



# PROJECT IDENTIFICATION FORM (PIF)

**PROJECT TYPE: Full-sized Project**

**TYPE OF TRUST FUND: GEF Trust Fund**

## PART I: PROJECT IDENTIFICATION

Project Title:	Sustainable Land Management Programme to Combat Desertification in Pakistan		
Country:	Pakistan	GEF Project ID:	
GEF Agency:	United Nations Development Programme	GEF Agency Project ID:	4593
Other Executing Partner (s):	1. Ministry of Disaster Management 2. Provincial Planning & Development Departments	Submission Date:	29 November 2011
GEF Focal Area:	Land Degradation	Project Duration(Months)	60 months
Name of Parent Programme:	-	Agency Fee (US\$):	379,100

### A. FOCAL AREA STRATEGY FRAMEWORK:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Indicative Grant Amount GEF (\$)	Indicative Co-financing (\$)
LD-2	2.1 An enabling environment within the forest sector in drylands	Output 2.2 Types of innovative SFM practices introduced at field level over 100,000 ha of dryland forests	280,000	2,000,000
	2.2 Improved forest management in drylands	Output 2.5 Information on SFM technologies and good practice guidelines disseminated	180,000	1,780,000
LD-3	3.1: Enhanced cross-sectoral enabling environment for integrated landscape management;	3.1: Integrated land management plans developed and implemented for an area of around 800,000 ha	2,500,000	13,120,000
	3.2: Integrated landscape management practices adopted by local communities	3.2: INRM tools and methodologies developed and tested	641,450	4,140,000
Project Management Cost			189,550	1,160,000
<b>Total Project Costs</b>			<b>3,791,000</b>	<b>22,200,000</b>

### B. PROJECT FRAMEWORK

**Project Objective:** Sustainable land and natural resource management in the arid and semi-arid regions of Pakistan alleviates environmental degradation and maintains the continuous flow of ecosystem services, while increasing resilience to climate change

Project Component	Grant type	Expected Outcomes	Expected Outputs	GEF Financing (\$)	Co-financing (\$)
1. Applying landscape wide climate resilient SLM practices / approaches through integrated ecosystem management	Inv / TA	1.1 Large-scale landscape level climate resilient SLM operationalised in 4 provinces [Punjab, Sindh, Balochistan, & Khyber Pakhtankhawa], 14 districts and more than 200 villages.  a) SLM applied to an area of 800,000 ha (400,000 ha rain-fed agriculture, 300,000 ha rangelands, and 100,000 ha dry land forests) leading to reduced land degradation (measured by decrease in extent of degraded areas); improved productivity (further measured by increase in Net Primary Productivity – NPP) and maintenance of ecosystem services (e.g. water availability and increased carbon sequestration) across the rural landscape in arid and semi-arid	1.1.1 GIS based district level land use plan (8) and village land management plans (200) that meet SLM and other standards (e.g. land tenure, community participation) developed and implemented as guided by decision-support and knowledge management system from component 2.  1.1.2 Improved SLM practices scaled up across landscapes. These will include: a) appropriate soil and water conservation measures and farm management practices (e.g. soil fertility management including planting of legumes, establishment of windbreaks, conservation tillage, promoting drip irrigation; planting drought tolerant species); b) rehabilitation of degraded rangelands and improving management (e.g. providing adequate rest through rotational grazing; re-seeding of palatable	2,602,700	15,140,000

		regions; biodiversity intactness in dry forests—100,000 ha (baseline to be established in PPG)  1.2 Systems of incentives applied at village and district levels to further the adoption of SLM practices	species; weed management); c) improved dryland forest management (e.g. promoting sustainable use of NTFPs, sustainable fuel-wood collection, enrichment planting of preferred species, reduced forest grazing).  1.2.1 Community-financed viable local SLM funds, public-private partnerships, targeted matching grants designed and implemented <sup>1</sup>		
2. Instituting climate resilient SLM systems at province and district levels	TA	2.1 A comprehensive decision-support system (planning, monitoring and adapting SLM practices and approaches) guiding application of climate resilient SLM in 4 provinces and 14 districts over 800,000 hectares of degraded land instituted. [Indicators: a) Enhanced capacities to effectively plan, implement, monitor and mainstream SLM in provincial and district level policies and plans as measured by: (i) at least 20 percent increase in score per Capacity Scorecard (baseline to be established during PPG); (ii) increased personnel and financing dedicated to integrating SLM within planning and budgeting structures; (iii) Increased baseline project investment in sustainable land management b) Institutionalization of a multi-tiered SLM training programme]  2.2 Rigorous SLM/Climate Change decision-making engendered linking SLM actions to adaptation and mitigation measures.  [Indicators: Provincial development plans and 8 district land use plans integrate climate change mitigation and adaptation needs]	2.1.1 Development and implementation of a decision-support system for applying SLM that consists of: (i) operationalizing partnerships between various provincial departments (e.g. Planning, Agriculture, Forests, Livestock, Irrigation etc.), the private sector, local communities and local government including setting up Desertification Control/SLM units within the Provincial Planning & Development Departments; (ii) development and enforcement of guidelines for integrating SLM into provincial and sectoral development planning and budgeting processes (e.g. for agriculture, forestry, livestock) (iii) implementation of an inter-province and province-wide common monitoring and evaluation system for SLM; (iv) regulations for land use planning for allocation of land to different land uses-balancing environmental, social and economic needs; (v) financial incentives for SLM espousal systems (e.g. local SLM funds, public-private partnerships, targeted venture capital) developed and applied (please see footnote 1)  2.1.2 Multi-tiered SLM training program institutionalized such as: (i) Provincial SLM in-service certification training program; (iii) District and village level SLM short-training courses.  2.2.1 Implementing of decision- support system for land and ecosystem management for: (i) monitoring of ecosystem degradation in light of climate change risks and impacts; (ii) knowledge management system on SLM adaptations to climate change including documentation of indigenous knowledge and practices (e.g. increasing soil carbon, diversification of crops, selection of drought tolerant species, improving vegetation cover etc. to be applied in component 1)	998,750	5,900,000
Project Management Cost				189,550	1,160,000
<b>Total Project Costs</b>				<b>3,791,000</b>	<b>22,200,000</b>

### C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
National Government	Federal Government of Pakistan	Grant	1,000,000
Provincial Government (s)	Provincial Governments of Punjab, Sindh, Balochistan, & KP	Grant	14,000,000

<sup>1</sup> Local SLM funds are to be established with the participation of local communities. Most of the funding such as matching grants will be realized through credit and grant schemes from the baseline project and also through partnerships with private sector mobilized by the project. To enable this, the project will support community groups in preparing business plans and connecting with potential supporters and financiers including private sector financial institutions

GEF Agency	UNDP	Grant	1,500,000
Bilateral Aid agency (ies)	USAID, JICA, SDC etc.	Grant	2,500,000
Other Multilateral Agency (ies)	IFAD & GM	Grant	200,000
CSO	Local NGOs & CBOs	In-kind	2,000,000
Private Sector	Chambers of commerce, Oil Companies and multi-nationals	Grant	1,000,000
<b>Total Co-financing</b>			<b>22,200,000</b>

#### D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY

GEF Agency	Type of Trust Fund	Focal area	Country	Project amount (a)	Agency Fee (b)	Total c=a+b
UNDP	GEFTF	LD	Pakistan	3,791,000	379,100	4,170,100
<b>Total Grant Resources</b>						4,170,100

## **PART II: PROJECT JUSTIFICATION**

### **A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:**

#### **A.1.1 THE GEF FOCAL AREA STRATEGIES:**

The project will ensure the sustainable management of land and natural resources in the arid and semi-arid regions of Pakistan so that ecosystem functionality and critical ecosystem services are enhanced. It will promote the application of climate resilient (Sustainable Land Management) SLM methods and technologies through integrated approaches that cover an area of 800,000 hectares. A legal basis for land use planning will be established making land management decision-making more informed, and binding. This will balance competing environmental, social and economic objectives—to improve the sustainability of land management. The project will mobilize a large baseline investment to support implementation of SLM practices at scale across the target areas, thus transforming land use. It will facilitate the generation of community level SLM funds and other means to incentivize rural farmers to adopt SLM practices. The project will also put in place an effective and comprehensive decision-support system for planning, monitoring and adapting climate resilient SLM at the provincial and district levels—critical to mobilizing the investment needed for implementation. Further it will support the documentation of lessons, linking SLM actions to climate change adaptation and build capacities for provincial and local government functionaries and local communities to advance SLM. Thus the project will address the GEF land degradation focal area objective LD2 “Generate sustainable flows of forest ecosystem services in drylands, including sustaining livelihoods of forest dependent people” and LD 3 “Reduce pressures on natural resources from competing land uses in the wider landscape”. Improved SLM practices and technologies will “maintain or improve the flow of agro-ecosystem services to sustain the livelihoods of local communities” across 400,000 hectares of rain-fed farm lands, 300,000 ha of rangelands, and some 100,000 ha of dry forests.

The project builds on the important lessons drawn from the GEF’s earlier investment “Sustainable Land Management Pilot-Phase”. Approved in late 2007, the initiative commenced in 2009 and is scheduled to be completed by the end of 2011. It received US\$ 2 million from the GEF and was co-financed by UNDP (US\$ 1.35 million) and the Government of Pakistan (US\$ 1.25 million). Accomplishments to date include the piloting of SLM measures in nine districts and sixty-three villages in four provinces. This has successfully rehabilitated over 12,000 ha of degraded rangelands through reseeding and introducing a community-based rest-rotation grazing management system. Around 8,000 ha of land has been brought under sustainable rain-fed agriculture and improved soil and water conservation measures have been introduced at the local level. These included high-efficiency irrigation (e.g. drip irrigation; hill-torrent irrigation), development of woodlots/shelter belts, and dry forest –afforestation in watersheds. It piloted technologies to address water scarcity and drought mitigation through rainwater harvesting and integrated water management approaches. Technologies tested include dug wells, water ponds, dikes, and micro-catchment management. Further it has reviewed sectoral policies and Pakistan’s NAP in the context of UNCCD’s current 10-Year Strategy, in the process generating a detailed land use baseline data set. It completed a comprehensive assessment of land degradation in the nine districts (covering 12.5 million ha)— that indicates that more than 6.4 million ha faces moderate to severe soil erosion. This underscores the scale of the challenge Pakistan faces in addressing land degradation. Finally, it strengthened coordination amongst a diverse set of national, provincial, and district level stakeholders with a stake in SLM, including government, NGO, CBO and private interests.

The Final Evaluation of this phase has been completed. Recommendations have been incorporated in the PIF. A summary of the findings of the evaluation is provided in Annex 1.

#### **A.2. NATIONAL STRATEGIES AND PLANS**

Pakistan signed the United Nations Convention to Combat Desertification (UNCCD) in 1994 and continues to uphold its obligations, including commitments to implement the 10-Year Strategy of the UNCCD. Pakistan formulated a National Action Programme (NAP) to combat desertification in 2002. The project is designed to implement specific measures to combat desertification identified in the NAP, including the adoption of integrated and participatory approaches to SLM/INRM. The National Environment Policy (2005) calls for Pakistan to “develop strategies and programs to tackle desertification in line with the NAP”. The Biodiversity Action Plan (BAP) (2000) stresses the need to take measures to protect and conserve indigenous species. The project is designed to support implementation of the draft 10<sup>th</sup> Five Year Peoples’ Plan 2010-15, one of the core objectives of which is “to ensure sustainable management of land”. It stresses the need to address desertification, land degradation and drought (DLDD). The draft National Forest Policy 2010 highlights the problem of land degradation and desertification in the country and recognizes SLM as a viable means to address these problems. Similarly, the draft National Agriculture Policy 2010 emphasizes the importance of enhancing land productivity through the effective management of land resources, whereas the draft National Water Policy 2006 calls for the adoption of a holistic approach to water resource management. In addition the draft “National Rangeland Policy 2010”, “draft National Climate Change Policy 2011”, “and “Poverty Reduction Strategy Paper II” call for concrete measures to combat land degradation. These documents identify community-based SLM/INRM as key to addressing land degradation – especially in the specter of climate change to which Pakistan is particularly vulnerable (as evidenced by the 2010 and 2011 floods).

## **B. PROJECT OVERVIEW**

### **B.1. DESCRIBE THE BASELINE PROJECT AND THE PROBLEM THAT IT SEEKS TO ADDRESS:**

Context: Pakistan occupies an area of 880,000 square km, bordering Afghanistan, Iran, China, India, and the Arabian Sea. Eighty percent of Pakistan is arid and semi-arid, twelve percent is dry sub-humid, and eight percent is humid. Forest covers only 42,000 square kilometres, or less than 5% of the territory. The country has a fast growing population, currently 152.53 million people, over 60% of which depend on agriculture for their livelihoods. Over 50% of the country is under some type of agricultural land use. Nearly 300,000 square km are used as rangelands and 200,000 square km is cropland of which 160,000 square km is irrigated. Most rural dwellers exist on fragile lands prone to desertification, and severe drought and floods.

Land degradation has an adverse impact on Pakistan’s economy and social welfare. Across much of the country, landscapes are characterized by moderate to severe deforestation, overgrazing, depleted ground water reserves, reduced surface water quantity and quality, erosion, salinity, lowered soil fertility, and the loss of biodiversity. These are linked to unsustainable land use practices. Many endemic plant and animal species of global significance are threatened due to unsustainable and competing natural resource uses. Land degradation is suspected of depleting the gene pool of native plant species while clearing a path for invasives. Degradation is undermining ecosystem functions and services and reducing the household income of rural people, dependent upon these services for their subsistence and livelihoods. Nearly 40% of people inhabiting dryland areas now live below the poverty line. Degradation is upsetting traditional land management practices with forced migrations now resulting in conflicts between nomadic and sedentary populations competing for limited water and grazing land. As the dual influences of climate change and population growth continue, land degradation is projected to accelerate.

*Deforestation* is leading to a decline of Pakistan’s woody biomass at an annual rate of 5% (7,000-9,000 ha/year), the second highest rate of forest decline in the world. Consumption for fuel wood exceeds production in all the provinces, and at current rates could totally consume biomass within the next 15 years. ‘Tall tree’ forest in Pakistan with greater than 50% canopy cover encompasses less than 400,000 ha, and both these and the remaining degraded forests are rapidly disappearing. In addition about half of the forest area classified as rangelands are *over-grazed* and in some cases may be classified as highly degraded. In the farm landscapes, *unsustainable land use practices* including poor irrigation and intensive agriculture are leading to land degradation. Poor farmers with limited land holdings are forced to practice intensive agriculture on already degraded lands to secure their livelihoods. Intensive agriculture through use of pesticides and over-use of fertilizer is causing serious soil fertility problems. Around 11.2 million ha of land in the northern mountain regions and around 3.5 million ha in the arid regions of Punjab, Balochistan and Sindh are affected by erosion. In addition *climatic factors* such as droughts disrupt traditional land use patterns and force people to abandon arable lands, exposing such areas to wind erosion. Drought and flash floods incidences are likely to increase with climate change. For instance, unprecedented flooding during monsoon rains in 2010, left over 1600 people dead and deprived 2 million people of their livelihood by damaging 2.7 million hectares of irrigated, rain-fed, farms.

Institutional set up: A number of federal ministries are responsible for coordinating and facilitating policy-making. The Ministries most relevant to SLM include: the Ministry of Disaster Management; Ministry of Food Security and Research; and, Ministry of Water and Power. The country has four provinces: Punjab, Khyber Pakhtankhawa (KPK), Sindh, and Balochistan. The provinces are divided into a total of 125 districts. Provinces are largely self-governing. With the recent

adoption of Amendment 18 to the Constitution, the national government dramatically increased provincial autonomy. Under this Amendment, many of the federal ministries such as the Ministries of Environment and of Food Agriculture and Livestock have now been dissolved and their functions at the federal level have been absorbed under the Planning Commission, and other federal ministries relevant to SLM, such as Ministry of Disaster Management, Ministry of Food Security and Research, and Ministry of Inter-Provincial Coordination. These federal institutions have enhanced roles and mandate related to sustainable management of land and other natural resources. The Planning Commission is the main coordinating body for cross-sectoral investment programs and for making budgetary allocations. The provincial Planning and Development Departments are responsible for overseeing planning, development and the coordination of all sectors. The provincial line departments such as the Forestry Departments are responsible for sustainable management of forest resources, regulating the commercial harvest of trees, regulating the use of rangelands and overseeing the extraction of non-timber forest products. Similarly, Agriculture departments provide agriculture extension services (including research), while provincial Livestock Departments provide advisory services viz raising livestock, veterinary services, and disease control. The provincial Irrigation Departments are charged with managing the network of irrigation head-works, canals, small dams and other irrigation works. Further, provincial and district authorities are now empowered to also decide on the composition of local development plans and resource allocations to different elements of the plan. This provides a tremendous opportunity to directly engage with planning and financing agencies at the provinces to mainstream SLM into local plans and programmes.

**Baseline project:** The baseline project consists of five broad categories of programmes and resources namely a) programmes planned and funded under the country's 10<sup>th</sup> Five Year Plan; b) on-going investments under the federal Public Sector Development Plan; c) sectoral investments in the provinces; d) other donor supported programmes; and e) NGO investments.

*Programmes under the 10<sup>th</sup> FYP:* The 10<sup>th</sup> Five Year People's Plan (2010-15) under preparation is the overarching planning tool of the Government of Pakistan to chart the country's development trajectory. This Plan considers sustainable land and natural resource management an important concern and proposes a financial layout of Rs.5.9 billion (~US\$69.0 million) for various projects related to sustainable management of land and natural resources such as: forestry (for reforestation and afforestation, integrated watershed management and rangeland rehabilitation), natural resources (integrated water resource management, soil conservation, and climate change adaptation), and also specifically SLM.

*Investment plans under the federal PSDP:* In addition a number of on-going and new projects financed under the Public Sector Development Plan (PSDP) focus on improving management of land and water resources. These include federal spending under programmes such as the National Programme for Improvement of Water-Courses, Land and Water Resource Development Projects for Poverty Reduction, Water Conservation and Productivity Enhancement through High-Efficiency Irrigation, Improving Conventional Farming through provision of Farm Machinery to Farmers, National Agriculture Land Use Plan, Establishment of Nurseries of Multi-purpose Trees, Improvement of Water Conservation Practices, Combating Desertification in the Thar Desert through effective management of water resources. The planned outlay is US\$73 million.

*Sectoral investments of Provinces:* Similarly each province has planned considerable investment outlays pertaining to water management, agriculture, forestry and livestock. The water sector has on-going programme with a total outlay of around US \$ 38.9 million that include construction, extension and maintenance of irrigation and other related infrastructure such as flood protection check dams, bunds and rehabilitation of irrigation channels (Balochistan – \$ 28m; Sindh - \$ 9.3m; Khyber Pakhtunkhwa (KPK) – \$ 1.6m). Another sector that receives considerable investment budgets across the provinces is forest management (afforestation and reforestation). The four provinces together have a budget outlay of US \$ 18.6 million (Balochistan – \$2.5m; Sindh - \$ 2.4m; KPK - \$ 1.9m; and Punjab - \$ 11.8m). Research, monitoring and evaluation of water resources (such as evaluation of flood plains; research on drainage, land reclamation, water management; strengthening research capacities) receive funding of around US\$ 4.3 million (Balochistan – \$0.6m; Sindh – \$0.6m; KPK – \$0.2m; Punjab - \$2.9m). Agriculture sector investments in agricultural farm management (improving productivity, post-harvest technologies, farm mechanization, introduction of technologies such as drip irrigation, tub wells, integrated soil fertility management) is also significant in Balochistan (\$ 7.6m) and Punjab (\$18.1m) with a total investment of US\$ 25.7 million. Similarly spending on livestock and rangeland management (pasture management, dairy development) particularly in Sindh amounts US \$16.2 million and \$0.4 million in Balochistan. The two provinces of Balochistan and Punjab also have expenditures on integrated management of water and land resources including community involvement and projects to improve community livelihoods. They are projected to spend over the next 2-3 years a total of US \$ 67.6 million (Balochistan - \$10.6m; Punjab - \$57m). Punjab is unique among the provinces in that it is also expending a moderate amount of US \$ 1.8 million towards the establishment of institutions and mechanisms for coordinating management of water, land and forests resources. Only Balochistan has planned investments that aim at promoting soil and water conservation measures (demonstrations in the field, distribution of inputs, increasing vegetation cover, and also bund improvement), the investment amounting to a total of approximately US \$ 4.2 million. Another set of baseline is the various activities of the Animal Husbandry/Veterinary, Agriculture, and Horticulture Departments aimed at providing extension services to farmers.

*Other donor supported programs:* A number of external development partners are also supporting land management, mostly through NRM related activities and livelihood programmes geared toward alleviating poverty. For example, the World Bank is providing funding through the Pakistan Poverty Alleviation Fund (PPF) for community-based projects. Most of the interventions related to land include development of water resources for drinking and agriculture production, lining of water courses, construction of wells, flood protection bunds, water ponds, high-efficiency irrigation schemes and introduction of solar pumps. Thus far, they have invested around Rs.2000 million (US\$23.5 million). Similarly, others such as Asian Development Bank, USAID, FAO, and World Food Programme (WFP) are supporting the National Rural Support Programme (NRSP) for NRM related on-the-ground interventions, community loans (for agriculture, livestock and enterprise development) and community training. Presently, NRSP is implementing a US\$50.0 million small-grant programme, most of which relates to NRM and poverty reduction. FAO and WFP are also implementing several projects and programmes for agriculture and livestock development as well as food security and emergency livelihood assistance to flood affected farmers.

*International and local NGO programmes:* Other local NGOs and partners are also actively investing in SLM related interventions. A leading NGO namely Thardeep Rural Development Programme (TRDP) is working on NRM related activities in 5 dry land districts of Sindh, 3 of these are also SLMP target districts (Tharparkar, Dadu, and Umer Kot). The major focus of their activities is on agriculture development, afforestation, provision of low-delta crop seeds, livestock development and water conservations measures. TRDP's current financial layout for these activities is about US\$3.0 million. Inter-Corporation a Swiss international NGO is implementing a US\$11.7 million programme in 5 districts, including 2 target districts of the SLMP namely D. I. Khan and Karak. The land resources related activities of their programme include rainwater harvesting, strengthening hill torrent irrigation system, and provision of agriculture input for local farmers.

**The long term solution and barriers to achieving it:** While impressive, the existing baseline initiatives suffer from a number of gaps. First these initiatives are not sufficiently coordinated and do not specifically take global environmental concerns into account. Many sectoral initiatives have a narrow focus: for instance forestry activities focus solely on increasing tree cover, without addressing rangeland management as would be needed under a landscape<sup>2</sup> wide SLM strategy. Moreover they do not necessarily use indigenous trees, nor take into account the effect of tree monocultures on biodiversity or for that matter stream flow. By failing to address livestock husbandry, they can actually undercut their own success, given that cattle and goats can damage seedlings. Likewise, agriculture sector investments are focused on enhancing food security by increasing agricultural production through intensive agriculture based on heavy use of fertilizer and weak land husbandry. These can have adverse effects, including clearance of native vegetation, with an impact on biodiversity, and soil erosion where these parameters have not been taken into account in planning. Nevertheless, the baseline is large. There is considerable scope for tapping it, to ensure that it addresses social and economic needs, which they are designed to do, while also addressing environmental concerns, There is a need to balance objectives—indeed this would be a cost effective solution for achieving sustainable land management compared against stand alone SLM investments. The long-term solution is thus to build the necessary conducive environment mainly consisting of a comprehensive decision-making and monitoring system at the provincial and district levels to mobilize the large baseline towards large-scale application of sustainable land management practices that address land degradation while improving the livelihoods of the farming communities.

The following *barriers* are however preventing this long term solution from emerging:

***Barrier 1: Need for landscape level models (partnerships, coordination mechanisms, planning frameworks, incentives) for adopting landscape wide climate resilient SLM practices and approaches:***

The substantial financial and human resources earmarked for baseline programmes related to agriculture and forestry are deployed and managed by sectoral departments working in silos. There is a need to harmonize and coordinate efforts across sectors, and apply innovative ways of enhancing ecosystem functioning and resilience in an integrated and coordinated way over and beyond their existing development objectives. In addition, many existing and proposed activities under the federal PSDP across a number of sectors have two main shortcomings: first, a dis-proportionately large share of the investment resources are dedicated to construction of irrigation and water management infrastructure; second, these federal investment resources are traditionally planned by central sectoral agencies with very little involvement of provinces and more importantly with little coordination that leads to both duplication and sometimes contradictory objectives. Likewise, the provincial level investment projects have a heavy focus on high-cost engineering solutions to water and land management problems. Although many of these projects are approved by the Provincial Planning Departments, there is little coordination

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<sup>2</sup> A landscape is defined as a “delineable area of the earth’s terrestrial surface, encompassing all attributes of ecosystems immediately above and below the earth surface. The ‘landscape’ level is usually a larger boundary than watershed, and can comprise several ecosystems. Landscape Approach include: “integrated land use planning, land functionality analysis, economic valuation of land use and services, land use competition and gap analysis, multi-criteria decision making tools for solving land use competition, conflicts and ensuring sustainability. GEF Land Degradation Strategy August 10, 2005.

between the line departments. These baseline investments will benefit from an integrated cross-sectoral approach to sustainable land management, addressing land degradation issues in a holistic way (such as recognizing the integrated relationships between various land uses in the landscape). These need to be anchored in a land use plan that balances economic and environmental factors in land use allocation. There is a need to ensure that the huge investments allocated for irrigation infrastructure undergo adequate environmental assessment and properly consider the overall environmental impact.

***Barrier 2: Systems for decision-making supported by enhanced staff for instituting climate resilient SLM:***

Pakistan requires working models that demonstrate to stakeholders the benefits of SLM at the landscape level that protect the integrity and productivity of land and water, and protect biodiversity and ecosystem processes that underpin ecosystem services. Ideally, these models will blend traditional knowledge and practices with innovative contemporary technologies that alleviate land degradation and develop resilience to climate change impacts. However, decision-makers and SLM advocates must first be able to provide tangible evidence of the long-term economic and social costs/benefits of selecting sustainable practices rather than unsustainable practices at a meaningful scale. In addition, there is also a need to introduce direct incentive packages to underwrite up-front initial investments from a diversity of sources using innovative financing means.

The legally enforceable mechanisms required for creating the "carrots" and "sticks" necessary to ensure the adoption of the SLM practices are still not in place. Recent decentralization of powers to provinces following the 18<sup>th</sup> Amendment of the Constitution has placed responsibilities for implementing sustainable land use management initiatives in the hands of the provinces. However, the capacity of the provinces to make decisions, and coordinate and plan SLM is generally weak. Laws regulating the use of water, soil, forests, grasslands, and water resources do not fully reflect SLM principles. These laws and regulations have gaps in both content and application. For instance, the number of livestock in Pakistan has increased from approximately 60 million head to nearly 160 million heads within the last thirty years. Open access grazing, particularly on government lands, and associated land degradation continues unabated largely because the country does not have a coherent and workable framework for regulating livestock management. In addition, without a proper policy framework, incentives for change rely primarily upon ethical, rather than regulatory and economic inducements such as subsidies, tax credits, lower interest rates, and/or government funding that is predicated upon district's adopting SLM practices. The Pilot Phase helped to generate detailed baseline land use information for the target districts, establishing a useful foundation for SLM decision making. However, deficiencies in the legal framework for land use planning, undermines the utility of this data. Because of this governance barrier, inappropriate land-use, over-exploitation of plant and forest cover, and random development march forward with little consideration for their environmental impacts. Climate change is a critical, but poorly understood driver of land degradation in Pakistan. During Pilot Phase, the project identified that shifting weather patterns, rain events, and glacier loss will impact the sustainability of traditional vulnerable livestock and cropping methods. Major stakeholders recognize that the nation's landscape is already highly vulnerable and pushed to the brink by a growing population that continues to pursue ever less sustainable land use practices. As climate change continues to unfold, decision-makers and resource users will require tools and understanding to build resilience; sustainable land management provides a vehicle for achieving this. This amplifies the need to address the provincial legal frameworks and decision making system for sustainable land management.

**B. 2. INCREMENTAL /ADDITIONAL COST REASONING: DESCRIBE THE INCREMENTAL (GEF TRUST FUND) ACTIVITIES REQUESTED FOR GEF FINANCING AND THE ASSOCIATED GLOBAL ENVIRONMENTAL BENEFITS :**

**Component 1: Landscape level climate resilient SLM technologies through integrated ecosystem management applied:** The project will provide technical and financial support for a total of fourteen districts located in four provinces to generate comprehensive, integrated, and legally enforceable land use plans. This effort will involve building upon the Pilot Phase assessments, analytical tools (e.g., Participatory Rural Appraisals and GIS data sets) to bring practical, landscape level SLM planning to Pakistan. The project will assist local communities to develop and implement local level land use plans by supplying the needed technical assistance. These plans will be scaled-up to district level land use plans to be implemented by the local authorities and further incorporated in provincial level. These activities will construct and institutionalize processes for the systematic operationalization of land use planning systems that are socially inclusive and driven by local community members. Each land use plan will be predicated upon internationally recognized good practice SLM principles and will focus upon improving local and traditional practices related to the use and conservation of land, water, and biodiversity resources. This intervention will also develop economic and regulatory incentives to be devised by provincial and district level decision-makers. In addition, the project will help local resource users to design and implement realistic business-plans that help guide the incremental adoption of proven SLM practices and lessen the economic risks associated with poorly informed decision-making. The project will capacitate the Government to identify and broker baseline finance to fund the SLM plans—covering an area of 800,000 hectares. It will also design and launch local SLM funds financed by government and local communities' contributions, as well as resources mobilized from private sector partnerships etc. The project will

focus particular effort upon shifting current “open access” grazing on “public” lands to a regulated grazing regime by community or government that results in reduction of grazing pressure and a commensurate decrease of land degradation. The practices promoted will incorporate climate change adaptation and resilience dimensions. The project will actively track, record and analyze progress relevant to factors such as social welfare, economic viability, condition of water quality, water quantity, soil health and biodiversity.

**Component 2: Climate resilient SLM systems at province and district levels instituted:** The project will provide the technical support necessary to draft comprehensive SLM policies for four provincial governments and at district levels. This effort will include earmarking financial and human resources that will be dedicated to implementing SLM interventions. The policies will also detail economic incentives for local governments and resource users to pursue and implement landscape level SLM interventions, including financial triggers linked to the adoption of SLM policies and practices. It will strengthen functioning partnerships among various sectors in the form of Provincial Desertification Control/SLM Coordination Committees with representatives from all sectors with a remit for land and natural resource management at the provincial levels including representatives of the civil society and the private sector. This committee will be led by the Provincial Planning Department. In addition, the project will initiate a comprehensive, sustainable SLM training program. The capacity building program will generate training materials that reflect the Pakistani context while reflecting best international principles and practices. Trainees will be capable of supporting village level resource users as they generate tool kits for sustainable land management, including: sustainable agricultural practices (e.g., tillage, crop mix/rotations, nutrient management, soil and water conservation techniques); and sustainable harvesting methods for non-timber forest products.

The project will support the creation of a series of field-based training programs for both crop and livestock producers in each of the fourteen model districts. The project will facilitate opportunities for farmers and farmer groups from diverse districts to annually meet, exchange lessons learned, and evaluate SLM progress. This will include the creation of SLM monitoring criteria to be developed and monitored by farmer groups. Ultimately, the project will involve numerous farmers’ groups in these farmer-to-farmer training programs supported by government and project staff. Although livestock is one of the main land degradation drivers, very little extension support exists beyond the provision of veterinary services. The project will develop a specific training program focused upon strengthening the capacity of livestock growers and government extension officers to provide materials and advice regarding sustainable grazing practices and options. This effort will build the capacity necessary to support the design and implementation of sustainable grazing management approaches that shift current open access regimes to controlled access, e.g., private, community and/or government, in fourteen target districts.

The project will mainstream climate change related issues within all SLM interventions. The goal will be to give decision makers the information required to make sound land use management decisions that reflect climate change challenges. It will do so by supporting the development of a land and ecosystem degradation assessment, monitoring and decision-support system that down scales climate change projections—making them relevant to provincial and district level planning and management.

The **global benefits** that will be delivered primarily include the adoption of SLM practices that will reduce land degradation and ensure ecosystem services over a landscape of more than 800,000 ha through multi-sectoral SLM interventions, as follows:

Current Practice	Alternative to be put in place by the project	Selected benefits
Unsustainable crop and land management practices: <ul style="list-style-type: none"> <li>Intensive cultivation leading to reduced fertility</li> <li>Severe soil erosion</li> <li>Limited water management and poor maintenance of irrigation infrastructure</li> <li>Inappropriate subsidies or limited investments for wise use fertilizers and other improvements in inputs</li> </ul>	Improved soil and water management practices that includes: <ul style="list-style-type: none"> <li>integrated soil fertility management</li> <li>increasing vegetation cover and planting windbreaks</li> <li>promotion of water efficient technologies (e.g. drip irrigation)</li> <li>integrated farming</li> <li>planting drought tolerant species in highly drought prone areas</li> </ul>	i) Sustainable management of land and natural resources on around 800,000 ha of land consisting of agriculture land, rangeland / pastures and forest land that result in reduced soil erosion, halt / reverse land degradation process and continued provision of ecosystem services  ii) Improved productivity as measured by increase in Primary Productivity, , reduced erosion rates and/or enhanced RUE (Rain Use Efficiency)
Degradation of dry land forests through: <ul style="list-style-type: none"> <li>Illicit felling of trees for fuel wood;</li> <li>Over-grazing in forest lands</li> <li>over-exploitation of NTFPs</li> </ul>	Sustainably managed dry forests: <ul style="list-style-type: none"> <li>sustainable fuel wood collection</li> <li>reduce grazing in forests</li> <li>enrichment planting of preferred species</li> </ul>	

	<ul style="list-style-type: none"> <li>sustainable use of NTFPs, value addition</li> </ul>	<ul style="list-style-type: none"> <li>iii) Enhanced carbon sequestration in soil and vegetation across landscape in project sites</li> </ul>
<p>Over-grazing and degradation of rangelands</p> <ul style="list-style-type: none"> <li>no attention paid to carrying capacity of rangelands</li> <li>open access regimes with no efforts in pasture / rangeland management</li> <li>soil erosion of barren degraded lands</li> </ul>	<p>Improved rangeland management:</p> <ul style="list-style-type: none"> <li>changing from open access to regulated grazing regimes</li> <li>promotion of rotation grazing to provide rest periods</li> <li>re-seeding of palatable species and weed management</li> </ul>	<ul style="list-style-type: none"> <li>iv) Improved socio-economic returns from improved land productivity and natural resource enterprises (e.g. NTFPs)</li> <li>v) biodiversity intactness in dry forests</li> </ul>

**B.3. DESCRIBE THE SOCIOECONOMIC BENEFITS TO BE DELIVERED BY THE PROJECT AT THE NATIONAL AND LOCAL LEVELS, AND HOW THESE WILL SUPPORT THE ACHIEVEMENT OF GLOBAL ENVIRONMENT BENEFITS:**

The expected socio-economic benefits include (i) better management of crop lands and other natural resources—thereby improving the sustainability of livelihoods of people dependent on these resources (ii) rehabilitation and sustainable management of degraded rangelands and integrated management of water resources that will help communities to cope with water scarcity and provide adequate water for human and livestock consumption and the recharge of groundwater resources (iii) conservation and sustainable use of indigenous plants and NTFP (e.g. Mazri, Guggal, *Saccharum* spp.), thus enhancing sustainable income generating opportunities, and (iv) reduced vulnerability and enhanced resilience to climate change. The socio-economic benefits will span across all sections of society including women and marginalized groups. Women are active, selective and creative natural resource users and managers in the project area. The project will develop and implement a gender inclusion strategy that promotes the role of women in both the planning and implementation of SLM interventions.

Institutional and financial sustainability: Sustainability of the project’s interventions will be promoted through a mix of strategies, principally building on the large baseline that exists and mobilizing this to promote the application of climate resilient SLM technologies through comprehensive and integrated approaches that cover increasingly larger geographical areas. The project’s focus on building the capacity of provincial and district authorities and also local community based organisations will make sure that these institutions are able to deploy the necessary technical, financial and advisory services that communities are likely to need for effective planning and management of land and other natural resources in the future. The establishment of the local SLM funds and other financing opportunities through viable partnerships with the private sector including in the marketing and sale of NTFP products is another means of making SLM interventions financially sustainable. In addition the project has strongly considered and embedded aspects of sustainability by proposing to work with existing formal and informal institutions from the village to the province and where relevant to the national level. The project will also take a highly participatory and consultative approach in the design and implementation of its outputs (e.g. village and district land use plans, selection of SLM techniques and approaches) to foster ownership over project objectives, implementation strategies and results and to maximize engagement with all relevant stakeholders especially communities.

**B.4 INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVES FROM BEING ACHIEVED, AND IF POSSIBLE, PROPOSE MEASURES THAT ADDRESS THESE RISKS:**

Risk	Level	Risk Mitigation Measures
Overall security situation in some of the target areas may delay execution of project activities	Medium	This is a potential risk mainly in the Khyber Pakhtunkhwa and Balochistan provinces. UNDP however, has considerable experience of operating under such conditions in Pakistan. The UNDP Security Officer has confirmed that the security situation is not expected to deteriorate further and that field implementation of projects in Khyber Pakhtunkhwa and Balochistan can proceed as per plan. In addition the project’s reliance on local institutions to implement field level activities and the fact that field level implementation will be coordinated by the provincial authorities ensures that much of project implementation can happen under moderate security threats. In the worst case scenario, the project would temporarily suspend activities in affected areas.
Competing priorities at national and provincial levels may reduce political and financial support for SLM.	Low to Medium	There is a solid baseline; a key design focus of this project is that it seeks to reorient these investments to engender a paradigm shift to SLM. All current indications is that this baseline is secure—focused as it is on meeting basic development needs. To complement the achievements made by the pilot

		phase in generating awareness and ensuring greater political support and ownership for the SLM programme, the project will design and implement a common monitoring and evaluation system that will focus on generating evidence illustrating the economic and ecological success of landscape level SLM. This is critical to deepen the investment case for SLM and concretise SLM funding over the long-term.
The possibly slow pace of achieving the conditions needed at the provincial and district levels in terms of a conducive environment for up-scaling SLM practices	Low	The project's component 2 is dedicated to addressing this. It will vigorously work with provincial stakeholders for institutionalizing a comprehensive decision support and monitoring system that will guide and catalyze implementation of sustainable land and natural resource management practices and approaches. It will facilitate inter-provincial communication through focal persons and also support the generation of comprehensive, integrated, and legally enforceable land use plans. The multi-tiered training programme will aim to maximize human resources for SLM.
Climatic factors may affect up-scaling SLM based activities in project areas and cause some emergencies which may change Government priorities	Medium	The project is designed specifically to address, monitor, and integrate climate concerns, especially adaptation to climate change impacts. The project strategy emphasizes development of know-how for dealing with climate change risks through the design and implementation of decision-support system that considers climate change and by integrating climate change concerns and adaptation issues into the formulation and implementation of SLM interventions.

**B.5. IDENTIFY KEY STAKEHOLDERS INVOLVED IN THE PROJECT INCLUDING THE PRIVATE SECTOR, CIVIL SOCIETY ORGANIZATIONS, LOCAL AND INDIGENOUS COMMUNITIES, AND THEIR RESPECTIVE ROLES, AS APPLICABLE:**

Stakeholders	Relevant Roles
Ministry of Disaster Management	At the federal the Ministry of Disaster Management (MoDM) will be responsible coordinating implementation of the programme through the National Coordination Unit established during the project's pilot phase. This unit will primarily be responsible for execution and mobilizing project inputs.
Economic Affairs Division and Planning Commission	The EAD and Planning Commission will be responsible for providing co-financing for the Project.
Ministry of Food Security and Research, Ministry of Water and Power, & Ministry of Science and Technology	These federal Ministries will support integration of SLM principles and practices into their policies and plans.
Provincial Planning and Development departments	Provincial P&D departments will be responsible for leading the implementation of the project activities in their respective provinces and coordinating of on-the-ground interventions. They will also be provided support to integrate SLM into their policy and planning processes and also identify and secure provincial co-financing.
Provincial line departments	They will provide necessary technical and extension services for undertaking activities at the level of local communities. In addition these departments will participate as members of the desertification control/SLM coordination committees at the provincial levels and will be supported to revise sectoral policies in line with SLM principles and integrate SLM into their plans.
Research and academic institutions	The institutions will assist in introducing degree level SLM courses and will also be the responsible parties to deliver project results on documentation of on the ground SLM innovations particularly in relation to climate change mitigation and adaptation needs including local knowledge.
NGOs	They will provide necessary technical and financial support and will be critical in mobilization of local communities. They will also be enlisted to support the field level implementation of project activities
Chambers of Commerce and multi-national companies	These organizations will assist the project in promoting public private partnerships for SLM and will be key partners in this regard.
Local communities, including CBOs (women and men)	The main beneficiaries of SLM interventions and improvements are the local farmers, herders, pastoralists. They will actively be engaged in planning and implementation of village land use plans and other field activities and following on existing good practice of providing community co-funding for project activities.

## **B.6. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:**

A key accomplishment of the project's Pilot Phase was facilitating coordination between related agencies through establishment of national and provincial coordination units and committees. The current project will draw upon and build on experience gained from implementation of a variety of projects being implemented by line ministries/departments in different agro-ecosystems, particularly in the target areas as described below:

a) Pakistan Wetlands Programme: It promotes the sustainable conservation of freshwater and marine wetlands and their associated globally important biodiversity in Pakistan. The project works to generate positive public support essential for the mainstreaming of wetlands conservation and supports implementation of sustainable, participatory management plans for demonstration sites. While dealing primarily with removing the barriers related to sustainable management of wetland resources, the lessons related to participatory resource planning, institution building and forging community level agreements on resource sharing and management will be useful for the current project.

b) Mountain and Markets: Biodiversity & Business in Northern Pakistan: The objective of this GEF project is to ensure sustainable production of biodiversity goods and services through community ecosystem based enterprises. The project will use voluntary certification of Non-Timber Forest Products (NTFP) as a tool to promote biodiversity conservation and strengthen existing conservation efforts with innovative market-based mechanisms. It will also develop community and institutional capacity for certified production of 'biodiversity-friendly' NTFPs in northern Pakistan and stimulate market demand for biodiversity friendly NTFP thereby creating new economic incentives for conservation. The current project will draw lessons and coordinate with this project on marketing and value addition of NTFP to increase benefits to local communities from alternative livelihoods such as NTFPs thereby reducing pressures on degraded areas. Mechanisms for sharing lessons and cross-fertilization of ideas will be agreed and made operational during implementation between the two projects.

c) Small Grants programme (SGP) of the GEF-UNDP: The SGP has been working in Pakistan for the last two decades supporting community level initiatives to help manage natural resources sustainably and reduce GHG emissions through the adoption of appropriate community level technologies. As part of the global SGP scale up countries, Pakistan will also implement in GEF 5 a full scale project that aims to ensure a mosaic of land uses and community practices across the rural landscape that provide sustainable livelihoods while generating global benefits in terms of biodiversity conservation, reduced greenhouse gas emissions and increased carbon storage. The current project will draw lessons at the community level on engaging local communities on sustainable natural resource management and will also ensure sharing of experiences with the SGP national team on various best practices and approaches that the project will implement including the local SLM funds and village land use plans.

In addition, the project will also establish working linkages and coordinate with projects and programmes funded by other international donors such as Royal Netherlands Embassy, FAO, USAID, World Bank, JICA, SDC, IFAD, and ADB. Some of the relevant projects include Area Development Programme Balochistan (UNDP); Water Sector Capacity Building, Small-scale Irrigation Project Balochistan, Sindh On-Farm Water Management Project (World Bank); and Improvement of Agriculture Practices in Balochistan (USAID/FAO).

## **C. DESCRIBE THE GEF AGENCY'S COMPARATIVE ADVANTAGE TO IMPLEMENT THIS PROJECT:**

### **C.1 INDICATE THE CO-FINANCING AMOUNT THE GEF AGENCY IS BRINGING TO THE PROJECT:**

UNDP is leveraging co-financing of US\$ 22.2 million for the project including US \$1.5 million from its own core resources.

### **C.2 HOW DOES THE PROJECT FIT INTO THE GEF AGENCY'S PROGRAM (REFLECTED IN DOCUMENTS SUCH AS UNDAF, CAS, ETC.) AND STAFF CAPACITY IN THE COUNTRY TO FOLLOW UP PROJECT IMPLEMENTATION:**

The project is in line with UNDP Pakistan's Country Programme Action Plan (CPAP) and fits well under the One UN Joint Programme on Environment specifically components JPC – I "Strengthening operational and institutional mechanisms for integrated environmental management" and JPC – III "Integrated natural resources management in demonstration regions". UNDP has extensive experience in providing assistance to Pakistan and is ideally placed to facilitate the multi-stakeholder/sectoral SLM interventions planned. UNDP Pakistan has proven capabilities in mobilizing technical support and financial resources for country specific sectoral development programs. The proposed project will take full advantage of UNDP's comparative advantage in the areas of human resource development and institutional strengthening related to natural resource management. The agency successfully supported effective implementation of the SLM project's Pilot Phase . A number of other full-scale and medium-sized GEF projects are under implementation with UNDP's technical and financial

support. UNDP helped pioneer community-based conservation projects in the region—working closely with civil society groups. UNDP enjoys strong relationships with diverse institutional actors at all levels in both the public and private sectors. UNDP has an established and fully staffed Country Office. The Environment and Climate Change Unit of the UNDP-Country office is well-staffed and comprised of an Assistant Country Director with Masters in Agriculture Engineering and 2 Program Officers with masters in forestry and natural resources management and many years of experience, as well as 3 Programme Associates.

**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**

**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):**  
 (Please attach the Operational Focal Point endorsement letter(s)).

NAME	POSITION	MINISTRY	DATE
Mr Mohammad javed Malik	Secretary / GEF Focal Point	Ministry of Disaster Management	24/11/2011

**B. GEF AGENCY(IES) CERTIFICATION**

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation.

Agency Coordinator	Signature	Date	Contact	Telephone	Email Address
Adriana Dinu, UNDP-GEF Deputy Executive Coordinator		29 Nov 2011	Doley Tshering, RTA, EBD UNDP Asia-Pacific Regional Centre	+ 66 2304 9100 Ext. 2600	doley.tshering@undp.org

## Annex 1: Summary of the Final Evaluation of the Sustainable Land Management Project Pilot Phase

Overall, the final evaluation assessed the performance of the project to be satisfactory. The project has achieved most of its targets. It has been successful in the introduction innovative ideas such as the development of community-based SLM funds and devising VLUPs. It has also importantly gained the trust of the Provincial governments that are primary actors in up-scaling SLM efforts in the country. The following brief provides a summary of the project in terms of its relevance, effectiveness, efficiency and sustainability. In addition a summary of salient recommendations are also included.

The evaluation found the project to be highly *relevant*. A key aspect related to this includes the project management arrangement (National Coordination Unit (NCU) and respective Provincial Coordination Units (PCUs)) that contributed to better buy-in and support from provinces. Project activities such as review of existing sectoral policies for mainstreaming SLM and the development of SLM Criteria and Indicators (C&I) were timely given the serious land degradation issues in the country. Likewise, activities to strengthen SLM related knowledge in the country and the formulation of Land Use Plans (LUPs) were highly relevant. On the ground implementation of project activities in the nine pilot project sites to test and demonstrate SLM practices were selected with community inputs and linked to community livelihoods and income.

With regard to *effectiveness*, a key concern emerge from the fact that the long term impact of important project outputs such as review of NAP and alignment with UNCCD 10 year strategy is likely to be nominal due to a dormant policy environment in the country. However, in the short term, these efforts have created increased awareness on the issues. The project's efforts in reviving the National Coordination Committee and Provincial Coordination Committees has contributed to improved cross-sectoral coordination required for addressing the multi-faceted problems of land degradation. Similarly, guidelines developed for the preparation of National, Provincial and Village level Land Use Plans are an important achievement. This has been received well by partners and provinces have already requested technical assistance for the same. So far a total of 41 Village Land Use Plans (VLUPs) were prepared in extensive collaboration with community members. These will be approved by the District Coordination Officer (DCO) and signed by village stakeholders to ensure ownership and adequate support for implementation. Around 85% of activities planned in the pilot sites have been completed. Interactions with local communities confirmed high community acceptance including expression of willingness to fund replication of the project activities such as rain water harvesting using their own funds. Similarly, provincial governments have also agreed to commit co-financing for future SLM activities.

SLM is a relatively new concept with limited policy and program support in Pakistan. In this regard, the project's phased approach contributed greatly to its *efficiency*. This approach helped test SLM activities for wider application while also aiding in mobilization of co-finance. The project implementation benefited from good adaptive management practices such as revision of the log frame and activities informed by foreseen impact and stakeholder buy-in (e.g. setting up small village/community based funds; designing Early Warning System output to link with existing print and electronic media efforts on the same). The project's PSC and the sub-committee (that includes Project Director, Coordinator and UNDP Representative) met regularly to review and approve all such changes. A major contributing factor for efficiency was also the placement of the Project Coordination Units (PCUs) in respective Provincial Planning and Development Department (P&D). This increased visibility for SLM issues and ensured budgetary support. This also provided opportunities for coordination and cross-fertilization of ideas with relevant projects managed by the Planning Departments (e.g. Annual Development Plans (ADP)) while also enabling the project to operate with minimal staffing strength.

With regard to *sustainability*, the evaluation points out that there is a need to integrate the NCCD and PCCDs established under the project into mainstream development processes to reduce risks of having little or no impact on integrating SLM into government plans and activities. The strong support from the District Government and Line Departments for the VLUPs in future local government planning and the vital support from local communities will make sure that these plans are implemented. However, as these were developed only recently local stakeholders and communities will require quite a lot of technical assistance while implementing them. Project field activities that are linked to immediate or medium term economic gains such as kana plantations, wood lots, etc. present higher opportunities for replication while the introduction of community based SLM funds are also more likely to ensure sustainability of introduced practices. Likewise efforts in evolving Public Private Partnerships (PPP) (e.g. between Barani Agriculture Research Institute (BARI) and a local seed company for propagation of new low delta wheat seed varieties) contribute to sustainability. The project has also helped establish community-based forest and fruit plant nurseries at various pilot project locations. With further efforts to link with certified nurseries, local communities are assured good quality planting material for their land rehabilitation efforts.

The evaluation also made a number of recommendations. Salient ones are listed below:

- Future SLM interventions should strongly consider responding to new policy and capacity needs in light of the recent decentralization providing enhanced autonomy to Provinces on NRM issues.

- The current project coordination units should be converted into Desertification Cells with government co-funding to guarantee higher government ownership.
- A systematic impact monitoring mechanism should be designed and implemented including a social and environmental impact assessment of pilot activities and results disseminate widely.
- Maximize the role Public-Private Partnerships in promoting SLM.
- Enhance awareness of and promote the use of the GIS database developed by the Project.
- Promote widely the good practice of community based SLM funds.
- Incorporate Disaster Risk Management (DRM) and Disaster Risk Reduction (DRR) strategies into future SLM interventions in anticipation of emerging threats such as climate change.
- Include capacity building on business management and marketing linkages for greater sustainability of community based enterprises.
- Strengthen linkages with existing initiatives to ensure wide scale adoption the project activities.
- Include a strong knowledge management component in future SLM projects so that experience and lessons learnt are well disseminated to promote scale-up.