



PROJECT DEVELOPMENT FACILITY REQUEST FOR PDF-B APPROVAL

AGENCY'S PROJECT ID: IFAD/XX/04
GEFSEC PROJECT ID:
COUNTRY: Morocco
PROJECT TITLE: Participatory Control of Desertification and Poverty Reduction in the Arid and Semi-Arid High Plateau Ecosystems of Eastern Morocco
GEF AGENCY: IFAD
OTHER EXECUTING AGENCY(IES): UNIDO, Haut Commissariat aux Eaux et Forêts et à la Lutte Contre la Désertification (HCEFLCD), and Ministry of Agriculture, Rural Development and Marine Fishery (MARDMF)
DURATION: 15 months
GEF FOCAL AREA: Land Degradation
GEF OPERATIONAL PROGRAM: OP #15 Sustainable Land Management
GEF STRATEGIC PRIORITY: SLM-1, SLM-2: Targeted Capacity Building; Innovative and Indigenous SLM Practices
ESTIMATED STARTING DATE: January 2005
ESTIMATED WP ENTRY DATE:

FINANCING PLAN (US\$)	
GEF ALLOCATION	
Project (<i>estimated</i>)	7,000,000
PDF A*	-
PDF B**	350,000
PDF C	-
PROJECT CO-FINANCING (estimated)	
GEF Agency (IFAD)	6,360,000
Government	2,370,000
Beneficiaries	170,000
Others	500,000
<i>Sub Total co-financing</i>	9,400,000
PDF Co-FINANCING	
National Contribution	70,000
Others (IFAD, UNIDO)	80,000
<i>Sub Total PDF Co-Financing</i>	150,000
Total PDF financing	500,000
Total Project Financing	16,400,000

RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT:

- M. A. Sahibi, Chef de Division, Département de l'Environnement, Point focal National du FEM	07/28/2004
- M. A. Hafi, Haut Commissaire, Haut Commissariat aux Eaux et Forêts et a la Lutte contre la Désertification	08/07/2004
- M. H. Narjisse, Directeur, Institut Nationale de la Recherche Agronomique	08/04/2004
- M. F. Gessouss, Directeur, Institut Agronomique et Vétérinaire Hassan II	08/03/2004

This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the GEF Project Review Criteria for approval.

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PART I - PROJECT CONCEPT

A. SUMMARY

Project Title: Participatory Control of Desertification and Poverty Reduction in the Arid and Semi-Arid High Plateau Ecosystems of Eastern Morocco.

A.1 Project Rationale

Land degradation affects the livelihoods and food security of about 1.5 million households in Morocco, and is decimating the biodiversity of the country¹. It is forcing farmers to extend production to marginal and fragile lands, thus seriously degrading the natural resource base. At the same time, rangeland quality is being depleted with increasing herd size and increased periods of prolonged droughts. In the Eastern Region, about 70% of the land is collectively used by local tribes and communities, and land use conflicts are regular features, leading to continual and often aggressive degradation of the land. These problems are further compounded by conflicting land-use policies, unclear land tenure regimes, and inconsistent or non-existent legislative and incentive frameworks. The results are a spiral of increasing rural poverty and continual degradation of natural resources, with increasing outward migration of poor people to urban areas.

Taking into consideration the above, mainstreaming Sustainable Land Management (SLM) objectives into rural development strategies and programs is recognized by the Government as a priority development strategy under the Morocco UNCCD National Action Plan (NAP). As part of the same strategies, the Government proposes also that one of the most effective solutions to address the root causes of land degradation is to empower rural populations to become real partners in managing the natural resource base and improve their economic welfare. However, as a prerequisite to mitigating the effects of land degradation, there is an urgent need for building an enabling environment by removing critical barriers (especially those associated with managing common lands), and collective actions under enhanced coordination, partnerships and a comprehensive approach to SLM investments and activities. The benefits of this can be considerable, both for smallholders/herders which represent more than 70% of the farming community, and the global environment.

The intent of this GEF project proposal is to build on successes already achieved through the Livestock and Pasture Development Project, Phase I (PDPEO project financed under an IFAD negotiated loan), and those proposed for Phase II in order to address SLM issues in the region. This approach was developed as the best and most cost effective mix of institutional and technical activities and the best opportunity for mobilizing local populations and partnership building to combat desertification, i.e., to capitalize on achievements already realized in an effort to simultaneously promote desertification control while attempting to ensure improved economic and social sustainability of the rural populations.

Many strategic requirements and elements are already in place in Eastern Morocco to develop an approach that could be replicated in many other parts of Morocco and countries of North Africa and the Middle East. For instance, further empowering Range Users Associations (RUAs), which were first established during the PDPEO Project Phase I, can be an important step in management of common lands. However, currently these are not recognized as full-fledged partners in land use planning and regulation, and assistance must be provided to develop their capacity to assume these responsibilities, including their institutional and legal status. Technical solutions, of which there are many, are effective only when the jurisdictional problems concerning common lands are resolved, and a proper enabling policy environment for desertification control is created. In this respect, the project will provide support for improving the capacity of the RUAs for better environmental management of common lands, as well as providing support for development and adoption of an enabling policy and regulatory environment to promote resolution of land use conflicts and associated SLM issues. The latter will be scaled-up within other regions of Morocco and eventually in neighboring countries.

¹ (i) More than 50% of lands are exposed to some form of degradation and 25% of watershed surfaces are at high risk of erosion. Vegetation cover loss is estimated at 31,000 ha/year; (ii) Soil loss is estimated at 100 million m³/year and soil sediments in dams range from 50 to 60 million m³/year; (iii) Water availability per capita will be reduced by 50% by 2020. Currently, it is estimated at 700 m³/person/year which puts the country in a situation of water stress; and (vi) Some 35% of the rural population is estimated to live in areas where there is serious degradation, i.e. in forest, mountain area and rangelands.

Mobilizing local human resources in the fight against desertification and poverty, particularly the RUAs, is central to the strategy of this project. These will be mobilized for collective community actions to sustain the rehabilitation and management of the natural resources of the Eastern High Plateaus, while improving living conditions and reducing poverty. This will be achieved through investments for the rehabilitation of the uplands and control of desertification by promoting natural regeneration, rotational grazing, establishment of set-aside areas for native seed production, and other non-invasive procedures. Emphasis will be put on natural plant materials for regeneration and soil cover rehabilitation including: (i) the restoration of *Artemisia herba alba* pastures along with the conservation of the alfa grass domains (*Stipa tenacissima*) dominated range sites to ensure forage during dry periods and drought; and (ii) aromatic and medicinal plants, i.e., rosemary, thyme, etc.

The control of desertification will also require targeted investments for SLM in specified locations so as to restore a perennial plant cover on these locations which are often cultivated with cereals and help reduce the pressures on the uplands. Consequently, the project will promote investments in land management restricted to targeted locations such as Sigas (broad depressions with better soil moisture conditions and deeper soils). Options may include wind breaks, biological contours with salt bush and other shrubs, improved animal feeds with improved forages, etc. These are necessary to reduce the pressure on the uplands, enhance the economic viability of the region, and mitigate the impacts of drought. The selection of the specific technology packages will be identified using appropriate participatory tools involving all stakeholders.

In addition, and with the involvement of the RUAs, restricting the land management interventions to specific areas will better enable the RUAs to monitor and control expansion of illegal encroachment and cultivation. In this connection, the project will promote the development of land use agreements with local members of the association to encourage rotational grazing and natural regeneration in upland areas as the preferred procedures for rehabilitation. The project will also promote a herder-herder training programme to promote local knowledge and technology transfer.

All project interventions will be associated with market development activities to improve the economic livelihood of stakeholder communities through improvements in rural enterprise productivity and marketing, and consolidating economically oriented organizations in the area, with specific emphasis on the RUAs.

A.2 Project Objectives

The project promotes the concept that effective mitigation of land degradation and control of desertification can be achieved only within the context of reduction of rural poverty, and only by integrated actions from all levels of stakeholders including the removal of critical barriers to SLM. Thus, the project has objectives for both rural development and global environment services.

A.2.1 Rural Development and Poverty Reduction Objective

To protect the pastoral resources in the arid and semi-arid high plateaus while improving the livelihoods of the rural poor in the Eastern Region. This will be achieved by providing support to the GOM to accelerate the Livestock and Pasture Development Project, Phase II, which is being implemented under an IFAD negotiated loan.

A.2.2 Global Environment Objective

To combat desertification, mitigate the impacts of land degradation, and protect the natural ecosystem integrity and functions of the pastoral ecosystem resources of the arid and semi-arid high plateaus of the Eastern Region. This will be achieved through the following specific objectives:

- Enhancing the institutional capacity of the GOM to develop and implement an enabling policy environment, including resolution of cross-jurisdictional legislation, strengthening the UNCCD-NAP through integration of SLM approaches and mainstreaming SLM practices into the rural development strategy.
- Improving the institutional and administrative capacities of local RUAs to take the responsibility and authority to protect the local environmental resources and control of land uses within the areas of their jurisdiction.

- Accelerating the adoption of improved technical interventions for control of land degradation and desertification, rehabilitation of degraded areas, and protection of pastoral resources.

A.3 Project Outputs

As stated above, the project will have both rural development and global environmental outputs. The rural development outputs will be reflected through the GOM-IFAD Livestock and Pasture Development project. This will result in an improved livestock industry in the area, with better animal health and marketing services, and improvement in rural livelihoods through the promotion of non-farm income generating activities and diversification or value addition to local products.

The global environmental outputs will include an improved enabling policy environment for environmental management in rangeland areas, with national level resolution of conflicting jurisdictions over such lands. It will include policies and protocols for improved local level participation in integrated environmental land use planning and regulation for mitigation of land degradation. This will illustrate the importance of collective actions for SLM. For instance: (i) commitment at the highest levels of government, (ii) building an enabling policy environment for management of common lands and resolution of land use conflicts; (iii) strong focus on local stakeholders as full partners for SLM; (iv) building on ongoing dynamics and efforts, etc.

The global environmental benefits will also accrue through capacity building and training of the RUAs for SLM, including: (i) a system of community-level land use decision-making and conflict resolution; (ii) development of a training centre for information management, herder-herder training and information exchange; (iii) on-the-ground examples of available technologies for rehabilitation of degraded areas, and experimental/demonstration sites for testing technologies based on local knowledge and new technologies for control of land degradation. These living examples will be available for study tours, visits, etc., to promote the best practices for other countries and scaling-up of SLM. The model will be documented in a series of reports and made available for wide distribution.

The project will illustrate the importance of linking poverty reduction with control of desertification, and the role to be played through value added production and the promotion of rural non-farm activities as a means to increase local investment opportunities, absorb excess labor, and stabilize migrating populations. It will also complete an evaluation of the impacts of existing national and donor sponsored projects towards development of an integrated approach to land use planning and management. The institutional structures developed, coupled with local, bottom-up involvement of RUAs, will be a model for desertification control and poverty reduction that could be replicated in other countries in North Africa and the Middle East.

A4. Project Activities

The project activities will be developed during the PDF phase using appropriate participatory procedures. As an interim measure, the feasibility mission identified several important activities to ensure a successful project².

At national level, these include the need to mainstream sustainable land management practices into priority national rural development and environmental strategies, such as the NAP on Desertification, NAP on Environment, National Rangeland Development Strategy, and National Rural Development Strategy. In addition the following activities should be undertaken:

- (i) Develop procedures to resolve conflicting jurisdictions in land use and tenure (Accord Tri-Partite³) for common lands.
- (ii) Strengthen the enabling policies and regulations to safeguard ecological integrity, functions, and services of pastoral lands in arid and semi-arid environments.
- (iii) Advise in policies and legislation to ensure implementation of participatory land use planning and management of common lands involving all stakeholders.

² Feasibility mission conducted by IFAD, Global Mechanism, UNIDO and national counterparts in May 2004.

³ The Accord Tri-Partite is being developed as a formal agreement among the Ministries of the Interior, Environment and Agriculture to resolve conflicting jurisdictional issues on management and administration of common lands. It is chaired by the Haut Commissariat for Water, Forests, and Control of Desertification.

- (iv) Enhance and accelerate the coordination and evaluation of all national and donor-sponsored projects on SLM in relation to their contributions and impacts on mitigation of land degradation, desertification, and poverty reduction in Morocco.

Project activities at local levels will include the following activities:

- (i) Improve the institutional and administrative capacities of the RUAs to take the responsibility and authority for protection of local environmental resources and control of land uses within the areas of their jurisdiction.
- (ii) Promote and enhance the capacity of local RUAs in the use, management, and control of the natural resources, including the allocation of local land uses, undertaking participatory land use planning activities, procedures of rural appraisal, and preparation of final recommendations for SLM.
- (iii) Enhance the capacity of the local support institutions and the RUAs to evaluate and implement improved technical interventions for control of land degradation, rehabilitation of degraded areas, and protection of pastoral resources, including interventions such as rotational grazing, fallow pastures, seed set aside areas, controlled stocking rates, windbreaks, contour terraces, etc.
- (iv) Support for a farmer/herder training center for information exchange and herder-herder training, and large-scale field experimental/demonstration sites for evaluation of selected best management practices.

B. COUNTRY OWNERSHIP

B.1 Country Eligibility

Morocco ratified the Convention to Combat Desertification on 7/11/1996, the Biodiversity Convention in 21/08/1995, and the Framework Convention on Climatic Changes on 28/12/1995.

B.2 Country Drivenness

In accordance with the UN Convention for Combating Desertification, the GOM adopted a National Action Plan to combat desertification (UNCCD-NAP) in June 2001. Long-term strategies were highlighted including policy issues, institutional needs, activities and budget. Integration of the relevant ministries' actions is also a principle of the UNCCD-NAP of Morocco aimed at the reduction of land degradation. The proposed GEF project responds to major activities of the Moroccan NAP: (i) building an enabling environment by removing selected critical barriers; (ii) integrated participatory models for sustainable development; (iii) capacity building to combat land degradation including support institutions and farmers/herders associations; (iv) generation of technological packages adapted to arid- and semi-arid areas, and (v) promotion of income generation activities for poverty reduction.

The GOM has been working closely with the UNCCD Global Mechanism (GM) to develop a partnership building and resource mobilization strategy for Morocco. With financial support from the GM, the GOM undertook a comprehensive study on the internal and external financing opportunities available for addressing issues of land degradation. In June 2003 a resource mobilization workshop was organised and the resource mobilization strategy was endorsed by financing partners. The activities cited above and follow up activities to the workshop demonstrate the active engagement of the GOM in pursuing resource mobilization activities to mitigate the adverse affects of desertification and its commitment to implementing the UNCCD.

Integrated Agricultural and Environmental Management in Morocco: Several significant developments have occurred in the past decade, which signal the GOM's commitment to undertaking a successful project to combat desertification. These are as follows:

Morocco's policy for poverty eradication: The government has developed a long-term agricultural and rural development strategy for 2020. This strategy aims at integrating activities locally in various sectors or sub-sectors through decentralization. Its main elements are incorporated into the Government's Five-Year Plan (2000-2004), including: (i) boosting agricultural production to enhance food security and promote agricultural exports; (ii) increasing agricultural and non-agricultural rural employment and income; (iii) improving education and vocational

training in rural areas as a basis for employment generation; (iv) fostering the policy of decentralization and devolution; (v) actively supporting participatory approaches and developing partnerships and contractual arrangements with rural communities for the implementation of development programs; (vi) developing and establishing, on a participatory basis, a credit system and local development funds adapted to rural development; (vii) setting up a monitoring system that involves all actors in the rural development process, including beneficiaries, and (viii) adapting the regulatory and legal framework to the needs of rural development activities.

IFAD's strategy and proposed activities are compatible with the GOM's program, as it seeks to engage in a participatory approach for pursuing sustainable land management for enhancing local livelihoods. It is also compatible with UNIDO's Integrated Rural Development Programs aimed at stimulating income-generating productive capacities to diversify the sources of income and employment in rural areas with a view to reducing poverty while protecting the environment.

Morocco's policy for environmental management and desertification: Several institutions are involved with environmental management in Morocco. These are the following:

- The Haut Commissariat aux Eaux et Forêts et à la Lutte Contre la Désertification (HCEFLCD). The Haut Commissariat is a Cabinet level appointment, recently created by the GOM in response to the serious threat of desertification, and as part of Morocco's responsibilities under the UNCCD. It reports directly to the King and the Prime Minister.
- The Haut Commissariat was appointed to facilitate building of an enabling policy environment, to ensure effective management of common lands, and to ensure that integrated SLM policies and initiatives are developed where necessary and adopted as priorities in national rural and environmental development plans. The Haut Commissariat has the responsibility and authority to oversee the policies, programs and activities of all line departments dealing with land resources, and to bring these departments together to resolve issues on use and management of common lands, including among others cross-jurisdictional issues, conflicting land use policies, and the difficult issues of use allocation as well as land tenure rights. This illustrates the strong country commitment to combating desertification and to this project.
- The Ministry of Agriculture, Rural Development and Marine Fishery (MADRMF), dealing with rural development and natural resources management. This is a well-established line department, with traditional extension services, dealing closely with the rural population. This department normally provides the technical and institutional backstopping for environmental management in rural areas, because of its history of contact and trust with rural people.
- The Environment Department within the Ministry of "Aménagement du Territoire, de l'Eau et de l'Environnement", assigned to coordinate government actions concerning environmental protection. It is also responsible for preparing and implementing new legislation to integrate environmental protection in the project preparation and approval process.

Although Morocco does not yet have comprehensive regulations for environmental protection, there are specific laws requiring environmental protection for water, forestry and rain-fed areas. Those related to the agricultural sector are: (i) Dahir dated 25/09/69 which is related to the control of erosion from water and wind; (ii) Law 33-94 which allows the State to intervene in legally designated rain-fed agricultural development perimeters (called PMVB), including areas under cultivation, rangelands and forests; (iii) Law 34-94 which prohibits farm division in the PMVB, (iv) Law 42-95 related to the control and marketing of pesticides; (v) Law 12-90 related to the protection of agricultural land from urbanization, and (vi) law 10-95 on water resources management and protection.

C. PROGRAM AND POLICY CONFORMITY

C.1 Program Designation and Conformity

The project conforms closely to GEF's Operational Strategy, the objectives and eligible activities under OP15, and the strategic priorities of Targeted Capacity Building (SLM 1) and Implementation of Innovative and Indigenous Sustainable Land Management Practices (SLM 2).

The project involves an integrated approach to poverty reduction and rangeland improvement, rehabilitation, and protection and sustainable participatory management, to ensure long term, sustainable control and mitigation of land degradation and desertification. Emphasis will be on use of indigenous species for facilitating regeneration activities and using local technologies common to the herder populations of the region. The project will involve mainstreaming SLM strategies into national development priorities, as well as national and community level capacity building to ensure participatory involvement in integrated land use planning and implementation.

The GEF project will link closely with the Livestock and Pasture Development Project, Phase II, which is already approved and will be funded under an IFAD negotiated loan as well as from other sources. Specifically, the GEF assistance will focus on the incremental costs of country-driven initiatives for SLM to preserve the structure and functional integrity of the rangeland ecosystems, mitigate the impacts of land degradation, and control further desertification.

The GEF assistance will be consistent with the work program priorities of the recently developed UNCCD-NAP, and with the partnership building and resource mobilization activities initiated by the Global Mechanism (GM).

C.2 Project Design

C.2.1 The Problems of Desertification in the High Plateaus

Many government and donor-sponsored projects have addressed land degradation and desertification in Morocco, but the collective impacts of these have not achieved optimal results and the problem continues as a major concern. This is due primarily to an over reliance on technical solutions, the lack of a comprehensive, integrated approach to land use planning and management, the lack of an enabling policy environment for desertification control, and the lack of interest and incentives for involvement of local stakeholders. Of these, the two most serious deficiencies are: (i) weak institutional support for mobilizing and motivating local farmers and herders in control of desertification, and (ii) lack of a comprehensive, integrated approach and an enabling policy environment for land use, land tenure and management of common lands. Overcoming these deficiencies are the underpinnings of the project.

Desertification is a complex social and biophysical phenomenon, and solutions must involve integrated actions from all sectors of society. The High Plateau arid and semi-arid areas of Morocco are fragile, demanding environments, with thin soils, sporadic and unreliable precipitation, and low productivity. Land degradation, particularly wind and water erosion, is prevalent in these areas. In addition, these regions are subject to prolonged and sometimes severe periods of drought. Currently, these problems are compounded by increasing animal numbers, unregulated, uncontrolled, and exploitative grazing and encroachment of cultivation on rangelands, conflicting and cross-jurisdictional control of common lands and usufruct rights, weak local institutions, and lack of local involvement for protection and conservation of the rangelands. The environmental impacts of this are continued overexploitation of the soil and rangeland plant resources, increased erosion, loss of biodiversity and ecosystem resilience, increased emission of carbon dioxide and reduced carbon sequestration potential, and degradation of watershed functions, including siltation of waterways and dams. From a socio-economic perspective, this leads to loss of economic productivity, increased production risks and population vulnerability and increased poverty.

In addition, the policy environment for desertification control has been *ad hoc* and uncoordinated, resulting often in cross-jurisdictional confusion on issues dealing with common lands, including land use and tenure. There is considerable need for enabling measures at national and at local levels to support and promote fundamental changes in land use and management and to mainstream SLM initiatives at the local and national levels. Without such initiatives and the creation of an environment for conservation, existing problems will continue, with consequent, gradual deterioration of rangeland resources, collapse of the alfagrass ecosystems and livestock economy, and eventual encroachment of the desert.

C.2.2 The Incremental Reasoning for the GEF Project

The project aims to combat land degradation and desertification, conserve rangeland ecosystems in the arid and semi-arid high plateaus, and contribute to alleviation of rural poverty. This will be achieved by linking the project to the GOM Livestock and Pasture Development Project, Phase II, which is being implemented under an IFAD negotiated loan. The GOM project will focus primarily

on livestock production compatible with the sustainable participatory management of rangeland resources, drought proofing, and poverty reduction, while the GEF project will focus on control of land degradation and desertification, and on conservation and preservation of the integrity, functions, and services of the alfagrass ecosystems. The projects are complementary and will be integrated to capture the synergy of objectives and economies of implementation.

The principal objectives of the Livestock and Pasture Development Project (GOM) are to increase the income and improve the living conditions of the rural poor in the Eastern Region. It will do so by working through local community empowerment to capitalize on the Eastern Region's potential, control and mitigate drought, and create new economic opportunities for the most vulnerable groups. In addition, it will move to strengthen the capability of local public institutions and grass-roots organizations to establish viable participatory mechanisms for identification and implementation of investment opportunities, promote adapted livestock production systems leading to higher value added to animal and other products through local processing, as well as improved linkages to potential markets, diversify income sources through promotion of income-generating activities and improved access to technical, marketing and financial services. Thus, the GOM project will focus on rural development objectives.

The GEF project will contribute to these rural development objectives by providing support to enhance the institutional management of local natural resources by ensuring effective participation of all stakeholders and bottom-up natural resources management, and promoting the further empowerment and capacity of the RUAs to become full partners in the use and management of natural resources of the region in balance with the natural capacity. The GEF project will focus on global environmental objectives, particularly protection and maintenance of ecological resources and ecosystem structures by promoting and enhancing land uses to ensure better control of desertification, mitigation of land degradation, and protection of pastoral resources.

The project will also strengthen the poverty reduction objectives by promoting the role of small business development and other income generating activities, including non-farm rural activities and the role of women, for generating investments for SLM. This will be achieved by conducting market surveys for natural products from the area, including: (i) specialty range fed meats, specialty honeys, truffles, local arts and crafts, etc., (ii) evaluating the potentials for eco-tourism in the area, and (iii) promoting collective self-help initiatives.

C.2.3 Current Baseline Situation without GEF Interventions

Background: The High Plateaus of Eastern Morocco are part of a vast region of North Africa. Ecosystems of comparable potential/constraints are also found in Northern Libya, Northwest Egypt, Syria, Algeria, Jordan, and Iraq. In Morocco, this region is approximately 1,000 – 1,400 m amsl, with hot dry summers and cool dry winters. Total area is approximately 38,000 km², with a population of about 100,000, 80% of which are rural. About 3.7 million ha, 95% of the total, are pasture and forest, and about 150,000 ha are arable land. The intrinsic productivity of the land is low, although there is a broad range of native plant and animal resources, including perennial forage resources (mainly alfagrass), aromatic and medicinal plants (mainly rosemary and sage brush), and food products (mainly truffles). In addition, there is a long tradition of sheep breeding on the range and the *Béni guil* is the local breed of sheep known to have considerable adaptation and performance capabilities.

Biodiversity issues: Historically, the natural ecosystems of this area were grazed by wild ungulates (*Ammotragus laervia*, *Gazella dorcas*, *Gazella cuvieri*) and domestic herbivores (sheep, goats, camels). Accounts of the early 20th century also mention carnivores such as *Panthera pardus panthera*, *Acinonyx jubatus*, *Alcelaphus buselaphus* and *Hyaena hyaena barbara*. Habitat disturbance and excessive hunting have resulted in the extinction of the first three carnivores, and the remaining wild herbivores have become endangered species. However, during this period the major structural and functional attributes of the ecosystems were maintained because there was minimal disturbance due to cultivation, and grazing pressure was regulated by natural processes including major droughts which resulted in high animal mortality. Traditionally, herds and herders migrated continuously, thus ensuring rest periods for natural rangeland regeneration.

Major changes occurred after the long and severe drought (1979-85) which afflicted most of the country: (i) a high rate of mortality within the *Artemisia herba-alba* stands over large areas, which represent the most palatable range sites. This resulted in a decreased species richness on these sites, reduced soil cover, and decreased ecosystem productivity and resilience; (ii) an increased tendency among herders to settle in defined ranges, and increased usage of feed supplements to

mitigate droughts. This has resulted in considerably increased pressure on the land and drastically reduced species richness in many ecosystems, especially those dominated by alfagrass (*Stipa tenacissima*), which has relatively low palatability but which is highly resistant to drought. The last drought episode (1998-2002) only worsened these changes, with the result that currently, there is large scale supplemental feeding over most of the year and less herd movement. In many cases, the grazing pressure on drought-stressed alfagrass ecosystems is close to its threshold carrying capacity, with a disturbing reduction in ecosystem structure and function. In addition, the cultivation process, which was once restricted to small areas in the lowlands, has accelerated and is spreading to the uplands (dry highlands with caliche layer, highly vulnerable pre-Saharan ecosystems in the South).

Currently, over 80 vegetation associations, dominated by alfagrass steppes and low growing shrubs, have been identified and mapped on the basis of the dominant/co-dominant plant species and soil/substrate, topography and bioclimatic conditions. Animal diversity indicates approximately 47 species of mammals, of which 3 are considered extinct and most others are endangered; 61 species of birds of which 25 are either endemic, rare or endangered, and 23 species of reptiles. Little information is available on the species diversity of other groups, particularly insects and soil fauna and flora.

Agriculture and Poverty: Livestock production systems, primarily sheep and goats on rangelands, are the dominant economic activity. More than 1.4 million animal units are available, and half a million animals are sent to market each year. Animal feeding is based on rangeland grazing supplemented by feed, mostly barley, which is produced in small quantity within the area, but is mostly imported from other areas. Population distribution and poverty levels in relation to herd size is as follows (Table 1):

Table 1. Categories of Animal Production Units

No. of animals	<20	20-59	60-99	100-199	>200
% of total	11.5	47.2	16.7	16.3	8.3

This shows that approximately 59% of the rural population is poor (<60 animal units), and a total of about 75% require additional income to that earned from their livestock enterprises to survive (<100 animal units). The continued focus on livestock production and excessive use of rangeland resources is significantly increasing the pressure on the land resulting in accelerated land degradation.

The repeated periods of drought and accelerated degradation of the rangelands has increased the economic vulnerability of the rural populations. Job opportunities for those not involved in livestock production are very limited due to the very small business and service sector, and in general, people need more than one source of income to survive. The population of women and girls in the region is estimated at more than 50,000, the majority of whom live on the rangelands, but there is also a growing group which has migrated or is in the process of migrating to urban centers. The majority of women are either illiterate or have a minimum level of literacy and own few assets.

Constraints to Desertification Control: There are many constraints to desertification control in the region, beginning with the multiplicity of laws and regulations concerning land use and tenure, often resulting in uncontrolled and abusive exploitation of natural resources. Continued development of policies in the absence of strong coordination mechanisms; weak national and local institutions for land use control and management; lack of integrated; bottom-up planning approaches; lack of incentive frameworks for adoption of SLM principles, and weak inter-sectoral consultations and coordination, all lead to considerable resource use inefficiencies. Also, the very limited human and budgetary resources of the Ministry of Agriculture, Rural Development and Marine Fishery (MADRMF) field structures in the area — two Provincial Directorates for Agriculture (DPAs) in Figuig and Oujda and six centers of agricultural works (CTs) — do not allow for adequate technical backstopping coverage of the widely-spread population. In addition, natural disasters such as the successive, prolonged droughts observed over the last decades, limited rainfall (from 160 mm in the south to 250 mm in the north), shallow soils with caliche (hard calcareous crust) that are not suitable for cultivation, leave the farmers/herders highly susceptible, and prompt them to adopt risk averse management practices that often result in overgrazing, illegal cultivation, soil erosion, and degraded rangelands. Currently, the major land degradation forces leading to land degradation and deterioration of rangelands are: (i) land cultivation causing soil erosion, (ii) loss of major perennials and decreased rangeland resilience; (iii) non-sustainable grazing practices,

especially during drought periods and particularly outside the protected areas managed by the RUAs, and (iv) uprooting of alfa grass and other plant species for home cooking.

Continuation Without GEF Involvement: The expected scenario without GEF interventions is continued, uncontrolled land degradation and desertification, with serious environmental and local livelihood consequences for the Eastern Plateaus. The alfa-grass ecosystems, which are so important for global environmental benefits as well as economic survival in these areas, are already under serious stress, with the consequent loss of soil cover and biodiversity, and loss of system functions and resilience. Soil erosion is rampant throughout the region, resulting in a progressive deterioration of productivity, reduced capacity for soil carbon sequestration and release of CO₂ to the atmosphere, and destruction of wildlife habitat. Concurrently, the rangeland resources are deteriorating, with reduction in economic welfare and acceleration of the poverty spiral.

The Eastern Plateaus are representative of globally important ecosystems that are found in many countries in North Africa and the Middle East. The integrated biophysical, social and economic model presented in this project has the potential to reverse the continued desertification of these regions. This would ensure the continual provision of viable environmental services and reliable economic returns from these regions.

C.2.4 Potential Situation with GEF Interventions - Building Partnerships for Control of Desertification — A Model for Morocco, North Africa, and the Middle East

As stated above, the objective of the GEF project is to integrate institutional and site-specific interventions for combating desertification at national and local levels, so as to improve local livelihoods while concurrently providing global environmental benefits. This will be achieved by building on successes already achieved through the Livestock and Pasture Development Project, Phase I and those proposed for Phase II (both phases financed under an IFAD negotiated loan).

The successful control of a process as complex as desertification cannot be achieved in the absence of a comprehensive and integrated approach. It requires development of an enabling policy environment within which local interventions are recognized and rewarded, as well as coordination among responsible jurisdictions to ensure removal of contradictory policies. At the same time, it requires mobilizing and empowering rural populations as real partners in natural resources conservation. Farmers and pastoralists in arid and semi-arid areas adopt opportunistic strategies for survival in these harsh environments; they need to remain flexible so as to better capture natural, often short-lived, opportunities as they become available. However, the pastoralists also have a deep understanding of the importance of conserving the land resources on which their production and survival depends. As these communities become more and more sedentary, the objective of the GEF interventions is to work with them to capture this conservation ethic as the primary opportunity for control of desertification. There is no other alternative; large-scale rehabilitation paid by national or international governments and agencies is simply too expensive, and will be difficult to undertake.

Discussions at the national level have already begun under the guidance of the Haut Commissariat, designed to create an enabling policy environment, ensure effective management of common lands and resolve land use conflicts through community level actions. These negotiations will work to ensure that integrated SLM policies and initiatives are mainstreamed into national rural and environmental development plans and comprehensive development frameworks. These will be supported and accelerated by the GEF interventions planned under this project.

A balanced approach is necessary to concurrently combat desertification and poverty in eastern Morocco, and thus interventions are planned both at national and local levels. Under this GEF project, significant attention will be given to the local level to improve the capacity of RUAs to assume the responsibilities and authority for management of common land areas. Activities are designed to enable the RUAs to prepare, implement, and monitor land management plans through participatory community level discussions. The RUAs, in cooperation with government extension staff, will also be able to manage two on-the-ground experimental/demonstration sites for rotational grazing, land set-aside, and soil erosion control, as well as an information centre for application of local knowledge on rangeland management and herder-herder training.

Concurrently, activities on reduction of rural poverty will be put in place, focusing on strengthening market opportunities for natural products to better ensure their economic and conservation value.

These activities, which will be integrated with the GOM Livestock and Pasture Development Project, are essential to create an investment potential and promote local, farmer/herder investments in land management and rehabilitation. There is an urgent need to diversify economic activities in the region as one of the important means to reduce the pressure on the rangeland. This can be achieved through the transformation and diversification of micro and small enterprises to growth-oriented activities, and unleashing their under-utilized productivity potential. This diversification should lead to more sources of employment, increased income, improved skills, and consumable products for the population as a whole, thus contributing to reducing the pressure on land resources and poverty alleviation in general.

The balance between the project objectives of SLM and poverty reduction will ensure better maintenance of the ecological integrity of the rangelands, while concurrently ensuring that local populations realize the economic value of the environment, and thus ensure protection, management, and future sustainability of the project. These objectives are in accord with the general Millennium Development Goals (MDGS) principals and the New Partnership for Africa's Development (NEPAD) of eradicating poverty and ensuring environmental sustainability.

In addition, some analytical studies are planned to provide better understanding of the biophysical and socio-economic linkages of desertification, balancing herd size with natural regeneration, promotion of local knowledge for desertification control, etc.

C.2.5 Planned Project Interventions

The problems of desertification, land degradation and poverty reduction are complex and intertwined, and no one set of activities is adequate. Consequently, the search for solutions has to be based on sets of inter-related and complementary interventions targeted at removing obstacles, empowering local institutions, and reducing poverty. Based on discussions with local, regional and national government representatives, as well as meetings with local RUAs, the following interventions were identified (the final selection of interventions will be identified during the design phase of the project):

❖ Institutional Interventions:

- **Developing an Enabling Policy Environment:** In this connection, the project will provide: (i) institutional support towards resolution of cross-jurisdictional problems of land tenure and management of rangelands (Accord Tri-Partite); (ii) support for strengthening the enabling policies and regulations to safeguard ecological integrity, functions, and services of pastoral lands in arid and semi-arid environments; (iii) promote bottom-up planning for SLM by working with RUAs to empower and enhance their capacity to become full partners with government agencies in resolving common lands issues, and (iv) support for better coordination of programs and policies having to do with land management and control of desertification at the national level⁴.
- **Capacity Building:** These interventions will include two areas of activities: (i) institutionalize a participatory approach to land use conflict resolution, promoting empowerment of farmer cooperatives/RUA's to assume authority and responsibility for control and management of pastoral areas, and developing partnerships with responsible NGOs to promote conservation of rangelands, and (ii) consolidate and strengthen the capacity of RUAs to participate in the resolution of conflicting jurisdictions among government departments (Accord Tri-Partite between the MADRPM, the HCEFLCD and the Ministry of the Interior). Capacity building will also involve providing assistance to improve the capacity of selected local government services, (Directions Provinciales de l'Agriculture – DPA's, Centres de Travaux – CT's, et Direction Régionale des Eaux et Forêts - DREF), to provide technical and institutional backstopping.

❖ Practical Local Level Interventions:

- **Practical Options for Control of Desertification and to Promote Drought Proofing:** The project will promote a mix of traditional and technical on-the-ground solutions for desertification control: (i) In upland areas, the project will provide assistance to RUAs to resolve issues and conflicts of land use allocation for stakeholders; agreement on treatments and monitoring of cultivation; the employment of natural regeneration in

⁴ A comprehensive summary of selected land management projects in Morocco is contained in Appendix 1.

upland areas including vegetative rest periods (natural regeneration) and rotational grazing; the establishment of protected areas for seed production; the promotion of ripping of "caliche" areas to enhance regeneration, planting of salt bush or other indigenous drought tolerant shrubs as wind breaks and for natural regeneration, and promotion of community-level decision-making for control and monitoring of stocking density. (ii) In lowland sites, the project will promote rehabilitation of land used in low-lying (Siga) areas in cooperation with RUAs, including biological contour wind breaks and erosion control ditches (salt bush or other drought resistant shrubs in alley cropping systems), promotion of technologies to provide soil cover (zero tillage, etc.), forage improvement, and promotion of water harvesting technologies (catchment ponds, small dams, storm runoff control, and gouging).

- **Building Knowledge for Desertification Control:** The project will provide assistance to the RUAs to improve their knowledge of rangeland management, including the capture of traditional, local knowledge. It will establish one RUA training and information center where the members of the RUAs can convene for information exchange, herder-herder training, access to extension materials, etc. The project will provide assistance to the MADRPM for technical and managerial backstopping for the information center.

In addition, the project will select two major project intervention areas for the purposes of evaluation and testing of appropriate technologies for desertification control. These sites will be administered by the RUAs with the information center providing guidance on the use of traditional knowledge. Each site will cover an area of approximately 50,000 ha; one will be representative of the arid, rapidly desertifying region in the south, and the other will be representative of the dry, semi-arid, rapidly desertifying region in the north. The landscapes in both areas will be similar and will include the broad, undulating upland areas, as well as the low-lying, broad swales (Siga) with slightly better moisture conditions and normally deeper (depositional) soils. The specific land management treatments will be on the Siga areas, but only selected locations within each project area will be treated intensively. To the extent possible, the project sites will include, or be adjacent to areas already set aside by the RUAs for natural regeneration of the native vegetation (alfa grass dominated range sites).

❖ **Poverty Interventions:**

- **Income Security and Value Added Production:** The project will promote income generating activities to alleviate poverty and absorb excess labor as a means to reduce natural resource exploitation and ease pressures on land. These may include value added production, market development for natural products (truffles, rosemary, aromatics, medicinal plants), dairy processing, small business opportunities in ecotourism, and developing local service industries.

As stated above, the GEF project will link closely with the Livestock and Pasture Development Project, Phase II (financed under an IFAD negotiated loan). This approach was identified as the best and most cost effective approach to capitalize on achievements already realized under Phase I, and the best opportunity for mobilizing local populations, as well as promoting synergy in control of desertification and reduction of rural poverty. Table 2 below illustrates complementary activities for intended GEF co-funding.

Table 2. Objectives and Activities in the Livestock and Pasture Development and the proposed GEF Project

<i>Objectives</i>	<i>Activities</i>	<i>GEF Co-Financing</i>
Resolution of common-land management/Strengthen institutional capacity	Operationalize rangeland strategy /prepare master plan	Y
	Support for the Accord Tri-Partite	Y
	Thematic studies	Y
	Strengthen MADRPM extension	Y
	Implement regional GIS	N
	Livestock development	N
	Animal health	N
Promote partnerships/local institution building	Strengthen RUAs/local institutions	Y
	Agro-pastoral information center	Y
	Local knowledge	Y
Mechanisms for desertification control	Rangeland rehabilitation	Y
	Training in rangeland management	Y
	Drought early warning system	N
Value added production*	Market research and development	N
	Small business development	N
	Training in business management	N
	Upgrading livestock value added chain	N
	Micro-credit	N
Project adm. and coordination	Training, administration, financing, logistics, etc.	Y

* *Activities promoted by the project, but funded by other donors*

C.2.6 Expected Global Environmental - Benefits from the GEF Alternative

The preservation and conservation of the rangeland resources of the High Plateaus, including the ecosystem integrity and functions of the alfagrass ecosystems, will be a major contribution to global environmental benefits. These systems are fundamental to survival of all life forms in these desert environments, including many endangered species (see section C.2.3: Biodiversity issues). This is due to their high drought tolerance, natural resilience, and maintenance of ground cover to control erosion. They are recognized by the farmer/herders as important resources for the livestock industry of the area and their economic survival.

Other global benefits will come from improved control of soil erosion and land degradation. These benefits accrue from improved practices of rangeland management, including rotational grazing, development of protected areas for seed sources and natural regeneration, rehabilitation of degraded lands, and other project interventions. These improved practices ensure better maintenance of ground cover, and reduced soil erosion. Native biodiversity will be preserved through use of endogenous sources of seed stock for rangeland improvement and rehabilitation. These interventions will work to control the desertification process in the area, thereby preserving these important arid and semi-arid ecosystems from dune encroachment and destruction. In addition, global benefits will accrue from increased soil carbon sequestration and mitigation of global climate change.

A major global benefit will come from development and illustration of an institutional model for control of desertification. This model will be suitable for replication in large areas of similar ecosystems in North Africa and the Middle East. The project will illustrate the importance of a high level State appointment (i.e., HCEFLCD) to resolve conflicts of cross-jurisdiction, create the regulatory and enabling policy environment, implement a bottom-up land use planning approach, and the process of mainstreaming SLM processes into priority rural development strategies. In addition, it will illustrate the importance of engaging and mobilizing local rural populations (RUAs) in the management of common lands, and in control of land degradation and desertification. Through these initiatives, rural populations most affected by desertification will be mobilized as important partners to effect the front line control. The project will illustrate how to develop such a practical and cost effective approach, and how to duplicate this in other countries of North Africa and the Middle East, as well as other regions subject to the threats of desertification.

C.3 Sustainability

The project will focus on "priority action zones" already selected by the Government on the basis of criteria such as level of poverty, shortage of basic infrastructure, access to social services and natural resource degradation. It will build on achievements and dynamics of projects carried-out by IFAD and others to establish linkages, collective actions and partnerships enhancing the sustainability of the project.

The sustainability of the project is further assured by the strong commitment of the Government of Morocco to desertification control at the highest levels, as shown under the UNCCD-NAP and by the appointment of a Haut Commissariat for water, forest and desertification control. The latter has the authority to mobilize cooperation from the other line Ministries, and to bring about resolution of such contentious issues as land use conflicts and management of the common lands. The HCEFLCD, MARDMF and DOE are the main partners for coordinating and implementing the GEF project, and will resolve, in collaboration with the Ministry of Interior, issues of cross jurisdiction of common lands between the GOM and the RUAs. These initiatives will result in mainstreaming SLM into national planning processes, and ensure continued allocation of natural resources to address land degradation as well as provide a vehicle for leveraging external support. It will also ensure that with an improved enabling policy, legislative, institutional, and incentive framework, local control over natural resources will continue post-project completion engendering long-term positive impacts. Also, capacity building at all levels will facilitate improved response capacity to changing circumstances such as potential climate change effects.

The technical sustainability of the project will be ensured by the generation and diffusion of technologies suitable for the specific needs of the farmers/herders and to their local socio-economic and agro-ecological conditions. The institutional sustainability will be ensured by the direct involvement of the beneficiaries (RUAs, local communities, etc.), in all stages of the project and empowering them through the capacity building component of the project. The economic sustainability will be ensured by the viability of the farming technologies promoted under the project and the resulting improvements in the socio-economic conditions of the targeted populations/areas. The development of the small business sector, centered on the local population, including women, is fundamental to improved social well-being and poverty alleviation.

Sustainability is also assured by the strong interest on the part of the RUAs in the evolution of their role as the primary custodians of the common lands. Support will be provided to better equip the RUAs to assume their responsibilities and authority, including the federation and registration of Unions of RUAs, as appropriate. Several RUAs are already beginning to exercise these functions, and with training and support, others will be in a good position for this by the end of the project. Experience elsewhere has shown that empowerment of local communities, coupled with maintenance of some economic benefits, are the best assurances for long-term sustainability of a project.

C.4 Replicability

Many key requirements and elements are already in place in Morocco to replicate and upscale this approach to other regions of the country. The approach is a practical mix of integrated institutional and technological interventions, developed within an enabling policy environment including commitment at high government level, adoption of a participatory bottom-up planning approach, and the identification of the local community level groups (RUAs) as the key participants in the struggle to control desertification.

In addition, the principles and technologies that will be developed could be up-scaled and transferred to other North African, Middle East, and Mediterranean countries by adapting them to the local conditions/circumstances. The replicability of the project activities will be enhanced by information exchange on research findings, study tours, etc., and eventually, the establishment of a regional network.

C.5 Stakeholders

The major stakeholders in the project are the farmer/herders and rural communities in the region, most of whom are poor and remain marginalized. This includes women and young school graduates who have considerable difficulty to find local employment. The farmer/herders will receive support

and training on procedures and techniques of community level land use decision making, creating, negotiating, and implementing community development plans, resolving land use conflicts, and providing leadership in desertification control. This will empower them to take more responsibility in their development. Ultimately and working through the RUAs, they will become full partners in the management of the commons. Some of the RUAs will receive support to establish small businesses and for improving the local marketing structures, including those favoring women. These initiatives will work to improve the private sector and local NGOs in the region and contribute to the sustainability of the project.

Other stakeholders include government agencies, such as the HCEFLCD, MARDMF and its support institutions, MOI and the DOE, who will receive support and capacity building on principles and practices of SLM, issues related to management of common lands, resolving land use conflicts etc. Also, it is envisaged that NGOs and Civil Society Organizations will play a crucial role in community mobilization and awareness-raising.

D. FINANCING

D.1 Financing Plan

The project will be financed with a GEF contribution estimated at US\$ 7,0 million. This is incremental funding to the Livestock and Pasture Development Project, Phase II, to cover local and global environmental and sustainability issues. Financing for the Livestock and Pasture Development Project is set at US\$ 8,90 million, with US\$ 6,36 million financed through an IFAD loan, a GOM contribution of US\$ 2,37 million, and beneficiary co-funding of US\$ 170,000. Financing for the Livestock and Pasture Development Project Phase II is already in place. The GEF incremental financing and the relationship of this to the Livestock and Pasture Development Project are illustrated in Section C.2.5 (Table 2).

Judging from the interest of donors shown in the agricultural sector of Morocco and in supporting its UNCCD-NAP, in particular in arid and semi-arid rainfed areas, additional co-financing is expected from potential donors such as Spanish Cooperation, Italian Cooperation, GTZ, JICA, OPEC, etc., (to be negotiated during the PDF-B phase). These donors and others will be approached to finance the poverty reduction and market development components of the project.

In collaboration with the GM, the GOM has elaborated a partnership building and resource mobilisation strategy. As part of the strategy, a Country Financing Partnership forum was convened to bring together national stakeholders and donors to discuss national priorities and potential financing options. Mobilising GEF resources is an essential part of this strategy; as such, the proposed GEF project has been set as a "priority project" and presented at a Country Financing Partnership forum to mobilise additional financing for the project (September 28, 2004).

D.2 Cost Effectiveness

Highly significant co-funding for the GEF project will be achieved by integrating the GEF project with the Livestock and Pasture Development Project, Phase II, GOM. The total value of this Phase II is US\$ 9,4 million; linking the GEF project to this initiative constitutes a considerable investment opportunity.

E. INSTITUTIONAL COORDINATION AND SUPPORT

E.1 Linkages

E.1.1 Sector programs

The Government of Morocco and various multilateral and bilateral agencies are active in the field of rural development and related environmental issues in several regions of the country (see Appendix 1). The present project proposal will be aligned with these programs; i.e., those envisaged under the World Bank Country Assistance Strategy (CAS), namely the integrated and participatory rural development programs targeted at disadvantaged areas, conservation of the natural resource base (Protected management areas - GEF project), expansion of basic rural infrastructure and access to social services, etc.

The GEF project is in harmony with the United Nations Development Assistance Framework (UNDAF) targeting poverty reduction, decentralization to local level to allow development actions to be adapted to specific problems, partnership approaches to program development and execution using participatory mechanisms together with the beneficiaries, etc. It is also an integral part of the National Environmental Action Plan (NEAP) which is a strategic framework for sustainable development in Morocco approved in February 2002 and supported by several development partners (WB, UNDP, GTZ, etc.).

E.1.2 Other GEF operational programs

The proposed project complies with the GEF operational objectives on Sustainable Land Management (OP15). It also supports activities relevant to other GEF operational programs, including, OP1 (Arid and Semi-Arid Zone Ecosystems) and OP12 (Integrated Ecosystem Management).

E.2 Consultation, Coordination and Collaboration

This proposal was developed with co-financing from IFAD, the Global Mechanism and UNIDO and following extensive consultation with many government agencies, including MOI, MARDMF, DOE, HCEFLCD, National R&D Institutions (INRA and IAV Hassan II)⁵ and local support administration (DPV, DREFO, CT). In addition, field consultations were held with three local RUAs, including detailed discussions with participating farmer/herders, as well as Extension Officers serving this large and dispersed area. The project objectives, activities, work plans, and budgets evolved from these discussions.

Based on the above discussions, it was decided to position this project along with previously successful projects developed under IFAD loans. In addition, the GOM and GM have developed a partnership building and resource mobilization strategy. Subsequent to the June 2003 resource mobilization workshop, efforts were undertaken to finalize NAP priority projects; accordingly, consultations were initiated with financing partners. The GEF project is an integral element of the NAP priority projects portfolio and was presented at the Country Financing Partnership (CFP) forum to bilateral and multilateral partners, as well as, other stakeholders on 28 September 2004. The CFP served to present the national strategy for resource mobilization for NAP implementation, discuss the NAP priority projects portfolio, consolidate partnerships and firm up commitments. The CFP forum provided potential co-financiers with an opportunity to familiarize themselves with the GEF PDF-B proposal at an early stage. The contribution of the GM both in financial and conceptual terms in bringing together this proposal demonstrates the consultation and collaboration between IFAD, UNIDO and the GM in support of GOM's efforts with the UNCCD implementation.

The joining of the two organizations, IFAD and UNIDO in this project is based on the need to combine expertise at: (i) the rural level: enable the rural poor to overcome their poverty through the stimulation of income-generating productive capacities with a view to promoting sustainable local markets and relieve the pressure on natural resources; and (ii) the agricultural and environmental level: promoting SLM, i.e., fostering and developing partnerships and contractual arrangements with rural communities to better preserve the natural resources, introducing proven technical solutions for land preservation, etc., contributing *inter-alia* to a sustainable management of the soils/vegetation resources, food security, employment creation and growth of the rural economy.

IFAD's strategy and interventions emphasize the interaction between agro-ecological and socio-economic factors. It targets the poorest populations, promotes a participatory approach, emphasizes creating and strengthening of grass-roots institutions, and puts a focus on natural resource management. The key elements of IFAD's strategy in Morocco, as outlined in the Country Strategic Opportunities Paper (COSOP) approved by IFAD management in 1999, consist in contributing to the Government's efforts to: (i) focus on community-driven rural development; (ii) promote food security at national and household levels through diversification of production; (iii) further consolidation and strengthening of devolved, decentralized planning and implementation through support for local institutions and grass-roots organizations, and (iv) improve access of poor rural households to productive resources, including land, water, technological know-how and financial services.

⁵ INRA = Institut Nationale de la Recherche Agronomique. IAV Hassan II = Institut Agronomique et Vétérinaire Hassan II.

The development objective of UNIDO is to contribute and accelerate socio-economic development while ensuring improved environmental management particularly control of land degradation. UNIDO's "3E policy" highlights: (i) a competitive economy measured in terms of growth and structural transformation; (ii) productive employment measured in terms of jobs created; and (iii) a sound environment measured in terms of reducing negative impacts on ecosystems and biodiversity.

Furthermore, a large number of other cooperators and donor agencies have been active partners in the evolution of NRM in Morocco. These include, UNDP, World Bank, GTZ, the Global Mechanism, European Community, and the GEF. The projects developed in the last decade are shown in Appendix 1. These will be reviewed and evaluated during the PDF phase.

Projects in Morocco involving the GEF include the Protected Areas Management Project, involving the creation and management of national parks and one for biodiversity conservation, namely:

- *SIBE of Jbel Krouz*: a large site (60,000 ha) representative of the Atlas Saharien ecosystems, located in the province of Figuig;
- *SIBE of Chekhar*: a diverse, somewhat degraded ecosystem (10,000 ha) up to 1350 m, in the Province of Oujda, with remnant oak forest;
- *Sousse-Massa-Draa* biodiversity conservation project.

Liaison will be established with these GEF projects. Recently, the GOM has also entered into co-operation with the European Community to develop a monitoring and evaluation system for desertification control in Morocco and Tunisia. This will be evaluated during the PDF phase for application in the project.

E.3 Implementation/Execution Arrangements

A high quality technical and financial implementation of the project will be assured following standards and procedures employed by IFAD and UNIDO. IFAD will be the implementing agency, while UNIDO, in co-operation with local agencies, will be the project executing agency, through its respective Division, Programme Development and Technical Cooperation (PTC Division, Agro-Industries and Sectoral Support Branch - AGR). This Division will supervise and assist in project coordination, monitoring, and supervision. In addition, it will provide assistance with the promotion of income-generating activities as one of the primary interventions on poverty reduction⁶.

The main counterparts at the national level will be the HCEFLCD, MARDMF and DOE for implementing the GEF project. They will be responsible, consistent with their respective mandates, for all aspects of the project, including resolution of cross-jurisdictional control of common lands, providing the enabling policy environment and coordination among the various government departments. The final implementation arrangements however will be determined during the PDF-B design phase.

Support structures will be provided by the Ministry of Agriculture, Rural Development and Marine Fishery (MADRPM), including the two Provincial Agricultural Directorates (DPA's) and the Water and Forest Directorate in the Eastern Region (DREFO). Technical and institutional backstopping, as well as preparation of background papers and data analyses, will be provided by support institutions such as INRA and IAV Hassan II.

Local project coordination will be assumed by a Project Management Unit (PMU) which will be set-up jointly by IFAD and UNIDO and the national counterparts. The PMU will make use of the existing structure for implementation (PDPEO, Phase II), including support institutions for R&D and extension (IAV Hassan II, INRA, DPA, CT's, DREFO, GEF focal point at the Department of Environment). The PMU will be supported by the existing UNIDO field office in Rabat for all administrative matters.

⁶ *Possibilities exist for the development of small-scale agro-processing industries targeting the transformation of local products, for example, meat processing, dairy products, honey, aromatic plants, handicrafts, etc. However, at present, these opportunities are not exploited because of the absence of suitable technological packages and inappropriate processing and marketing. Also, existing enterprises often cannot compete for market opportunities that require large production capacities, homogeneous standards and regular supply. They are unable to achieve the higher productivity levels that specialization and economies of scale provide.*

UNIDO, IFAD and their partners' national institutions will closely monitor and review progress through periodic meetings, field visits and consultations. The responsible project management team would ensure that the project brief is developed and finalized in line with GEF procedures and guidelines within the specified time frame, and that proper accounting procedures are maintained.

PART II - PROJECT DEVELOPMENT PREPARATION

A. DESCRIPTION OF PROPOSED PDF ACTIVITIES

A.1 Description of Proposed PDF Activities

The proposed PDF-B represents the preparatory phase, over a period of 15 months, of the full-scale project (6-year program). The PDF-B is designed as a fully consultative and participatory approach, and will include the following activities:

- A.1.1 Consensus building and stakeholder participation:** This component will include a series of national and local workshops and meetings to ensure maximum consultation and co-ordination among all stakeholders (government ministries, R&D institutions, local government bodies, RUAs, NGOs, and others). Workshops will be organized to verify and confirm the participation of all stakeholders, building on existing co-ordination mechanisms for rural development among national and local key actors. These will include: (i) definition of specific responsibilities and timetables for planning and management of arid and semi-arid lands; (ii) formalizing the mechanisms for continuous consultation and co-ordination between the key players and any other institutions/agencies as appropriate; (iii) enhancing the knowledge and understanding of land degradation and the related economic and environmental losses through meetings extending to the community level, and (iv) establishing synergy between on-going actions for natural resources conservation in arid and semi-arid areas of Morocco. The workshops will also include representatives from GOM and the RUAs, as well as UNDP, the World Bank, the GM, donor agencies, NGOs, and other potential partners.
- A.1.2 Preparation of the baseline study** including issues such as: (i) reviews of the human and natural resources of the area, state and trends in degradation and desertification, biodiversity, frequency and impacts of natural disasters such as drought; results and progress of related strategic projects such as the PDPEO Phases I and II; evaluation and analyses of related projects in natural resources management, and (ii) assessment of impacts and trends with and without GEF interventions (incremental costs and benefits). These studies will facilitate an enhanced basic knowledge of the targeted areas including socio-economic data and potential for improvements in agricultural productivity, and a preliminary assessment of ecosystem resources and functions, thus allowing for better quantification of institutional and technological requirements and incremental cost analysis. This includes one study tour to a selected country.
- A.1.3 Review of existing land use and tenure legislation,** as well as legislation and regulations concerning responsibilities and authority of RUAs in relation to control of land use in pastoral areas, with recommendations to resolve land use conflicts, illegal encroachments, and illegal cultivation.
- A.1.4 Compilation and evaluation of local knowledge** and technologies used by the RUAs and the rural communities to control land degradation and desertification. This will include reviewing, compiling, and preparing a data base of local farmer/herder knowledge and experience in monitoring and rehabilitation of land degradation, drought proofing, and water harvesting; evaluating the effectiveness of these techniques for long term control of desertification.
- A.1.5 Market studies** for current and potential income generating activities for local products, and identification of potential small-scale industrial processing. In addition, investigations will be carried out to identify how to encourage certain of the existing RUAs to expand into small business and marketing cooperatives. Support will be provided to the RUAs taking into account and building on existing groupings, locally existent civic and traditional leadership, the social mode of interaction, and the role of women in small-business development and marketing.

A.1.6 Development of a monitoring and evaluation system for the project, including project level indicators as well as indicators specific for monitoring change in rangeland quality, land degradation and desertification and poverty reduction. This will include an evaluation of capacity building requirements for the RUAs to improve their capabilities for monitoring and evaluating trends and impacts of desertification.

A.1.7 Develop the full project proposal including activities to be supported; institutional backstopping; empowerment of RUAs; location of project intervention sites; land management options; water harvesting and drought proofing activities; development and operation of RUA (farmer) field schools; proposal for a cost-effective monitoring and evaluation system, and other related activities. The proposal will include all the required GEF criteria, notably planning and management co-ordination mechanisms, incremental cost matrix, the logical framework, a methodology for monitoring and evaluation and co-financing arrangements.

B. PDF BLOCK B OUTPUTS

Implementation of the proposed project PDF-B activities will produce the GEF full project brief, including the identification and quantification of global environmental benefits and incremental costs analysis. Other expected outputs are:

- Negotiated plan of action among the major partners on roles, responsibilities, and actions to be implemented during the project, including schedules and budgets.
- Baseline study on the extent of land degradation and the impacts of desertification with and without GEF involvement.
- Three background reports necessary for project preparation: Jurisdiction on managing the common lands; local farmer knowledge; developing market opportunities.
- Interim institutional support to create the enabling policy and jurisdictional environment.

C. JUSTIFICATION

The GEF project is required to ensure the development of global environmental benefits in the context of the Livestock and Pasture Development project being implemented by the GOM under an IFAD loan. This project is required to ensure that the alfagrass ecosystems, which are fundamental to the maintenance of the health, resilience and continuation of the ecosystems functions and integrity of these regions, are preserved, including the global benefits for mitigation of climate change and preservation of biodiversity. It is also required to develop a comprehensive, integrated socio-economic and environmental model for control of desertification and reduction of rural poverty that can be replicated in other regions of North Africa and the Middle East. Without GEF involvement, the GOM project will focus on traditional agricultural development, likely with continual exploitation of the natural resources of this fragile region.

A PDF-B grant is required to fund the preparatory activities (incremental activities) for development of the full project proposal, including integrating these environmental objectives into the Livestock and Pasture Development Project. The full project proposal will elaborate both the rural development and global environmental objectives of the project. These include integrating SLM practices into priority national strategies, accelerating implementation of national and local strategies for control and mitigation of land degradation and desertification; developing a policy environment to resolve jurisdictional problems and land use conflicts in common lands; project coordination; empowerment of RUAs and bottom-up planning of natural resource conservation, and capturing opportunities for improved marketing to reduce poverty and enhance the investment climate for conservation. The work will be done under the guidance of the Moroccan NAP for combating desertification in the framework of the UNCCD, NAP for the Environment Protection, the National Strategy for Rural Development 2020, and the National Rangeland Strategy.

The PDF-B funding will be used to develop a full project proposal demonstrating how innovative investments in improved agricultural and rural development will result in poverty reduction and improved rural livelihoods, while concurrently providing local and global environmental benefits in desertification control. The project will be greater than the sum of its parts; it will be a classic "win – win" situation.

D. TIMETABLE

No	PDF Block B Activity	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	Awareness workshops with stakeholders	x	x	x												
2	Base-line studies and assessments		x	x	x	x	x									
3	Special studies				x	x	x	x	x	x	x	x				
3	Capacity building activities/study tour						x	x	x	x						
4	Project brief preparation				x	x	x	x	x	x	x	x	x	x	x	x
4	Monitoring and evaluation	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

E. BUDGET - PREPARATORY PHASE: PDF-B

The total budget proposed for the PDF Block B phase activities is US\$ 500,000 with a GEF contribution amounting to US\$ 350,000 . The co-funding from IFAD and UNIDO is US\$ 80,000, and an in kind/cash contribution of US\$ 70,000 from the national counterparts (HCEFLCD, INRA and IAV Hassan II) is envisaged. The break-up of the PDF budget according to activities is provided below:

No	PDF Block B activity	GEF	Co-funding IFAD	Co-funding UNIDO	Co-funding Gov. Morocco	Total USD
1	Baseline studies: <ul style="list-style-type: none"> • Human and natural resources of the area • State and trends in degradation and desertification • Frequency and impacts of natural disasters • Assessment of impacts and trends with and without GEF interventions 	90,000	20,000	-	20,000	130,000
2	Special studies: <ul style="list-style-type: none"> • Review of existing land use legislation/policies • Review of the legal framework of grass-root organizations (RUA's) responsibilities and authority • Evaluation of the local knowledge and technologies • Current and potential income generating activities 	60,000	20,000	-	20,000	100,000
3	Workshops: Consensus building and setting-up coordinating mechanisms	20,000	-	-	10,000	30,000
4	Capacity building/study tour	60,000	-	-	-	60,000
5	Preparation of project plan	130,000	-	40,000	20,000	190,000
	Total USD	350,000	40,000	40,000	70,000	500,000

Note: Co-funding Gov. Morocco: US\$ 50,000 in cash HCEFLCD
US\$ 20,000 in kind IAV Hassan II and INRA

APPENDIX 1
Selected programs/projects related to desertification control and biodiversity preservation in Morocco

Program/Project	Zone of implementation	Duration	Objectives/Activities	Donors/Partners
Support for local development in the Argania bio-sphere	Souss-Massa-Draa region	2003-08	Strengthening political, legislative, and institutional environmental Capacity building Rehabilitation and conservation of the Argania and oasis ecosystems Income generating activities	GTZ/MADRPM, HCEFLCD, RARBA and AEDRA NGOs
Support for rural poverty reduction, combating desertification and drought effects mitigation (PAL-PDS)	Marrakech-Tensift-Al Haouz, Meknes-Tafilalet, Fes-Boulmane, Chaouia-Ouerdigha, Souss-Massa-Draa, Guelmim Smara, and Oujda regions	2003-05	Implementation of Rural Development Strategy Reinforcement of capacities Local activities of desertification control and poverty reduction	UNDP/MADRPM, HCEFLCD, ADS, ADPN
Partnership development and funds mobilization	NAP Desertification	Since 2001	Promoting partnership development Setting up a mechanism of funds mobilization for the NAP Capacity building of NGOs working on desertification	GM/MADRPM, HCEFLCD, RIOD-ENDA
Oued Lakhdar watershed management	adla-Azilal region	1999-04	Participatory management of natural resources Promoting economic activities Reinforcement of self-development capacities of local asso. Strengthening the infrastructure Implementation of village development plans	World Bank/NCEFLCD (DREF of Azilal), MADRPM (DPA of Azilal and CT Demnate), local NGOs
Oued M'soun watershed management	Taza-Al Hoceima-Taounate region	200-06	Water erosion control Protecting Mohamed V dam from siltation Improvement of population income Reinforcement of socio- economic infrastructure	EC (MEDA Program-DRI-GRN), HCEFLCD, MADRPM
Oued Ouergha watershed management	Taza-Al Hoceima-Taounate region	200-06	Water erosion control Protecting Mohamed V dam from siltation Improvement of population income Reinforcement of socio- economic infrastructure	EC (MEDA program-DRI-GRN) /DADRPM, HCEFLCD, local population
Oued Ourika watershed management	Marrakech-tensift-Al Haouz	2000-04	Protection against flooding Water erosion control Assuring Investment security Promoting self-velopment	Hassan II funds/HCEFLCD (DREF-HA), MADEPM (DPA Marrakech), MEq. (DPE Marrakech)
Range management plan for Bouhsoussen forest	Meknes-Tafilalet	1980-98	Support for range management cooperatives Maintenance of improvement pastoral plots Initiation of community small projects Diversification of income generating activities Improving marketing of local products	World Bank/HCEFLCD (DREF-MA), MADEPM
Biodiversity conservation via transhumance in southern side of the High Atlas	Souss-Massa-Draa	2001-2008	Conception and implementation of biodiversity integ. plans Incentives for biodiversity conservation Integration of biodiversity issues in political debate Elaboration of technical guides for biodiversity conservation Capacity building of local population and technical staff Promoting income generating activities	UNDP and GEF/MADRPM (ORMVAO, DE), Rangeland users associations

Integrated management of protected areas (PA) in Morocco	Whole country: 10 sites of ecological and biological interest (SIBE) and 3 national parks (NP)	Since 1996	Improvement of ecosystems and species of global interest Contribution to setting up a network of protected areas in Morocco Strengthening institutional capacities for sustainable management and conservation in PA Improving the sensitivity of the public to nature conservation and sustainable development principles Implementing NP and SIBE management plans	GEF/HCEFLCD
Setting up of a Monitoring and Evaluation system for Desertification Control NAP in Morocco and Tunisia (SMAP Project)	NAP of combating desertification	2003-2005	Support to the elaboration and setting up of Monitoring and Evaluation Systems of Morocco and Tunisia desertification NAPs Setting up and implementation of information circulating systems in Morocco and Tunisia (indicators) Extending the M & E system to the sub regional level (Maghreb)	EC/MADRPM-HCEFLCD
Conservation and Use of Crop Genetic Diversity to Control Pests and Diseases in Support of Sustainable Agriculture	All Morocco (Local Communities, Research institutions, Extension services, NGOs)	2004--05	Conserve crop genetic diversity <i>in situ</i> by using it to reduce pest and disease pressures and enhance sustainable agriculture production. Building knowledge about the role of crop genetic diversity. Promote crop genetic diversity as a resource to manage pest and disease pressures on-farm.	(PDF B) from GEF/UNEP, IPGRI IAV II
National auto evaluation of capacity building on Environment issues (ANCRE).	Morocco	2004 - 2006	Synergy development between the 3 UN environmental conventions. Integration of global environment issues in the national development planning process in the framework of sustainable development.	GEF Department of Environment

MADRPM: Ministry of Agriculture, Rural Development and Marine Fishery; HCEFLCD: High Commissariat of Water and Forest and Desertification control; EC: European Community; GTZ: German Technical Cooperation; DE: Animal Production Directorate; DPA: Provincial agricultural Directorate; ORMVAO: Regional Office of Agricultural Development of Ouarzazate; DREF: Water and Forest Regional Directorate; DPE: Provincial Equipment Directorate; DRI-GRN: Integrated Rural Development-Natural Resources Management; RARBA: Network of NGOs working on Agraria forest; ADEDRA: Draa Valey Development Association; GM: Global Mechanism; RIOD: NGOs network on desertification control