The IFAD-GEF Advantage
Partnering for a sustainable world
The IFAD-GEF Advantage

Partnering for a sustainable world

“Over the span of nearly 15 years, the partnership between IFAD and GEF has benefited millions of people. They have improved their livelihoods and preserved valuable natural resources. At the same time, they have adapted to the growing impact of climate change. In the years ahead, we will capitalize further on our complementary areas of expertise to reach millions more.”

Kanayo F. Nwanze, IFAD President
Acknowledgements

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ASEAN  Association of Southeast Asian Nations
NRM   natural resource management
PES   payments for environmental services
SFM   sustainable forest management
SLM   sustainable land management
Introduction

In 2001, the Global Environment Facility (GEF) Council approved the International Fund for Agricultural Development (IFAD) as an executing agency under its policy of expanded opportunities for executing agencies. Today, IFAD’s collaboration with the GEF has grown to over 43 national and regional projects, covering the GEF focal areas of biodiversity, climate change, international waters, land degradation and sustainable forest management (SFM)/REDD+. It also encompasses the GEF’s former operational programme areas.

This partnership has delivered important environmental and socio-economic benefits for many people across the world. These benefits include more resilient livelihoods that bring economic, educational and health gains to local communities, while reducing pressure on ecosystems and precious resources, as well as and improving management of forest, land and water.

IFAD’s participatory approach to project design and implementation, which pays special attention to the priorities and unique knowledge of women and indigenous and tribal peoples, fosters social capital within communities, as well as between them and the private sector, civil society and state authorities. Indeed, the IFAD-GEF partnership places particular emphasis on strengthening good governance and the policies and institutional capacities that underpin it.

This report presents some examples of the IFAD-GEF partnership from around the world by using brief case studies to highlight certain aspects of various projects. However, in such a short space, it is impossible to fully capture the real scope and complexity of the IFAD-GEF portfolio. These case studies show that there is a clear ‘IFAD-GEF advantage’: when we work together and with national stakeholders, natural resources and ecosystems are restored and people’s lives improve. Innovations also occur, for example, in payments for environmental services, certification schemes and use of technologies. And of course, these innovations contribute to large-scale environmental improvements, such as the re-greening of the Sahel.

The GEF has played a critical role in deepening IFAD’s engagement with environmental and climate change concerns. IFAD, through its policies and strong track record of working with rural women and men and their institutions, as well as its alliances with sector experts, offers the GEF unique entry points to achieve its goals and scale up its support. The final section of the report “Next steps: scaling up support” shows how this is already happening.

1 Reducing emissions from deforestation and forest degradation.
2 See case studies from Mauritania and Swaziland in The Gender Advantage: Women on the front line of climate change (IFAD, 2014).
Asia and the Pacific

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Innovative payments for environmental services in Viet Nam

<table>
<thead>
<tr>
<th>GEF project name</th>
<th>Promotion of Sustainable Forest and Land Management in the Viet Nam Uplands</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFAD project name</td>
<td>Pro-Poor Partnerships for Agroforestry Development Project</td>
</tr>
<tr>
<td>GEF focal areas</td>
<td>Land degradation, biodiversity</td>
</tr>
<tr>
<td>Target group</td>
<td>117,807 farmers with a focus on women</td>
</tr>
<tr>
<td>Project location</td>
<td>Bac Kan Province</td>
</tr>
<tr>
<td>Implementing partners</td>
<td>Bac Kan Province Provincial People’s Committee; Department of Agriculture and Rural Development</td>
</tr>
<tr>
<td>GEF project duration</td>
<td>2010-2013</td>
</tr>
</tbody>
</table>

Problems and challenges

The province, which has limited agricultural land and rugged mountainous terrain, has the highest incidence of poverty in the country. Many rural people, most of them poor and from ethnic minorities, use forest resources to meet subsistence needs and finance basic purchases. Forest resources provide the rural poor with reliable sources of energy and safety nets when they encounter economic shocks. Yet natural forests and other ecosystems within Bac Kan Province and project districts have experienced a sharp
decline in area and quality over the past 20 years. Active forest degradation and conversion of land from forests rich in biodiversity cause an increase in flash floods and severe soil erosion, destroy lowland rice fields and put farmers at severe risk. Forest degradation also reduces dry season flows in rivers that serve as important water sources for downstream agriculture. High levels of erosion produce siltation problems in Ba Be Lake – a key biodiversity hotspot and tourist attraction within Ba Be National Park.

**IFAD-GEF impact**

The IFAD-GEF project promoted forest and biodiversity conservation, as well as sustainable forest land management practices in selected districts in the province. The project was designed to be fully integrated within the IFAD-supported Pro-Poor Partnerships for Agroforestry Development Project in northern Vietnam. Much of the target population belonged to the Nung, Dao, Mong and Tay ethnic minority groups.

**A successful model for voluntary and direct payments for environmental services (PES)**

One of the project objectives was to reduce net greenhouse gas emissions from forest degradation. The project adapted a successful bottom-up, voluntary approach to PES (Box 1).

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**Box 1: A successful model for voluntary and direct PES in Vietnam**

Tourism is the major income source for Pac Ngoi village near Ba Be Lake. Sightseeing boat excursions and guesthouses are the main business activities. Of the 99 households in Pac Ngoi, 21 have boats and 14 have guesthouses; the rest engage in agriculture and fishing. Participatory planning exercises revealed concerns about upstream forest loss and the impact of degradation on the lake, including sedimentation and loss of scenic beauty. Rubbish from upstream communities washing down into the lake also reduced its appeal.

At the project’s suggestion and with its guidance, local tourism stakeholders began to explore the idea of sharing some of the benefits from tourism to encourage upstream communities to help preserve the lake. A fund was established – financed by 2 per cent of gross receipts from boat excursions and a small contribution from guesthouse clients – and an arrangement was agreed with upstream communities for forest protection and solid waste management. Payments from this fund have been used for forest patrols/protection (20 per cent), reforestation (30 per cent), community livelihoods fund (30 per cent) and sanitation/solid waste management (10 per cent).

Both the downstream ‘service payers’ and the upstream ‘service providers’ were satisfied with the arrangements and planned to extend their agreement for at least the next three years. All parties interviewed were of the strong opinion that the scheme would continue after the end of the project. Further, the experience of PES has stimulated a discussion in the upstream village to levy upon themselves a yearly tax per 1,000 square metres of land to complement the PES funds and provide for other priority community needs such as maintenance of irrigation systems.

This and similar direct schemes have been brokered by the project; in addition to empowering and facilitating communities to find their own solutions, such schemes are easily monitored by communities themselves.


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3. For more information on IFAD and PES see http://ifad-un.blogspot.it/2013/06/payment-for-environmental-service.html.
More equitable land allocation
To encourage increased SFM in project districts, the sustainable and equitable forest land management project component allocated forest lands and resources within communities. This was a particular success and a potentially best practice, according to the Terminal Evaluation Report (IFAD, 2014). Equitable outcomes at times required the redistribution of land from those with more to those with less; a potential conflict scenario.

The project’s approach empowered communities to find their own solutions. Households that had benefited disproportionately from previous externally imposed systems, agreed to give up lands in favour of households that were landless or with little land. In addition, communities allocated common lands to land-poor households – about 23,810 hectares of forest land were allocated to some 7,765 households. Leaving communities to make their own decisions meant that negotiated solutions were arrived at with minimum conflict.

Capacity-building for allocation of forest land use through participatory processes at the provincial, district and commune levels reinforced these results, as well as the mainstreaming of SFM into local plans covering 107,390 hectares and biodiversity and watershed issues in over 30,000 hectares.

Putting policies into practice to protect peatlands in South-East Asia

<table>
<thead>
<tr>
<th>GEF project name</th>
<th>Rehabilitation and Sustainable Use of Peatland Forests in South-East Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEF focal areas</td>
<td>Land degradation, biodiversity, climate change</td>
</tr>
<tr>
<td>Target group</td>
<td>18,000 families, of whom 25 per cent are headed by women</td>
</tr>
<tr>
<td>Project location</td>
<td>Indonesia, Malaysia, Philippines, Viet Nam</td>
</tr>
<tr>
<td>Implementing partners</td>
<td>Association of Southeast Asian Nations (ASEAN) Secretariat; Global Environment Centre with national implementing agencies</td>
</tr>
<tr>
<td>GEF project duration</td>
<td>2009-2014</td>
</tr>
</tbody>
</table>

Problems and challenges
Peat swamp forests in South-East Asia play a crucial role in the economy and ecology of the region. They have global significance as repositories of an estimated 120 billion tons of carbon, approximately 5 per cent of total terrestrial carbon. The degradation of the peat swamp forests of South-East Asia is a global problem. Major fires release billions of tons of stored carbon into the atmosphere, increasing greenhouse gases and causing transboundary haze that affects millions of lives.
IFAD-GEF impact

The project aims to reverse the loss and degradation of peatlands to avoid negative socio-economic, health and environmental impacts through capacity-building and sustainable peatland management practices. There have been important gains at the regional level, including the implementation of the ASEAN Peatland Management Strategy and the development of guidelines for integrated peatland management. A manual by Wetlands International Indonesia has been re-launched to give advice on peatland fire control. A Communication Plan has also been published to guide ASEAN member states in planning outreach and sensitization-related activities with stakeholders. These achievements have been complemented at national levels by National Action Plans and fire early warning systems. At the subnational levels, sustainable peatland management issues have been mainstreamed into provincial and district level plans.

Strong support from top officials and progress reporting at ASEAN meetings have been the keys to success. Embedding the project into a regional framework favours sustainability. For example, the ASEAN Peatland Management Initiative runs to 2020, and therefore reporting on implementation will continue until that year. Sustainability at national levels is supported by government co-funding such as the state government of Selangor, which allocates about US$80,000 annually to construct canal blocking in abandoned canals. Several corporations have also provided substantial rehabilitation support of around US$1.2 million.

Communities have contributed to and benefited from project interventions. In Malaysia, communities and schools have formed associations and taken part in fire monitoring and the rehabilitation of degraded sites. A regional approach supports South-South learning, which allows innovations in some countries to be taken up in others. For example, surjan farming was introduced in the Philippines and farmers can now crop all year round, which has increased their incomes and enabled them to send their children to school.

4 Manual for the Control of Fire in Peatlands and Peatland Forest.
5 http://www.aseanpeat.net/view_file.cfm?fileid=62.
6 A traditional farming system developed in Central Java, Indonesia, which is widely used in submerged, salinity affected areas and tidal swamps. Source: http://www.agriculturesnetwork.org/magazines/global/searching-synergy/lowland-farming.
Community empowerment in Kenya

<table>
<thead>
<tr>
<th>IFAD/GEF project name</th>
<th>Mount Kenya East Pilot Project for Natural Resource Management (MKEPP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEF focal areas</td>
<td>Land degradation, biodiversity, climate change</td>
</tr>
<tr>
<td>Target group</td>
<td>558,145 people (286,546 women and 271,599 men)</td>
</tr>
<tr>
<td>Project location</td>
<td>Ena, Kapingazi, Kathita, Mutonga and Tungu river basins</td>
</tr>
<tr>
<td>Implementing partners</td>
<td>Ministry of Water Resources Management; Kenya Wildlife Service</td>
</tr>
<tr>
<td>GEF project duration</td>
<td>2004-2012</td>
</tr>
</tbody>
</table>

Problems and challenges

Mount Kenya is a major water tower that provides close to 49 per cent of the Tana River's water. The river supports half of the country's hydropower, irrigated agriculture, fisheries, livestock production and the rich biodiversity in the lower Tana basin. This makes it an ecosystem that is strategically important to Kenya's economic development. There is growing concern that the life-supporting functions of the river are being systematically lost as a result of degradation in the upper and middle catchment areas of the river. Destruction of forest cover, inappropriate land-use practices and overgrazing have triggered soil erosion, contributing a high sediment load to the Tana, its tributaries and the hydroelectric dams.
The project baseline survey in 2005 indicated that the eastern zone of Mount Kenya was experiencing accelerated soil degradation as a result of uncontrolled tree cutting by tea industry factories, private saw millers and charcoal producers. The roadsides contributed 20 per cent of all the silt that ended up in the rivers. Poverty in the project area, which ranged from 40 to 70 per cent in 2005, was one of the main drivers of deforestation.

The increase in soil erosion had reduced land productivity, leading to higher levels of poverty for people who were largely dependent on agriculture for their livelihoods. Furthermore, areas that were more ecologically fragile were being used for cultivation. These lands were less able to hold rainwater, causing fluctuations in the river regime during the rainy season and depressing base flows during the dry season, which also impaired water supply. The allocation of water resources had become a sensitive issue with the potential to trigger ethnic tension and conflicts within the project area.

IFAD-GEF impact
The overall goal of the Mount Kenya East Pilot Project for Natural Resource Management was to reduce poverty through improved water and food security and the income levels of farmers, particularly women. The project targeted five river basins within the Tana River catchment area with a comprehensive set of activities. These included water resource management, the use of more appropriate agricultural practices (agroforestry, river bank protection), reforestation and ecosystem management.

Project results and highlights
About 558,145 people benefited from the project and key results included the following:

- **Water resource management.** 58 per cent reduction in time spent to fetch water; 50 per cent reduction in the distance walked to fetch water; 39 per cent reported improvement in water quality; and 32 per cent reported decline in water-related diseases.

- **Environmental conservation.** 2,692 hectares of forest rehabilitated; and 64 kilometres of wildlife fence constructed to reduce human-wildlife conflict.

- **Improved rural livelihoods.** 71 per cent increase in household incomes from sale of crops; 55 per cent increase in incomes from sale of livestock products; and 65 per cent increase in food production for farmers who adopted soil and water conservation practices.

©IFAD/Mount Kenya East Pilot Project
One project component focused on the empowerment of communities through training and sensitization. A total of 10,822 project management committee members were trained in project management skills, 48 per cent of whom were women. Results included improved management skills and a change in the way communities viewed development and project ownership.

Farmer field schools (FFSs) were an effective behavioural change mechanism, which facilitated technology transfer to project communities for increased food security. There was a 90 per cent reduction in the incidence of hunger, especially in the lower regions of Tharaka and Mbeere districts. Farmers who adopted technologies introduced by the FFSs reported an increase in incomes of 71 per cent from the sale of crops and 55 per cent from the sale of livestock products such as milk.

"School children, young people, women and men have all been empowered to better manage their natural resources for a more secure economic future, while at the same time restoring the natural treasures of the Mount Kenya east region...thanks to the project, which is being scaled up and rolled out further afield."

*Faith Muthoni Livingstone, Mount Kenya East Pilot Project for Natural Resource Management Project Manager*

**Empowerment for economic gains**

All aboard

The project worked with many stakeholders including the private sector, civil society and other projects. For example, the non-governmental organizations Forest Action Network and the Kenya Forests Working Group supported the mobilization of people to form community forest associations and build their capacity in participatory forest management. Barclays Bank contributed to forest rehabilitation and the European Union-supported Community Development Trust Fund was involved in a range of activities such as fence construction, financing of environmentally friendly income-generating activities and participatory forest management plans.
Empowering women to have a stake in sustainable land management in Ethiopia

<table>
<thead>
<tr>
<th>GEF project name</th>
<th>Community-based Integrated Natural Resources Management in Lake Tana Watershed</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFAD project name</td>
<td>Community-based Integrated Natural Resources Management Project</td>
</tr>
<tr>
<td>GEF focal areas</td>
<td>Land degradation</td>
</tr>
<tr>
<td>Target group</td>
<td>450,000 households</td>
</tr>
<tr>
<td>Project location</td>
<td>More than 20 woredas, or administrative districts, Lake Tana watershed</td>
</tr>
<tr>
<td>Implementing partners</td>
<td>Amhara National Regional State; Environment Protection, Land Administration and Use Agency; Ministry of Agriculture and Rural Development; Bureau of Agriculture and Rural Development</td>
</tr>
<tr>
<td>GEF project duration</td>
<td>2010-2017</td>
</tr>
</tbody>
</table>

**Problems and challenges**

Soil erosion is a widespread factor degrading fertile lands in Ethiopia, causing an estimated loss of two billion tons of fertile soils and reducing the agricultural gross domestic product by 2.3 per cent a year. The watershed in Amhara National Regional State encompasses Lake Tana – the largest freshwater body in Ethiopia and the source of the Blue Nile. Land degradation has become a crucial impediment to the conservation and sustainable use of natural resources in the region, increasing the rural population’s vulnerability to recurrent drought and famine. This deteriorating situation is a result of overgrazing, deforestation, unsustainable agricultural practices and overexploitation of wetlands. The region’s governance and policy framework for sustainable land management (SLM) also needs support.

**IFAD-GEF impact**

The IFAD-GEF partnership aims to tackle the root causes of land degradation by introducing SLM practices in watersheds that experience an average soil loss of 30-50 tons per hectare a year. The conservation efforts under the project focus on convincing communities to allocate and respect no-grazing and no-tillage protected areas. In addition, cash crops are used to create common funds to drive conservation practices. The project will develop about 650 watershed management plans covering 227,500 hectares. It will restore the productivity of more than 32,000 hectares of degraded land and increase carbon sequestration by some 700,000 tons, thus contributing to mitigating climate change. The project offers other incentives for community participation, such as access to secure land rights and the right to manage and use common assets. At least 32,500 households are expected to obtain access to reclaimed land.

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**Women’s access to land**

The project emphasizes farmers’ land tenure security and has already made significant efforts to target women, primarily by providing them with land certificates, thus enhancing their legal and economic empowerment. About 526,000 ‘first-level’ certificates have been granted (an increase of 17 per cent on the design target) for about 98 per cent of family lands. Some 4,815 certificates have been issued to communal land administration and use committees. About 52 per cent of landholdings have joint ownership, mainly for husbands and wives; about 27 per cent are registered to women and about 23 per cent to men.

Women interviewed stated that they had already benefited from:

- increased access to assets and economic empowerment
- reduction of conflict and vulnerability at the household and community levels, e.g. less incidence of divorce and less vulnerability in the case of divorce or their husband’s death
- greater voice in terms of productivity as well as land-based transactions such as renting and share-cropping
- greater self-confidence, leading to more women representatives in public decision-making.

As part of the land certification process, institutional capacity at the Woreda (district) and Kebele (ward) levels is being carried out; 4,171 women (117 per cent of target)\(^8\) have been trained in their legal rights, as well as Woreda and Kebele land experts, including women.\(^9\)

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8 As of June 2013, according to the Performance Indicator Report, 2013.
Latin America and the Caribbean
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Reforestation with indigenous communities in Mexico

<table>
<thead>
<tr>
<th>GEF project name</th>
<th>Mitigating Climate Change through Sustainable Forest Management and Capacity Building in the Southern States of Mexico (States of Campeche, Chiapas and Oaxaca)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFAD project name</td>
<td>Community-based Forestry Development Project in Southern States (Campeche, Chiapas and Oaxaca)</td>
</tr>
<tr>
<td>GEF focal areas</td>
<td>Climate change</td>
</tr>
<tr>
<td>Target group</td>
<td>18,000 families, of whom 25 per cent are headed by women</td>
</tr>
<tr>
<td>Project location</td>
<td>Campeche, Chiapas, Oaxaca</td>
</tr>
<tr>
<td>Implementing partners</td>
<td>National Forestry Commission (CONAFOR)</td>
</tr>
<tr>
<td>GEF project duration</td>
<td>2011-2016</td>
</tr>
</tbody>
</table>

Problems and challenges
Mexico has considerable forest resources, which are vital to the livelihoods of about 12 million people living in the country's forest regions. They provide them with food, building materials and a source of income. The livelihoods of these people are under
threat from deforestation, land degradation and the conversion of forest ecosystems to other uses, with major consequences for global climate change. The National Forestry Commission estimates that deforestation has led to the loss of some 155,152 hectares from 2002 to 2007.\textsuperscript{11}

\textbf{IFAD-GEF impact}

An IFAD and GEF-supported forestry development project in the three states of Campeche, Chiapas and Oaxaca strengthens the capacity of indigenous peoples as well as of other local foresters to better manage their natural resources. SFM pilot activities are expected to generate a reduction of carbon dioxide emissions, for example through sequestration of avoided emissions. The combined IFAD and GEF projects have a target of 10 million metric tons of CO\textsubscript{2} equivalents to be captured by 2016. The GEF project supports inclusive and community-led plans for both natural resource management (NRM) and carbon capture, as well as income-generating activities based on sustainable natural resources; over 200 local plans will deliver benefits for 18,000 families.

\textbf{Strengthening local NRM and capacities to monitor carbon capture}

The project is piloting ways for the government and communities to contribute to climate change mitigation through better land and forest use by:

- training and empowering local communities to collect and use data from their forests to calculate carbon sequestration and other benefits
- identifying and investing in pilot sites for carbon capture, chosen for their potential benefits in terms of watershed, biodiversity and other goods and services
- ensuring the protection of forest cover and long-term maintenance of captured carbon through the adoption of improved forest management techniques.

The IFAD project is supporting ejidos and comunidades\textsuperscript{12} to carry out participatory natural resource use maps, which explicitly address the priorities of indigenous peoples, women and young people and form the basis of local development plans for carbon capture. Community seminars and technical training for environmental services and community nurseries are also in demand.

“The GEF financing is very important for the project to consolidate activities focused on mitigation and adaptation to climate change, which has a major impact on their execution.”

\textit{Sergio Graf Montero, Production and Productivity General Coordinator, CONAFOR}

\textsuperscript{11} Visión de México sobre REDD+. Mexico National Forestry Commission (CONAFOR), 2010.
\textsuperscript{12} As established in Mexico’s land reform, ejidos and comunidades are rural communities with collective ownership of land.
Improving income-generating activities
The IFAD project is supporting the formulation of business plans for sustainable income-generation activities; this includes providing resources for the necessary investments as well as training in the skills needed to access markets. Over 100 initiatives have taken off, ranging in focus from agroforestry and tree nurseries to clean technologies such as efficient cooking stoves. A recent innovation is the introduction of efficient furnaces for drying handicrafts, which use 40 per cent less wood than before. CONAFOR, with support from GEF, is encouraging investments that will promote people’s ability to make effective decisions on managing their natural resources, which will contribute to the conservation of local biodiversity.

13 Agroforestry initiatives proved to be the most popular among local communities over the three-year period from 2010 to 2013.
Innovative certification process in Brazil

<table>
<thead>
<tr>
<th><strong>GEF project name</strong></th>
<th>Sustainable Land Management in the Semi-Arid Sertão</th>
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</thead>
<tbody>
<tr>
<td><strong>IFAD project name</strong></td>
<td>Sustainable Development Project for Agrarian Reform Settlements in the Semi-Arid North-East (Dom Hélder Câmara Project)</td>
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<tr>
<td><strong>GEF focal areas</strong></td>
<td>Land degradation</td>
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<tr>
<td><strong>Target group</strong></td>
<td>365,400 households</td>
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<tr>
<td><strong>Project location</strong></td>
<td>North-east Brazil</td>
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<tr>
<td><strong>Implementing partners</strong></td>
<td>Ministry for Agrarian Development</td>
</tr>
<tr>
<td><strong>GEF project duration</strong></td>
<td>2007-2014</td>
</tr>
</tbody>
</table>

**Problems and challenges**

The Sertão region of north-east Brazil covers an area of almost one million square kilometres. The caatinga, the region’s predominant ecosystem, is a biodiversity hot spot. The Sertão is now directly exposed to land degradation. An estimated 20 per cent of the region is already affected by desertification, threatening the livelihoods of about 15 million people. The IFAD-GEF partnership response built on the environmental dimension of the successful Dom Hélder Câmara Project and aimed to generate a model for tackling the causes and negative impacts of land degradation in the caatinga ecosystem through sustainable land use.

**IFAD-GEF advantage**

The Sertão project contributed to improving the lives of about 11,727 families through better management of natural resources. Moreover, the IFAD project and the GEF collaborated to improve water management (a critical resource in the arid north-east) of some 3,466 families.

The collaboration between the GEF and IFAD projects established agro-ecological consortia for organic group certification, which proved to be popular and effective. For example, the number of participating families in one scheme increased from 138 in 2009 (first year of implementation) to 900 families in 2012. Farmer target groups were trained to set up, produce and process goods from the agro-ecological consortia, vegetable gardens and orchards, and organized to acquire organic certification. Higher yields were reported using this crop system compared with conventional vegetable fields. Many reported withstanding environmental stresses better than traditional farming systems. Following the low rainfall in 2010, production among the

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14 Social, economic and environmental achievements are noted in the IFAD Interim Evaluation (2013).
15 The agro-ecological consortia is a farming system of food crops such as legumes, cereals and vegetables, together with income-generating crops such as cotton and sesame. The combination of different food and commercial crops is selected to improve soil fertility and natural pest and disease control. These consortia seek a balance between economic, social and environmental gains.
consortia was low but farmers managed to harvest subsistence crops. The next year, when the rains were more regular their productivity increased, generating a significant income for households compared to farmers who were not involved with the consortia.

This approach was part of the Sertão project’s drive to open up the access of communities to organic and Fair Trade markets. It was based on a system of trust among producers, traders and consumers, who ensured that products met established standards. The unique feature of this approach was that the network of farmer groups defined the organic standards and carried out inspections on each other’s farms – in other words there was no external certifier. Farmers went through a rigorous process in order to join the network. Key benefits compared with traditional certification systems were a high level of ownership and understanding of this ‘home-grown’ process, and it could also function throughout the year. Another benefit was that it was inclusive as costs were lower and therefore more accessible to family farmers. The approach also promoted environmental education for both producers and consumers.

The Sertão project also financed a range of complementary activities such as experimental learning and environmental incentives, the introduction of environmental education in schools, monitoring of environmental effects in georeferenced territories, gas emission inventories of biodigesters and experimental treatment of wastewater for application in vegetable production.
Near East and North Africa

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Morocco’s inclusive governance innovations

<table>
<thead>
<tr>
<th>GEF project name</th>
<th>Participatory Control of Desertification and Poverty Reduction in the Arid and Semi-Arid High Plateau Ecosystems of Eastern Morocco</th>
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</thead>
<tbody>
<tr>
<td>IFAD project name</td>
<td>Livestock and Rangelands Development Project in the Eastern Region – Phase II</td>
</tr>
<tr>
<td>GEF focal areas</td>
<td>Land degradation with linkages to biodiversity, climate change and international waters</td>
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<tr>
<td>Target group</td>
<td>61,000 people</td>
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<tr>
<td>Project location</td>
<td>Figuig, Jerada and Taourit</td>
</tr>
<tr>
<td>Implementing partners</td>
<td>High Commission for Waters and Forests and Prevention of Desertification; Ministry of Agriculture, Rural Development and Fisheries</td>
</tr>
<tr>
<td>GEF project duration</td>
<td>2004-2010</td>
</tr>
</tbody>
</table>

Problems and challenges

Morocco’s diverse ecosystems, rich in diverse habitats and species, are of global importance. However, pervasive rural poverty, inadequate resource management and increasing pressure on the land are leading to widespread land degradation,
depletion of water resources, loss of wildlife habitats and increased susceptibility to drought, frost, hail and other climate adversities.

**IFAD-GEF impact**

The IFAD-GEF initiative, in collaboration with the United Nations Industrial Development Organization (UNIDO), aimed to address land degradation and desertification of the grassland ecosystem in the highlands of the East, protect natural resources and improve the living standards of local rural communities. The project achieved this by:

- supporting the introduction of technologies that increased the levels of organic matter in soils, which improved carbon storage and water retention
- strengthening the capacity of local users of natural resources to adapt to the effects of climate change by developing early warning coping strategies for drought and alternative income-generating activities, which would benefit women in particular and reduce pressure on the land
- developing the capacity of national and local institutions in SLM.

**Innovative and inclusive governance model**

The first phase of the project pioneered community-based range management, which showed that building on existing sociocultural institutions was a key entry point for collective action in sustainable NRM. The community-based range management approach was an innovative one and worked with tribal institutions as entry points for organizing pastoral management cooperatives responsible for making technical decisions and administering resources. The approach did not seek to settle herders, but rather promoted their mobility through new and more flexible livestock management systems. Consensual decision-making processes were also a cornerstone of this model. Results included an increase in dry matter from 150 kilograms to 800 kilograms per hectare and shorter distances between pastures for nomads. The approach is being scaled up in new development initiatives in Morocco, the Syrian Arab Republic and Tunisia.

Morocco’s decentralization policies provided an enabling environment for the community-based range management initiative. For example, since 1919, Morocco has recognized tribal collective rights. In 2006, a tripartite partnership agreement was established between the Ministry of Agriculture, Rural Development and Fisheries; the Ministry of the Interior; and the High Commission for Waters and Forests and Prevention of Desertification. It resolved legal conflicts over the management and administration of collective lands in the highlands of the Eastern Region, while it ensured the preservation of natural pastoral resources.

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17  Dry matter refers to what is left after water is evaporated out of an animal feed. It can be an indicator of nutrient content and livestock need to consume a certain amount of dry matter per day (measured in pounds or kilograms/day) to maintain health and production. Source: http://www.ccof.org/faqs/what-dry-matter-and-why-important.

The partnership was based on three principles:
- appropriate NRM and use, taking into account the potential of the ecosystem and the spatial integration of rangeland management through various types of ownership status
- consideration of traditional uses and rights over rangelands within and between ethnic groups and tribes
- partnerships between all the interested parties to integrate sustainable rangeland management.

A key feature of this tripartite partnership was the establishment of consultative committees at the local, provincial and interprovincial levels. Local ethnic and pastoral communities were also represented in these committees along with the three government agencies.

Initiatives of the tripartite partnership included:
- meetings with local cooperatives to find solutions to conflicts
- preparation of regulatory and institutional tools, including a proposal to promote joint management of rangelands by cooperatives and local government and suggested institutional reforms of cooperatives so that they can assume this role
- training in SLM and integrated water management for cooperatives and local government
- studies on the rangeland master plan and rehabilitation of esparto grasslands to serve as an evidence base for local governments to improve rangeland management together with users (cooperatives).

**Drought early warning system**

An IFAD study indicated that for a drought early warning system to work efficiently in the region, it would need more agro-meteorological stations. From just one station in 2008, the IFAD-GEF partnership installed a network of 15 solar-powered stations from 2009 to 2011. These stations have made it possible to automatically measure and record temperatures and humidity, radiation, wind speed and direction. These data are transferred via the Internet; real-time access means that communities can make decisions about the best time for planting and dealing with droughts.

**Vallerani system**

One technical innovation of the project was the introduction of the Vallerani system in arid and semi-arid areas. The system has been adopted with enthusiasm by local communities, with almost 1,000 hectares of degraded land restored and plans to extend this further.

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19 A mechanized water harvesting method based on the use of patented ploughs that create a system of ground pits to collect rainwater and other organic material. The water collected promotes germination and growth.
Integrated ecosystem management in Jordan

<table>
<thead>
<tr>
<th>GEF project name</th>
<th>Mainstreaming Sustainable Land and Water Management Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFAD project name</td>
<td>Agricultural Resource Management Project – Phase II</td>
</tr>
<tr>
<td>GEF focal areas</td>
<td>Land degradation, international waters</td>
</tr>
<tr>
<td>Target group</td>
<td>22,900 households</td>
</tr>
<tr>
<td>Project location</td>
<td>3 districts of Karak Governorate, 2 districts of Taif Governorate, 2 districts of Ma'an Governorate and 1 sub-district (Kazaa Eail)</td>
</tr>
<tr>
<td>Implementing partners</td>
<td>Ministries of Planning and International Cooperation; Ministry of Environment, Agriculture and Water and Irrigation</td>
</tr>
<tr>
<td>GEF project duration</td>
<td>2010-2015</td>
</tr>
</tbody>
</table>

Problems and challenges

As a rapidly developing semi-arid country, with only about 7 per cent of its available land considered suitable for agricultural production and with limited and declining natural resources, Jordan faces serious climate change and environmental challenges. Climate change is expected to reduce the quantity and quality of the country’s water resources. Higher temperatures, together with changing precipitation patterns, will decrease the availability of surface water, with negative repercussions on agriculture. Heavy grazing, excessive ploughing and unregulated water extraction are also threatening many of Jordan’s key ecosystems.
IFAD-GEF impact

In anticipation of future water scarcity, the IFAD-GEF partnership is promoting the development of agro-ecosystem action plans to establish an integrated ecosystem management (IEM) approach for sustainable land and water management in project areas. These plans can then be scaled up to the national level. The plans include the use of water-harvesting technologies and the construction of off-farm water storage facilities. As of mid-2013, 24 out of the planned 35 community action plans had been updated with an IEM approach.

Results under component 3 of the project (best practices for SLM in demonstration and scaling up areas) include the implementation of soil conservation measures through land erosion protection mechanisms (26,000 cubic metres of gabions and check dams), reforestation of 120 hectares and the implementation of water conservation measures through drip irrigation, irrigation pools, cisterns and grey water treatment systems. Several off-farm measures are also under implementation. These consolidate activities initiated by the Agricultural Resource Management Project and promote the adoption of successful sustainable land and water management practices across the project area.
West and Central Africa
Contact: Naoufel Telahigue, Regional Climate and Environment Specialist
E-mail: n.telahigue@ifad.org

Biodiversity for better nutrition in the Malian Sahel

<table>
<thead>
<tr>
<th>GEF project name</th>
<th>Biodiversity Protection and Participatory Sustainable Management of Natural Resources in the Inner Niger Delta and Transition Areas, Mopti Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFAD project name</td>
<td>Sahelian Areas Development Fund Programme (FODESA)²⁰</td>
</tr>
<tr>
<td>GEF focal areas</td>
<td>Biodiversity</td>
</tr>
<tr>
<td>Target group</td>
<td>57,000 households (GEF and baseline programme)</td>
</tr>
<tr>
<td>Project location</td>
<td>Kayes, Koulikoro, Ségou and Mopti</td>
</tr>
<tr>
<td>Implementing partners</td>
<td>Ministry of Agriculture; Ministry of the Environment</td>
</tr>
<tr>
<td>GEF project duration</td>
<td>2007-2013</td>
</tr>
</tbody>
</table>

Problems and challenges
The Inner Niger Delta is one of the largest inner deltas in the world, with a unique ecosystem of global interest and high agro-sylv-pastoral and fisheries potential. However, despite its natural potential, the area and the ecosystems are considerably

²⁰ Programme fonds de développement en zone sahélienne (FODESA).
affected by degrading lands and soils, dwindling fisheries, unpredictable water resource flows and increased anthropogenic pressures. The threats of increasing social and community conflicts from a diminishing resource base, competing demands from man and wildlife, and loss of biodiversity are increasing. Impacts are most severe among rural people and especially women living in poverty. Various customary and equitable user rights, which in the past allowed for a relatively flexible adjustment to interdependent exploitation modes, are increasingly breaking down.

**IFAD-GEF impact**

FODESA was a large-scale development initiative designed in three phases to improve rural livelihoods and help restore damaged ecosystems in the inner delta of the Niger River. The programme helped support local populations to regenerate endangered native species and introduce varieties that were better adapted to hotter, drier conditions. GEF support focused on sustainable local development while improving natural resource management and the protection of biodiversity and ecosystems. One impact of the initiative was a marked increase in productivity and food security in the region. Figure 2 shows a decrease in malnutrition from 37.5 to 24.0 per cent in boys and from 35.1 to 23.1 per cent in girls from 2008 to 2013.

![Figure 2](image)

**Figure 2**

Decay in malnutrition from 2008 to 2013 (Mali)

One important project achievement was the support for market garden plots, where women made up 94 per cent of the 1,450 people engaged in market gardening. These plots provided fruit and vegetables to diversify household diets. According to women interviewed, dried vegetables such as onions and dried leaves from planted trees helped families to improve their diet during the soudure or pre-harvest period, when food can be particularly scarce.

The cultivation of bourgou, a native grass found along the river and in ponds and lakes, also increased food security. Bourgou is used as a feed for domestic animals, while providing a rich breeding ground for fish. At one time it covered vast areas, but several tens of thousands of hectares have disappeared due to the combined effect of droughts, overgrazing, competition with agricultural crops and the increasingly intensive harvesting of bourgou for sale. The IFAD-GEF partnership promoted extensive planting of almost 1,500 hectares of bourgou, and it provided support for processing...

21 Around 300 per cent over target.
Livestock productivity improved, which provided meat and milk as well as income from sales. For example, average milk production rose from 1 to 3 litres per cow over a six-month period. Fishers also observed that increased bourgou had significantly improved fish catches, and incomes during the fishing season reached as high as 3,500,000 Communauté Financière Africaine (CFA) francs per family. The proportion of households experiencing hungry periods fell from 65 per cent in 2008 to 52 per cent in 2013.

“Bourgou is very important for us. We eat the grain, and we cut the grasses and feed them to our animals. It is very nutritious and improves the quality of the milk. The bourgou was disappearing and we did not know how to cultivate it. The programme taught us how to cultivate, dry and store bourgou. Now we have enough to sell and earn income during the soudure (pre-harvest) period. We also have a warehouse and a machine to compact the bourgou. When we store and sell it later we get excellent prices.”

_Hama Barry, Youwarou village, president of Foulbé Wuelebé herders’ association_

The restoration and impact on the _bourgoutières_ (bourgou pastures) also had positive impacts on the environment’s biodiversity, leading to the reappearance of plant, bird and especially fish species. The project has ensured sustainability by setting up seed storage systems.

**Increased incomes and positive gender outcomes**

Revenues increased more from the cultivation of bourgou (over 300,000 CFA francs per hectare) than from the growing of rice. Together, market gardens and dried bourgou provided 1,450 households with an estimated 133,750 CFA francs, which was about the average annual income for a normal Malian in 2007. This greater economic empowerment was welcomed by women as it gave them greater status in their homes and helped them to address household food security issues and nutritional needs.
Re-greening in Burkina Faso

<table>
<thead>
<tr>
<th>GEF project name</th>
<th>Sustainable Land Management in the Watersheds of the North Central Plateau</th>
</tr>
</thead>
<tbody>
<tr>
<td>IFAD project name</td>
<td>Sustainable Rural Development Programme</td>
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<tr>
<td>GEF focal areas</td>
<td>Land degradation</td>
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<tr>
<td>Target group</td>
<td>435,000 people (GEF and baseline programme)</td>
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<tr>
<td>Project location</td>
<td>Bam, Loroum, Passoré, Yatenga and Zondoma</td>
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<tr>
<td>Implementing partners</td>
<td>Ministry of Agriculture and Food Security</td>
</tr>
<tr>
<td>GEF project duration</td>
<td>2006-2014</td>
</tr>
</tbody>
</table>

Problems and challenges
Burkina Faso, with an area of 274,000 square kilometres, is a land-locked country in West Africa. The landscape is characterized by the Sahel region in the north and the Sudan region in the south. It has a tropical dry climate, with a long dry season and short wet season. The severe droughts over the last decades, the continuing growth of the population and the unsustainable management of lands and natural resources have all contributed to accelerating degradation of the natural vegetative cover and animal biodiversity. Lack of secure access to land and increasing conflict between stakeholders over scarce resources, as well as a lack of adequate provision for SLM in local planning processes, are exacerbating this situation.

IFAD-GEF impact
The IFAD programme has restored almost 64,000 hectares of land using indigenous soil and water conservation techniques, such as zaï22 and demi-lunes (half-moons).23 The programme has succeeded in reducing soil erosion and reversing land degradation, bringing new potential to areas long abandoned as zipélé (barren soils).

GEF support contributed to a reduction in land tenure conflicts – from almost 30 per cent in 2008 to 12 per cent in 2010. Some 109 cases of access to land, services and infrastructure were resolved through informal processes by mutual consent of the parties involved. Over 26,000 producers were given sustainable access to land for rice cultivation and market gardens, and a special fund to promote land security was established to ensure a continued focus. These achievements were supported by training in conflict resolution at the village level and embedding SLM into village development plans by financing environmental microprojects to feed into them.

22 Improved traditional planting pits dug on existing farm fields before the onset of the rains, using a hoe to break the surface crust. The pits collect and store water and run-off. Often, organic matter is placed in them to improve soil fertility. Termites are attracted to this organic matter, which they digest, making nutrients more easily available to the plant roots. Termites also dig channels, which increase the soil’s water-holding capacity.
23 Earth embankments in the shape of a semi-circle with the tips of the bunds on the contour. They are used for growing crops and also for rangeland rehabilitation. Much larger in size than the zaï, half-moons also capture run-off water from slightly sloping land and concentrate water and organic matter.
A focus on gender and young people

The project achieved a strong gender focus, with women making up 59 per cent of beneficiaries and even dominating some activities.24 SLM-related productivity gains have translated into better lives for women and their families; the most significant impacts were food security, increased incomes and better access to health care, education and drinking water. Women and young people confirmed that project financial support enabled them to diversify their livelihoods through farming and non-farm activities, which helped to reduce pressure on lands.25

24 As of 31 December 2012, according to project database.
25 Source: interviews during a supervision mission in September 2013.
Next steps: scaling up successes

The 10 case studies represent about a quarter of all IFAD-GEF projects. However, they convey a sense of the impact that this partnership has had on global environmental issues and on peoples’ lives. IFAD recognizes that there are lessons to be learned from a precious bank of knowledge and experience. It is taking active steps to build on the successes of its projects together with its partners and, in particular, through its partnership with the GEF. The portfolio of new projects and those currently being designed testify to a vibrant and evolving partnership. This is happening through IFAD loans such as in Kenya, where IFAD is investing in the environmental and social-economic capital gains from the IFAD-GEF initiative through a new project.

GEF achievements in a ‘win-win’ situation for the environment and people-oriented solutions are being scaled up through a new climate change financing mechanism. For example, Mali’s community adaptation plans are being scaled up through the Adaptation for Smallholder Agriculture Programme (ASAP)26 in a new project. In many cases, national partners are taking up technical and governance innovations because they are successful. Morocco’s experiences in designing a novel and comprehensive governance system based on tribal affiliation are being replicated in Jordan and the Syrian Arab Republic. Furthermore, a regional initiative27 has drawn on the Morocco experience in adopting the Vallerani system for land restoration in Jordan.

26 See http://www.ifad.org/climate/asap/ for more information.
27 Middle East and North Africa Regional Programme for Integrated Sustainable Development (MENARID), supported by the GEF. See website: http://www.menarid.ir/en.
IFAD fosters the sharing of good experiences within and across regions, for example through its network of regional experts. IFAD also promotes co-benefits across the different GEF focal areas, including environmental and socio-economic benefits, climate change mitigation, adaptation and food security.

IFAD, working together with the GEF, will continue to build joint investments to reach more rural people. And through their partnership both organizations can mobilize additional resources and combine forces to encourage international action to meet global environmental objectives.
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Near East and North Africa


Morocco


Jordan


West and Central Africa

Mali


Burkina Faso


Notes:

- Information from internal documents is in line with IFAD’s Information Disclosure Policy.
- All websites were accessed in March 2014.
- The activities described in the case studies represent a component or a specific feature of the projects presented.
ASAP Donors and Partners

IFAD’s Adaptation for Smallholder Agriculture Programme (ASAP) is a multi-donor programme that helps smallholder farmers cope with the impacts of climate change so they can increase their resilience.

As of 1 October 2015, the total commitments from nine donor countries (Belgium, Canada, Finland, Netherlands, Norway, Republic of Korea, Sweden, Switzerland, and United Kingdom) amounts to US$366,498,858.