



GEF

REQUEST FOR CEO ENDORSEMENT/APPROVAL

PROJECT TYPE: Medium-sized Project

THE GEF TRUST FUND

Submission Date:

PART I: PROJECT INFORMATION

GEFSEC PROJECT ID: 3932

GEF AGENCY PROJECT ID:

COUNTRY(IES): Jordan

PROJECT TITLE: Mainstreaming Biodiversity in the Sylvo-pastoral and Rangeland Landscapes in Pockets of Poverty in Jordan

GEF AGENCY(IES): IFAD

OTHER EXECUTING PARTNER(S): Ministry of Agriculture

GEF FOCAL AREA(s): Biodiversity

GEF-4 STRATEGIC PROGRAM(s): BD-SP4-

Policy; BD-SP5-Markets

Expected Calendar (mm/dd/yy)	
Milestones	Dates
Work Program (for FSPs only)	
Agency Approval date	Dec 2010
Implementation Start	June 2011
Mid-term Evaluation (if planned)	Jan 2013
Project Closing Date	June 2015

A. PROJECT FRAMEWORK

Project Objective: To mainstream biodiversity conservation in silvo-pastoral and rangelands in the pockets of poverty of Jordan through the promotion of an enabling environment (policies, capacity, knowledge, and market incentives) that will be beneficial to local livelihoods and yield global environmental benefits. The project seeks also to promote innovative pilots for PES and investment support to biodiversity conservation.

Project Components	Investment, TA, or STA ²	Expected Outcomes	Expected Outputs	GEF Financing ¹		Co-Financing ¹		Total (\$) c=a+ b
				(\$) a	%	(\$) b	%	
1. Enhanced capacity building and awareness raising for biodiversity mainstreaming in local communities and government agencies	TA	1.1 Training courses concerning the value of biodiversity and its potential local and regional economic benefit. 1.2 A tool-kit for mainstreaming biodiversity in silvo-pastoral/rangelands 1.3 New knowledge management and information sharing systems 1.4 Regional study tours to areas with biodiversity mainstreaming	Eight Training Courses on: -PRA/RRA -Traditional Knowledge -Community Co-management -Rangeland Rehabilitation Practicum -Afforestation Practicum -Water harvesting Practicum -Biodiversity Basics -Endangered Species Participatory Toolkit Preparation Knowledge	266,600	26	424,000	13	931,600

		techniques already in place	management system Knowledge Management Fairs 2 study tours					
2. An enabling environment which allows rangeland and sylvo-pastoral landscape users to understand and benefit from the conservation of biodiversity		2.1 Documented roles and responsibilities for community involvement in rangeland and sylvo-pastoral reserve management 2.2 Establishment of traditional “Hima” mechanisms for stakeholder involvement in biodiversity conservation. (or “co-management committees”) 2.3 Implementation of the legal and institutional framework for co-management and biodiversity conservation within MOA reserves and the project area 2.4 Conflict resolution /arbitration systems 2.5 Ecological assessments within each exclosure and within the project area and along the ecological west-east gradient 2.6 Detailed plans for potential expansion and biodiversity	Participatory planning for community participation options Re-establishment of stakeholder based Hima systems in and around the exclosure Policy study of available legal mechanisms. Pilot new contract system for community co-management and/or Hima Assessment and monitoring of biodiversity benefits. Potential Expansion of each exclosure Completion of a conservation management plan at each exclosure Conflict Resolution system established Completion of Best Practices documents and related publications	302,100	30	956,000	29	1,258,100

		conservation management programming in each enclosure 2.7 Monitoring, documentation and replication of lessons-learned	Completion of a strategy paper on the sustainable financing of the enclosures					
3. Innovative pilot measures and introduction of “Payment for Environmental Services” (PES)		3.1 PES pilot activities at Fujaij Reserve and Hisheh Sylvo-pastoral Reserve 3.2 A plan for and implementation of the connectivity corridor as a cooperative activity between MOA and RSCN in the Dana NR Buffer zone 3.3 Documentation of the principles, processes and benefits of the results of the PES pilots and distribution among the ADDSR and local communities	PES Activities designed and implemented Establishment and Implementation of a MOA/RSCN Cooperative biodiversity corridor Design and development of marketing tools to support involvement of and benefit to local communities Documentation and Distribution of the results of the PES experience	331,300	34	960,000	29	1,291,300
4. Project Management and Evaluation				100,000	10	960,000	29	1,060,000
Total Project Costs				1,000,000	100 %	3,300,000	100 %	4,300,000

¹ List the \$ by project components. The percentage is the share of GEF and Co-financing respectively of the total amount for the component.

² TA = Technical Assistance; STA = Scientific & Technical Analysis.

B. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT (expand the table line items as necessary)

<i>Name of Co-financier (source)</i>	<i>Classification</i>	<i>Type</i>	<i>Project</i>	<i>%*</i>
Ministry of Agriculture	Exec. Agency	Grant	1,400,000	42
Ministry of Agriculture	Exec. Agency	In-Kind	1,600,000	49
RSCN	NGO	Grant	300,000	9
Total Co-financing			3,300,000	100%

* Percentage of each co-financier’s contribution at CEO endorsement to total co-financing.

C. FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	<i>Project Preparation a</i>	<i>Project b</i>	<i>Total c = a + b</i>	<i>Agency Fee</i>	<i>For comparison: GEF and Co- financing at PIF</i>
GEF financing	80,000	1,000,000	1,080,000	108,000	1,000,000
Co-financing	87,057	3,300,000	3,387,057	0	3,100,000
Total	167,057	4,300,000	4,467,057	108,000	4,100,000

D. GEF RESOURCES REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES)¹

<i>GEF Agency</i>	<i>Focal Area</i>	<i>Country Name/ Global</i>	<i>(in \$)</i>		
			<i>Project (a)</i>	<i>Agency Fee (b)²</i>	<i>Total c=a+b</i>
(select)	(select)				
Total GEF Resources					

¹ No need to provide information for this table if it is a single focal area, single country and single GEF Agency project.

² Relates to the project and any previous project preparation funding that have been provided and for which no Agency fee has been requested from Trustee.

E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

<i>Component</i>	<i>Estimated person months</i>	<i>GEF amount(\$)</i>	<i>Co-financing (\$)</i>	<i>Project total (\$)</i>
Local consultants*	40	277,600	612,333	889,933
International consultants*	7.5	115,300	442,230	557,530
Total	47.5	392,900	1,054,563	1,447,463

* Details to be provided in Annex C.

F. PROJECT MANAGEMENT BUDGET/COST (* EXCLUDING PROJECT EVALUATION)

<i>Cost Items</i>	<i>Total Estimated person weeks/months</i>	<i>GEF amount (\$)</i>	<i>Co-financing (\$)</i>	<i>Project total (\$)</i>
Local consultants*	33.5 person weeks	58,700	330,000	388,700
International consultants*	0	0	0	0
Office facilities, equipment, vehicles and communications*		26,000	630,000	656,000
Total		84,700	960,000	1,044,700

* Details to be provided in Annex C. ** For others, it has to clearly specify what type of expenses here in a footnote.

G. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? Yes no X

(If non-grant instruments are used, provide in Annex E an indicative calendar of expected reflows to your agency and to the GEF Trust Fund).

H. DESCRIBE THE BUDGETED M & E PLAN:

Project monitoring and evaluation will be conducted in accordance with established IFAD and GEF procedures and will be provided by the project team with support from IFAD-GEF. The Strategic Results Framework provides indicators for project implementation along with their corresponding *means of verification*. These will form the basis on which the project's Monitoring and Evaluation system will be built.

The following sections outline the principle components of the Monitoring and Evaluation Plan and indicative cost estimates related to M&E activities.

A Project Inception Workshop will be conducted with the full project team, MoPIC, MoA, RSCN and relevant government counterparts, co-financing partners, IFAD and representation from the GEF as appropriate.

A fundamental objective of this Inception Workshop will be to assist the project team to understand and take ownership of the project's goals and objectives, as well as finalize preparation of the project's first annual work plan on the basis of the project's strategic results framework (SRF). This will include reviewing the SRF (indicators, means of verification...), imparting additional detail as needed, and on the basis of this exercise, finalize the Annual Work Plan (AWP) with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project.

Additionally, the purpose and objective of the Inception Workshop (IW) will be to: (i) introduce project staff with the SC and the IFAD-GEF *expanded team* which will support the project during its implementation; (ii) detail the roles, support services and complementary responsibilities of vis à vis the project team; (iii) provide a detailed overview of IFAD-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the Project Implementation Reviews (PIRs) and related documentation, the Annual Project Report (APR), as well as mid-term and final evaluations. Equally, the Inception Workshop will provide an opportunity to inform the project team on IFAD project related budgetary planning, budget reviews, and mandatory budget rephasings.

The IW will also provide an opportunity for all parties to understand their roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff and decision-making structures will be discussed again, as needed, in order to clarify for all, each party's responsibilities during the project's implementation phase.

A detailed schedule of project evaluations will be developed by the project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Such a schedule will include: (i) tentative time frames for evaluations, Steering Committee Meetings, (or relevant advisory and/or coordination mechanisms) and (ii) project related Monitoring and Evaluation activities.

Day to day monitoring of implementation progress will be the responsibility of the Project Coordinator based on the project's Annual Work Plan and its indicators.

The Project team will fine-tune the progress and performance/impact indicators of the project at the Inception Workshop with support from IFAD. Specific targets for the first year of implementation, progress indicators, and their means of verification will be developed at this Workshop. These will be used to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the Annual Work Plan. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

Measurement of impact indicators related to global benefits will occur according to the schedules defined in the Inception Workshop. The measurement of these will be undertaken through subcontracts or retainers with relevant institutions, or through specific studies that are to form part of the projects activities, or periodic sampling.

Periodic monitoring of implementation progress will be undertaken by IFAD through regular meetings with the MoA. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed First Year/Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. This Work Plan would include the dates of specific field visits, support missions by IFAD or consultants, as well as time-frames for meetings of the project's decision making structures. The Report will also include the detailed project budget for the first full year of implementation, prepared on the basis of the Annual Work Plan, and including any monitoring and evaluation requirements to effectively measure project performance during the targeted 12 months time-frame.

The Inception Report will include a more detailed narrative on the institutional roles, responsibilities, coordinating actions and feedback mechanisms of project related partners. In addition, a section will be included on progress to date on project establishment and start-up activities and an update of any changed external conditions that may effect project implementation.

The Annual Project Report (APR) is an IFAD requirement and part of central oversight, monitoring, and project management. It is a self-assessment report by project management and provides input to IFAD, as well as forming a key input to the Tripartite Project Review. An APR will be prepared on an annual basis prior to the Tripartite Project Review, to reflect progress achieved in meeting the project's Annual Work Plan and assess performance of the project in contributing to intended outcomes through outputs and partnership work.

The format of the APR is flexible but should include the following:

- An analysis of project performance over the reporting period, including outputs produced and, where possible, information on the status of the outcome
- The constraints experienced in the progress towards results and the reasons for these
- The three (at most) major constraints to achievement of results
- AWP and other expenditure reports
- Lessons learned
- Clear recommendations for future orientation in addressing key problems in lack of progress

The PIR is an annual monitoring process mandated by the GEF. It has become an essential management and monitoring tool for project managers and offers the main vehicle for extracting lessons from ongoing projects. Once the project has been under implementation for a year, a Project Implementation Report must be completed by IFAD together with the project.

The individual PIRs are collected, reviewed and analysed by the SC prior to sending them to the focal point at IFAD headquarters.

The PIRs are then discussed in the GEF Interagency Focal Area Task Forces in or around November each year and consolidated reports by focal area are collated by the GEF Independent M&E Unit based on the Task Force findings.

As and when called for by IFAD or MoA, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. The request for a Thematic Report will be provided to the project team in written form by IFAD and will clearly state the issue or activities that need to be reported on. These reports can be used as a form of lessons learned exercise, specific oversight in key areas, or as troubleshooting exercises to evaluate and overcome obstacles and difficulties encountered. IFAD is requested to minimize its requests for special Thematic Reports (given that there are some of these already included in the workplan), and when such are necessary, will allow reasonable timeframes for their preparation by the project team.

Mid-term Evaluation – An independent Mid-Term Evaluation will be undertaken at the end of the second year of implementation. The Mid-Term Evaluation will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by IFAD.

Final Evaluation - An independent Final Evaluation will take place three months prior to the terminal tripartite review meeting, and will focus on the same issues as the mid-term evaluation. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The Terms of Reference for this evaluation will be prepared by IFAD

Results from the project will be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums. In addition:

- The project will participate, as relevant and appropriate, in IFAD-GEF sponsored networks, organized for senior personnel working on projects that share common characteristics.
- The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation through lessons learned.
- The project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identifying and analyzing lessons learned is an ongoing process, and the need to communicate such is a central theme in the project. The SC, MOPIC, MOA and IFAD shall provide a format and assist the project team in categorizing, documenting and reporting on lessons learned. To this end a percentage of project resources will need to be allocated for these activities.
- Results from the program will be disseminated throughout Jordan within and beyond the program intervention zone through a number of existing information sharing networks. To support this goal, biodiversity mainstreaming activities from the project will contribute knowledge such as the following:
 - o Best practices in integrating biodiversity mainstreaming activity into national and local development policy, and project design and implementation mechanisms.

- Lessons learned on removing the most common barriers to biodiversity mainstreaming, with special attention to the roles of RSCN, IUCN, local partners, international partners, IFAD, and GEF in designing and implementing projects
- The conditions for success (or failure), including replication and scaling up.

INDICATIVE INDICATIVE PROJECT EVALUATION WORK PLAN AND CORRESPONDING BUDGET

Type of M&E activity	Responsible Parties	Budget US\$ (GEF contribution) Excluding project team Staff time	Time frame
Inception Workshop (IW) and report	Project Coordinator/MoA MoPIC IFAD	\$3,000	Within first two months of project start up
APR and PIR	Project Team IFAD		Annually
TPR and TPR report	Steering Committee Project team IFAD		Every year, upon receipt of APR
Steering Committee Meetings	Project Coordinator IFAD		Following Project IW and subsequently at least once a year
Mid-term Evaluation	Project team IFAD External Consultants (i.e. evaluation team)	\$4,000	At the mid-point of project implementation.
Final External Evaluation	Project team, IFAD External Consultants (i.e. evaluation team)	\$6,000	At the end of project implementation
Terminal Report	Project team IFAD External Consultant		At least one month before the end of the project
Lessons learned	Project team IFAD (suggested formats for documenting best practices, etc)		Yearly
Audit	IFAD Project team		Yearly
Visits to field sites	IFAD Government representatives		Yearly
TOTAL INDICATIVE COST Excluding project team staff time and IFAD-GEF staff and travel expenses		\$13,000	

PART II: PROJECT JUSTIFICATION: In addition to the following questions, please ensure that the project design incorporates key GEF operational principles, including sustainability of global environmental benefits, institutional continuity and replicability, keeping in mind that these principles will be monitored rigorously in the annual Project Implementation Review and other Review stages.

A. STATE THE ISSUE, HOW THE PROJECT SEEKS TO ADDRESS IT, AND THE EXPECTED GLOBAL ENVIRONMENTAL BENEFITS TO BE DELIVERED:

I.1 Project Context

Jordan covers an area of 89,800 km² with varied topography including a range of mountains that runs from north to south with altitudes ranging from 500 metres to over 1 700 metres, which form the Highlands. East of the mountain range, the land slopes gently to the east to form the eastern deserts. In the west, the land slopes steeply towards the Jordan Rift Valley, which extends from Lake Tiberias in the north (elev. 220 m below the sea level) to the Red Sea at Aqaba. The Dead Sea lies about 120 km south of Lake Tiberias, with water level at about 405 m below the sea level. Less than 5% of the country's land area is arable land.

Jordan is a semi-arid and drought-prone country largely influenced by the range of mountains in the West. The western part of Jordan, or the Highlands, has a Mediterranean climate characterized by a hot, dry summer (up to 45°C) and a cool, wet winter (average 13°C) separated by two short transitional periods. The southern and eastern parts of the country are arid with hot dry summers and cold dry winters. Precipitation is characterized by extreme variability and is confined largely to the winter and early spring seasons and range from over 500 mm in the highlands to less than 50 mm in the east.

The 2010 population of Jordan is estimated at about 6,2 million with an annual growth rate of around 2.8%, yielding an average population density of about 60 persons per km². Currently, 90% of the population lives on 10% of the country's surface area. Jordan has hosted several waves of refugees, displaced persons and returnees as a result of the prolonged conflict in the Middle East, which has directly impacted on the high population growth rate, especially up until the end of 1970s; average 4.3% between 1952 and 1979. Since 1961, the population has increased five-fold leading to increased pressure on natural resources, income disparities and rising poverty. Since 2000 the population growth rate has stabilised at an annual average of 2.8 percent.

Jordan's wide range of physical conditions and location at the junction of three continents – Europe, Asia and Africa – contribute to various differentiated bio-geographical regions and ecosystems. These ecosystems include deserts with poor plant cover; sub-tropical ecosystems, including Sudanian species of tree and dwarf-shrub prominent in the sparse and very open vegetation; aquatic ecosystems, comprising rivers, wadis and wetlands, the latter varying from salt marshes to marine ecotypes; and *the* scarp and highland ecosystems, comprising of escarpments and mountains, hills and undulating plateaus with natural woodland (Pinus, evergreen/deciduous oak woodland) and steppe, the latter consisting of a transition area where desert biota is gradually replaced by "Mediterranean" biota. The desert and semi-desert areas of the country comprise more than 85 percent of the total land area.

Poverty Incidence. Although Jordan is a middle income country one of its major challenges are chronic high rates of poverty in specific areas mainly based in the rural environment Poverty levels dropped by about one third from 1997 and 2008 (to 14 percent), while extreme poverty ehavio at 2 percent.

The Country is at the lowest administrative level divided into 73 sub-districts. Of these, at the time of the COSOP preparation 25 had a poverty incidence ranging from 20 to 73

percent of the population¹. The number of pockets of poverty increased to 29 districts in 2008 with the incidence of poverty ranging from 25 to 69 percent (average 28 percent) of the population, with 262 711 people in these districts classified as poor, an increase² (See Appendix 6). These pockets of poverty are mostly rural – some are in isolated and remote areas while others are merely in areas with a poor resource base and low population density. There are three main groups of rural poor households, each with a different livelihood strategy: (i) current or former nomads, who keep livestock; (ii) smallholder farm households, who in the past relied on mixed farming, but today have only a few livestock and derive most of their income from cereal cropping; and (iii) the landless rural poor, who essentially rely on wage labour and on pensions and remittances.

Poverty reduction efforts still need to be fine-tuned to reach the most vulnerable and address disparities, particularly in terms of geographic location and gender. This is currently underway with the initiative of Government of developing a data base in conjunction with the Jordan Alliance against Hunger (JAAH) and with the assistance of WFP to identify poverty at individual household level.

Measures to reduce poverty since 2008 in response to the Global Financial Crisis have included: a 43 percent increase in the annual budget of the National Aid Fund to JOD 74 million; incremental increases in the salaries of government employees (JOD 63 million) and pensions of retirees (JOD 60 million); a one off payment to government employees and retirees of JOD 100 (a total of JOD 74 million), and for private sector employees with incomes of less than JOD 1 000 (at total of JOD 63 million); an increase in the wheat subsidy of JOD175 million; and lowered sales tax and customs on 13 commodities (JOD 35 million). The 2010 DOS poverty report estimated that poverty could have reached some 21 percent of the population without these measures.

Although Jordan has only about 1% of forest coverage, a more detailed analysis shows that this cover varies widely between Governorates. Forests are located mostly in Governorates in the northwest, which receive more than 200 mm per year of rainfall, areas around the capital city of Amman, and in some areas of the South. Forests occupy between 20 to 30% of the land area in these Governorates, and play an important environmental role in protecting watersheds and in supporting tourism. Within the proposed project area only sparse sylvo-pastoral landscapes exist within the JRV escarpment. In general, plant diversity in Jordan has declined dramatically and some species have become extinct totally from the wild. The main factors contributing to low forest cover and diversity are habitat encroachment by urban and agricultural development, deforestation, and deterioration of rangelands by over-grazing and soil erosion, illegal collection, and depletion of the major water resources. Afforestation and reforestation on rangelands are among the main forestry activities of the forestry department in Jordan as key measures in rehabilitating and restoring rangeland ecosystems and increasing their productivity.

Biodiversity in Jordan: The country's location at the crossroads of the three continents also contributes to a relatively rich and diverse source of biodiversity, including 2500 plant species, of which 100 species are endemic, thirteen vegetation types, and 411 species of fauna, represented by 70% of birds, 16% of reptiles, 13% of mammals and 1% of amphibians. Many of these species are found in semi-arid and arid ecosystems.

¹ Source: Jordan Poverty Assessment, December 2004: The Hashemite Kingdom of Jordan and World Bank.

² Source: Poverty Report, Department of Statistics (DOS), August 2010.

The country is also rich in agro-biodiversity, including a wealth of native and endemic species and varieties which have been adapted over centuries. Of particular importance are the medicinal and aromatic plants, as well as herbs and spices, distributed all over the country from the eastern desert to the western highlands and from the semi-arid north to the extremely arid south. However this biodiversity is under threat as habitat is lost due to over grazing, ploughing for rainfed cultivation of barley, and subsequent accelerated soil loss and degradation. Although much of Jordan Highlands was once covered by Mediterranean evergreen forest most of the indigenous vegetation has either been cleared for wood and agriculture or been degraded through human land uses.

Wild plants constitute a very important component of Jordan's biological diversity. Conservation of this natural heritage is listed high on the priorities of the government. The total number of plant species recorded in Jordan exceeds 2500 species of which 100 are endemic. The endemic species include *Iris petrana*, *Cousinia dayi*, *Plantago maris-mortui*, *Crucianella transjordanica*, *Centaurea procurrens*, *Scrophularia nabataerum*, *Tamarix tetragyn*, and *T. palaestina*. There are 375 rare or very rare species including species of the genus *Orchis*, *Romulea*, *Biarum* and *Globularia*; 150 are endangered (including species of the genus *Juniperus* and *Cupressus*) and currently about 75 species are considered extinct. These species represent 152 families and about 700 genera. Flowering plants constitute the most dominant group of species and are particularly visible in the spring. Several species have ornamental or medicinal value.

The importance of the medicinal plants as a source of preventive and/or curative health value (for both people and livestock) have been recognized by local people since time immemorial. A total of 485 species of medicinal plants, which belong to 330 genera and 99 families, are reported from Jordan (Oran and Al-Eisawi, 1994). Those identified medicinal plants are herbs, shrubs and trees. Flagship species would include *Iris petrana*, Jordan's floral emblem, *Iris negranesis*, *Moringa ehaviour*, *Salvadora persicum*, *Cyclamen persicum*, *Aloe vera*, *Pinus halepensis*, *Juniperus ehaviour*, *Acacia ehavio*, *Pistacia palestina* and others.

There are three main types of rangelands in Jordan: steppe rangelands (100-200 mm of average annual rainfall), desert rangelands (less than 100 mm), and mountainous rangelands (more than 200 mm). In the past, rangelands provided around 70 percent of feed requirements for animal grazing, but today it has declined to about 20-30 percent. This has been attributed mainly to overgrazing which accelerates the process of degradation particularly in low rainfall zones. At the same time, the number of grazing animals is constantly growing and results in more pressure on the limited resources of rangelands. Prolonged heavy grazing has changed rangeland both quantitatively and qualitatively. Quantitatively, it results in fewer and smaller plants and low vegetative cover. Qualitatively, it results in a decrease in the most palatable and nutritious plants. Moreover, the availability of subsidized feeds had in the past promoted an increase in the livestock population.

In the past, Jordan's grazing lands were characterized by effective traditional land tenure systems and grazing rights which were associated with tribal institutions. These traditional arrangements protected the resource contributed to its conservation and continued productivity under the prevailing environmental and social conditions. With the transformation of these systems, elimination of traditional rights, and the declaration of grazing lands as state-owned land, sustainable use of land resources has been disrupted and new land uses have encroached. Since 1960, the Ministry of Agriculture has developed and managed range reserves. Under this system, specialists determine the grazing capacity and grant grazing licenses for a specific period of time for a specified number of animals.

Four types of management options exist for forest and rangelands in Jordan: (1) private management, (2) government reserves, (3) herder-driven reserves and (4) tribal management. The modern definition of a reserve is a large area of land allocated legally by the state to protect natural resources within its boundaries. It includes the form and surface structure of the land, biological resources, and historical, archaeological, cultural and recreational resources. Historically, groups of settlers or tribes would protect water springs and grazing lands and trees around their areas, allowing only the tribe to graze its cattle and take their potable water from the area. This would cause conflict between tribes when any of them trespassed on the reserves of the other.

Protected Areas and Nature Reserves: The first reserves were established in Jordan during the 1940s and were designed to study plant ecology and afford protection to native vegetation. Later, attention was given to developing nature reserves for the purpose of studying plant species, collecting seeds and evaluating grazing capability and soil preservation. The MOA has established 18 grazing reserves with a total area of almost 10,000 hectares. Three of these are included in this proposed GEF project

The single most significant economic use of the rangelands is pastoralism. The most important animal herded is sheep, although goats are more numerous further south. This represents a major change from camel production, which was predominant until the 1940s. The controlled system of land use in the rangelands, the al-Hima system, persisted until the early twentieth century in some form, but grazing is now virtually uncontrolled. Livestock producers using the rangelands are divided into the Bedouin who may be described as occupationally-specialized pastoralists, and the village producers who by and large combine livestock production with agriculture. Such a distinction is not clear cut, as many villages (especially in the steppe regions) consist of Bedouin who have settled within the last few generations.

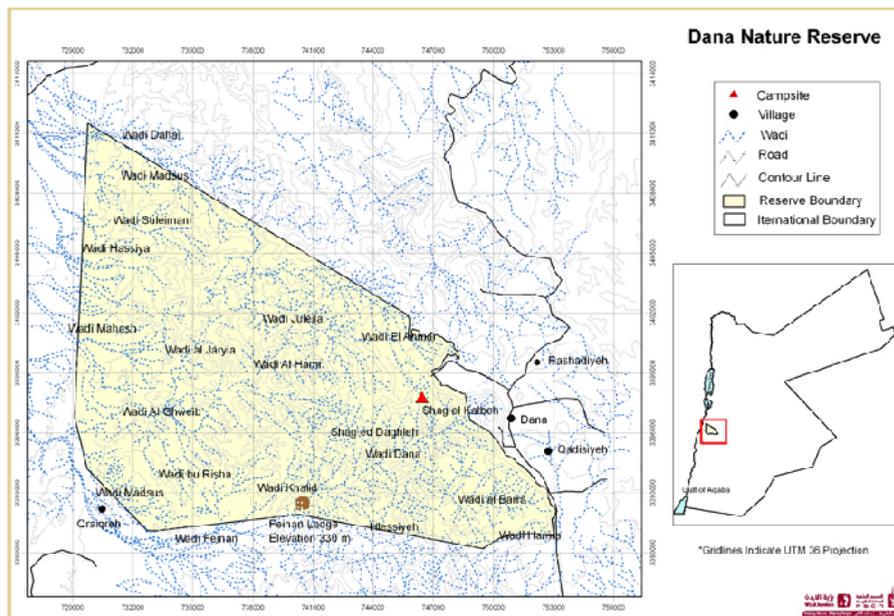
The establishment of protected areas was also hampered by a lack of legislation. Although legislation was still pending, by 1975, two small protected areas had been established in the Rift Valley by the Ministry of Tourism and Antiquities, namely Dibeen and Zarqa Ma'an. However, both were only considered as not being more than small recreation areas or picnic sites that did not qualify for the title of National Park. In 1979, the IUCN/WWF report on Development of Wildlife Conservation in Jordan II: A Proposal for Wildlife Reserves in Jordan (Clarke, 1979) recommended the establishment of a network of protected areas based on an evaluation of ecosystems and land types. Two of these are in the immediate area of this proposed new GEF project

- Dana Nature Reserve, which covers the highlands in Tafileh and goes all the way down to Wadi Araba
- Jabal Mas'uda Nature Reserve, which covers the highlands to the west of Petra and all the way down to Wadi Arab.

Through the 1980s and 90s nature reserves were established, namely Ajloun, Dana, Mujib, Azraq, Shaumari and Wadi Rum. In 1998, RSCN decided to carry out another Protected Areas Review. This found that many habitats were not adequately protected. Using the IUCN criterion, a minimum of 4% of each habitat/vegetation type should be included in the protected areas system. Of all the vegetation types in Jordan, only sand dunes, saline areas and open waters are adequately protected. Other habitat types are offered some protection, except for Aleppo pine forest and deciduous oak forest, which are not included in any of the existing protected areas.

Established in 1989, Dana Biosphere Reserve is Jordan's second largest nature reserve, covering some 320 km² of rugged and beautiful landscape along the face of the Great Rift Valley. It sweeps down in a series of mountain ridges, from the 1500m high plateau near Quadesiyya to the desert plains of Wadi Araba. The mountains are cut by many steep-sided wadis, often lined with a lush growth of trees and shrubs. Its geology is as varied as its landscape, switching from limestone to sandstone to granite. Dana NR is the only reserve in Jordan that includes the four different bio-geographical zones of the country; Mediterranean, Irano-Turanian, Saharo Arabian and Sudanian penetration. As such, it is the most diverse nature reserve in the country in terms of habitats and species, hosting several vegetation types, including the Phoenician Juniper, evergreen oak, sand dunes, acacia, and rocky sudanian, among others. It is also home to the southernmost remaining forest community of Cypress *Cupressus sempervirens*. More than 800 plant species can be found within the reserve, three of which have only ever been recorded in Dana and nowhere else in the world. Dana NR has also been designated a UNESCO Biosphere Reserve

Dana NR with the continuing support of USAID has attempted to become financially self-sustaining and to become better integrated into the surrounding productive landscape using the UNESCO Biosphere Reserve (BR) model which includes not just the NR itself but a conservation buffer zone as well as an additional surrounding zone for economic cooperation. While there has been some limited success establishing the two BR zones there is considerable room for improvement. With the project proposed here there is a very significant prospect for linkage between Dana NR and the Fujaij agriculture reserve as the two are effectively adjacent to one another (although not completely contiguous). This proximity lends itself to a cooperation relationship among MOA, MOE and RSCN (specifically Wild Jordan).

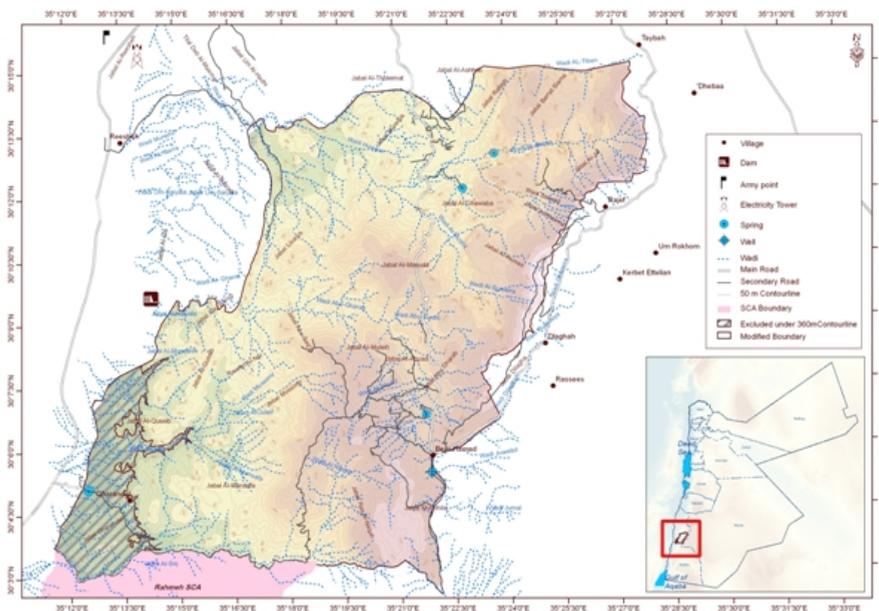


Map of Dana Nature Reserve and UNESCO Biosphere

In 2005 RSCN, with World Bank assistance, designed a new GEF project for "Integrated Ecosystem Management in the Jordan Rift Valley" (IEM/JRV). Initiated in 2009, this project is implementing four new protected areas for nature conservation in the area south of Shobak effectively adjacent to this proposed project area. The principal new NR will be Jabal

Masuda. The RSCN IEM/JRV project is also intended to improve environmental management on all the productive landscapes within the JRV including the escarpment zones and the crest areas (such as Fujaij).

The proposed Jabal Masuda NR (and likely UNESCO Biosphere candidate) is located in the southern part of Jordan, on the western edge of Ma'an Governorate and south of the proposed new IFAD/GEF project area. The name of the site was taken from the highest mountain peak in the area. The site has an elevation range from 180m to 1500m and contains three bio-geographical zones: Mediterranean, Irano-Turanian and Saharo-Arabian. It lies in a region including parts of the Southern Escarpment, Esh Sharrah Plateau and the Rift Valley Desert. The diversity in the landscape in the area is unique where one can pass through not less than five vegetation types by only driving along the road that crosses through the reserve. These vegetation types cover extremes of the vegetation of Jordan from Juniper in the highlands of the area down to sand dunes and acacia trees along the wadis in the lowlands of Wadi Araba.



Jabal Masuda is still under development but it too will likely be designated as a UNESCO BR model so the designers and managers will be looking to collaborate on economic projects which are complementary to the nature conservation objectives of the protected area. Therefore there is an ideal opportunity to have the area also function as a partner with the new IFAD/GEF project.

The project will also attempt to utilize past traditional conservation methods and technologies – most specifically undertaking pilot re-introduction of “community-conserved” areas which collectively are referred to as “al-Hima”. While today’s multi-lateral and bilateral agencies and central governments (worldwide) are implementing “new” public participation, community involvement and local ownership of natural resources these ideas are not completely new with near east countries, Jordan in particular. The prospect or making what “is old, new again” is neither straightforward nor a simple endeavour. Many of these practices have disappeared since the 19th century due to regional conflict, competition

of r natural resources, population growth, urbanization, limitations and disputes between sedentary and mobile populations an many other factors. However there is a new impetus worldwide and in Jordan to re-utilize traditional knowledge and techniques and this deserves support – at least experimentally in the new GEF project.

In areas adjacent to the proposed project, IFAD is funding a collaborative programme between ICARDA and the National Center for Agricultural Research and Extension, which aims at supporting adaptation to climate change in barley-livestock farming systems. Programme activities (listed below) will contribute agricultural sustainability in the proposed exclosures.

- An assessment of existing crop and livestock husbandry practices, including an assessment of ethnoveterinary practices. On the basis of this assessment and needs identified with farmers through the baseline survey, ready-to-use technologies mentioned under outputs 1, 2 and 3 of the logical framework will be selected.
- Improved extension mechanisms, effective scaling up, dissemination methods and training.
- Information delivery through extension will be improved, as an area known to be a major constraint to successful technology transfer in the programme area. Appropriate extension agents, including women and those able to conduct participatory community-based education activities, will be identified. Technology transfer activities will utilize ongoing peer learning and visits for farmers, both in-country and in the target area, as a primary method of information dissemination and demonstration. Information technology tools will be promoted for livestock record keeping, targeting the next generation of farmers.
- Extension activities will focus on the delivery of effective technologies to improve processes, which are primarily carried out by women – ration formulation, milk production, hygiene, and processing and product quality.

I.2 Threats and Root Causes

Biodiversity is under threat as habitat is lost due to over grazing, ploughing for rainfed cultivation of barley, and subsequent accelerated soil loss and degradation. Although much of Jordan Highlands was once covered by Mediterranean evergreen forest in the west which gradually becomes a natural steppe in the east, since the Nabatean and Roman periods most of the indigenous vegetation has either been cleared for wood and agriculture or been degraded through inappropriate land use.

Degradation in Arable Land: Less than 5% of the total land area considered arable. As a consequence it has few natural resources and agricultural productivity is greatly reduced. Therefore, a major challenge for the HKJ is to promote the sustainable use of natural resources for agricultural purposes. This challenge is being made harder by the ongoing processes of degradation which combine to undermine any social and economic development gains. About 41% (36,000 km²) of Jordan's total land area is characterized as degraded of which 22 percent of the total land mass is classified as moderately degraded.

Jordan is ranked as one of the 5 poorest countries in water resources. The available renewable water resources are continuing to drop. Competition between demands on limited fresh water quantities is also increasing. In 2002, total annual water withdrawal and total water use was estimated at 1,020 million m³, up from 984 million m³ in 1993 and 619 million m³ in 1986. In 2004 the National Water Master Plan reported that agricultural water withdrawal accounted for 64 % of the total water withdrawal, and 36% was recorded for domestic, industrial and tourism purposes. The deficit is increased by the unsustainable

practice of overdrawing highland aquifers, resulting in lowered water tables and declining water quality.

Jordan receives a large share of its water resources from the Yarmouk and Jordan Rivers and from trans-boundary aquifers. Following the Jordan Water Strategy, the HKJ promotes the rightful distribution of water resources through bilateral and multilateral contracts, negotiations and agreements, including the 1987 Jordanian-Syrian agreement on utilization of the Yarmouk River. Sustainable water utilization in these neighbouring countries is a prerequisite for long-term political stability. Water resource conflicts are becoming increasingly prevalent worldwide as are disputes over other natural resources implicitly and explicitly.

Overall, the Jordan Southern Highlands fall within the "moderate" land degradation severity class characterized by greatly reduced agricultural productivity (GLASOD, 1990). During project preparation field observations, focus group discussions with land users and other stakeholders and analyses of available documentation and information has enabled an improved qualitative assessment on the major LD types, major causes and incidences in the Southern Highlands.

Rangeland degradation is driven by overgrazing. The impact of overgrazing on the vegetation is evident from the excessive uprooting of the green matter (grass and bushes), leading to reduced seeding, reduced regeneration, and the consequent loss of plant production in the following year. Also, there is a change in the floristic composition, and a decline in volume and frequency of plants. In addition, a much stronger decline in productivity occurs during a drought compared to non-degraded rangelands.

Soils in almost all the Southern Highlands are calcareous and low in organic matter. Because of increasing cultivation pressure on land, natural replenishment of nutrients and maintenance of organic matter during fallow periods is now insufficient to maintain soil productivity over the long term. The low nutrient status of many soils is further exacerbated by the scarce use of inorganic fertilizers and manure. Furthermore, soil productive capacity is reduced because of physical degradation, structural and porosity damage, crust formation and compaction of the soil.

The proposed project area is heavily dependent on seasonal, scarce and variable rainfall. Drought years sharply reduce yields and leave the smallholders food insecure. Consecutive droughts from 1998 to 2001 highlighted the vulnerability of much of Jordan's agriculture, although good rains during 2001 and 2002, and heavy winter rains in 2002 and 2003 have lifted the immediate threat.

Due to dramatic human pressure, sustainability of farming practices has worsened in the Southern Highlands, exacerbating pressure on land and increasing land degradation processes. The poorest farmers who are increasingly growing cereals on marginal (from the agro-ecological view) areas. Wheat and barley are now grown with little to no rotation, with no nutrient replenishment, and at places avoiding even fallow. Small landholding sizes and topographic features of the area tend to oblige longitudinal mechanized tillage operations along the slopes. Sustainable rangeland management practices have become a memory of the past due to growing human as well as animal population, and also as a consequence of the disruption of the traditional living and production patterns of the Bedouin populations.

Addressing these issues clearly, mainly forestry, agriculture, biodiversity conservation and water management activities, fits within a watershed approach. The proposed project adequately puts emphasis on environment and biodiversity and proposes to explore

corrective measures building on traditional arrangements. The ongoing baseline investment is already looking at watershed issues. For that, the project will explore the merits in adopting a micro-watershed / catchment approach to the proposed activities to serve as the basic unit of planning. Such an approach would contribute to a more efficient restoration of local ecosystem, as well as ensure the support to institutional modalities.

1.3. Barriers to Achieving the Objectives

Unsustainable land use and management, recurrent droughts and climate change are the main causes of biodiversity loss in the Southern Highlands. Non-sustainable land use practices include improper ploughing, inappropriate rotations, inadequate or inexistent management of plant residues, overgrazing of natural vegetation, forest cutting, inappropriate land use, random urbanization, land fragmentation and over-pumping of groundwater. The root cause is the high population growth which exerts excessive pressure on the natural resources to meet increased food and income demand. Overall, the constraints facing the deprived land users such as, poor access to technology, capital and organization are the factors that lead into unsustainable practices.

Irrigation is marginal among the smallholders of the Southern Highlands. Some supplementary watering is provided to fruit tree plantations through spring water-fed conveyance systems or through water harvesting devices such as the cisterns. However, due to scarcity of water and insufficient investment capacity on adequate water harvesting systems and proper maintenance of field distribution networks this leads to water stress, low productivity and even salinization.

Over-pumping of groundwater basins and land degradation has resulted also in negative effects on the ecosystem diversity, faunal and floristic diversity and agro-biodiversity. The average annual abstraction from the renewable groundwater resources at Jafr basin currently stands at 180% of their combined safe yield the use of groundwater for domestic, industrial and agricultural purposes in each basin. Many of the springs are very small and some have dried up in recent years partly due to drought and partly due to over pumping of the aquifers. The springs are usually owned and operated by small traditional farmers. Moreover, scarcity of water associated with high poverty and population growth put more pressure on the natural resources to meet increased food and income demands.

1.4 Incremental Cost Analysis (Baseline, Alternative and Incremental Costs)

Under the baseline scenario, the focus within the rangeland and sylvo-pastoral landscapes will remain on incremental landscape rehabilitation although this is hampered by the lack of institutional capacity, baseline ecological inventory and limited budgets. Very little active intervention is occurring within the existing exclosures with the exception of some trickle irrigation and afforestation experimentation. The existing exclosures are not large enough for anything more than the recovery of ground cover vegetation and no faunal assemblage will result, except possibly in relation to migratory birds. No expansion is foreseen nor is replication of the experiments possible in the near future.

The result of not being able to expand the exclosures within the productive landscapes (with potentially high biodiversity value) will be further fragmentation and under-representation. The exclosures will remain largely isolated and will not contribute to the biodiversity conservation objectives of the HKJ. Important ecosystems between reserves will remain vulnerable and under increasing pressure from unsustainable activities. Nor will there be any effective collaboration with the proximal RSCN Nature Reserves.

The Government of Jordan will continue to implement legislative, policy and programme reform. However, financial, technical, and professional resources will remain limited thereby curbing the development necessary to improve productive landscape conservation effectiveness and efficiency. Without this project, Jordan is unlikely to finance and access the tools required to surmount these barriers. Meanwhile, threats to Jordan's biodiversity would continue.

Poverty and increased demand for diversification of income is pushing the government and most development agencies to promote rapid solutions that are unsustainable and that are impacting the biodiversity richness in the project area. Based on preliminary work done earlier, and supported by the PPG funds, a list of range plants that have been decreasing in the project area has been compiled. These are:

Range Plants Decreasing in the Project Area	
Haloxylon articulatum	النتنه
Stipa barbata	العزم الحوي
Avena barbata	الشوفان الحوي
Poa sinaica	القباء السنباني
Poa bulbsa	القباء البصلي
Bromus tectorm	السنبله
Hordeam murinum	الشعير البري
Medicago hispida	النقل

Through interviews with local communities, this information was verified as well. These species are used by the people in the area for food, feed and medicine, and they now have to revert to buying them from private collectors who harvest them unsustainably or collect them from other areas. The research also identified a number of poisonous and noxious plants that have increased in the region, and that is having an impact on human and animal health. These plants are:

Poisonous and Noxious Plants Increasing in the Project Area	
Haloxylon articulatum	الشيح
Stipa barbata	العاقول
Avena barbata	الصريره
Poa sinaica	الصر
Poa bulbsa	الحرمل
Bromus tectorm	الجعه
Hordeam murinum	العيسلان

The GEF alternative will signify an important improvement in support for the treatments needed in the exclosures and demonstrate improved management approaches. By the end of the project, there will be a re-introduced form of community co-management for the exclosures, and research and monitoring programs will be in place. Once completed, the exclosures (particularly if expanded) should qualify as IUCN category IV areas of "active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species". This will be a productive and useful addition to the overall protected areas system in Jordan and assist in meeting commitments under the Convention on Biological Diversity

The project will result in demonstration effect, higher capacities, replicable experience and information necessary to identify and improve management interventions at under-represented habitats. Jordan's productive landscapes will become the focus of a systemic capacity-building program to manage and mainstream biodiversity effectively and to demonstrate clearly the efficacy of community participatory approaches. Links between successful conservation of biodiversity and economic benefits accruing to the local communities will be demonstrated, and where available and appropriate, links to private sector financing will be developed.

Three exclosures will be operational by the end of the project. The likelihood of the financial sustainability of the exclosures will be substantially raised. Several currently underrepresented habitats and biodiversity within the protected area network will be brought under protection. Each of the three exclosures represents an important piece of the same large landscape puzzle. Together, they will help secure connectivity among reserves in the rest of the Jordan Rift Valley – even more so if expanded and replicated.

Increase in floral biodiversity relating to the list of plants decreasing in the project area (and mentioned above) will be a main indicator of the global environmental benefit linked to the activities of this project. The expansion of the enclosures and their suitability for category IV protected areas will increase the coverage of protected landscapes in Jordan. This category of protected areas is of great importance in countries like Jordan, as it is linked to the sustainable management of these zones by the communities who live within these areas and safeguarding the integrity of this traditional interaction is vital to the protection, maintenance and evolution of such an area.

The GEF incremental value is considerable. Significant gains in community awareness and acceptance of the role of the exclosures (and their expansion) can be anticipated. Significant benefits will accrue from the income generation and the PES pilot activities with both biodiversity conservation and economic benefits. There will be improvements in conservation of agricultural plant (and germplasm) diversity and particularly if the exclosures are expanded in size there will be significant recovery of natural vegetation and diversity of fauna. Improved integrated management of conservation corridors between fully protected areas will bring both domestic and global benefits. If successful, there should be a suite of lasting skills, business models and conservation approaches developed, tested and replicated; the human capacity will be built on both community and government levels required for sustainable operation of complex protected areas; and the legal framework required to guide establishment and sustainable operation of exclosures will be improved. The lessons learned and the mechanisms developed in these establishment processes will then be made available so that they can be replicated elsewhere in the country.

With GEF inputs, Jordan's MOA will have much better developed capacity to protect biodiversity and the successful pilot activities will move significantly closer to conserving biodiversity on a landscape level that is ecologically meaningful. The project will immediately result in an improved framework upon which to base biodiversity mainstreaming; new and improved protected areas for habitats and species currently under-represented; examples of protected area management that are much more community inclusive and supportive; and, prototypes of a suite of management improvement tools to prepare rangeland managers, including opportunities to link protected areas with the country's socio-economic development priorities. None of these elements critical to effective landscape level conservation would likely be realized without GEF inputs.

The total cost of the project, including co-funding and GEF funds, amounts to \$4.3 million USD. Of this total, co-financing constitutes USD \$3 million from the Government of Jordan and \$300,000 from RSCN. The GEF financing comprises the \$ 1,000,000 USD.

1.5 Project Rationale and GEF Policy Conformity

The project approach and related implementation strategy are built on the principles of conservation and sustainable use of biodiversity through community participation, involvement of CBOs, reinforcement of local institutions' capacity and active participation of women. A complementary technical strategy to consolidate these processes by incorporating community-based conservation approach.

The community participation to increase the local role in planning and managing development needs, increase community's sense of ownership and responsibility for activities and enhance the likelihood of sustainability of the biodiversity mainstreaming efforts. The communities will be directly involved in all phases of the project cycle and will be directly involved in biodiversity-based income generating activities.

The GEF Alternative would extend and expand already successfully proven techniques for the conservation and sustainable use of natural resources, grounded on priorities identified by the local communities, through the above mentioned participatory planning at the community and ecosystem levels. This approach would aim at achieving long term stewardship of natural resources and increased productivity, while improving livelihoods and reducing rural poverty. Improved land use practices and increased tree and vegetative cover would contribute to protecting ecosystem integrity and functions and generating global benefits through conservation of biodiversity at species and habitat levels.

The project will have institutional and financial sustainability components, that would define and negotiate institutional arrangements and financial mechanisms in the project area to address issues that affect the long-term sustainability of natural resources and the welfare of local communities, and ensure that financial resources will be made available beyond project life to carry on, and up-scale biodiversity mainstreaming activities. Through the adoption of this approach, the project will seek to turn successful and replicable policies to support mainstreaming of biodiversity into productive landscapes in Jordan, thus contributing to strengthening the policy and regulatory framework for biodiversity conservation and gaining Global Environmental Benefits while linking this initiative to development efforts. Project interventions will be guided by some main criteria such as: (i) the level of poverty (Main beneficiaries are the poor stakeholders in the project area – priority is given to women to access funding (for IGA and PES pilots for instance), (ii) The existence of a sylvo-pastoral area (where global environmental benefits could be yielded) and (iii) the baseline interventions offer a good opportunity to link development and conservation opportunities and (iv) sustainability potential already exists through baseline operations.

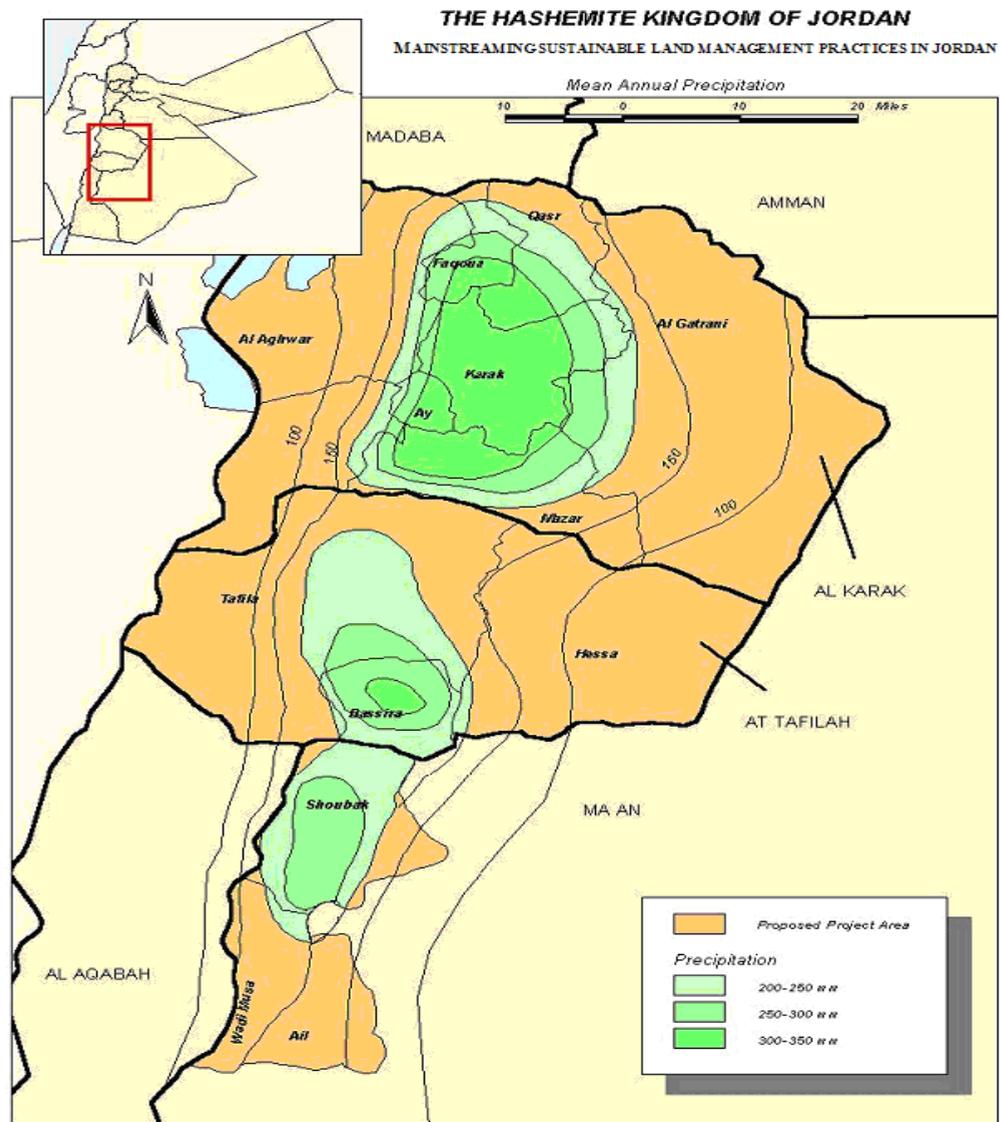
1.6 Project Area and Activity Sites

The proposed study sites are **Fujaij Rangeland Enclosure, Al-Hisheh Forest Enclosure** and **Manshiyya Rangeland Enclosure**. The sites are rich in biodiversity, including a wealth of native and endemic species and varieties which have been adapted over centuries. Of particular importance are the medicinal and aromatic plants, as well as herbs. However this biodiversity is under threat as habitat is lost due to over grazing, ploughing for rainfed cultivation, and subsequent accelerated soil loss and degradation.

The proposed sites are within the highest productive ecosystems that are located in steppe grassland and brush and forest zones where precipitation exceeds 200 mm. They are heavily dependent on seasonal, scarce and variable rainfall. Rainfed farming forms the base for agricultural production in the Southern Highlands. However, average crop yields are low and productivity is seriously limited by overall scarcity of water, extreme variability of rainfall and limited soil water conservation activities. Consequently, resource limited land users have been increasingly exposed to decreasing income and depleting livelihood security. With increasing population and economic pressures, sustainability of farming practices has worsened in the Southern Highlands, exacerbating pressure on land, increasing land degradation processes and driving biodiversity loss.

All proposed activities for the recommended sites are new activities that complement and do not duplicate existing initiatives particularly those underway in ARMP2 and/or RSCN IEM/JRV. The challenges at the sites include the following:

- A decreasing number of range plants, loss of species diversity
- An increase of poisonous and noxious plants
- Conversion of large areas of perennial plant range to annual plant range
- Soil erosion and loss of soil fertility
- Extirpation of wildlife
- A low level of awareness, organization, and motivation of communities
- A low level of animal and forage productivity and husbandry
- A lack of alternative income generating activities and opportunities

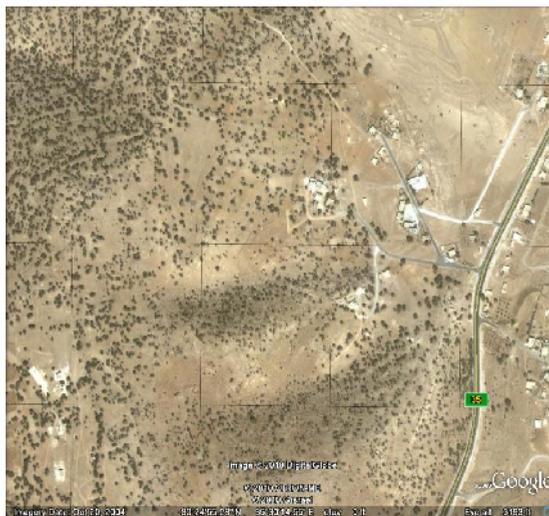


Fujaij Rangeland Enclosure (approx 1000ha.) – This area is already fully protected by MoA with active rangeland rehabilitation programs underway (primarily funded by existing government budgets with some donor project activity). The area is on the very edge of the JRV escarpment just south of Dana NR. There is mix of private smallholdings and military land to the west and north with extensive degraded range and cultivated land to the east. There are multiple opportunities here to extend existing projects and develop innovative additional co-management and PES pilot activities.



Satellite View of Fujaij Rangeland Reserve

Al-Hisheh Forest Enclosure (approx 300ha); This area is already fully protected by the Forest Dept. (MOA) for the last 8 years immediately adjacent to the village and private smallholdings. There is no ongoing management activity other than the grazing prohibition and only limited local involvement at this time. It is surrounded by approx. 7000ha. Of open sylvo-pastoral ecosystem with clear opportunity for technical project activities and community co-management.



Satellite View of Al- Hisheh Enclosure

Manshiyya Rangeland Enclosure (approx 100ha.): This is a very new (1yr) and very small enclosure in a highly degraded area. While the IFAD-GEF project would have a limited benefit here (in the short term) there is an opportunity to extend some of the capacity development and alternative livelihood project activities to Manshiyya. This area benefiting from core MoA programs (including the Water Harvesting Directorate and others), plus projects such as ARMP 1 and 2 and the GEF medicinal Plants and JRV projects (and others).

It will be essential to design new activities that complement and do not duplicate the existing initiatives.



Satellite View of Manshiyya

1.7 Project Goal, Objectives, Outcomes, and Outputs

The project intends to integrate biodiversity mainstreaming approach into public-sponsored and poverty reduction activities that promote the enhancement of the quality of the life of rural communities. The project's development objective is to improve economic productivity of land and enhance gender empowerment of communities affected by land degradation and unsustainable use of natural resources.

Biodiversity conservation in Jordan during the past two decades has primarily focused on the creation of protected areas managed by the Royal Society for the Conservation of Nature (RSCN). The Nature Reserve System contains many small and 3 large areas to date including a variety of IUCN management categories. RSCN's existing World Bank/GEF project on "Integrating Environmental Management in the Jordan Rift Valley" IEM/JRV) is also a biodiversity mainstreaming project and should result in four new NRs and three new "special conservation areas" (IUCN categories remain to be determined)

Several other donor-supported projects also have stated objectives of encouraging and facilitating biodiversity conservation on the rest of Jordan's land base. This "mainstreaming" must be viewed as a long term objective that requires a continuing stream of capacity development and educational efforts with the widest possible variety of stakeholders. Of necessity, this must include many other relevant agencies (MoPIC, MOE and MOA) and interested stakeholders and NGOs. General public awareness raising is critical as well and it may very likely require at least a several generation of effort. The latter objective has been explicitly within the mandate of RSCN from its inception and for a decade or more it has been incorporated in national policy documents and analyses and within revised mandates for the involved government agencies and programs.

The environment-poverty linkage is well understood in Jordan by government and donors alike so poverty alleviation combined with environmental conservation is not an alien

concept. This is particularly encouraging but implementation remains relatively new and will benefit from additional resourcing and pilot activities.

The Goal of this project is to Increase Biodiversity Conservation in Productive Landscapes in Pockets of Poverty in Southern Jordan. The project is designed to achieve this goal in three specific Ministry of Agriculture (MOA) Reserves (exclosures) which are intended to protect portions of the rangeland and sylvo-pastoral landscapes within the Agricultural Directorate for Developing the Sharah Region (ADDSR). By improving government and community understanding of the value of biodiversity, it is also intended to demonstrate that there are economic benefits and alternative livelihoods available if biodiversity conservation is improved. It is further intended that the successful outcomes of the project become sustainable and replicable within other geographic areas of Jordan.

The more specific **Objective** of the project is **to mainstream biodiversity conservation in sylvo-pastoral and rangeland management activities** particularly in buffer zones associated with existing (and proposed) Nature Reserves and to produce local economic benefits and poverty alleviation in a sustainable and replicable manner. Equally significant is the intention to build capacities for biodiversity mainstreaming at all levels, from communities to line ministries. It will help prepare these stakeholders, especially local ones, to be able to actively participate in and contribute effectively to the formulation, implementation, and monitoring of strategies and action programs aimed at the sustainable land management in the project area, and bringing local environmental perspectives and traditional knowledge to this process.

The project is designed to produce **four Outcomes**.

Outcome 1: Enhanced capacity building and awareness raising for biodiversity mainstreaming in local communities and government agencies

Capacity building and awareness of some of the values of biodiversity (intrinsic through to economic) is relatively low in rural Jordan. Thus the project will pay special attention to increasing the capacity of the government (primarily ADDSR) and local communities to incorporate biodiversity conservation as a complementary economic activity. This includes training activities for both government and communities and the initiation of new biodiversity conservation tools. Moreover, a Knowledge management system will be developed and installed to enable the relevant communities to leverage biodiversity knowledge and consequent conservation.

Outputs/Activities will include:

1.1 *Training courses concerning the value of biodiversity and its potential local and regional economic benefit.*

Through the project preparation, needs assessment was undertaken with all actors to be involved in this project as to where they saw the gaps in their capabilities to manage this project and sustain its activities. The analysis was also undertaken with other initiatives in mind, in an effort not to duplicate training efforts. The specific training activities that the project will concentrate on will include eight training courses implemented over Years 2-4 of the project, and these are:

- Participatory Rural Appraisal (PRA)/ Rapid Rural Appraisal (RRA)
- Traditional Knowledge
- Community Co-management

- Rangeland Rehabilitation Practicum
- Afforestation Practicum
- Water harvesting Practicum
- Biodiversity Basics
- Endangered Species

1.2 A tool-kit for mainstreaming biodiversity in sylvo-pastoral/rangelands.

The aim of developing this tool-kit is to support the implementation of the NBSAP through “mainstreaming” biodiversity into other sectors. Mainstreaming biodiversity is about having NBSAP issues supported in the actions of other sectors, particularly to avoid the unintended loss of or impacts on biodiversity. The most strategic path is to work for a “win-win” arrangement that meets the obligations or mandate of both sectors. This tool-kit will be mainly designed for policy makers.

1.3 New knowledge management and information sharing systems.

This will aim at the development of an approach that will integrate people, processes and technology involved in designing, capturing and implementing the intellectual infrastructure of the initiatives in the project area and at the national level, and build up on their complementarities. The specific activities will include:

- Preparation of a new knowledge management system.
- Annual knowledge management fairs/workshops

1.4 Regional study tours to areas with biodiversity mainstreaming techniques already in place.

Study tours are meant to share lessons, good experiences and failure stories, and they have proven to be very effective learning for hands-on experiences. Moreover, these help in creating networks for scaling-up project experiences beyond the project level, and mobilise resources for further innovation. The specific activities will include 2 study tours to destinations that have achieved positive results in terms of capitalising on biodiversity conservation for improving livelihoods and reducing poverty of rural communities.

Outcome 2: An enabling environment which allows rangeland and sylvo-pastoral landscape users to understand and benefit from the conservation of biodiversity

Based on the capacity development activities the project will create an institutional and regulatory framework that is innovative and fully participatory within local communities and among rangeland and forest users. It will specifically include pragmatic biodiversity conservation measures that are well understood and have clearly defined roles and responsibilities. The MOA with the oversight of the Steering Committee will actively foster a culture of cooperation and participatory decision-making with the local community.

Outputs/Activities will include:

2.1 Documented roles and responsibilities for community involvement in rangeland and sylvo-pastoral reserve management.

The specific activities will elaborate a mechanism through which the project will mobilise and strengthen community groups as a key entry point for interventions and define how community needs will be translated through participatory planning processes that would lead to the development of Community Action Plans/Environmental management plans. Special attention will be paid to the identification and support of the roles and decision-making capacities of the communities (especially women). This will include consultation

sessions and implementation of a community involvement network throughout the Project Area. It will also tackle modalities and options that will ensure the sustainability of this involvement.

2.2 Establishment of traditional "Hima" mechanisms for stakeholder involvement in biodiversity conservation. (or "co-management committees"),

The specific activities will include stakeholder consultation, design of co-management options for Hima mechanisms and implementation of a preferred form of Hima. This will be undertaken by the creation of consultative groups at the local level to facilitate discussions with the government and to build on other experiences by IFAD, IUCN and RSCN. Lesson sharing from other similar experiences will be built on and scaled-up, and biodiversity mainstreaming factored in. The land areas covered by the project will be classified at early implementation and, depending on the current situation in the pilot areas, and in the case that land tenure is not very well defined, opportunities for complementing the Hima approach by introducing Communal Property Rights (or Common Property Resource Management) will be explored. Communal property rights can be the equivalent of Hima but governed by legal provisions. It is a form of land right that limits access to public land and establishes governance rules for community users. Further details are in section II.6.

2.3 Implementation of the legal and institutional framework for co-management and biodiversity conservation within MOA reserves and the project area.

The specific activities will include completion of legal contracts for co-management committees, as well as defining the institutional framework for the operation of these committees. This will also support conservation law enforcement agencies in the reduction of infractions.

2.4 Conflict resolution /arbitration systems.

The specific activity will include establishment of a conflict resolution system, which is an integral part of the maintenance of a community-based management approach. The project will be piloted within 3 sites, and the conflict resolution system will be tailored as per the specificities of each site. The development of this system will take into consideration the traditional knowledge relevant to this type of arbitration, as the communities in the Sharah region have had in place similar structures that were used to solve conflict and ensure equity among the communities. Although the intervention of the project is unique and innovative, any already existing arbitration system will be built into and developed to suit the expanded intervention.

2.5 Ecological assessments within each enclosure and within the project area and along the ecological west-east gradient

This activity will be particularly important for determining the base along which future monitoring would be undertaken. Partnerships will be developed with relevant organisations that have expertise in this field, and whose projects fund biodiversity and ecological assessments. Monitoring equipment will be acquired to make sure that decisions relevant to conservation are based on scientific evidence, and that this information is conveyed to policy makers to affect the science-policy nexus.

2.6 Detailed plans for potential expansion and biodiversity conservation management programming in each enclosure.

The implementation of this activity will ensure the conservation of biodiversity at the broader landscape level, as well as contribute to the expansion of the area that provides income generating activities to the local communities. The management plans to be developed will form a basis for biodiversity mainstreaming, and will be based on a participatory approach among the communities that will be leading the conservation efforts.

2.7 Monitoring, documentation and replication of lessons-learned.

The specific activities will include:

- Development of a monitoring system to ensure the long-term biodiversity benefits
- Completion of Best Practices documents and related publications
- Completion of a strategy paper on the sustainable financing of the enclosures

The creation of an enabling environment is a long-term process that requires continuous monitoring to ensure that the benefits from the conservation of biodiversity are properly captured. Moreover, lessons learnt will be benefited from and used as a basis for the development of a sustainable financing policy for the community management of the reserves and the conservation of their biodiversity within the reserves and the areas around them. Partnerships will be expanded in that respect, and private sector partners will be brought on board.

Outcome 3: Innovative pilot measures and introduction of "Payment for Environmental Services" (PES)

A series of pilot activities leading to improved rangeland and sylvo-pastoral reserve management will be undertaken – including biodiversity conservation mainstreaming measures and income generation activities. To this end, the project will provide direct support to local communities and NGOs in establishing plans and programmes for innovative alternative livelihood activities. The project will also pilot PES activities within the project sites.

Outputs/Activities will include:

3.1 PES pilot activities at Fujaij Reserve and Hisheh Sylvo-pastoral Reserve

The specific activities will include a mixture of the potential PES economic benefits which would be designed in detail during the Inception Phase. The economic opportunities that will be generated through the conservation action will ensure the success of the selected PES activities. The administrative selection is done based on the comparative advantage and the added value of the project, and building on the additional setup provided by other initiatives within the project area. The project will be funding initial short-term start-up costs of the interventions, and the sustainability, as with other PES initiatives, will be maintained through the income generated by the conservation action. The design of every PES scheme in the pilot areas will be elaborated with particular attention to the costs of the service provided and the linkages with the markets.

3.2 A plan for and implementation of the connectivity corridor as a cooperative activity between MOA and RSCN in the Dana NR Buffer zone.

The specific activities will include detailed planning process and implementation with RSCN within the buffer zone of the Dana reserve. The activities within the project area, being in the proximity of the reserve, will extend the buffer zone of the reserve and create a connectivity corridor where cooperation activities with RSCN will be developed, especially what is related to ecotourism and community –based management of natural resources. The position of the pilot site will ensure that there is no leakage as the surrounding areas are subject to high degree of protection. The implementation of the connectivity corridor will be coupled with marketing tools that would ensure the involvement of the local communities and the contribution of the corridor to their livelihoods.

3.3 Documentation of the principles, processes and benefits of the results of the PES pilots and distribution among the ADDSR and local communities

The specific activities will include the preparation of detailed analyses of the PES pilot activities and monitoring of the PES experience to enable assessment of the opportunities and replication beyond the project implementation phase. The documentation will build on the value of conserving biodiversity for securing sustainable funding.

Outcome 4: Project Management and Evaluation

Effective project management, oversight and coordination mechanisms as well as mechanisms to evaluate, capture and disseminate lessons-learned and best practices for biodiversity mainstreaming are an essential component of the proposed project. Project reporting of all outputs (as well as regular reviews of work plans and budgets and formal

project evaluation will follow normative IFAD and GEF requirements with particular emphasis placed on ensuring that both qualitative and quantitative indicators demonstrate satisfactory progress, sustainability and replicability.

Activities Summary	Activity	Principal Implementation Responsibility
Output 1.1 Eight Training Courses	<ul style="list-style-type: none"> • PRA/RRA • Traditional Knowledge • Community Co-management • Rangeland Rehabilitation Practicum • Afforestation Practicum • Water harvesting Practicum • Biodiversity Basics • Endangered Species 	MOA with RSCN
Output 1.2 Toolkit Preparation	<ul style="list-style-type: none"> • Participatory Toolkit Preparation 	MOA with the assistance of IUCN ROWA
Output 1.3 Knowledge Management and Information System	<ul style="list-style-type: none"> • Knowledge management system • Knowledge Management Fairs 	MOA and CBOs with the assistance of RSCN and IUCN
Output 1.4 Regional Study Tours	<ul style="list-style-type: none"> • 2 study tours (locations to be determined during the Inception Phase and following an annual needs assessment) 	Steering Committee and MOA
Output 2.1 Community Involvement Mechanism	<ul style="list-style-type: none"> • Participatory planning for community participation options 	MOA and IUCN ROWA
Output 2.2 Re-Introduction of Hima	<ul style="list-style-type: none"> • Re-establishment of stakeholder based Hima systems in and around the enclosure 	MOA and IUCN ROWA (and the WANA Forum)
Output 2.3 New Legal Systems	<ul style="list-style-type: none"> • Policy study of available legal mechanisms. • Pilot new contract system for community co-management and/or Hima 	MOA and national experts
Output 2.4 Ecological assessment	<ul style="list-style-type: none"> • Assessment and monitoring of biodiversity benefits. • Potential Expansion of each enclosure 	MOA and experts
Output 2.5 Management Plans	<ul style="list-style-type: none"> • Completion of a conservation management plan at each enclosure 	MOA and experts
Output 2.6 Conflict Resolution	<ul style="list-style-type: none"> • Conflict Resolution system established 	MOA
Output 2.7 Replication	<ul style="list-style-type: none"> • Completion of Best Practices documents and related publications • Completion of a strategy paper on the sustainable financing of the enclosures 	Steering Committee, MOA and experts
Output 3.1 PES at Fujaij	<ul style="list-style-type: none"> • PES Activity Set to be designed and 	MOA and experts

and at Hisheh	implemented	
Output 3.2 MOA/RSCN Buffer Zones	<ul style="list-style-type: none"> Establishment and Implementation of a MOA/RSCN Cooperative biodiversity corridor Design and development of marketing tools to support involvement of and benefit to local communities 	Steering Committee, MOA and RSCN
Output 3.3 PES Results	<ul style="list-style-type: none"> Documentation and Distribution of the results of the PES experience 	Steering Committee, MOA
Output 4.1 Project management	<ul style="list-style-type: none"> See Section III.1 	Steering Committee and MOA
Output 4.2 Project evaluations	<ul style="list-style-type: none"> See Section III.1 	Steering Committee and MOA

1.8 Innovation Component I: Re-Introduction of Al-Hima

The first and perhaps most locally significant major innovation within this proposed IFAD/GEF project is the “re-introduction” of the traditional Hima system for community-conserved areas (primarily for natural resource conservation but with broader cultural and socio-economic importance to community cohesiveness) rather than a further extension or expansion of the newer top-down instruments of state protection of productive landscapes.

The “Hima” is a traditional system which has been in use for over 2000 years in the Arab world. Hima is an Arabic word that literally means “a protected place” and access to the Hima area was restricted by the individual or group which owned it. Later, its meaning evolved to signify a reserved pasture, a piece of land set aside (often just seasonally) to allow regeneration. This system attempted to ensure sustainable use of the resource. The system set aside an area as a grazing reserve for restricted use by a village community, clan or tribe as part of a grazing management strategy. It is one of the longest standing known conservation systems ever established by local communities.

The Hima approach is in line with the policies and regulations of the HKJ to increase participation of local communities in natural resource management and conserve biodiversity. It is essentially a bottom-up approach to ensure that rural communities are empowered to take decisions that affect their livelihoods and be part of a consensual process that supports that.

Various forms of Hima have been implemented in the past and involved the following:

- Grazing is prohibited; cutting is permitted during specific periods to feed livestock. The tribe council specifies the number of people from each family allowed to do the cutting. Trails were specified to prevent destruction of soil fertility
- Grazing and cutting allowed only on a seasonal basis after flowers and fruits are produced. This allows for natural regeneration for following seasons
- No restrictions on grass-cutting.
- Some areas were reserved for bee-keeping. Grazing is allowed only after the flowering season. These reserves are closed for five months of the year.
- Areas reserved for forest trees e.g. *Juniperus procera*, *Acacias spp.*, *Haloxylon persicum*. Cutting allowed for great emergencies or acute needs.
- Woodland reserved to stop desertification of an area or sand dune encroachment

With the advent of Islam, the Hima evolved. It enjoyed further policy change and was promoted as a viable institution that could bring real benefit to public good. Some traditional Himas became the best managed rangelands in the Arabian Peninsula; they have been grazed correctly since early Islamic times. To be valid in Islamic law, a Hima had to meet four conditions.

- It must be constituted by the legitimate governing authority
- It must be established for purposes pertaining to public welfare
- The area to be declared as Hima should not be so large as to cause undue hardship to local people, and it should not deprive them of indispensable resources
- It must realize greater actual benefits to society than detriments.

Tribes were the custodians of their Himas and controlled them on behalf of the central government. For centuries, local inhabitants of the rural and nomadic lands have successfully established environmental planning and management strategies which balanced the settlements growth and natural resources uses. Tribes governed land use through consensus rather than prescribed legislative or institutional control. They had a well established hierarchal government system led by the Sheikh or Chieftain that guaranteed representation of kin-groups through commissions, committees and council.

Tribes continued to control the Himas and to take care of pastures through the first half of the twentieth century. This was the case in Jordan, Syria, Yemen and Saudi Arabia. It served both spiritual and cultural purposes to carry out sound environmental management of livelihood resources. This allowed proper environmental management as each group held responsibility for a different area. One group would be in charge of landscape, another for rainwater runoff, another for grazing etc.

Political and socio-economic changes in the region led to the deterioration of the Hima system. The fall of the Ottoman Empire resulted in stronger control by the smaller states, tribal land was nationalized and higher demand for rural products namely meat led to overgrazing. Sustainable systems of land use declined and so did diversity of habitats.

The re-introduction of Hima therefore may improve overall natural resource management in various ways:

- It would protect as well as allow controlled use of resources
- The system had and still has popular appeal, it is socially accepted and desired by the people who carry the cost of implementing it
- The system is economically viable because of benefits yielded and social security provided
- It potentially allocates resources equitably among members of a local community
- It is an important traditional recognition of the need to allocate access to scarce resources and illustrates that this need was perceived locally hundreds of years ago
- Himas are managed locally with consultation and consensus, thus they guarantee a voice to individuals in communities to influence management decisions
- Himas are known to have pragmatic flexibility
- Himas are still regarded as an essential source of fodder, thus they continue to play a role in times of drought and poor seasons
- Hima tradition is an important cultural precedent in using designated areas of land for protecting and managing public resources over which individuals enjoyed user rights
- Himas provide a potential for ecological and socio-economic research potentially utilizing traditional knowledge.

Increasingly modern day conservationists, see the Hima as a link between conservation of renewable resources and sustainable development. Many of those conservationists have been exposed to the detriments of the relatively recent conservation systems such as parks, nature reserves and protected areas. Depending on different governance models, some of these detriments have included displacement of indigenous people and impoverishment of local communities from denied access to their resources. Now there is a new advocacy of the use of this ancient institution in already established protected areas. The re-introduction of Hima systems is included within the activities proposed to achieve Outcome 2.

1.9 Innovation Component II: Payment for Environmental Services

Payments for environmental services (PES) have emerged in recent years as a concept and tool for achieving ecosystem conservation, and at the same time improving the livelihoods of environmental-service providers. Nevertheless, considerable uncertainty remains as to what exactly PES means, and how much of it is currently being implemented. In broadly defined terms, environmental services refer to those services from natural areas that contribute to maintain or enhance society's welfare (e.g. drinking water, maintenance of micro-climate and soil, recreation areas). Though these services are often substantial, they are frequently ignored in resource-use and land management decisions. Undervaluation of forests and other natural ecosystems results in the depletion of natural vegetation cover and soils, damaged watersheds and species extinction which means losses to societies.

The PES approach is attractive in that it (i) generates new financing, which would not otherwise be available for conservation; (ii) is likely to be sustainable, as it depends on the mutual self-interest of service users and providers and not on the impulse of government or donor financing; (iii) is likely to be efficient in that it conserves services whose benefits exceed the cost of providing them, and does not conserve services when the opposite is true.

However PES is most frequently misconceived as a new source of revenue for government programmes. This is neither the general approach intended here nor a specific intent of the pilot activities. In this case (as originally conceived), conservation of the enclosure areas is aided because local individuals and/or communities can identify a specific in-kind or cash payment for their participation in direct or complementary conservation activities. This is a critically important design criterion for the GEF investment.

Participation requires adopting the land uses promoted by the program. When a PES program calls for retaining existing land uses (as in forest protection), participation is likely to be relatively straightforward. But when a PES program calls for switching to new practices, as is the case in the proposed IFAD/GEF project, participation decisions become more complex.

The following table outlines in very general terms the trade-offs that may be designed into the PES pilot activities at the two sites of Fujaij and Hisheh:

Summary of Options for Payment for Environmental Services		
Activity	Benefit to Participant (Payment) ³	Cost to Participant (Service)
Additional Grazing Opportunity	The participant gains additional access to rangelands (extra time, greater area, better quality) or sylvo-pastoral landscapes.	The participant agrees to an expansion of the enclosure, to participate in the Hima and to adopt prescribed management practices.
Afforestation	The participant gains access to additional timber or fuelwood or fodder	
Utilization of Non Timber Forest Products	The participant is provided an opportunity to harvest non-timber forest products (mushrooms, nuts, berries, gums, etc) primarily for domestic use (although commercial exploitation may also be possible if sustainability is assured through the management practices).	
Access to Garden Plots for Domestic or Commercial Use	The participant is provided an additional smallholding opportunity for the production of domestic food	
Utilization of Medicinal Plants	The participant is provided an opportunity to identify and use medicinal plants primarily for domestic purposes – and sustainable commercial utilization is also possible if it is endorsed within the Hima	
Bee Keeping	The participant is provided a location for hives and is invited to participate in cooperative marketing mechanisms.	The participant agrees to an expansion of the enclosure, to participate in the Hima and to adopt prescribed management practices.
Ecotourism	The participant is provided an opportunity for participation (collectively or individually) in ecotourism activities – especially in the proposed Dana-Petra-Masuda-Rum conservation corridor.	
Commercial Dairy Production	The participant is provided either additional grazing opportunities or a right to collect and use fodder crops in or adjacent to the enclosure	
Craft Production	The participant is provided an opportunity to harvest materials (stone, wood, grasses, herbs etc) for the production of commercial crafts (which is already the practice at Dana NR.	
Water Conservation and Use	The participant is provided access to additional water or a subsidy for water purchase elsewhere (assuming conservation practices are capable of increased sustainable utilization.	
Poultry Production	The participant is provided additional smallholding area for poultry production plus access to cooperative community-based marketing opportunities.	

³ Participant may include a community resident, landowner, farmer, CBO or other stakeholders deemed appropriate

The above-table describes the voluntary flow of the transaction between the payment and the service as per the specifically defined environmental service. The benefit to the participant would not occur in the absence of the payment.

1. Such access to the resources of the enclosure areas would be granted by government in exchange for mechanisms such as:

- An individual's signed agreement (contract) to respect and assist in the expansion of the conservation purposes and values of the area;
- Active participation in a "Management Committee" for an enclosure area (if established);
- Active participation in an al-Hima pilot project for an enclosure area (if established); and/or
- Other supportive mechanisms as agreed.

PES experimental activities could include but will not be limited to:

Medicinal plants production and processing: The flora of the project area is rich in medicinal and herbal plants. In addition to enhancing health care and wellbeing, medicinal and herbal plants contribute to soil protection as they cover a significant percentage of the soil in the range and forest areas of Sothern Jordan. Medicinal and herbal plants are important for the wellbeing of the population, especially of the rural poor who depend on these resources to treat human and livestock ailments and diseases. Additionally they generate income, in particular for the resource-poor people, especially women, who are involved in most of the fieldwork, processing and marketing of medicinal plants.

The specific activities may include:

- Preparation of a database on indigenous medicinal and herbal plants with a view to assess their use and status within key ecosystems;
- Conservation and sustainable use,(ex-situ and in-situ) of medicinal, herbal and aromatic plants in the project area;
- Formation of a coalition of stakeholders, i.e. farmers, agricultural associations, extension services, NGOs, scientific research institutes, universities, etc. to add value to medicinal, herbal and aromatic plants through processing, chemical analysis and marketing; and
- Improvement of public awareness of the importance of medicinal plants and build on traditional knowledge and cultural heritage.

This activity would improve the livelihood and health of communities through the conservation, management, and sustainable use of medicinal and herbal plants for human and livestock needs in Jordan while ensuring effective conservation of these plants using *in-situ* and *ex-situ* methods of plant genetic resources management. The activity benefits will be obtained through: (i) the protection of endangered species, (ii) the sustainable use of medicinal and herbal plants and natural habitats, (iii) improved agro-pastoral practices, (iv) better water management and reduced erosion, and (vi) income generation for disadvantaged communities.

Ecotourism: Community-based ecotourism provides the local community with substantial control over, and involvement in, its development and management, and a major proportion of the benefits remain within the community. Community-based ecotourism should therefore foster sustainable use and collective responsibility. However, it must also embrace individual initiatives within the community.

New visitor services could include access to natural areas and cultural heritage, guiding and interpretative services, accommodation, catering, sales of produce and handicrafts, and transport. Appropriate recreational and special interest activities, such as trail walking, photography and participatory conservation programmes, may also be part of ecotourism.

A fundamental characteristic of community-based ecotourism is that the quality of the natural resources and cultural heritage of an area should not be damaged and, if possible, should be enhanced by tourism. Adverse impact on the natural environment should be minimised and the culture of indigenous communities should not be compromised. Ecotourism should encourage people to value their own cultural heritage. However, culture is not static and communities may wish to see change.

In most ecotourism projects, a fundamental objective is improved conservation of landscapes and biodiversity. Community-based ecotourism should be seen and evaluated as just one tool in achieving the following expected outcomes in the project area:

- provide a more sustainable form of livelihood for local communities;
- encourage communities themselves to be more directly involved in conservation; and
- generate more goodwill towards, and local benefit from, conservation measures such as protected/conserved areas.

The capacity of ecotourism to support a positive attitude towards conservation is not only achieved in proportion to direct economic benefits delivered. With many ecotourism initiatives it has been found that simply raising awareness that there is some realisable value in wildlife and attractive landscapes has been sufficient to make a considerable difference, both within communities and also politically at a regional or national level.

Ecotourism should be successful within the project area because of:

- close proximity to the Dana Nature reserve
- landscapes or flora/fauna which have inherent attractiveness or degree of interest to appeal either to specialists or more general visitors;
- ecosystems that are at least able to absorb a managed level of visitation without damage;
- a local community that is aware of the potential opportunities, risks and changes involved, and is interested in receiving visitors; and
- no obvious threats to indigenous culture and traditions;

Beekeeping: Beekeeping offers a great potential for development and is comparatively less demanding in terms of investment, labour and time. Also, beekeeping is advocated to biodiversity conservation and enhancing environmental resilience. Improved marketing of bee products will ensure increased income and food security at household and national levels thereby leading to poverty reduction and natural resource management. Beekeeping gives local people economic incentive for the retention of natural habitats, and is an ideal activity in any forest/rangeland conservation programme. Beekeeping activities involve both genders at different stages of honey and beeswax processing and marketing.

The poorest people can, and do harvest bee products and earn money, yet this activity remains commercially undeveloped. While poor farmers do already harvest honey and wax for their own use, improved handling of honey can ensure adequate quality, while organisation of producers and engagement with the private sector can lead to better market access. Interventions in these areas could achieve increased sales in beeswax and honey, thereby generating greater income flows to the most disadvantaged people in the community. Beekeeping can be a rewarding income-generating activity which is an important reason for promoting it.

The specifics of each PES scheme at Fujaij and Hisheh need much more site-specific and detailed design than is it possible (or advisable) to prescribe during the design process for this proposed project. Hence, before finally deciding on the type of activities to be undertaken, it is proposed that during the Inception Phase of the project, the project team with the assistance of an internationally-recruited PES expert should design a bundle of PES activities (with the participation of the local community) which would form the basis for the local Hima work plan. However, and as possible GEF financing, the following activities could be considered:

- Investing in a nursery for medicinal plants
- Training and primary investment for the processing of medicinal plants and /or other non-timber forest products
- Certification and enhanced market value/access
- Investing in the development of the biodiversity corridor
- Investing in handling facilities for produced honey
- Eco-labelling of honey and derivative products produced in the region
- Funding of cooperatives to organise the market and facilitate market access to biodiversity goods
- Financing capacity building activities for eco-tourism guides

Potential for Up-scaling PES activities

Even though this project aims at piloting PES in Jordan, there is a good potential of scaling up this activity, as markets for ecosystem services are steadily growing and can be expected to grow even further if successful experiences are disseminated and built upon. Governments are finding it more expensive to fund development work, and PES provides a good opportunity to drive markets to benefit ecosystem conservation and promote community involvement. To scale-up the PES process from a pilot to a broader practice in Jordan, several actions are needed. Among these:

- Addressing the policy implications/advocacy component of environmental 'projects', and "marketing" the successful activities
- Investing in the policy frameworks and institutions required for functioning ecosystem service payment systems (Collaborative management and Hima structures)
- Identifying, mobilizing and organizing the enabling environment for a functioning PES, and mainly what relates to the potential cooperatives and the buyers for ecosystem services
- Structuring existing and emerging marketable services to support community-driven conservation (and the tourism sector is a main entry point in this case; making use of the proximity to natural reserves and capitalizing on the biodiversity corridor)

1.10 Project Indicators

The project's key indicators are outlined in detail in the Strategic Results Framework. In summary these include:

- Three functional protected exclosure areas with operational co-management plans
- Two successful PES pilot systems – one for each exclosure
- A pilot Hima community co-management scheme in place at each exclosure
- 8 Training courses completed
- 4 Study tours completed
- Two thematic studies completed
- Two policy studies completed
- Demonstrable recovery of the floral and faunal biodiversity within the exclosures and to some degree within the Project Area.
- At least 30% of stakeholder groups feel the project has contributed in increasing their quality of life by the end of the project;
- At least 25% ADDSR officials feel the project has contributed in increasing their work and performance objectives
- 50% of the population living in the project area are aware of biodiversity conservation and the project;
- A fully developed financial sustainability plan for the long-term implementation of key biodiversity mainstreaming activities within the project area;
- Increase in regional and national capacity for biodiversity mainstreaming measures with both local and global benefits and with M&E system operating in the project

1.11 Sustainability and Replicability

The project intends to integrate biodiversity mainstreaming approach into public-sponsored and poverty reduction activities that promote the enhancement of the quality of the life of rural communities. The project's development objective is to improve economic productivity of land and enhance gender empowerment of communities affected by land degradation and unsustainable use of natural resources.

To ensure the long-term implementation of this integrated ecosystem approach, the project will develop and implement a project financial and institutional sustainability strategy, including pilot financial mechanisms in the pilot sites in order to reduce existing sustainability risks and support the implementation of selected activities for up-scaling biodiversity-related income generating initiatives beyond the life of the project. The strategy will seek to define institutional arrangements that are negotiated as well as piloted financial mechanism to address issues that affect the long-term sustainability of natural resources and the welfare of local communities. The strategy will be based on major lesson learned from similar implementation experiences of projects on mainstreaming biodiversity.

In addition to the MOA, the proposed project will be institutionally linked to the Ministry of Environment (MOE), the Ministry of Water Resource and Irrigation (WRI), and the Ministry of Planning (MOPIC) and RSCN. The project management structure would promote the integration of activities within existing programs, and the mobilization of resources to support the continuity of project activities. The project would seek the support of local networks and institutions, would provide "training for trainers", and would work with local ARMP-II management units, technical executing agencies, NGOs and schools, thus promoting the sustainable use of natural resources and up-scaling of biodiversity mainstreaming practices. The project will seek to build capacity at the level of directorates of agriculture, specialized extension services, lobbying and advocacy agencies, microfinance

institutions fostering a partnership approach and building commitment to follow through activities beyond the project funding phase.

The financial sustainability strategy of the project is expected to sustain and further improve the decentralized management of land and water resources and to continue the execution of selected activities beyond project life with an overall strategy as well as pilot financial mechanisms adopted by the end of the project's life. This will be achieved through a series of activities, including those to attract external resources and/or generate financial return and to identify and/or design viable financial mechanisms/models to support financial sustainability (e.g. public funds and programs, generation of environmental taxes, revolving funds schemes, and certifications).

An integrated institutional and financial sustainability strategy which is pilot tested should be started during project implementation. Institutional arrangements should be defined and negotiated in the project area. Capacity building should take place among Directorates of Agriculture, Water and Environment, that addresses the long-term sustainability of natural resources, scaling-up and mainstreaming of biodiversity within the local and national planning agencies.

The lessons learned from the GEF funded activities will be widely applicable in similar ecosystems throughout Jordan and the region. Through the tool kit, as well as other information systems and products, training courses and study tours, the project will be linked to ongoing regional and global programmes such as the Regional Programme for Sustainable Development of the Drylands of West Asia and North Africa (WANA) and IUCN. Moreover, through international donors already supporting biodiversity conservation activities in Jordan, including the World Bank, USAID, JICA, WFP and GTZ, there would appear to be potential for leveraging additional resources during project implementation for replicating the more comprehensive approach being developed through this proposed GEF project.

Specifically, the biodiversity mainstreaming tools to be adopted by the project will allow replication within Jordan (particularly throughout the Southern Highlands as well as in the Central and Northern Highlands and could gradually be introduced also in the Jordan River Valley, including Wadi Araba) and in other parts of the Middle East with similar arid and semi-arid ecosystems and agro-ecological conditions, such as those of Syria, Palestine and Lebanon. The project will also be replicable through capacity building, public awareness and dissemination activities. Individuals, communities and public and non-governmental institutions interested in the project and its outcomes will have access to the relevant information and knowledge, allowing application to other areas of the country and the region.

The main lessons learned from previous initiatives were integrated in the project design. Useful improved practices were introduced on a pilot basis, as well as the combination of financial incentives and technical assistance which are essential for decreasing the rate of land degradation and better land use management by the land-users themselves. Integration of sustainable management of resources and poverty alleviation efforts is crucial to ensure sustainability as experience from other projects in Jordan has shown.

Community-based natural resources management must become integrated into the key line agencies and stakeholders. This requires improved coordination and communication between these different agencies and stakeholders. This will be enforced by formulation of local co-management committees.

B. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH NATIONAL AND/OR REGIONAL PRIORITIES/PLANS:

In addition to what is mentioned in the PIF, the project is consistent with the main development strategies developed at the national level. Extensive discussions were undertaken with the relevant institutions to make sure that the activities of this project are in line with national plans and priorities, and add value to national development programmes and policies. Some of these plans include:

National Poverty Strategy

The main component of the NPS is the **Social Productivity Programme (SPP)**, a national programme managed by the Ministry of Planning and International Cooperation (MOPIC). Its objective is to improve living conditions of the poor and to reduce poverty and unemployment and its four components are: a) restructuring and expanding public assistance to the poor through the National Aid Fund (NAF); b) job-related skills training for the unemployed; c) promoting and financing micro and small enterprises; and d) community infrastructure projects in the poor areas. The total costs for the SPP is JOD 178 million, of which 55% (JOD 98 million) is allocated to the community infrastructure projects. It is financed by the GOJ, the World Bank, KfW, the Arab Fund for Economic and Social Development (AFESD) and Islamic Development Bank (IsDB).

The Poverty Strategy combines sustainable economic growth and improvements in basic social services, with special measures to improve income, self-reliance, and the quality of life of the poorest segments of the population. The Government's policy is currently shifting from one of assistance (e.g., providing cash or in kind assistance) towards a development policy). For a long period most social programmes targeted rural areas as a homogeneous group and only recently has the welfare approach towards poverty alleviation been reconsidered and an evaluation of beneficiary targeting has highlighted deficiencies in certain approaches.

Government's Strategy to Address Land Degradation Issues. Jordan has ratified the United Nations Convention to Combat Desertification (UNCCD) and has committed itself to the implementation of the National Strategy and Action Plan to Combat Desertification (NAP). The NAP has been adopted with clear objective and action plans for the sustainable and effective utilization of soil and water resources and with funding from Global Environmental Facility (GEF) and technical assistance from UNDP. The Ministry of Municipal Affairs recently launched an initiative to develop a digitized land use database and Land use map for Jordan that will serve to inform future programs for integrated land use planning and management. The NAP includes six major programmes which provide a framework for an action plan: (i) Desertification Information System (DIS), (ii) Drought prediction and Desertification control, (iii) Capacity building and institutional development to address LD issues, (iv) Restoration of degraded ecosystems of rangelands and forests, (v) Watershed management, and (vi) Human, social and economic development initiatives.

The **National Environment Strategy**, drafted in May 1992, is a long-term environmental blueprint for Government, NGOs, private sector businesses, communities and individuals, based on the fundamental principle of sustainable development, defined as "development which increasingly meets human needs, without depleting the matter and energy of the ecosystem upon which development is founded.

The **Environmental Protection Law**, ratified in January 2003 and revised in 2006, comprising a comprehensive legal framework for environmental management. The law has identified environment, its components, pollution and deterioration, preservation and protection. The Ministry of Environment (MOE) is responsible for issuing the necessary regulations for the implementation of the provisions of the law including regulation of nature protection, water protection, environmental impact assessment, and land and soil protection. The most important tasks of the MOE included the formulation of public policy for the protection of the environment, and preparation of the plans, programmes, and projects to achieve biodiversity conservation and sustainable development. In addition, the MOE is responsible for monitoring and measuring the environment elements and components and coordinating all the national efforts aimed at preserving the environment.

The National Strategy for Women, adopted by the Government in 1992, emphasises the promotion of women and encourages all private and public agencies working in the country to integrate gender concerns in their programmes. The policy recognises the importance of women's participation in all socio-economic and development activities and regards women as equal partners with men.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH [GEF STRATEGIES](#) AND STRATEGIC PROGRAMS:

SAME AS PIF

D. JUSTIFY THE TYPE OF FINANCING SUPPORT PROVIDED WITH THE GEF RESOURCES.

The lack of effective information and knowledge management – collection, storage, analysis and dissemination – previously resulted in interventions that did not address natural resources use and agricultural activities in an integrated manner. The preparation and implementation of a comprehensive knowledge management strategy, including an adequate information sharing system will allow the achievement of common goals by facilitating collaborative work among all stakeholders at different levels, using all information available, allowing the identification of areas for strengthening and designing appropriate action plans at different levels.

The recent initiatives in the project area are designed to more effectively focus on the target stakeholder group including: approximately 22 300 households; an additional estimated 600 households; and staff from Local District governments, Agriculture (MOA), Water (MWI/WAJ) and Environmental (MOE) Directorates at the Governorate and National levels, as well as NGOs and CBOs. The proposed new IFAD GEF project adds a very necessary biodiversity mainstreaming component to pilot areas within this broader context.

It is estimated that women would represent 10% of the small farmers' category, since the percentage of women owning agricultural land is low. However, women do constitute the majority of the other targeted categories consisting of the landless (70%) and other disadvantaged groups (60%). In total, the target groups represent about 75% of rural households, or 50% of the total population, confirming the high level of poverty within the Project area. Thus the proposed new GEF project has to pay a significant attention to gender empowerment throughout its activities.

In the selected pilot sites, the project would address the priority needs of the target groups through various interventions. The beneficiaries would be selected with community participation. The communities would be responsible for establishing the criteria for

identifying the poor and the disadvantaged households within their community. The project's interventions for each target groups would vary depending on the group's specific characteristics, needs and interest.

The baseline initiatives provide a sound foundation for complementary efforts that may reduce some of the barriers and address negative impacts associated with land degradation on the country's ecosystems and its underlying functions and services. In the large area that comprises the Southern Highlands, development programmes adopt an important community development approach which has as its primary objectives increasing food security and income levels of resource poor households, while supporting land and water management. This new biodiversity mainstreaming initiative logically builds on these experiences.

In the absence of GEF funding, activities under the on-going programmes identified in the baseline scenario in the Southern Highlands will produce predominantly local agricultural benefits, albeit limited, in the form of sustainable development and use of natural resources. The implementation of these baseline programmes will mostly result in: rural poverty reduction, enhanced empowerment of rural communities; improved access to financial services for diversified income generation and supply of agricultural inputs; increased agricultural production; improved coordination of public policies; increased rural roads and access to markets. But almost none of this enhances biodiversity conservation outside of the proposed Nature Reserves and overall biodiversity will continue to decrease and degrade.

Although the baseline initiatives generate significant socio-economic benefits and, to a certain extent, contribute towards an improved perspective of the arid and semi arid Southern Highlands' environmental problems, they do not ensure effective prevention and control of degradation and desertification of these lands. Moreover, they do not support the type of interventions required to achieve global environmental benefits associated with biodiversity loss. Specifically, the baseline investments would not support necessary integrated approaches and interventions such the adoption of an ecosystem-based management approach to planning and management of natural resources, public awareness, capacity building, sustained knowledge sharing and dissemination relevant to biodiversity conservation.

E. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

In addition to what is mentioned in the PIF, the following relevant initiatives and institutions have been identified during the project preparation phase. These initiatives will provide complementarity to project activities.

Water Harvesting Directorate: Introduction of Water Harvesting Practices into Rangelands

At the request of the MOA, the JICA water harvesting project are a baseline activity for this proposed GEF biodiversity mainstreaming project. As stated in the project document, the water harvesting support from JICA involves the following.

- Implement water harvesting structures
- Development of selected areas using rangeland water harvesting technologies.
- Training and awareness raising of local communities on matters related to rangeland resources
- Capacity building of the staff on matters related to water harvesting.

Objectives: to develop productivity of rangeland for sustainable animal production and socio-economic development

Expected outputs: water harvesting technologies implemented, and promising rangeland developed and managed.

Activities: The project is being financed by the JICA grant to the MOA with four million JDs and implemented by MoA in close cooperation with the Ministry of Water and Irrigation and the Hashemite Fund for Badia Development. There has been continuous activity aiming at rangeland development in the rangeland reserves using planting and reseeding of forage shrubs. This activity handicapped by the lack of financial resources allocated in the budget of the MoA. The MoA's staff and equipment is used to construct earth dams for water harvesting in the Ruweished area.

ARMP II initiated in 2005, under the responsibility of the Ministry of Agriculture (MOA), in cooperation with the Ministry of Water and Irrigation (MWI), and is financed by IFAD and OPEC. Total project cost of USD 41.767 million is financed by: an IFAD loan (USD 11.3 million); an IFAD grant (USD 0.2 million); OPEC Fund (USD 10.2 million); the Government (USD 11.0 million) and beneficiaries (USD 2.4 million equivalents, in kind or cash). The ARMP-II focuses on increasing food security and incomes of 22,300 poor rural households (134 000 inhabitants) of the southern Highlands, through promoting community development, improving agricultural production and management of land and water resources, strengthening the capacity of local institutions, and providing rural micro-finance for on and off-farm activities, mostly for women. The ARMP-II comprises the following components:

Community Development: (i) capacity building of communities to enhance community ownership and self-reliance and assist them to prioritise their development needs both as individual households and as a community and compile a Community Action Plan (CAP); and (ii) strengthening of women's development capacity to ensure their integration into the community participatory planning process and to address the special needs and interests of women including literacy, on- and off-farm income generating activities and credit.

Resource Management: (i) soil and water conservation including on-farm measures for suitable land where the average rainfall is greater than 200 mm per year based on beneficiary demand and farm plan; and off-farm measures including wadi bank protection and check dams for flood protection and erosion control; and (ii) water resources development including construction of on-farm storage facilities such as cisterns and

rehabilitation of Roman Wells; off-farm reservoirs (mini earth dams) for seasonal storage of water for supplementary irrigation; protection of springs and rehabilitation of irrigation systems; assisting and training water users to form Water Users' Associations (WUAs) for proper operation and maintenance of the system and for efficient use of water; a research programme to examine methodologies for safe and economically feasible treatment of households' domestic wastewater for reuse, (e.g., irrigating tree crops).

Agricultural Development: (i) orchard development in conjunction with soil and water conservation activities and for eligible farmers who have installed soil conservation structures under ARMP-I, but have not been able to plant due to drought and other constraints; (ii) strengthening existing extension services at the Governorate level to ensure sustainability after the project completion; and (iii) agricultural research to support development of technical packages for orchard diversification and integration of crop and livestock production.

Rural Roads construction to facilitate access to markets and social facilities.

Rural Finance to support agricultural development, purchase on-farm irrigation and small farm equipment, and to enable men and women to start/develop income generating activities.

The RSCN Integrated Environmental Management in the Jordan Rift Valley Project

The Jordan Rift Valley is an economically important area under heavy development pressure and used by a multitude of stakeholders. Any intervention to secure its ecological integrity must therefore be realistic in scope and targeted at measures that are critical to retaining key ecological functions. Given this scenario, the project design was based around the following elements. The remaining, least disturbed areas of natural habitat in the Rift Valley are the 'skeleton' of its ecological integrity. They are the main reason it continues to hold populations of typical species and to host millions of migratory birds. The protection and management of these habitats was therefore considered to be a priority in the project's design. A network of sites is to be established along the whole length of the Valley, consisting of four high status protected areas, meeting nationally agreed criteria for protected area (PA) designation, and seven Special Conservation Areas (SCAs), which are generally smaller and have more specific ecological roles. Creating this network is seen as achievable because the sites are already earmarked on the Rift Valley master plan, they incorporate no private land and the implementing agency, RSCN, has a 40-year history of protected area establishment and management.

The protected area network will not function efficiently if each site lies in a matrix of developed or degraded land; the well recognized "island effect" will limit their ecological viability. Influencing land use around and between protected areas to safeguard or create supporting natural features and prevent damaging activities, is important to keeping the conservation value of the JRV intact. Rather than trying to revolutionize land use planning throughout the JRV, which would be difficult to achieve, the project limits its intervention to supporting the embryo master plan, which already earmarks the key biodiversity sites for development control. It will assist the JRV to develop a consultative planning process in support of key site.

As development pressure will likely continue in the JRV for many years to come, the application of IEM principles to land use and protected areas will help to ensure that biodiversity conservation is not viewed as inimical to development but part of it. This in turn will encourage greater public and political support. It will also encourage greater participation of local people and enable them to have some influence over the fate of their

natural resources. This is particularly important for the marginalized agricultural and pastoral communities in the Rift Valley who are unlikely to benefit greatly from the large planned infrastructure projects. For them Pas and SCAs offer more appropriate and long-term opportunities for improved livelihoods through eco-tourism and other nature-based businesses.

The anticipated outcome will be as follows:

- Consultative planning and management procedures involving all relevant stakeholders, and based on IEM principles, successfully introduced to the Rift Valley to support the conservation of key biodiversity sites.
- A network of 4 Pas (c. 57,000 ha) and 7 SCAs in the JRV legally established and operating as models of IEM principles to support biodiversity conservation.
- Elements for 'climate proofing' biodiversity conservation within Pas and SCAs introduced into the conservation planning and implementation stages of the project.
- Sustainable financing mechanisms for Pas strengthened through increased capitalization of \$ 2 million for the endowment fund, and adoption of economically viable, nature-based livelihood options by local communities in Pas and SCAs.
- Project managed successfully, and development objective achieved through an effective monitoring program.

USAID Support Program for Dana-Masuda-Petra Ecotourism (with RSCN)

Using the new protected area of Jebel Masu'ada near Petra as a catalyst for economic development in southern Jordan, the RSCN is proposing to create a world-class nature tourism complex, linking three of the most spectacular scenic areas of the Kingdom. This complex would become the "*must see*" nature destination in the region and would make a major contribution to the development of the eco-tourism sector, bringing widespread benefits for Jordan's tourism industry and underprivileged local communities. The project incorporates a number of pioneering ventures, representing several 'firsts' for Jordan: the first heritage village for tourism; the first international-standard national park and the first 5-star eco-resort.

It also pioneers the use of economic incentives as pathways for the effective protection of critically important ecosystems. The involvement of the private sector is a key feature of the project and mechanisms are proposed for encouraging private investment. To enable Jebel Masu'ada and proposed eco-lodge to function as a tourism hub for the protected area triangle described above, linkages will need to be developed between each protected area to enable visitors to reach and enjoy their key attractions and facilities. These will consist primarily of the following: hiking trails, horse and camel trails, mountain bike trails, and 4 x 4 routes. Shuttle bus routes using existing roads and good tracks will also need to be developed, not only for ferrying visitors but also for transferring luggage between lodges and hotels to enable foot and horse trekkers to travel unhindered.

The general area between the four sites already has a network of casual trails and tracks that were created by local people for commuting between villages or shepherding livestock or by government agencies while prospecting for minerals or building roads. These will form the basis of the linkages to be developed under the project. This process will involve route planning, minor construction and landscape works, way marking and signage (discreet) and the production of maps and brochures promoting the routes. It will also involve supporting investment in locally run shuttle and guiding services and en-route facilities, including campsites and refreshment stops for the long distance trekkers. Ranger services will also

need to be established to ensure appropriate behaviour and enforce protected area regulations.

Once linkages and routes are physically established, tour operators working with RSCN will be encouraged to develop tailored tour programmes that build on these linkages and incorporate all the attractions and experiences to be had from each protected area

IUCN – Regional Office for West Asia (ROWA):

IUCN is Jordan's most effective link to international expertise through its professional (and largely volunteer network). The international organization and its office in Amman has very extensive experience in a wide variety of community-based project activities. This includes but is not limited to: species-specific conservation; protected areas; community co-management; capacity development; and institutional development plus they are at the "cutting edge" with respect to conservation financing, assessment of management and institutional effectiveness and Payment for Environmental Services (PES) which has not yet been attempted in Jordan. IUCN have indicated a significant interest in partnering with this project on both an "in-kind" and fee-for services basis.

The Agricultural Credit Corporation (ACC): The ACC adopted and developed special lending programs directed to particular groups. Some of these projects had been executed such as Rural Families Lending Program, the Unemployed Group Program and Income Sources Diversity Project. Other existing projects are funded by ACC either by its self financing sources or from its other external sources. In compliance with the royal visions and the government directives, the ACC board of directors decided to approve the launching of "Micro-Credit Project to curb poverty and unemployment" as a national program of a total value of JD 25 million for five years. An amount of JD 5 million annually for implementing small family income generating projects using simplified procedures and a decentralized framework in which decisions are made in the field with no need for the headquarters approval.

The (proposed) Fujaij Wind Energy Project: The Fujaij Wind Energy Park Project is an 80 – 90 MW BOT project that is proposed for development along the western edge of the Fujaij rangeland pilot site (along the JRV escarpment edge). The wind energy project is approximately 1250 m above sea level and the operating capacity is estimated at 80-90MW. The site may be expanded to include adjacent land to the east. This expansion would allow a total estimated operating capacity of 200-250 MW.

A grid connection to the 132kV system is possible at the Rhashadiya NEPCO sub-station which is 12 km north of the site. There is also a 33 kV overhead line running parallel to the King's Highway on the east (at a distance of 50 to 100). The project could produce approximately 225 million KWh/year of electricity and it is proposed that a small levy be applied to the production of energy and be allocated to support and sustain the biodiversity mainstreaming activities in the rangeland and sylvo-pastoral landscapes. Up to \$225,000/year may be generated through this levy.

This work could potentially begin during the life of the GEF project and would then require a re- calculation of financial sustainability and replicability – it would add a major new dimension to the concept of payment for environmental services in the project area. However it remains to be seen if the proposed Public private Partnership will succeed and then if the GOJ would agree to the PES local payment scheme – the wind is often regarded as a "free" good and the government already owns the land.

F. DISCUSS THE VALUE-ADDED OF GEF INVOLVEMENT IN THE PROJECT DEMONSTRATED THROUGH INCREMENTAL REASONING :

The expected national and global benefits and impacts to be generated by the project would be strongly interlinked, particularly in the case of incremental activities that would promote the up-scaling of best practices to address community-based biodiversity conservation. These activities would generate local/material benefits to rural communities such as improved livelihoods and creation of income-generating activities. The project will contribute to building the governance capacity of villages and communities and would empower them to determine their own sustainable development needs and priorities and participate in planning, implementation and monitoring activities. In this sense, the main benefits and impacts foreseen at the level of global environment are:

- Improving conservation of biological diversity by adopting sustainable grazing and agricultural management practices; recovery and increased protection of the degraded arid and semi-arid Highlands in areas currently used for grazing; promoting the preservation of the ecosystem integrity and recovery of its functions and services and, simultaneously, improving livelihood opportunities; facilitating climate change adaptation;
- Increased storage of greenhouse gases in agro-ecosystems, which would primarily be achieved through the adoption of sustainable agricultural and rangeland/pasture management practices and the restoration and further protection of degraded vegetation in areas currently used for livestock production;
- Demonstration that traditional indigenous biodiversity conservation practices continue to have currency in a post-modern globalized world;
- Demonstrating and up-scaling best practices for biodiversity conservation, hence generating lessons that contribute to up-scaling throughout the MENA region or beyond for larger global benefit.

In addition, the project activities will strengthen institutional capacity to incorporate the basic principles of biodiversity conservation and ecosystem management in landscape planning frameworks in support of the global environmental objectives.

Additional national and local benefits generated from the proposed GEF project include: improved economic productivity of land through the adoption of best practices; more equitable distribution of income by providing income generation opportunities for women, unemployed or underemployed youth, especially girls, small farmers, and landless female workers; increased economic benefits flowing to rural communities derived from the local ecological "goods and services" associated with PES; improved management skills at local and national levels; improvement of institutional and human-resource capacity in order to promote the sustainable use of natural resources.

The proposed incremental investment will leverage significant global environmental benefits. Global environmental benefits will be yielded through actions that will consolidate the mainstreaming of biodiversity conservation and sustainable use of natural resources in the buffer zones of two protected areas in biodiversity-rich silvo-pastoral and range-lands, thereby improving habitat connectivity of these protected areas with the wider landscape, and in particular increasing the potential habitat for birds and large-ranging faunal species. The activities of the project will reduce pressure on biodiversity and natural resources within the protected areas and promote the preservation of ecosystem integrity and recovery of its functions and services across silvo-pastoral and rangeland ecosystems.

The proposed project will contribute to conservation efforts across the country, where a number of eco-regions, each of which has distinct floral and faunal species, are found. In

particular, the project will contribute to the conservation of habitats in Jordan essential for numerous soaring migratory birds that follow the African-Eurasian “flyway”, one of the most significant corridors for bird migration in the world. The proposed project will also contribute to the conservation of large, important mammals located on sylvopastoral/rangelands, including Ruppell’s sand fox (*Conis rupelii*) and the Arabian goitered gazelle (*Gazella subgutturosa marica*, VU). Native plants such as *Artemisia*, which has important medicinal properties, and *Aristida pungens*, important for fixing sand and preventing desertification, will also, be conserved.

Baseline Situation, Domestic and Global Benefits

OUTCOME	Baseline	Domestic/Global Benefit
Domestic Benefits Summary	The trends within the proposed project area with respect to biodiversity mainstreaming are not positive and there will only be minimal actual biodiversity conservation improvements through water conservation initiatives and with respect to some agricultural crops and wild cultivars. Some recovery of original wild plant species may occur if the existing exclosures are respected in the long term. Very little mammalian conservation or recovery is to be expected – the exclosures are too small – although some avifauna may resume using the areas.	Significant gains in community awareness and acceptance of the role of the exclosures (and their expansion) can be anticipated. Significant benefits will accrue from the PES pilot activities with both biodiversity conservation and economic benefits. There will be improvements in conservation of agricultural plant (and germplasm) diversity and particularly if the exclosures are expanded in size there will be significant recovery of natural vegetation and diversity of fauna. Improved integrated management of conservation corridors between fully protected areas will bring both domestic and global benefits.
Global Benefits	There may be slow incremental progress towards peripheral improvements to biodiversity conservation in the productive landscapes through the project work of RSCN and Wild Jordan in the existing areas and proposed Nature Reserves at Dana, Jabal Masuda and Petra – as a result of the ongoing IEM/JRV GEF Project	Assuming the pilot PES and other activities are sustainable and replicable, there is global significance to the recovery of both floral and faunal biodiversity and habitats. Improved water conservation and rangeland improvements coupled with reforms in grazing practices will result in improved opportunities for the recovery and conservation of threatened and endangered plant species. Improved habitats will bring significant and rapid improvement in the conservation for migratory avifauna in particular.
Outcome 1: <u>Enhanced capacity building and awareness raising for biodiversity mainstreaming in local communities and government agencies.</u>	Much slower capacity development based around other projects (assuming they are successful)	Improved public, community and agency awareness of biodiversity conservation needs and benefits will assist in the achievement of both national and international general and species specific conservation objectives – including threatened and endangered endemic and migratory plant and animal species.

<p>Outcome 2: <u>An enabling environment which allows rangeland and sylvo-pastoral landscape users to understand and benefit from the conservation of biodiversity</u></p>	<p>A continuing lack of support for the existing exclosures. Continuing debates and conflict over traditional land-uses and ownership.</p>	<p>The weak enabling environment will be improved to an international standard including major improvements in conservation of both national and internationally threatened and endangered endemic and migratory plant and animal species. This will also contribute to the fulfilment of Jordan's international biodiversity commitments.</p>
<p>Outcome 3: <u>Innovative pilot measures and introduction of "Payment for Environmental Services" (PES)</u></p>	<p>No PES pilot activities within MOA</p>	<p>Jordan will have the opportunity to provide an internationally innovative approach to "payment for environmental services, including through the re-introduction of traditional conservation practices (Hima).</p>
<p>Outcome 4: <u>Project Management and Evaluation</u></p>	<p>Management and coordination of project activities through the project management unit, as well as monitoring and evaluation of project impacts</p>	<p>Additional technical support to manage and coordinate innovative activities for biodiversity conservation, evaluate impacts and ensure dissemination and replication of successful experiences.</p>

G. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS, THAT MIGHT PREVENT THE PROJECT OBJECTIVE(S) FROM BEING ACHIEVED AND OUTLINE RISK MANAGEMENT MEASURES:

There is a significant concern that weak participation by the local stakeholders, CBOs and women, and unwillingness of some members of the community to adapt existing practices which, at present, have adverse impacts on the well being of their households and communities. In other words there is a significant risk that PES opportunities may receive limited uptake. It is expected that the study tours and the close collaboration with the communities will bring the concept closer to the people and further participation would be ensured.

Another risk is the low participation of farmers or other groups who own private wells and who consider their right to withdraw water from wells at their convenience. It will be important to build on ARMP-II community development activities so the project must be designed to gain the involvement of the communities and their leaders and to generate a sense of ownership in project activities. It must also be designed to increase awareness on the linkages between local and global benefits, through support for awareness raising and capacity building and field trips, where local communities would identify specific PES activities that meet both short-term economic needs and poverty reduction objectives while also achieving global environmental benefits.

The capacity of the MOA/SARRD and at the governorate and district levels to engage directly with communities on a regular basis is limited and there is a risk of delayed actions and poor performance. Extensive project resources are allocated to strengthening the capacity of SARRD to ensure timely and proper implementation of the projection activities and reduce the risk. There is also a significant (and fully understandable) tendency for single

agencies to “capture” projects and to use the financial resources to extend existing activities rather than implement new and less familiar activities. This can be mitigated through strong administrative arrangements that specifically monitor this and in this specific instance through the development of a new much stronger partnership with RSCN.

Another risk would be associated with scaling-up and replicating the project for biodiversity mainstreaming at the national level. There is no agreed system of environmental monitoring, despite the recognition by the MOA of the need to develop such a system and data exchange (identified in the NAP and the National Strategy for Agricultural Development and the National Water Strategy). In addition, there is a need to respond to commitments made under the UN Conventions in an integrated manner, which may facilitate the acceptance of an comprehensive information system and related information products.

Climate change impacts are expected to be particularly acute, and is therefore of special importance to project level initiatives for adapting to these impacts. In the proposed project area the adaptation response would be to diversify the economic activities of the local communities, improve their household income and conserve the biodiversity which is the main source of their livelihoods in the area as a means to improve their adaptive capacity and enhance their resilience.

H. EXPLAIN HOW COST-EFFECTIVENESS IS REFLECTED IN THE PROJECT DESIGN:

The project is mainly investment-oriented with a view to maximizing the impact per GEF dollar. Project management and monitoring & evaluation costs will be maintained at the lowest possible level through the efficient management structure proposed by the Executing Agency, as well as the shared resources and efforts. In addition the project will build on local community organisation and engagement which will further reduce the transaction costs, leading to stronger investment and higher return. GEF investments will support targeted capacity-building and training for mainstreaming biodiversity and natural resource management at both the national and local levels. This approach is cost-effective, given that behavioural changes beneficial to biodiversity at the local level will need to be complemented by actions at the policy (national) level that secure an enabling environment that drives such change. Furthermore, the use of market-based mechanisms (PES) will provide incentives for, and facilitate the adoption of mainstreaming practices. Careful design of profitable/sustainable PES schemes will be given priority. At the same time, the PES schemes will consider learning from other schemes (facilitated through the international study tours) in order to avoid constraints currently being faced by these compensation mechanisms. Demand-driven support to investments in ecotourism infrastructure in protected areas will generate increased financial sustainability for such areas.

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

A. INSTITUTIONAL COORDINATION

The project will be directly executed under IFAD procedures implemented over a period of four years beginning in June 2011. The principal executing agency for the project will be the Ministry of Planning (MoP) with implementation undertaken by the Ministry of Agriculture (MoA) which has the governmental mandate and expertise to address both agricultural, rangeland and sylvo-pastoral activities.

The Agricultural Directorate for Developing the Sharah Region (ADDSR) will maintain the project management unit (PMU) for field implementation activities within the pilot sites.

ADDSR will be responsible for the timely delivery of inputs and outputs and for coordination with all other relevant agencies.

ADDSR is directly linked and reporting to the Secretary General of the Ministry of Agriculture. This structure provides for easy management and flexible decision making. ADDSR is managed by a Director appointed by the Minister of Agriculture upon the recommendation of the Secretary General. The Director run ADDSR through the following divisions:

- Forestry and Rangeland Division
- Animal Wealth and Veterinary Division
- Crops & Plants Division
- Programmes and Projects Division
- Finance and Administration Division
- Marketing and Information Division
- Liaison Offices Division

ADDSR employs around 100 people; however the number varies as there are many seasonal workers. ADDSR is headquartered in Shobak District and is occupying the offices of Shobak Agricultural Station. ADDSR is currently implementing the following projects:

- Agricultural Resources Management II; funded by IFAD, OFID and GEF.
- Conservation of Medicinal and Herbal Plants; funded by GEF and GOJ.
- Biodiversity Conservation; funded by GOJ.
- Water Harvesting; funded by Japanese Grant and GOJ
- Poverty Alleviation; funded by GOJ.
- Development of Protected Grazing Land; funded by GOJ.
- Development of Grape, Pomegranate and Pistachio Orchards; funded by Japanese Grant and HKJ

The project will be operating within the Programmes and Projects division of ADDSR and will receive high level guidance and oversight from a Steering Committee which will be chaired by the Secretary General, Ministry of Planning, as the home ministry for GEF projects. The SC would include the MOA, MOE and RSCN, as well as other stakeholders that will be identified, including the private sector. IFAD will have an advisory and oversight role within the SC.

A technical support team will provide technical support to the project during the implementation of activities related to each pilot site. The team will meet once before the implementation of the work at each site and when required hereafter. It will provide technical advice and backup support to the Project Management Unit (PMU) during the implementation of work at the site.

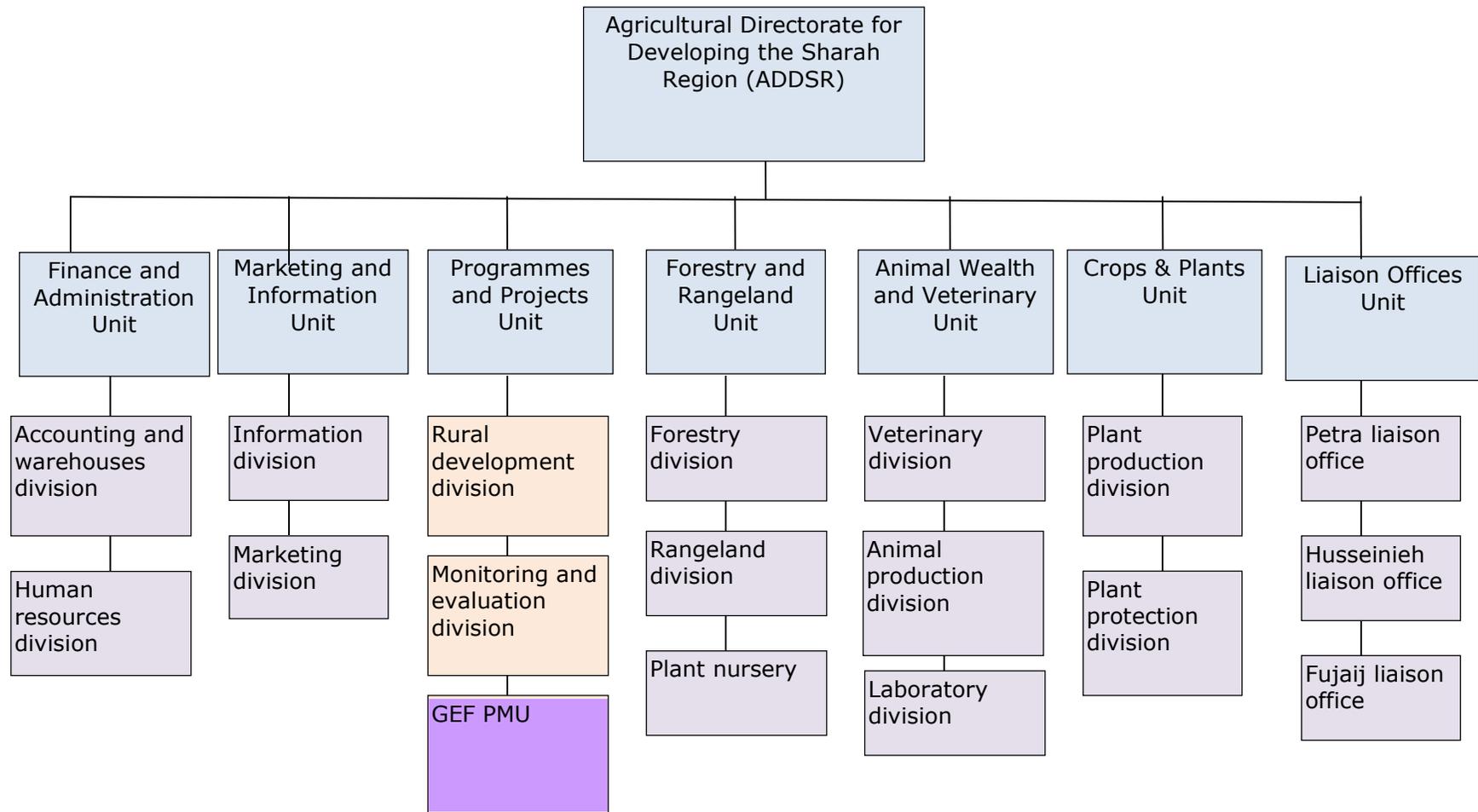
Measurement indicators for contributions of local institutions and stakeholders:

The commitment of the Jordanian government institutions for the implementation of this project has been strong throughout the identification and development of this project. Mainstreaming of biodiversity in ecosystem management, policy implementation, partnerships, more effective capacity development, institutional development, and community collaboration has been a priority set by the government as conveyed in the Jordanian National Biodiversity Strategy and Action Plan.

As the project is complex, innovative and involves a relatively broad number of institutions, it will be necessary to identify measurement indicators for the level of contribution. This will help the PMU in further monitoring roles and responsibilities, as well facilitate the work of the Steering Committee in putting the project on the right track, involving the right institutions and ensuring sustainability beyond the life-time of the project. The measurement indicators that will be used are:

- Number of staff members deployed from ADDSR to the management of the project
- Number of staff from the Ministry of Environment/Regional Directorate for the Sharah Region involved in project activities
- Technical, financial and monitoring and evaluation reports
- Annual Work Plans and Budgets
- Reports of steering committee meetings and impacts on project annual work plans
- Number of technical field staff appointed by the Ministry of Agriculture to support project implementation
- Number of institutions involved in project activities on annual basis, including Civil Society groups and private sector
- Attendance sheets of Steering Committee meetings
- Knowledge products produced and communicated
- Project Implementation Reviews

Institutional positioning of the project within the ADDSR



B. PROJECT IMPLEMENTATION ARRANGEMENT:

The project will be implemented over a period of four years beginning in 2011. The project will be nationally executed under IFAD procedures. The principal executing agency for the project will be the Ministry of Planning (MoP) with implementation undertaken by the Ministry of Agriculture (MoA) which has the governmental mandate and expertise to address both agricultural, rangeland and sylvo-pastoral activities. The Agricultural Directorate for Developing the Sharah Region (ADDSR), the Water Harvesting Directorate, the Forest Department and Rangeland Directorate will maintain project specific staff for field implementation activities within the pilot sites. MoA has staff in each pilot area. They will be responsible for the timely delivery of inputs and outputs and for coordination with all other relevant agencies. The organigram below outlines the institutional positioning of the project within the ADDSR.

ADDSR will lead the coordination role at the operational field level to facilitate harmony in the planning and implementation process on one hand and to achieve complementarity with other ongoing government and donor initiatives in the proposed project area.

As identified in Jordan's National Biodiversity reports and a variety of other national policies and internal and external commitments, these management arrangements will support the strengthening of institutions responsible for biodiversity issues, specifically relevant to biodiversity conservation, capacity development and mainstreaming.

The project will receive high level guidance and oversight from a Steering Committee (SC) which will be chaired by H.E. Minister of Agriculture as an implementing agent. The SC will be the group responsible for making management decisions on a consensus basis for the project when guidance is required by the Project Coordinator, including approval of project revisions.

A Technical Support and Advisory Team (TSAT) will provide technical support to the project during the implementation of activities related to each pilot site. The TSAT will meet once before the implementation of the work at each site and as and when required hereafter. It will provide technical advice and backup support to the Project Management Unit (PMU) during the implementation of work at the site. The TOR of the TSAT is presented in Appendix A.

A small Project Management Unit (PMU) will play the key role in project execution. It will be co-headed by a Project Coordinator (PC) from MoA. The PC will be responsible for the outputs to be delivered by the MoA, as well as the application of all IFAD/GEF/MoA administrative and financial procedures and for the use of IFAD-GEF funds. The Project Coordinator will also be responsible for consolidating technical and monitoring and evaluation reports, and submitting them to MoA and IFAD. TORs of the Project Coordinator is presented in Appendix A.

The PC will have the assistance of a technical field staff person for project operational and field support, which will be provided by MoA as part of the "in-kind" co-financing support in the project budget. TORs of the Project Assistant is presented in Appendix A.

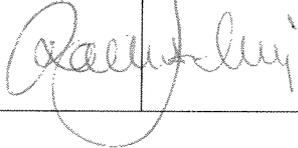
Additional technical support would be provided through access to regional experts or institutions from the region as and when the Project Management Unit identifies the need. IFAD will provide support, particularly for compiling lessons learned and sharing experiences internationally. The project will seek to link with and complement other programs for biodiversity conservation, mainstreaming, governance and participation, and poverty reduction in the pilot areas. In order to accord proper acknowledgement to GEF for providing funding, a GEF logo should appear on all relevant GEF project publications, including among others, project hardware and vehicles purchased with GEF funds. Any citation on publications regarding projects funded by GEF should also accord proper acknowledgment to GEF.

PART IV: EXPLAIN THE ALIGNMENT OF PROJECT DESIGN WITH THE ORIGINAL PIF:

Project design is fully aligned with the original PIF. However, some minor adjustments were made in terms of co-financing to reflect a more accurate estimation of co-financing sources. Co-financing is slightly higher than at the PIF. The IFAD financed project (loan) that would have served for this GEF operation as a baseline and co-financing did not materialise. This GEF component was designed as a stand alone project. Nevertheless, government has committed funding to co-finance it along with RSCN (co-financing letters are available).

PART V: AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for CEO Endorsement.

Agency Coordinator, Agency name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Kevin Cleaver Associate VP, Programs PMD IFAD		8-2-2011	Rami Abu Salman, Program Manager Environment and Climate Division IFAD	+39 06 5459 2291 	r.salman@ifad.org

ANNEX A: PROJECT RESULTS FRAMEWORK

Results Hierarchy	Indicators	Sources of Verification	Risks and Assumptions
<p>Project Objective: To mainstream biodiversity conservation in sylvo-pastoral and rangeland management activities in the project area.</p>	<p>Improvement of plant and animal biodiversity in targetted sites</p> <p>1400 ha of rangeland systems contribute to biodiversity conservation</p> <p>Income increase from biodiversity-related livelihood opportunities</p>	<p>Quarterly and Annual Reviews by MOA and Steering Committee</p> <p>Independent Mid-Term and Terminal Reviews (measurement by external experts)</p>	<p>Government remains supportive of the biodiversity mainstreaming initiative in general and the project in particular.</p>
<p><u>Outcome 1: Enhanced capacity building and awareness raising for biodiversity mainstreaming in local communities and government agencies.</u></p>	<p># of training modules developed and translated</p> <p># of training sessions implemented (8 sessions by PY4)</p> <p>Knowledge material produced, translated and disseminated</p>	<p>Quarterly and Annual reviews by the Steering Committee with potential proposed revisions to the work-plans</p>	<p>Mid-Term Evaluation suggests achievable adjustments to the project</p> <p>Government remains supportive and stakeholders remain engaged and enthusiastic</p>
<p>Output 1.1 Training courses concerning the value of biodiversity and its potential local and regional economic benefit.</p>	<p>20% of the population of the communities trained by PY4</p> <p>40% of the population with an increased awareness of the value of biodiversity area and its objectives by PY4</p> <p>50% of the core communities of the Al-Fujij rangeland and Al-Hisheh sylvopastoral reserves participate to the activities of the project by PY4</p>	<p>Quarterly and Annual Review based on schedule established by MOA</p>	<p>MOA and project Team develop and retain the capacity, willingness and community support for the respective activities</p>
<p>Output 1.2 A tool-kit for mainstreaming biodiversity in sylvo-pastoral/rangelands</p>	<p>Design and completion of the toolkit with IUCN assistance and intensive stakeholder involvement by PY1</p> <p>30 % of land owners/users engaged is enhanced to support biodiversity mainstreaming in the sylvo-pastoral and rangeland ecosystems policies and practice</p>	<p>Quarterly and Annual Review based on schedule established by MOA</p>	<p>MOA and project Team develop and retain the capacity, willingness and community support for the respective activities</p>

Output 1.3 New knowledge management and information sharing systems.	Completion of the knowledge management system within MOA At least 2 partnerships developed between agency and community for knowledge sharing and project programming 2 annual 'Knowledge Fairs' and 2 workshops held	Reports of training events Quarterly and Annual Review based on schedule established by project team with oversight by MOA	MOA and project Team develop and retain the capacity, willingness and community support for the respective activities Participants are enthusiastic to join knowledge events
Output 1.4 Regional study tours to areas with biodiversity mainstreaming techniques already in place.	2 Annual Regional study tours completed	Quarterly and Annual Review based on schedule established by MOA with oversight by MOA	MOA and project Team develop and retain the capacity, willingness and community support for the respective activities
<u>Outcome 2: An enabling environment which allows rangeland and sylvo-pastoral landscape users to understand and benefit from the conservation of biodiversity</u>	20% of local communities supported to strengthen participatory relations with MOA and other stakeholders Measurable improvements (30%) in overall community support and involvement	Quarterly and Annual reviews by the Steering Committee with potential proposed revisions to the work plans	Mid-Term Evaluation suggests achievable adjustments to the project Government remains supportive and stakeholders remain engaged and enthusiastic
Output 2.1 Documented roles and responsibilities for community involvement in rangeland and sylvo-pastoral reserve management.	Options for new community co-management mechanisms investigated and tested by PY3	Quarterly and Annual Review based on schedule established by project team with oversight by MOA	MOA and project Team develop and retain the capacity, willingness and community support for the respective activities
Output 2.2 Establishment of traditional "Hima" mechanisms for stakeholder involvement in biodiversity conservation	In consultation with community leadership and relevant stakeholders re-introduce the Hima approach and mechanism on a pilot basis in 2 sites (500 ha by PY3)	Quarterly and Annual Review based on schedule established by project team with oversight by MOA	MOA and project Team develop and retain the capacity, willingness and community support for the respective activities
Output 2.3 Implementation of the legal and institutional framework for co-management and biodiversity conservation within MOA reserves and the project area.	New legal mechanism drafted and introduced as appropriate by PY3	Quarterly and Annual Review based on schedule established by project team with oversight by MOA	MOA and project Team develop and retain the capacity, willingness and community support for the respective activities

Output 2.4 Supplementary ecological baseline research within each exclosure and within the project area and along the ecological west – east gradient	Data available by PY2	Quarterly and Annual Review based on schedule established by project team with oversight by MOA	MOA and project Team develop and retain the capacity, willingness and community support for the respective activities
Output 2.5 Detailed plans for potential expansion, co-management and biodiversity mainstreaming in each MOA exclosure.	Implementation of the expansion plans and completion of a biodiversity conservation plan and implementation schedule Plans completed and implemented by Q16 (with interim targets specified during the Inception Phase	Quarterly and Annual Review based on schedule established by project team with oversight by MOA	MOA and project Team develop and retain the capacity, willingness and community support for the respective activities
Output 2.6 Conflict resolution /arbitration systems.	Development and putting in place of the conflict resolution system (and using it if necessary) System established by the end of Q3	Quarterly and Annual Review based on schedule established by project team	MOA and project Team develop and retain the capacity, willingness and community support for the respective activities
Output 2.7 Documentation and replication of lessons-learned.	Staff assigned to document lessons-learned. Reports produced and disseminated	Quarterly and Annual Review based on schedule established by project team with oversight by MOA	MOA and project Team develop and retain the capacity, willingness and community support for the respective activities
<u>Outcome 3: Innovative pilot measures and introduction of "Payment for Environmental Services" (PES)</u>	Establishment of Jordan's first Payment for Ecological Services pilot activities. Re-introduction of Hima community co-management mechanisms to at least 2 areas in 500 ha by PY3	Quarterly and Annual reviews by the Steering Committee with potential proposed revisions to the work-plans Independent Mid-Term and Terminal Reviews (measurement by external experts)	Quarterly and Annual Reviews do not show major problems and difficulties within the project. Mid-Term Evaluation suggests achievable adjustments to the project Government remains supportive and stakeholders remain engaged and enthusiastic

<p>Output 3.1 PES pilot activities at Fujaij Rangeland Reserve and at at Hisheh Sylvo-pastoral Reserve</p>	<p>Establishment of an intensive stakeholder process for the design and implementation of the PES process by PY2.</p> <p>2 PES pilot activities designed and tested by PY2</p> <p>Formal mechanism for dialogue with Dana Dibeen, Ajloun and Yarmouk NRs and related RSCN initiatives</p>	<p>Quarterly and Annual Review based on schedule established by project team with oversight by MOA</p> <p>Independent Assessment by IFAD/Consultant</p>	<p>MOA and project Team develop and retain the capacity, willingness and community support for the respective activities</p>
<p>Output 3.2 A plan and implementation of cooperative activities between MOA and RSCN in the Dana NR Buffer zone.</p>	<p>An implementation plan of cooperative activities between MOA and RSCN established, approved and functional by PY2</p>	<p>Quarterly and Annual Review based on schedule established by MOA with oversight by Steering Committee</p>	<p>MOA and project Team develop and retain the capacity, willingness and community support for the respective activities</p>
<p>Output 3.3 Documentation of the principles, processes and benefits of the results of the PES pilots among the ADDSR and local communities</p>	<p>Quantity and quality of Knowledge generated and shared on PES</p>	<p>Quarterly and Annual Review based on schedule established by MOA with oversight by Steering Committee</p>	<p>MOA and project Team develop and retain the capacity, willingness and community support for the respective activities</p>
<p><u>Outcome 4: Project Management and Evaluation</u></p>	<p>All of the management mechanisms are in place, staff are trained and the M&E system is functional by PY1</p>	<p>Quarterly and Annual reviews by the Steering Committee with potential proposed revisions to the workplans</p> <p>Independent Mid-Term and Terminal Reviews (measurement by external experts)</p>	<p>Quarterly and Annual Reviews do not show major problems and difficulties within the project.</p> <p>Mid-Term Evaluation suggests achievable adjustments to the project</p> <p>Government remains supportive and stakeholders remain engaged and enthusiastic</p>

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF)

Comments regarding additional clarifications and information on cost-effectiveness, risks and added-value of the GEF funding were addressed during the design. The project documents outlines all these aspects and provides detailed information on project activities, incremental environmental benefits and cost-effectiveness of operations as reflected in the detailed costing and project implementation arrangements.

ANNEX C: CONSULTANTS TO BE HIRED FOR THE PROJECT USING GEF RESOURCES

<i>Position Titles</i>	<i>\$/ person month*</i>	<i>Estimated person months**</i>	<i>Tasks to be performed</i>
For Project Management			
Local			
Project Coordinator	950.00	48	<p>Overall responsibility of the planning, implementation and monitoring of the project activities;</p> <p>Consolidate technical and monitoring and evaluation reports, and submitting them to MoA and IFAD;</p> <p>Manage the project in accordance with its annual work plans; and in close coordination with ongoing activities in the project area on a regular basis, to ensure complementarities;</p> <p>Propose selection criteria for project activities and supervise consultants/ subcontractors, maintaining strong quality control and providing advisory support as required;</p> <p>Maintain close coordination/linkages with technical implementation partners (agencies, private service providers and NGOs);</p> <p>Oversee the design and establishment of channels for regular project information dissemination, sharing, and networking among stakeholder communities (from local to national levels);</p> <p>Oversee the implementation of the daily GEF project management activities, in close coordination with all relevant stakeholders at the national and local levels (providing them with guidance and coordinating all project activities</p>

			<p>according to joint AWPB);</p> <p>Supervise the procurement and maintenance of project equipment and development of infrastructure;</p> <p>Maintain close coordination/linkages with the other participating Ministries and relevant agencies; Work closely with key stakeholders (RSCN and others) to coordinate the overall implementation of project activities;</p> <p>Oversee the needs assessment and provision of required skills training and capacity building of involved government officials, local authorities, and key stakeholders;</p> <p>Lead responsibility for organising the GEF project –related meetings;</p> <p>Apply IFAD/GEF/MoA administrative and financial procedures for the use of IFAD-GEF funds;</p>
Technical Staff Assistant	818	16	<p>Support the PC in implementation of the annual work plans;</p> <p>Support the coordination of field activities and the networking with relevant stakeholders at the local level;</p> <p>Participate in the preparation of project workshops, seminars, training activities and other related events as per the AWPB;</p> <p>Help the PC in monitoring and evaluation, and on reporting and tracking the project output indicators;</p> <p>Foster learning through sharing success and failure stories and communicate project activities at</p>

			the nation/local/regional levels; Make sure that the flow of information between the PMU and ADDSR is smooth and constant, and put in place a modality for continuous liaison with the relevant ADDSR Divisions.
International			
NA	0	NA	NA
Justification for Travel, if any:			
For Technical Assistance			
Local			
Application and dissemination of the BD Toolkit	8,200	5	Selection of target group for the application of the BD toolkit Sharing input for fine-tuning of the kit Dissemination of the revised kit within broader context
Implementation of the legal system for BD conservation	5,500	4	Undertaking consultation with relevant actors/decision-makers for introducing the developed legal system Agreeing on specific sectors where the system is to be tested for implementation Deducting lessons for broader implementation
Monitoring system for best practice	7,000	5	Develop a monitoring system to ensure the long-term biodiversity benefits Completion of the Best Practices documents and related publications Completion of a strategy paper on the sustainable financing of the exclosures
Technical support for PES pilot micro-projects	7,100	24	Ensure that beneficiaries are provided with adequate technical input to implement the pilot projects (according to the specific nature of each PES) Communicate results and identify replication potential
Technical support to eco-tourism activities	5,000	2	Support the process for implementation of eco-tourism activities with RSCN within the buffer zone of the Dana reserve. Support the implementation of the

			connectivity corridor and the development of marketing tools that would ensure the involvement of the local communities
International			
BD mainstreaming Kit	20,000	2	Provide technical input to a user-friendly biodiversity mainstreaming kit Test the kit and improve design Train resource people on its use
BD Knowledge Management System	20,000	1	Develop the approach upon which the KM process will be developed Undertake consultation with relevant actors Prepare a new knowledge management system to be used locally and nationally. Develop a sustainability strategy to maintain knowledge flow
Ecological Assessments	7,333	1.5	Further determine the base along which future monitoring would be undertaken. Expand partnerships with relevant organisations that have expertise in this field Advise on adequate monitoring equipment to be acquired and methodologies to be adopted
Technical Support to PES Design	10,133	3	Provide further technical support for the implementation and evaluation of the developed/maintained PES schemes Communicate results and lessons learned and identify possibilities for replication
Justification for Travel, if any: Consultants will need to undertake travel to visit the project sites			

ANNEX D: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS

A. EXPLAIN IF THE PPG OBJECTIVE HAS BEEN ACHIEVED THROUGH THE PPG ACTIVITIES UNDERTAKEN.

The objectives of the PPG are fully achieved as demonstrated by the quality of the document and the specific studies as well as the extensive stakeholders consultation activities that have helped in a participatory project design at all levels (national and local). During the PPG phase, field observations, focus group discussions with local communities and other stakeholders, and analyses of available documentation and information has enabled an improved assessment of the adequate type of activities to be supported by this GEF project. As this project is proposing innovation, mainly related to PES, all the relevant initiatives that could be identified within the region were analysed, and discussions held with relevant actors and institutions to capitalise on them and avoid duplication. The local communities where the project is to take place were consulted and their priorities aligned within the project.

The PPG phase has prepared a solid ground for project implementation and raised already awareness about the proposed GEF project and its approach. The PPG phase has identified the Hima approach a very viable community conservation approach within the project region.

B. DESCRIBE FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION, IF ANY:

The project approach and related implementation strategy are built on the principles of conservation and sustainable use of biodiversity through community participation, involvement of CBOs, reinforcement of local institutions' capacity and active participation of women. The project activities include innovative approaches that have not yet been piloted in Jordan, the stakeholders, and through the project preparation process, have confirmed a need for strong technical assistance and backstopping to ensure that project implementation leads to expected results and impact.

The project will also work towards a good and effective M&E system and to generate useful lessons to be shared across the region. To achieve such objectives, a robust TA component is required and included to minimize risks.

C. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES AND THEIR IMPLEMENTATION STATUS IN THE TABLE BELOW:

<i>Project Preparation Activities Approved</i>	<i>Implementation Status</i>	<i>GEF Amount (\$)</i>				<i>Co-financing (\$)</i>
		<i>Amount Approved</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>	<i>Uncommitted Amount*</i>	
Evaluation of investment needs for enabling environment	Completed	13000	12154	0	846	9000
Assessment of local capacity needs	Completed	13000	12304	0	696	8300
Identify incentives and mechanisms for biodiversity conservation	Completed	13000	12059	0	941	10040
Technical inputs to project design	Completed	30000	27284.25	0	2715.75	35956
Preparation of project costing	Completed	6000	0	1580.67	4419.33	4300
Project management	Completed	0	0	0	0	16461
Consultation meetings	Completed	5000	1000	0	4000	3000
Total		80000	64801.25	1580.67	13618.08	87057

* Any uncommitted amounts should be returned to the GEF Trust Fund. This is not a physical transfer of money, but achieved through reporting and netting out from disbursement request to Trustee. Please indicate expected date of refund transaction to Trustee.