predominantly the domain of men, women are often excluded from participation in land conservation and development projects, from agricultural extension work and from the overall policy-making process.

Since its adoption in 1994, the UNCCD has been recognized as the only multilateral agreement on the environment that addresses gender issues, because of its explicit focus on the roles of women (Poulsen, 2003). Though many countries have implemented activities to foster women's empowerment or gender mainstreaming as part of their national action programmes, others have not yet developed plans to promote gender equality. The Millennium Development Goals and the International Year of Deserts and Desertification urge governments to take action on reducing poverty and promoting gender equality. The Millennium Declaration has reconfirmed the commitment to gender equality already

embodied in the Convention on the Elimination of All Forms of Discrimination against Women and the Beijing Platform of Action and presents new opportunities to link solutions to poverty with gender equality.

Over the years, IFAD has provided financial and technical support to initiatives that specifically target women's active participation in the implementation of dryland management. The experiences gained through several of these projects, combined with reports of other agencies and individuals, provide insights that encourage broader and more significant support for the commitments made in the UNCCD to strengthen the roles of women at all levels of implementation of the Convention.

This review examines the impact of desertification on women, their role in the management of natural resources and drylands, and the constraints they face. It presents the experiences of several IFAD-supported programmes and projects in addressing women as natural resource users and managers in dryland areas, and highlights some of the approaches used to reach women more effectively. It also presents lessons learned from IFAD programmes and projects, and recommendations for expanding women's roles in order to restore dryland areas.

Impact of desertification and drylands projects on women

WORKLOADS AND RESPONSIBILITIES

In addition to caring for their families, women across the developing world spend considerable proportions of their time and energy using and preserving land for the production of food and fuel and to generate income for their families and communities. These activities include crop production, growing fruits and vegetables, raising small livestock, tending trees, processing products for food and markets, and managing and collecting water and fuel. Women are usually responsible for the plots in which food crops are grown, while men are responsible for the plots on which cash crops are grown. The latter account for a major part of the threat of soil nutrient depletion and desertification.

Women are significantly affected when erosion and diminished soil fertility result in decreased crop and livestock productivity, thereby reducing the sources of income derived from these products. Beyond the deterioration in the physical environment, women claim that desertification has changed the entire context of their lives (Leisinger and Schmitt, 1995).

Besides the resulting increase in workloads, women are particularly affected by the migration of growing numbers of men. As environmental conditions worsen, more men migrate for longer periods, sometimes even permanently. Meanwhile, household and farm chores are becoming not only more difficult,

but also more crucial to survival. The migrating men are contributing less and less to family incomes. Women are therefore trying to expand their productive role to earn incomes and ensure living standards above mere survival for their households.

As women increase their contributions of farm labour and household maintenance, they are also becoming responsible for more decision-making if long-term migration means that major decisions, such as the purchase or sale of livestock or changes in cropping patterns, cannot wait for the men's return. Women are becoming de facto heads of households, and this is increasing the vulnerability of families to extreme poverty as women assume traditionally male responsibilities without the same levels of access to financial, technological and social resources. Women's workloads and responsibilities have become greater, but women have not enjoyed a corresponding rise in influence and opportunities.

KNOWLEDGE

Women in dryland areas, as in other ecosystems, are an important source of knowledge related to environmental management for medicines, food and water. Indigenous knowledge systems are particularly vital to the maintenance of these environments, in which residents have learned how to survive

in harsh and variable conditions. Through their responsibilities in relation to both crop and wild resources, women have developed valuable knowledge about environmental sustainability and – critical in areas of desertification – survival mechanisms during times of drought and famine. However, these knowledge systems are themselves under threat, as dryland areas are affected by modernizing forces that devalue traditional practices and the special roles of women in natural resource management.

ACCESS TO PRODUCTIVE ASSETS

As the Millennium Project Task Force on Environmental Sustainability has noted, “when women lack the knowledge, means or authority to manage the natural resources on which they directly depend, degradation of these resources is more likely to occur” (UNDP, 2004).

Women seldom have control over productive resources such as land, credit, agricultural inputs, training and extension services. Their productive assets, including their labour and output, are generally considered to be less valuable than those of men, though this perception varies between nomadic and sedentary societies.

Land

Secure access to land and the related productive assets is basic to lasting solutions to hunger and poverty. In countries where women do not have secure access to land for example, women are effectively denied access to the information, technologies and resources that would enable them to engage in more environmentally sustainable practices.

In dryland areas, there are differences in responsibilities, user rights, legal status, the division of labour and decision-making between men and women in relation to land. In many African societies, women’s lack of rights to land ownership denies them user rights as well, including rights to plant trees and build soil control measures. This lack can be based on customary or statutory law. The right to plant trees, for example, is linked

to one’s status as a member of an autochthonous population group (which has priority rights of access to all natural resources, including land and water), as opposed to an allogeneous population group, and thus applies in the same way to women as it does to men. Of course, in patriarchal (patrilocal) societies, women “marry out” to their husbands’ villages and are thus less likely to be autochthonous and have fewer rights (Messer, 2001). Nonetheless, women are actually more likely than men to be in charge of tree husbandry, and investments in trees can be used as a vehicle for improving the long-term use rights of women to natural resources. These rules are often tightened as the resources grow scarce.

Women are often assigned the more marginal, fragile and degraded lands. In traditional agrarian societies in West Africa, for example, the right to use a given plot of land is earned by investing time and other resources in the plot. This is why women’s labour constraints are of primary importance and why techniques such as conservationist agricultural practices (zero tillage) hold much promise for contributing to secure women’s land-use rights.

Soil degradation results in less land for agriculture and more competition for relatively good soil. From a survey of Sahelian women, we know that many women complained that, since the droughts, they had difficulty getting access to land: “a man first takes a field for himself..., then he gives us whatever is left. It is almost always exhausted land on which equally exhausted women toil” (Monimart, 1988).

Women’s enduring lack of land titles means that most women are without the collateral required by banks to receive credit and loans. This lack of access to credit is often seen by women as the greatest constraint on income generation. Secure land tenure is a basic incentive for undertaking agricultural investments, such as investments in irrigation, crop diversification and the expansion of livestock holdings, that would bring greater gains to women farmers.

The experience of IFAD, for example in Burkina Faso and Ghana, has shown that, where a negotiated approach to public investments in soil fertility improvement has been used, it is possible to secure land-use rights for landless women and women's groups in a sustainable fashion and thus contribute to the creation of the enabling environment necessary to combat desertification. According to this approach:

- men who are the de facto landowners must benefit proportionally from the variety of investments offered by the relevant project
- there must be a consensus in the local village that enhancing soil fertility and erosion-control activities are a "public good" of intergenerational value
- a tripartite deal (between the landowners, the women and the project) must be struck in the presence of traditional authorities (who provide the oral guarantees) and local government representatives (who provide the written guarantees in the form of minutes)

- the resulting social control must be such that, if women abide by community rules and continue to use the land provided by the landowners every season according to these same rules, it will be unacceptable for the landowners to reclaim it (World Bank, 2006)

Water

Lack of access to water is also a serious constraint that has grown dramatically in recent years due to the privatization of water services, poor service delivery and increasing population. It is dependent on land rights, control over resources, capacity, and social networks, all of which are more severely restricted among women than among men. Land allocation policy is thus crucial to understanding water rights and allocations. Local norms can curtail women's ownership and rights of access to water resources (Gender and Water Alliance, 2003). Experience has shown that water rights are generally appropriated by the

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"Partial participation" by women in irrigation programmes in the Gambia

Efforts undertaken through development initiatives have usually not been entirely successful in providing women farmers with secure access to irrigated assets. Sometimes, women obtain access indirectly or acquire irregular or seasonal access, but, even when they do obtain use of irrigated land, they may end up losing this access. When IFAD-funded drylands projects have attempted to ensure better access for women to irrigated land (for example, by designating the land only for women's crops), the crops are sometimes taken over by men, as in a rice irrigation project in the Gambia. And, yet, "partial participation" by women in irrigation projects may still benefit women. Women's consumption of water improved, for instance in the case of the Gambia, even though their control of assets and status did not increase. Women may also be able to use water for their livestock or their domestic needs even though they cannot use it for their crops. The indirect or poor access of women farmers to irrigation water is better than nothing, but it is not enough.

Source: IFAD, 2001b.

more powerful, and this does not lead to a proper distribution and use of water resources. There is often fierce competition for irrigated land, and, because they have less social or political power, women tend to be disadvantaged. The commonly held view that women cannot contribute fully to irrigation system maintenance excludes them. However, in some countries, women are as active as men in digging irrigation canals and maintaining them (IFAD, 2001a). In areas of water scarcity, women lose out unless gender-sensitive policies have been adopted (Venkataswaran, 1995). In addition, desertification forces poor women and children (most often girls) to travel ever greater distances from home to fetch water for domestic use and livestock (as well as for fuelwood), sometimes exposing them to violence and forcing girls to drop out of school to assist in these tasks. The alternative that many overburdened women are forced to accept is a severe shortage of water for consumption, which threatens the health of their families.

Livestock

The migration of men and the displacement of pastoral households (especially in Africa) increase women's role in livestock production; this trend is not usually recognized by government officials or extension workers. In arid and semi-arid areas, women's workloads in livestock production can often be greater than those of the average male farmer.

Women in Africa, Asia and Latin America are involved in petty trading, especially of milk products and live animals, and may have control over the revenues generated by such sales. Thus, livestock helps provide a safety net when other sources of income are not available. To break the cycle of women's poverty, focus should be placed on small-scale activities, milk-based products, small ruminants and other small stock.

In most pastoral societies, milk is a main component of household nutrition. As a consequence of sedentarization, drought and land degradation, herd sizes are declining, resulting in increasing malnutrition among children and women. In addition, where milk is

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Vulnerability reduction in the Niger

In the Project for the Promotion of Local Initiative for Development in Aguié, the Government of the Niger and IFAD have inserted a gender component, to address vulnerability more effectively. The project area is characterized by drought, chronic malnutrition and low incomes that are the major causes of vulnerability. Vulnerability affects more women than men because of the increasing economic responsibilities, lower educational levels and heavier workloads of women.

The project has introduced innovative approaches based on existing strategies proposed by the local communities. Those approaches having greater impact on women are:

- Support for small and medium livestock breeding. Women's groups have received inputs to start goat breeding and have participated in testing innovative initiatives, for example, the use of goat manure as a fertilizer. This approach resulted in income generation and also in improved yields. It had the advantage of being inexpensive and easily accessible to all social groups.
- Support for seed multiplication. Because of the scarcity of rain, short-cycle, high-production seeds were required. Women farmers were provided with seeds of a palm that prevents soil erosion and increases soil fertility. The by-products are used for handicrafts production to augment household incomes.
- Development of income-generating activities among women. Existing grain banks have been used to build up rotating funds for women's groups. Women have also been involved in income-generating activities, such as soap and hair cream making, knitting and embroidery.

In this particular environmental context, where crops are subject to climatic hazards and other natural constraints, the diversification of crop biodiversity greatly contributed to the success of the project in improving food security. In addition, sensitization about development issues and gender mainstreaming have been useful in mobilizing groups of women and men.

Source: IFAD, 2004a.

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Recognizing women as herders in the Tibetan Autonomous Region of China

A project documented by IFAD and conducted by Oxfam Hong Kong, in a highland desert area in the Tibetan Autonomous Region of China, has enabled women to participate actively in project planning and implementation by recognizing their roles as herders and reducing their labour burdens. Project staff first studied the gender division of labour related to project activities. The staff identified fertilizer application – a key issue for rangeland improvement – as a traditional task of women. Given the large size of the pastures, the project would have greatly increased women's workloads in fertilizer applications had no consideration been made at the outset of the project to the gender-related division of labour. Instead, the staff encouraged men to collect and apply fertilizer and offered technical training to women and men in fencing and grass propagation so as to reduce the labour required to apply manure to open, degraded pasturelands. The staff learned that gender integration was most successful when the project offered separate opportunities by adapting to women's schedules so that women could receive technical training and engage in decision-making. This participation led to a reduction in women's labour and raised the social status of women.

Source: ICIMOD, 2003.

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Men and women working together as extension agents in Mauritania

The IFAD-financed Oasis Development Project in Mauritania provides a noteworthy success story involving the provision of technical knowledge and services to women and men. An innovation of the project was to bring several couples (men and women farmers) from a similar ecological and socio-economic environment in Morocco to work for several months on a Mauritanian oasis. This exchange addressed men and women differently. Men and women learned new techniques and skills in irrigation, water conservation technologies, vegetable gardening, traditional crafts and the establishment of a bakery.

The project focused on the diversification of incomes in order to reduce vulnerability.

- Different kinds of seeds were brought from Morocco and plant testing was conducted. The agricultural extension component was addressed more at men, but new techniques in vegetable growing (in particular, carrot growing and date palm cultivation) were also taught to women's groups.
- New women's groups were created to learn and carry out the various income-generating activities introduced by the Moroccan couples. Among the innovations in traditional crafts were: weaving using camel hair, mat-making, food preparation (use of vegetables instead of meats) and the establishment of a bakery. The bakery had an immediate impact on the population and was generally accepted not only by women, but also by men. The huge number of ovens built by the Moroccan couples raised the problem of fuelwood, which is a scarce resource in the oasis areas, and some collective ovens using gas were tested to confront these environmental constraints.

One of the most interesting and successful aspects of this exchange has been the cultural impact. This revolved around not only the positive interaction between Moroccan and Mauritanian couples, but also the increase in the status of the Mauritanian women, who were fully involved in the new activities and demonstrated that they could contribute in a highly productive way.

Source: IFAD, 2000a.





scarce and most of it is sold to raise cash income women, more than men, tend to lower their consumption. This self-sacrifice, which is a typical response by women, increases their nutritional vulnerability in times of drought, civil strife and other stresses (Niamir-Fuller, 1994).

EXTENSION AND SUPPORT SERVICES

Despite their multiple, major roles in agricultural, water and forestry management, women are not able to access the full range of extension and advisory services, inputs and knowledge of new technologies that are provided to men in the same communities.

This is due to many factors, including:

- high rates of illiteracy
- lack of land ownership
- cultural restrictions on women's mobility and participation in public events
- an extreme shortage of free time to attend training sessions and meetings
- women's own lack of confidence
- commonly held gender biases in institutions related to these sectors that view only the men as the farmers and thus limit their outreach activities to men, wrongly assuming that somehow knowledge will be conveyed to women

A shortcoming of many agricultural extension providers is their neglect of women's multiple roles related to farm management, as well as household management. Many of these providers still assume (despite the contradicting empirical data) that men are the farmers, while women play only a "supportive role" as the spouses (Jiggins, Samanta and Olawoye, 1997).

The widespread tendency to target women for income generation and microenterprise instead of agricultural extension services may be due in part to the lack of land titles among women. This neglect of the roles of all rural women (not only the landowners) as farmers and livestock managers represents a missed opportunity that is common to many

agricultural projects. However, this is gradually changing as economists and agricultural professionals who design and implement projects become more knowledgeable about gender issues in development.

A scarcity of women extension agents has been reported in some IFAD evaluations. It was noted that project results could be much enhanced through the use of women extension agents and lead farmers to disseminate agricultural technologies and knowledge (Niamir-Fuller, 1994). In most countries of the world, professionals working in these sectors are usually men and often face difficulties in communicating effectively with women. As a result, existing support services and mechanisms are ill suited to women users.

In addition, many agencies involved in land-use and water management lack staff who are knowledgeable about gender concepts and tools, which limits the ability of the agencies to understand and respond to the gender aspects of project design and implementation.

FINANCIAL SERVICES AND MARKETS

Because of inheritance patterns or gender roles, women often undertake activities that require less capital. As both a cause and an effect of this, women's activities are often less economically profitable than those of men. This limits the potential of expanding women's activities and increases women's vulnerability in the face of shocks such as sudden shortages in food and water supplies, incomes, crop failures and natural disasters (Lambrou and Laub, 2000).

Farmers in drylands are disadvantaged by the lack of transport and limited access to markets and marketing opportunities. In addition to these disadvantages, women also face particular constraints because markets are rarely geared towards small-scale production or the crops grown by women. Another constraint is the lack of access among women to farmer

organizations and commercial networks, which tend to be controlled by and mediated through male relations. This can lead to a neglect of women's specific needs. Nonetheless, women very often have their own forms of organization, managerial competence and commercial acumen that can be tapped.

In many regions, women play an important role in traditional trade systems, but this role is tending to diminish as the modern market economy expands. Women's marketing opportunities may also be constrained by cultural limitations on their mobility. When marketing is done by men, women do not have control over the sale of their products and may not receive the full amount of the profits they have generated.

PARTICIPATION AND DECISION- MAKING IN COMMUNITY DEVELOPMENT

Women and men do not usually participate on an equal basis in decision-making on the management of community natural resources, which has led to the neglect of the specific roles and needs of women farmers. This has generated a fresh focus on women's groups as a means to grant women opportunities for capacity-building and decision-making. A recent study of 33 rural programmes in 20 countries found that the capacity for self-sustaining collective action was significantly greater in women's groups (Westermann, Ashby and Pretty, 2005).

Some case studies, such as those conducted in the Sahel in the 1980s (Rochette, 1989), demonstrate that women have performed desertification-related work intended for men, but without receiving the same training or other immediate benefits. In one case, women, not men, carried rocks and water for the construction of dikes to protect fields that belonged to men. In this case, women were proud of their work and seemed to overlook the fact that they would not be allowed to till the land that they helped rehabilitate.

This is substantiated by other reports of Sahelian women's pride in their new roles as household managers, and the increased self-confidence and strength that emanates from this status (Monimart, 1988). These examples of women's voices present an alternative image of women as decision-makers and managers, rather than merely as providers of labour.

Women as agents of change

IFAD combines gender mainstreaming with specific measures for women's empowerment and perceives women as agents of change. IFAD aims to concentrate its investments, research and knowledge management efforts, policy dialogue and advocacy on the attainment of three strategic objectives:

- strengthening the capacity of the rural poor and their organizations
- improving equitable access to productive natural resources and technology
- increasing access to financial services and markets

Investing in women is considered the most important approach in dryland areas, based on the need for high levels of poverty reduction and women's ability to work well in groups to manage external resources such as credit and natural resources.

Recognizing that women's vulnerability is experienced as an inability to influence the decisions affecting their lives, negotiate better terms of trade and barter, and make governmental organizations and NGOs accountable to them, IFAD seeks to enable rural poor women to take development into their own hands. Concretely, this implies:

- developing and strengthening organizations of poor women to confront the issues they define as essential
- increasing access to knowledge among women so that women can grasp opportunities and overcome obstacles

- expanding the influence that women exert over public policy and institutions
- enhancing the bargaining power of women in the marketplace

By funding the types of development and poverty-reduction initiatives needed to change the structures that generate vulnerability and inequality and in partnership with governments and local institutions, IFAD seeks to play a catalytic role in encouraging institutions to put rural poor women at the centre of their efforts.

RESTORING LAND PRODUCTIVITY

Within many IFAD projects, women's groups are re-establishing soil and land productivity by blending indigenous and newly introduced technologies. For example, a project in Ethiopia supports the development of women's vegetable gardens through the provision of seeds, hand tools and technical support (IFAD, 2004b). A project in the Sudan has responded to the needs of women by prioritizing community and extension activities that have eased the duties of fuelwood collection among women through the provision of energy-saving gas cylinders and stoves. Women in this desert area who had lost the seeds of valuable crops to drought were provided with indigenous peas to replace the seeds and crops (IFAD, 2004c).

5 Rebuilding soil productivity and reducing the workloads of indigenous women in China

The IFAD-sponsored Wulin Mountains Minority-Areas Development Project focused on one of the steeper, less fertile, less accessible and less developed mountainous areas of the People's Republic of China. This joint IFAD-World Food Programme project had a strong gender focus, and the loan agreement between IFAD and the Government clearly stated that women were a major target group; indigenous women were especially targeted due to their low literacy resulting from gender discrimination, inadequate access or lack of access to credit because most of their work was unpaid, and inadequate participation in leadership. The main project thrusts were:

- food and cash crop production, through a range of land-improvement activities, including the conversion of dryland to paddies
- livestock and fish production, through technical and financial support
- a women's programme: functional literacy and numeracy training, which focused on basic agricultural and husbandry skills, handling credit and improving nutrition and health care

Due to the area's desert-like character, the project emphasized organic farming so as to rebuild soil productivity, while reducing the need for costly fertilizers. Other factors contributing to the project's success were the association of credit with training designed to improve farming skills. This improved the ability of the farmers to repay loans and put a strong emphasis on empowering indigenous minorities by recognizing their specific poverty position and issues.

As a result of the project, women's workloads were reduced by two to three hours per day due to improved drinking water supply systems and the introduction of labour- and time-saving technologies. Small livestock husbandry provided additional income for food, school fees and clothing; drinking water systems and training improved hygiene and health; and women's self-esteem and social position improved due to the entrepreneurial success of the women.

Source: IFAD, 2005.

6 Revitalizing and enhancing women's indigenous knowledge: an IFAD strategy

Indigenous women have long been custodians of valuable indigenous knowledge related to the management of natural resources in dryland areas. They often create their own locally adapted and accepted rules for the use of the forests that frame their local institutions. Through a process of learning, IFAD has realized the importance of building on these strengths by revitalizing indigenous knowledge and blending it with modern technology. Starting with the Andhra Pradesh Tribal Development Project in India, IFAD-supported initiatives have aimed at revitalizing traditional soil and water conservation methods in its areas of intervention. Several efficient and low-cost indigenous technologies, such as percolation ponds and pitcher irrigation, have been revived, leading to assured water sources and considerably improving the livelihoods of indigenous women and their communities.

Source: IFAD, 2004d.

WOMEN'S ORGANIZATIONS

Many women's associations, including self-help groups, have been established at the village level, mostly for the sake of enhancing the welfare of the families of these women. However, women's groups are also partner organizations in the implementation of nationally and internationally initiated programmes to combat the advance of desertification, reclaim lost croplands and replant trees and shrubs. Development agencies have recognized the increased activity on the part of women and have made good use of it, while women are also willing to be drawn into community work because they have no other choice, given their efforts to ensure the survival of children and elders who depend on them. Nonetheless, without a change in gender relations and an increase in women's authority and decision-making power, there is a possibility that such projects will increase women's workloads, while claiming to have met targets for women's participation.

In many countries, it has been found more effective and socially acceptable to work with women's groups rather than with individual women. This is often the only way for poor women to obtain sufficient resources (material, capital and labour) to initiate activities. The group approach through women water user associations and income-generating groups has proven successful in building women's capabilities to self manage funds, increase the social networks of women, share knowledge and build solidarity.

An understanding of the social context must include an awareness of the impact of directly targeting women in the community. In some cases, this targeting may lead to conflicts within the community, particularly if entrenched interests of dominant groups are threatened. In practical terms, this is evident in some projects that focus on building the organizational capacities of the poor to govern their own water user associations, income-generating associations and other user groups. When women's participation in these or other autonomous groups of women

7 Women in water user committees in Brazil

As part of IFAD strategies to build the organizational capacities of the poor, projects in several drought-affected countries, including the Community Development Project for the Rio Gaviao Region in Brazil, require that new and existing water user committees take in women members. Women play a crucial role in the harsh environments in these project areas, performing tasks such as ensuring the water supply of households. The project in Brazil has a strong training component on the rational use of water (water distribution from the source according to the various purposes such as washing, livestock and domestic use). Separate water user committees for women have been formed both to develop women's leadership and organizational capacities and to reduce the dominance of men. Over 190 groups have been set up to provide training in group work; 15 groups have been specifically created by and are made up of women. Over 7,300 participants (32 per cent women) have attended 539 courses on rural organization and the management of associations. Women's participation has reached 43 per cent in environmental training courses; this figure demonstrates the interest of women in this issue. Measures taken to achieve water security among producers and communities have resulted in a significant increase in the water now available for use in the home and for livestock, thus facilitating work in the home and alleviating the workloads of women and young people.

Source: IFAD, 2003a.



users is weak, project implementers may focus specifically on developing the capacities of these groups.

It is difficult to gauge the quality of women's participation and decision-making if progress is reported in terms of numbers or percentages only. While the involvement of women in water user committees is encouraged through a number of policies, the precise role that women should play is rarely specified. Projects with a gender focus from the beginning are more easily able to engage women as participants rather than as indirect beneficiaries.

public events, but, at the national and international levels, gender biases still exist and hinder the incorporation of women's voices and gender perspectives in the formation of policies and programmes related to land and water management.

At the national and international levels, women have participated, in the design and development of the UNCCD, by helping to insert specific steps to mainstream gender in the implementation of the Convention at the national level by member states. Nonetheless, to date, voices of women are few and weak (Lambrou and Laub, 2000).

WOMEN'S VOICES AND AGENCY

The perspectives of rural poor women are not incorporated in decision-making, policies and institutions related to desertification and dryland management. At the local level, this may be explained by time constraints, as well as cultural restrictions on the participation of women in



Innovations and lessons learned

This review has highlighted lessons learned based on experiences within IFAD projects that point to a few strategic actions for the future:

- strengthen rural poor women's organizations
- capacity-building to create enabling environments (enable the enablers)
- apply a gender approach, while promoting the role of women

STRENGTHEN RURAL POOR WOMEN'S ORGANIZATIONS

Despite the supportive policy statements in the UNCCD and among international agencies and governments that understand the importance of a focus on gender equality and gender balance within desertification and dryland projects, women fail to reap significant benefits from most projects and remain neglected in many other project designs. If they are recognized, it is often because they are heads of households, a group often portrayed as disadvantaged rather than, more positively, as managers of household and farm productivity.

The focus is primarily on women's burden of labour. Projects must address the basic practical needs of women so as to reduce their workloads in order to gain the genuine participation of women in project activities.

Women must also be involved in the planning and selection of measures to combat desertification. When the participation of women

is assured not only in the work of a project, but also in the conceptualization and planning of the measures to be taken, this considerably enhances the chances of success of a project.

Most IFAD projects address women's credit needs through the formation of women's groups. Group-based lending has enabled some women to overcome requirements for collateral, although, in many regions, formal financial institutions still require official land titles. Overall, women have demonstrated their propensity to save and to accumulate funds as a group. The creation of self-help groups (or the strengthening of existing ones) has enabled women's groups to establish dossiers with banks.

Many projects with a financial services component give priority to women because they are good savers, prudent investors and conscientious borrowers. Credit activities have been used as an entry-point for organizing women for broader activities related to desertification in many countries. The preferred investments among women in drylands areas are in small livestock, such as goats, and petty trade. Yet, projects must be able to move beyond the development of women's groups as savings and credit or income-generating groups. To achieve greater levels of self-governance and power among women, women's groups must be more than mere instruments used by planners and experts who want to achieve their own goals without taking into account women's interests or advancing women's agendas.

8 Addressing women's workloads first in Burkina Faso

The promotion of women's activities through 300 women's groups in a dryland area of Burkina Faso involved the provision of transportation equipment, training and support for income-generating activities by means of microcredit. The effort also involved the training of 8,265 women in improved cook stove techniques, while 1,129 women received literacy training. Some 233,000 people benefited from improved access to drinking water thanks to the installation of 261 wells. Women benefited from a village water component, as well as from other measures taken to relieve their workloads and enable them to engage in revenue-generating activities (1,197 wheelbarrows and 688 carts were distributed through partial or full subsidies). Short-term credits for these activities were provided, and a total of 292 local savings and loan organizations were created with 76 per cent of the members being women. The position of women within village society has improved thanks to the economic weight and the new knowledge they have acquired.

Source: IFAD, 2004e.

9 An inclusive strategy for women's empowerment in mountainous China

The feminization of agriculture in a drought-stricken area in mountainous northern China due to the high level of outmigration by men and heavier workloads at home and in farming requires activities with a strong impact on women. More women than men are illiterate, and most government services are provided by men; thus every activity must have a specific focus on:

- time-saving technologies in agricultural and rural infrastructure construction and rehabilitation
- extension and training services (with 50 per cent women staff members) responsive to women
- empowerment of women through literacy and skills training
- promotion of high-value crops with low labour input and income-generating activities near the homestead
- better access to credit
- easy access to drinking water, which is usually located at a great walking distance, through the provision of individual household tanks to capture runoff during the rainy season
- special programmes for women's health

The Women's Federation, the primary organization mandated to assist women in China, coordinates education support for rural women, enabling them to enrol in functional literacy training and to acquire technical skills. The various training programmes, together with the institutional approach of participatory village development plans, are leading to greater awareness and assertiveness among women in all matters relating to the social and economic situation of the individual, the household and the community.

Source: IFAD, 2002a.

10 Achieving tangible benefits and financial independence in Chad

With the assistance of an IFAD project in a drylands area of Chad, women have benefited from access to drinking water wells (the establishment of 100 village water points), improved cook stoves, transportation equipment (support for the purchase of 372 camels) and the 78 millet seed banks for dune crops that the project established. Women in the project area have found economic interest groups to be a powerful and effective mechanism to strengthen their financial independence within their families, which is a significant achievement in a society based on traditional hierarchical structures. Some 2,600 women members of 248 economic interest groups have received funds for agricultural and market activities. Their success in accessing credit and literacy classes (371 women out of 842 persons completed literacy training) has translated into successes in goat raising and petty trade. They have also undergone nutritional education training, which has led to the introduction of vegetables in their daily diets, improved their health status and helped decrease child mortality rates. These tangible benefits have prompted women to perceive that they are the real beneficiaries of the project, which is a rarity among technical projects in the drylands.

In their own words, "this project has made it possible to be more and more financially independent from our husbands."

Source: IFAD, 2003b.

11 Strengthening gender mainstreaming in Latin American projects

IFAD's Latin America and the Caribbean Division executed the Programme for the Strengthening of Gender Mainstreaming in IFAD Projects to support efforts in all projects, including those related to desertification, to develop gender awareness among technical staff and management. The programme's achievements included:

- gender sensitization among key technical and management staff in IFAD projects
- commitment on the part of project-level management to a gender approach in project implementation
- concrete actions to achieve gender equity in ongoing investment activities

Each programme phase involved the formulation of a subregional action plan, consisting of clearly outlined short- and medium-term activities aimed at ensuring gender equity and consolidating gender-sensitive actions at the project level. The principal, recurrent demands of field staff, as reflected in the action plans, included gender training, support for the development of gender-sensitive baseline studies and technical assistance for the construction of gender-sensitive monitoring and evaluation systems.

Source: IFAD, 2000b.





Women's constraints in gaining access to markets are recognized and addressed in IFAD projects, which often provide training in marketing skills and assist women to build relationships with suppliers and buyers. Promoting women's home-based microenterprises is an important first step. Although often not profitable enough to raise income levels significantly, microenterprises are important in diversifying women's sources of income and reducing their vulnerability, while building their confidence in dealing with markets, credit repayments and cash flows.

CAPACITY-BUILDING TO CREATE ENABLING ENVIRONMENTS (ENABLE THE PROJECT ENABLERS)

In order for women's groups to become effective partners in natural resource management, significant levels of capacity and support are needed for women themselves, and for staff of local or national authorities responsible for project implementation. This should include capacity-building in participatory approaches, as well as gender mainstreaming.

While many institutions have started to recognize the importance of including stakeholders and have adopted participatory approaches to land-use and water management, gender aspects have often been neglected. A participatory approach may provide a window of opportunity to include gender perspectives, but persistent levels of gender blindness have, to date, made progress in gender mainstreaming in these sectors elusive. For this reason, an organizational analysis of implementing agencies should be undertaken in preparation for the development of a strategy to foster gender-sensitive enabling environments.

The institutions responsible for land-use and water management are characterized by centralized decision-making. This has not been conducive to enabling rural organizations to receive services as needed. Many implementing agencies maintain relationships that are hierarchical and often

paternalistic with grass-roots groups and associations, thereby marginalizing the contributions and initiatives of villagers. A change in deep-seated attitudes is required towards the target population so as to build a true partnership between the various stakeholders, including farmer organizations, NGO service providers, project management units, cooperating institutions and financing institutions (IFAD, 2001c).

Another weakness is the isolation of these sectoral institutions from trends in the larger realm of development assistance and from other relevant institutions. In most developing countries, dryland development needs are still being evaluated in an isolated sector-by-sector manner, despite plans for integrated land and water management. But this problem is not limited to developing countries: international development institutions themselves are infused with narrow perspectives and gender biases that restrict their views on and actions to achieve participatory approaches and gender equality.

The reluctance of land-use and water agencies to look outside their narrow professional interests has limited their knowledge of social movements led by civil society actors that could assist them in learning about new approaches and practices for building stronger relationships with the rural poor, including women. It has also contributed to their lack of knowledge of policies and instruments pertaining to women's rights, such as the Convention on the Elimination of All Forms of Discrimination against Women.

Women are largely absent from these institutions. Without gender balanced staff, decision-making within national organizations is affected by communication flows through formal and informal networks dominated by men that exclude minorities and non-powerful groups. Women extension agents should be hired and trained in all technical aspects of dryland management, not merely in health and nutrition, as is often the case. All extension agents, women and men, should be trained in gender analysis and participatory methods.

Government agencies have found ways to enhance rural women's capacities by strengthening their links with government services that provide knowledge and technology. Gender-sensitive professionals have played a key role in the delivery of these services. The initiatives have produced stellar results in terms of environmental sustainability and gender equality (Gurung, Lama and Khadkha, 2005).

APPLY A GENDER APPROACH, WHILE PROMOTING THE ROLE OF WOMEN

Most countries and many international agencies have been slow to mainstream gender in development programmes and projects in drylands. An analysis of field experiences in drylands found an absence of the use of a gender approach, though many initiatives focused on women (FAO, 2003). Many governments and sectoral agencies are clearly motivated to address gender, desertification and poverty in their national action programmes on desertification, policies and legal frameworks, but lack the specific know-how. The United Nations Environment Programme found that obstacles to national-level actions to bolster the participation of women and fulfil the commitments of the UNCCD include a limited understanding of gender issues and of ways to move from policy to action, a lack of gender expertise, lack of and limited use of gender-disaggregated data, and prevailing traditional views on gender roles (UNEP, 2004).

A gender approach in sectors related to desertification implies an understanding of how men and women share complementary roles and responsibilities regarding the use and management of natural resources. An organization that incorporates a gender approach has mechanisms for local participation in the planning, management and use of land and water resources in an integrated manner, as well as an organizational structure and a culture that promote women and rely on a gender perspective to exemplify the principles of gender equality in accordance with organizational goals.

Staff commitment and know-how for gender mainstreaming in Venezuela (Bolivarian Republic of)

The Support Project for Small Producers in the Semi-Arid Zones of Falcon and Lara States in Venezuela (Bolivarian Republic of) was one of the first IFAD projects in the region (in 1993) to be designed to incorporate gender mainstreaming. Based on the Women in Development approach, the project had a separate women's component during its first few years that was directed towards women's reproductive and domestic roles. The mid-term evaluation in 1997 put the project back on course by redesigning it to rely on a gender and development approach. Project practitioners have been trained to take account of gender issues in the project's management information system and to include gender-disaggregated data in project monthly reports, operational plans, data collection tools and monitoring and evaluation indicators. This was possible because staff had come to realize the advantages of working with women. A lesson from experience is that gender-sensitive evaluation is unlikely to be successfully implemented unless project staff fully appreciate what is to be done and have the tools and know-how to do it. Absence of commitment or know-how is one of the frequent reasons for the gap between design and implementation that is so common in dryland projects.

Source: IFAD, 2003c.



A way forward

Women in the Sahel and other regions may be ready to be partners in the fight against desertification, but this should occur only on terms that provide them with economic security to ensure survival and access to income, information, productive assets and good health so as to achieve enhanced livelihoods. They therefore require environments that can enable their growth and development.

Beyond the three strategies discussed above, this review points to the following key recommendations that address desertification and sustainable development for international, regional and national organizations and the programmes they implement.

Development agencies:

- improve women's social status through adequate financial and technical support for women's groups
- undertake portfolio reviews of activities related to UNCCD objectives so as to enable greater mainstreaming of gender and UNCCD objectives into operations and in advocacy and budgetary allocations
- strengthen capacities through affirmative action and training to undertake participatory development and gender mainstreaming during all phases of dryland project design, implementation and evaluation

- form regional or country review teams on gender and dryland management involving women leaders who have expertise in gender and poverty issues in land use and water sectors in order to accelerate the formation and implementation of gender-sensitive policies and projects
- learn from experience for effective replication and scaling up
- develop mechanisms for better reporting of UNCCD-related activities, for monitoring progress through gender-disaggregated data and for evaluating changes in gender roles within dryland areas

Programmes:

- conduct a gender analysis for project design, policy reforms and country capacity-strengthening using appropriate diagnostic tools
- reduce women's workloads so as to enable them to find time to diversify into other activities
- improve women's access to and control over land and water, technological inputs, extension services, information and credit
- ensure that land-use planning takes into consideration gender roles (especially, that the enclosures frequently used as conservation measures do not represent an undue burden on women's access to land)

- increase women's leadership capacities, economic power and confidence by improving their abilities in self-management and the management of groups and by strengthening their entrepreneurial capacities
- increase women's involvement in policies and programmes in order to improve land use through participation in public decision-making
- ensure that legal frameworks for environmental conservation and the related organizational structures clearly provide for women's representation
- ensure that conservation efforts address multiple uses of resources (for instance, tree nurseries, timber production, fodder production and medicinal plants may all exist in a single ecosystem, but need to be managed differently to provide economic benefits to various users)

Bibliography

- Budinich, V. 1998. *"Lineamientos para Incorporar la Perspective de Genero en Sistemas de Seguimiento y Evaluacion"*. Rome: International Fund for Agricultural Development.
- Bushara, A. H., 2004. "Support for the Gender Mainstreaming Programme of the ICDP in Somaliland". Rome: International Fund for Agricultural Development.
- FAO, 2003. *Gender and Sustainable Development in Drylands: an Analysis of Field Experiences*. Rome: Food and Agriculture Organization of the United Nations.
- Gender and Water Alliance, 2003. *"The Gender and Water Development Report 2003: Gender Perspectives on Policies in the Water Sector"*. Delft, the Netherlands: Gender and Water Alliance Secretariat.
- GTZ (Gesellschaft für Technische Zusammenarbeit), 2002. *"The Rio Conventions: Committing to Sustainability"*. *Rio Conventions Briefing Papers*. Bonn: German Agency for Technical Cooperation.
- Gurung, J. D., K. Lama and M. Khadkha, 2005. "Empowered Women and the Men behind Them: A Study of Change within the Hills Leasehold Forestry and Forage Development Project in Nepal". *Gender Mainstreaming in Action: Successful Innovations from Asia and the Pacific*. Washington, DC: Commission on the Advancement of Women, InterAction.
- ICIMOD, 2003. *"Demonstration and Popularization of Skills for Ecological Management and Efficient Animal Husbandry in the Grasslands of Southern Gansu"*. Kathmandu: International Centre for Integrated Mountain Development.
- IFAD, 1995. *"Livestock and Pasture Development Project in the Eastern Region: Summary Mid-Term Evaluation Report, 1995"*. Rome: International Fund for Agricultural Development.
- IFAD, 1998. *"Report and Recommendation of the President to the Executive Board on a Proposed Loan to the People's Republic of China for the Wulin Mountains Minority-Areas Development Project, China"*. Rome: International Fund for Agricultural Development.

- IFAD, 2000a. "Mauritanie, Projet de développement des oasis, Phase II: Vulgarisation Paysanne, Mission d'Evaluation". Rome: International Fund for Agricultural Development.
- IFAD, 2000b. "Report and Recommendation of the President on a Proposed Technical Assistance Grant to the Corporation for Regional Rural Development Training (PROCASUR) for the Regional Programme to Consolidate Gender-mainstreaming Strategies in IFAD-Financed Projects of Latin America and the Caribbean (PROGENDER)". Rome: International Fund for Agricultural Development.
- IFAD, 2001a. *Women's Difficult Access to Irrigation*. Rome: International Fund for Agricultural Development.
- IFAD, 2001b. *Rural Poverty Report 2001: The Challenge of Ending Rural Poverty*. Oxford: Oxford University Press.
- IFAD, 2001c. Thematic Evaluation, "Agricultural Extension and Support for Farmer Innovation in Western and Central Africa: Assessment and Outlook for IFAD". Rome: International Fund for Agricultural Development.
- IFAD, 2002a. "Report and Recommendation of the President to the Executive Board on a Proposed Loan to the People's Republic of China for the Environment Conservation and Poverty-Reduction Programme in Ningxia and Shanxi". Rome: International Fund for Agricultural Development.
- IFAD, 2002b. "Report and Recommendation of the President to the Executive Board on a Proposed Loan to the Republic of Niger for the Project for the Promotion of Local Initiative for Development in Aguié". Rome: International Fund for Agricultural Development.
- IFAD, 2003a. "Community Development Project for the Rio Gavião Region of Bahia State, Brazil: Interim Evaluation". Rome: International Fund for Agricultural Development.
- IFAD, 2003b. "Republic of Chad, Interim Evaluation of the Ouadis of Kanem Agricultural Development Project: Executive Summary". Rome: International Fund for Agricultural Development.
- IFAD, 2003c. "Support Project for Small Producers in the Semi-Arid Zones of Falcon and Lara States (PROSALFA) in Venezuela (Bolivarian Republic of): Interim Evaluation". Rome: International Fund for Agricultural Development.
- IFAD, 2004a. "Rapport d'activités de la première phase du PIAG". Rome: International Fund for Agricultural Development.
- IFAD, 2004b. "Special Country Programme – Phase II, Ethiopia: Supervision Report". Rome: International Fund for Agricultural Development.
- IFAD, 2004c. "Republic of the Sudan, North Kordofan Rural Development Project, Mid-Term Review: Main Report and Working Papers". Rome: International Fund for Agricultural Development.
- IFAD, 2004d. "Enhancing the Role of Indigenous Women in Sustainable Development: IFAD Experience with Indigenous Women in Latin America and Asia". Rome: International Fund for Agricultural Development.
- IFAD, 2004e. "Burkina Faso: Special Programme for Soil and Water Conservation and Agroforestry in the Central Plateau: Interim Evaluation". Rome: International Fund for Agricultural Development.

- IFAD, 2004f. "Gender Issues in IFAD Projects in Western and Central Africa: A Stocktaking Exercise". Rome: International Fund for Agricultural Development.
- IFAD, 2004g. "Livestock Services and the Poor, a Global Initiative: Collecting, Coordinating and Sharing Experiences". Rome: International Fund for Agricultural Development.
- IFAD, 2004h. "Report and Recommendation of the President to the Executive Board on a Proposed Financial Assistance to the Hashemite Kingdom of Jordan for the Agricultural Resource Management Project – Phase II". Rome: International Fund for Agricultural Development.
- IFAD, 2005. "Indigenous Women and IFAD: Best Practices and Lessons Learned; Project Sheets: Wulin Mountains Minority-Areas Development Project". Rome: International Fund for Agricultural Development.
- International Land Coalition, 2003. "Towards a Common Platform on Access to Land: The Catalyst to Reduce Rural Poverty and the Incentive for Sustainable Natural Resource Management". Rome: International Land Coalition and International Fund for Agricultural Development.
- Jiggins, J., R. K. Samanta and J. E. Olawoye, 1997. "Improving Women Farmers' Access to Extension Services", in B. E. Swanson, R. P. Bentz and A.J. Sofranko (eds), *Improving Agricultural Extension: A Reference Manual*. Rome: Food and Agriculture Organization of the United Nations.
- Lambrou, Y., and R. Laub, 2000. "Gender Perspectives on the Conventions on Biodiversity, Climate Change and Desertification". Rome: Food and Agriculture Organization of the United Nations.
- Leisinger, K. M., and M. Schmitt, 1995. *Survival in the Sahel: An Ecological and Developmental Challenge*. Addis Ababa: International Service for National Agricultural Research.
- Messer, N. M., 2001. "Mapping Traditional Structures to Inform Decentralisation Policies: Illustrations from Three Countries in Sub-Saharan Africa and the Near East". Household Livelihood Strategies and Local Institutions Working Paper No. 12. Rome: Food and Agriculture Organization of the United Nations.
- Monimart, M., 1988. "Femmes et Lutte contre la Désertification au Sahel: Etude d'Expériences dans Six Pays". Paris: Organisation for Economic Co-operation and Development, Club du Sahel et de l'Afrique de l'Ouest and Karthala.
- Niamir-Fuller, M., 1994. "Women Livestock Managers in the Third World: A Focus on Technical Issues Related to Gender Roles in Livestock Production". Rome: International Fund for Agricultural Development.
- Poulsen, L., 2003. "COP 6 and the Promotion of Women: How the Gender Dimension could be Elevated during the 6th Conference of the Parties for the UN Convention to Combat Desertification and Drought and Thereby Promote the Role of Women in the Implementation of the UNCCD". Paper presented at the World Conservation Union's Global Biodiversity Forum, Havana, August. Geneva: World Conservation Union.
- Rochette, R. M. (ed.), 1989. *Le Sahel en lutte contre la désertification: leçons d'expériences*. Weikersheim, Germany: Permanent Interstate Committee for Drought Control in the Sahel, German Agency for Technical Cooperation (GIZ) and Verlag Josef Margraf Scientific Books.
- UNDP, 2004. "Millennium Project Task Force on Environmental Sustainability". New York: United Nations Development Programme.

- UNEP, 2004. "Women and Desertification". *Women and the Environment*. Nairobi: United Nations Environment Programme.
- Venkataswaran, S., 1995. *Environment, Development and the Gender Gap*. New Delhi: Sage Publications.
- Westermann, O., J. Ashby and J. Pretty, 2005. "Gender and Social Capital: The Importance of Gender Differences for the Maturity and Effectiveness of Natural Resource Management Groups". *World Development* vol. 33, no. 11: 1783-99.
- World Bank, 2006. "Burkina Faso Community-Based Rural Development Project (PNGT2)". Report of the World Bank Supervision Mission, Ouagadougou. Washington, DC: World Bank.



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