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October 15, 2009

Dear Council Member,

I am writing to notify you that we have today posted on the GEF's website at www.TheGEF.org, a medium-sized project proposal from UNDP entitled ***India: SLEM - Sustainable Participatory Management of Natural Resources to Promote Ecosystem Health and Resilience in the Thar Desert Ecosystem under the India: SLEM/CPP - Sustainable Land and Ecosystem Management Partnership Program***, to be funded under the GEF Trust Fund (GEFTF). This project aims to promote sustainable and participatory management of community natural resources to achieve ecosystem health and climate change resilience while enhancing the livelihood opportunities of the rural communities of the Thar Desert ecosystem of Rajasthan.

The project proposal is being posted for your review. We would welcome any comments you may wish to provide by October 29, 2009, in accordance with the new procedures approved by the Council. You may send your comments to gcoordination@TheGEF.org.

If you do not have access to the Web, you may request the local field office of the World Bank or UNDP to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,





REQUEST FOR CEO ENDORSEMENT/APPROVAL

PROJECT TYPE: Medium-sized Project

THE GEF TRUST FUND

Submission Date: 25 August 2009

PART I: PROJECT INFORMATION

GEFSEC PROJECT ID: 3024

GEF AGENCY PROJECT ID: 3419

COUNTRY(IES): India

PROJECT TITLE: Sustainable Participatory Management of Natural Resources to Control Land Degradation in the Thar Desert Ecosystem

GEF AGENCY(IES): UNDP

OTHER EXECUTING PARTNER(S): Ministry of Rural Development, Government of Rajasthan; Union Ministry of Environment and Forests, Government of India; and Jal Bhagirathi Foundation (JBF)

GEF FOCAL AREA(S): Land Degradation

GEF-4 STRATEGIC PROGRAM(S): SO 1 and SP 1 (LD); SPA (Climate Change) (see preparation guidelines section on exactly what to write)

NAME OF PARENT PROGRAM/UMBRELLA PROJECT: SUSTAINABLE ECOSYSTEM AND LAND MANAGEMENT (SLEM)

COUNTRY PARTNERSHIP PROGRAMME

A. PROJECT FRAMEWORK (Expand table as necessary)

Project Objective: To promote sustainable and participatory management of community natural resources to achieve ecosystem health and climate change resilience while enhancing the livelihood opportunities of the rural communities of the Thar Desert ecosystem of Rajasthan.

Project Components	Indicate whether Investment, TA, STA ²	Expected Outcomes	Expected Outputs	GEF Financing ¹		Co-Financing ¹		Total (\$)
				(\$)	%	(\$)	%	
1. Enabling Environment for SLEM	TA	<p>A strategy based on SLEM principles for the sustainable conservation and management of common property resources (Land Water, Community Forests) developed through participatory approach.</p> <p>Enhanced awareness regarding land tenure regimes for community managed AGO (<i>Agors, Gauchars, Orans</i>) lands.</p> <p>[Indicators of impact: Approximately 6,000 hectares of land in 75 villages brought under SLEM directly by the project which is approximately 18% of AGO lands in Rajasthan; potential to bring remaining AGO lands (additional 240,000 hectares) in the 3 districts under SLEM through replication; Natural Resource Management strategy for AGO lands incorporates climate change projections]</p>	<p>Formation of sub-state level committees (1 for each of the 4 ecosystem blocks being targeted) involving all stakeholders (including local community and local administration) for inter-sectoral cooperation on development of the strategy</p> <p>Integrated strategy for the reduction of pressure on climate-sensitive natural resources on AGO lands, based on climate change scenario planning</p> <p>Recommendations on appropriate ownership and management rights over AGO lands for sustainable use of common natural resources.</p>	70,000	4%	1,900,000	96%	1,970,000
2. Institutional	TA	Local bodies such as PRIs and JFM	Assessment of capacity	90,000	4%	2,000,000	96%	2,090,000

Project Components	Indicate whether Investment, TA, STA ²	Expected Outcomes	Expected Outputs	GEF Financing ¹		Co-Financing ¹		Total (\$)
				(\$)	%	(\$)	%	
and Community Capacity Development for SLEM		<p>(particularly women members) and local communities have improved capacity to prepare and implement an integrated plan to manage land, water and community forest resources under changing climatic and socio-economic conditions</p> <p>Sub-state level institutions responsible for forests, rural development, agriculture, irrigation, and watershed management have improved capacity to implement a strategy for integrated management of common property land and water resources in changing climatic conditions</p> <p>[Indicators: At least 20% of extension programs offered by key state-level institutions include SLEM and climate resilient planning principles; Community level integrated natural resources management institutions (<i>Jal Sabha</i>) formed in all 75 project villages with appropriate mandate and adequate capacities; Increased percentage of women in project villages participating in natural resource planning tasks and Women's Self-Help Groups (SHGs); Increased percentage of local administrative staff with abilities in climate risk management and scenario planning]</p>	<p>development needs among PRIs and JFMCs (with a gender sensitive perspective) and local communities in technical, financial and management aspects of natural resource planning</p> <p>Assessment of capacity development needs among PRIs and JFMCs to access, interpret and apply climate risk information in natural resource planning</p> <p>Assessment of capacity development needs in local administrative bodies to promote SLEM and integrate climate risk reduction into natural resource planning tasks</p> <p>Dedicated training events to address identified capacity gaps in climate resilient natural resource management and scenario planning</p>					
3. Demonstration of Participatory SLEM	TA	<p>Common property land and water resources in selected communities are managed based on SLEM principles to improve vegetation cover, improve water storage capacity and augment the desert ecosystem</p> <p>Sustainable natural resource management practices increase local income, rural employment, biomass availability, and resilience of livelihoods to climate change and variability</p> <p>[Indicators of impact: In the target area of 75 villages covering 6,000 hectares: Increase in carbon stock of forests and grasslands through improved land management (approx. 30,000 tons of carbon during the project period); Enhancing ecosystem</p>	<p>Baseline assessment of 75 target communities to operationalize the project strategy with local communities and administrations</p> <p>Integrated common land resources management plans, defined for 75 target communities, including soil and water conservation practices, sustainable water harvesting, planting of drought resistant grasses and trees, crop diversification, sustainable crop harvesting practices and integrated land-water-livestock management</p>	619,091	6%	9,000,000	94%	9,619,091

Project Components	Indicate whether Investment, TA, STA ²	Expected Outcomes	Expected Outputs	GEF Financing ¹		Co-Financing ¹		Total (\$)
				(\$)	%	(\$)	%	
		services such as: Approx. 5% increase in biomass production; 25% increase in water storage (volume and duration); 5% increase in availability of fodder and fuelwood; 10% increase in grass yield in <i>Gauchars</i> ; improvement in general soil quality; increased extent of drought-tolerant grass and tree varieties; additional protection of climate sensitive natural resources in extreme climatic events; reduced fragmentation of ecosystems containing climate-sensitive natural resources; improved income and rural employment]	Integrated land resources management plans for 75 communities implemented and analyzed for ecological and adaptation benefits					
4. Knowledge Management System for Replicating Good Practices in Integrated Management of Community Land Resources	TA	Greater sub-state level capacity to mobilize information in support of planning and decision-making by government and non-government actors in relation to participatory, sustainable and adaptive management of common property land, water and livestock resources [Indicators: % of new natural resources management initiatives/ activities undertaken by state-level departments responsible for forests, rural development, agriculture, irrigation, and watershed management that are informed by project lessons and knowledge]	Information system that enables data collection and mining Specific knowledge products developed for, and disseminated to, public and private target groups in the natural resource management sector (project lessons will be replicated through the central institutional mechanism that is to be established under the national SLEM programme) Project lessons captured in, and disseminated through, the Adaptation Learning Mechanism (ALM)	50,000	3%	1,550,000	97%	1,600,000
4. Project management				80,000	24%	250,000	76%	330,000
Total project costs				909,091		14,700,000		15,609,091

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)

Name of Co-financier (source)	Classification	Type	Project	%*
Government of Rajasthan	Implementing Partner	In kind	4,000,000	27.2
Government of Rajasthan	Implementing Partner	In Cash	10,000,000	68.0
UNDP	GEF agency	In kind	700,000	4.8
Total Co-financing			14,700,000	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		909,091	909,091	90,909	1,025,000
Co-financing		14,700,000	14,700,000		14,700,000
Total		15,609,091	15,609,091	90,909	16,634,089

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>
UNDP	LD	India	681,818	68,182	750,000
UNDP	CC – SPA	India	227,273	22,727	250,000
Total GEF Resources			909,091	90,909	1,000,000

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 weeks</i>	<i>GEF amount(\$)</i>	<i>Co-financing (\$)</i>	<i>Project total (\$)</i>
Local consultants*	410	151,000	54,000	205,000
International consultants*	10	20,000	12,000	32,000
Total	420	171,000	66,000	237,000

* Details to be provided in Annex C

F. PROJECT MANAGEMENT BUDGET/COST

<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*	156	30,000	48,000	78,000
Local consultants*	312	24,000	54,000	78,000
Local consultants*	156		31,200	31,200
International consultants*			0	
Office facilities, equipment, vehicles and communications*		6,000	0	6,000
Travel*		10,000	50,000	60,000
Others**		10,000	0	10,000
Total		80,000	183,200	263,200

* 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

(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:

PART IV: Monitoring and Evaluation Plan and Budget

1. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by designated staff of JBF with support from the UNDP Country Office. The Logical Framework Matrix (see [Section II Part I](#)) provides *performance* and *impact* 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.

2. 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 UNDP/GEF sponsored networks that share common characteristics, which may be of benefit to project implementation though lessons learned. Through these electronic networks, the project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects.

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

TABLE 1: INDICATIVE MONITORING AND EVALUATION WORK PLAN AND CORRESPONDING BUDGET

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team Staff time</i>	Time frame
Inception Workshop	JBF UNDP CO UNDP GEF	33,000 USD (included in project component 5)	Within first two months of project start up (May 09)
Inception Workshop	Project Coordinator UNDP CO UNDP/GEF	6,000	Within first two months of project start up
Inception Report	Project team UNDP CO UNDP/GEF	None	Immediately following IW
PIR	Project Team UNDP CO UNDP/GEF	None	Annually
Project Steering Committee (PSC) Meetings / TPR meetings	Project Team UNDP CO & UNDP/GEF staff	None	Following Project IW (August 09) & subsequently at least once a year
Periodic status reports	Project Team	None	To be determined by project team and UNDP CO
Technical reports	Project Team Consultants as needed	10,000	To be determined by project team and UNDP CO
Mid-term review	Project team UNDP CO UNDP/GEF External consultants	10,000	At the mid-point of project implementation
Final External Evaluation	Project team UNDP CO UNDP/GEF External Consultants (i.e. evaluation team)	20,000	At the end of project implementation
Terminal Report	Project team UNDP CO	None	At least one month before the end of

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team Staff time</i>	Time frame
	External consultant		the project
Lessons learnt report	Project team UNDP CO UNDP/GEF	12,000 (average 3,000 per year)	Yearly
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		58,000	

4. In addition, the project will contribute to results and impact monitoring of the SLEM Program and also contribute lessons related to climate change adaptation to the Adaptation Learning Mechanism (ALM).

PART II: PROJECT JUSTIFICATION:

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

5. The Thar Desert, located in the arid northwest region of India and southeastern Pakistan, is the world's seventh largest desert and spans an area of about 0.2 million km². About three-fifths of its total geographical area lies in the Indian state of Rajasthan, covering 12 desert districts that together comprise the Marwar region¹. About 10% of the Thar Desert ecoregion is composed of sand dunes, and the other 90% of craggy rock forms, compacted salt-lake bottoms, and interdunal and fixed dune areas. The climate is extreme with annual temperatures ranging from near-freezing in the winter to more than 50° C during the summer. All rainfall is associated with the short July-September southwest monsoon that brings a mere 100-500 mm of precipitation. The desert's vegetation is greatly influenced by extreme climate and consists of mainly of xerophilous grasslands and scrub vegetation consisting of low trees and shrubs. Due to scanty rainfall, its tree biodiversity is limited. The species that inhabit the region are *Prosopis juliflora*, *Prosopis cineraria*, *Salvadora persica* are the dominant one. *Ziziphus nummularia*, *Capparis decidua*, *Leppedenia pyrotechnica* are some of the other species found apart from abundant grass species such as *Cenchrus setigerus* and *Cenchrus setigerus*. In terms of fauna, a variety of resilient species have survived and adapted to the extreme conditions. Mammalian fauna consists of 41 species that inhabit the open plains and grasslands including the blackbuck (*Antelope cervicapra*), chinkara (*Gazella bennettii*), caracal (*Felis caracal*) and the desert fox (*Vulpes bengalensis*). Eleven reptile species have been reported from the Western Thar region. About 141 birds are known to visit the ecoregion, including the great Indian bustard (*Chiotis nigriceps*), a globally threatened species; migratory birds including the cranes (*Grus grus*, *Anthropoides virgo*) and flamingos (*Phoenicopterus spp.*) cross this ecoregion.

6. It is one of the most densely populated deserts in the world with 84 to 90 people per km² (compared to 3 to 6 in other deserts) and the ecologically sensitive desert ecosystem is currently subjected to increasing human and livestock pressure. There is a need for strengthening management of natural resources and land use practices, encourage stronger participatory institutions and better access to modern technology that supports regeneration of land and water resources. The human population has increased from 5.8 million in 1950 to 22.5 million in 2001. Similarly, the livestock population has increased from 13.7 million in 1961 to 32 million in 1997. Unsustainable human and livestock pressure (over grazing, encroachment and over harvesting of forests) is leading to degradation of land resources – forests, pastures, habitats and species, and water sources. Grazing of livestock is intensive, affecting soil quality and destroying native vegetation. Many palatable perennial species are being replaced with inedible annual species, thus changing the vegetation composition and ecosystem dynamics. Forests are in a degraded state; biodiversity is threatened as a result of over grazing of pastures and the encroachment and over harvesting of forests; water resources have declined as a result

¹ It also extends into the southern portion of Haryana and Punjab states, and into northern Gujarat state. In Pakistan, the desert covers eastern Sind province and the southeastern portion of Pakistan's Punjab province.

of reduced runoff and silting of water bodies due to increased soil erosion from lack of vegetative cover. Data on Iso-Erosion rates for India indicate that this region is affected by moderate to severe erosion².

7. The economy of the people in the project areas have typically revolved around animal husbandry and subsistence agriculture and its primary ecological resources has been water bodies, pasture, grazing land and sacred groves. However with increasing demands for water and in the absence of regulation, ground water has been over-exploited in most parts of the project area, leaving communities depending on rainfall for meeting their needs for domestic as well as productive uses. Over time, a predominantly agrarian pastoral economy has transformed into an area of intensive agriculture with little regard to the soil profile and ground water system. The growing pressure on the land due to the ever increasing population of people and animals and absence of any subsidiary occupation compels people to cultivate marginal lands and graze the dunes. There is severe wind erosion in areas that have bare soils with the process of desertification becoming active. Further, frequent occurrences of droughts as a result of climate change threaten the livelihoods of the people while these droughts also decrease the resilience of the ecosystem, making it more vulnerable to human pressure.

8. Existing traditional natural resource management in Rajasthan is characterized by community managed lands, consisting of: Agors (A) that are areas that traditionally served as catchments for water bodies; Gouchars (G) that are areas that served as community grazing lands; and Orans (O) that are areas that served as community forests. All three community resources were traditionally managed by the village community. In the 3 districts where the project proposes to focus, AGOs cover 50% of the geographic area. Over the years, the total land area under communally managed AGO lands has declined and the level of degradation of remaining AGOs has greatly intensified. This is mainly due to encroachment and conversion to agriculture, conversion for settlement, roads, community assets, afforestation programmes with limited results, and reduction in recharge and over exploitation of ground water due to deep bore-wells, further increasing livestock and human pressure on the remaining AGOs. In recent years, there has been a breakdown of the traditional resource use regime. Grazing lands have effectively become open access resources with no system for controlling and monitoring their use.

9. In terms of climatic factors, 88.7% of the land area of Rajasthan is defined as drought prone, as against 14% of the total area of the country, or 33% of the total arable land. Further, the First National Communication to the UNFCCC on vulnerability assessment to climate change identifies the Luni watershed, which occupies about 60% of the area of Rajasthan, as the most likely to experience acute physical water scarce conditions in the country. More intense rain and more frequent flash floods during the monsoon would result in a higher proportion of runoff and a reduction in the proportion reaching the groundwater and it is also increasing the risk for salinization³. Hence, anthropogenic pressures, combined with climate change and variation, are not only destroying the fragile desert ecosystem and threatening the livelihoods of its inhabitants, but also impacting adjacent areas, through changes in water flow, micro-climate and human migration.

10. In response, a large number of drought mitigation programs as well as rural and desert development programs have been implemented in Rajasthan. The afforestation and other rehabilitation programs currently underway can be strengthened to make them more compatible with local land regimes and native vegetation. These programmes can be appropriately planned to achieve ecosystem restoration with focus solely on reforestation while ensuring active participation of local communities in planning and implementation. There is adequate scope for improving some of the current activities in these programmes, such as de-siltation, caring for damaged seedlings and replanting new seedlings. Physical protection or fencing measures can be adopted with stronger participation of local communities thereby augmenting current land use practices that would result in improved livelihoods. Such, interventions would lead to reduced vulnerability of rural communities to long term climate change impacts and increasing their incomes in a sustainable way.

11. Further, as described earlier community land account for a significant portion of the land. Protection and management of these communal lands are fundamental to the survival of agro-ecosystems in desert areas, as well as maintenance of ecosystem stability, integrity, functions and services in the face of climate change. Despite the clear indication of the need to focus on common property land and its sustainable management to halt degradation, there isn't yet a specific policy for their management, conservation and utilization in place.

² Singh, G.R. *et al.* (1992), Soil Erosion Rates in India, *Journal of Soil and Water Conservation* 47 (1): 97-99.

³ Climate Change and Water. IPCC Technical Paper VI, June 2008.

12. The project will help arrest land degradation that is compromising the functions and service of the Thar Desert ecosystem and the livelihoods of its inhabitants. The project will decrease the trend and severity of degradation in AGO lands, improve the condition of biodiversity, improve resilience to climate change including variability, and enhance the carbon stored at aboveground and belowground levels. In addition, the project also provides local benefits to the community in the form of enhanced water storage capacity of land, enhanced grass productivity, and indirectly enhances the cash economy of the otherwise subsistence economy. Through structural interventions that are mostly grounded in community participation and screened in accordance with climate change resilience, the project also addresses climate change adaptation strategies for enhancing water availability in the AGO lands. To achieve this, the project will work towards removing the following barriers clustered under policy and regulatory; institutional capacities; and capacities at the community level.

13. **Policy and regulatory barriers:** In Rajasthan, even though community managed AGOs account for a significant portion of land area (>50%), there is no integrated policy for the management, conservation and utilization of traditional community land and water resources; activities continue to be planned and implemented on a sectoral basis. There is also a lack of clarity on their legal status. As a result, government officers and Panchayats assume the decision making power on how to allocate these lands for purposes other than their traditional intended use undermining ecosystem health and resilience.

14. **Institutional capacities, skills and knowledge barriers:** Competencies and capacities of institutions on current afforestation and other rehabilitation programs can be strengthened to suit local land regimes and native vegetation. There is a need to improve technical capacities in selection of species that are suited to local ecosystems and climate variability, to ensure health and productivity of AGOs; intensified efforts to reduce the spread of exotic and invasive species that are fast replacing native vegetation would help to delay or halt erosion. Institutions involved in afforestation, watershed development and rural development will be involved while planning the programmes in the villages and their inputs will be sought. Furthermore, the capacities of these institutions will be developed based on need (e.g., capacities for appropriate species selection, water harvesting, etc.).

15. **Capacity barriers at the community level:** Currently the participation of local communities in planning and implementation of programs on afforestation or rehabilitation of degraded lands is limited. Program blueprints are not compatible with local needs or opportunities. Women are largely absent in decision making. Together, this works against the promotion of a sense of ownership for programs and therefore undermines their sustainability. Further, community capacities to implement on the ground interventions to address land degradation and enhance ecosystem resilience to climate change impacts need to be strengthened.

- In summary the project will seek to overcome critical barriers, thus helping current and future baseline actions achieve their intended benefits with the following key elements:
- A decentralized approach to natural resource management that ensures capture of and integration of climate change variables to natural resource management.
- Integrated land-water-livestock planning and management with special attention to climate risks
- Development and adoption of sustainable use / harvesting / management practices of pastures and forests that are climate resilient
- Empowerment and participation of local communities, particularly women
- Promotion of livelihoods and equitable sharing of benefits, particularly focusing on women
- Empower people through the creation and strengthening of village level institutions.

16. Thus, with GEF support the project will contribute towards the long term solution of removing the three inter-related barriers by understanding the gaps and addressing them. The most important gap to address is the sectoral approach of the State with most of their programs being ill-attuned to the special needs of local land regimes and native vegetation. Moreover climate risk and vulnerability information and climate adaptation needs are currently not factored into current natural resource planning mechanisms. Further, community management of resources or community based development approaches have not gained adequate attention given the significant coverage of community owned natural resources in the state. The project will thus also empower people through the creation and strengthening of village level institutions. A bottom-up approach that acknowledges various coping mechanisms based on traditional knowledge and

practices will be critical to enhance the adaptive capacity of local communities to the impacts of climate change including variability.

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

17. The overarching planning tool of the Government of India to chart the country's development trajectory (covering economic, social, and environmental objectives) is the Five-Year Plan. India aims to achieve inclusive growth as envisioned in its 11th Five Year Plan (2007-2012). Inclusive growth means that the current 8% economic growth rate must reflect growth of marginalized communities. Thus all efforts in the next 5 years will be to sustain livelihood patterns and enhance cash economies of marginalized communities. This salient planning theme for the next 5 years fits very well with the objective of addressing ecosystem degradation trends in the Thar desert ecosystem that are having a disproportionate effect on desert communities that form a significant part of the population such areas. At the same time, it is recognized that the key environmental challenge the country faces is related to the nexus of environmental degradation with poverty as well as economic growth (National Environmental Policy, 2006).

18. India has ratified the CBD (1992), UNFCCC (1993) and UNCCD (1996). Recognizing the importance of reducing desertification and soil loss in the arid and semi-arid regions of the country, India has developed a comprehensive 20 year National Action Plan to Combat Desertification (UNCCD-NAP, 2001). This document attributes desertification (land degradation) to a number of factors including climate variation and human activities. The importance of addressing the poverty-land degradation-biodiversity-climate change nexus has also been highlighted in India's Initial National Communication to the UNFCCC (2004), stressing India's serious concern about the possible impact of climate change given that nearly 2/3rd of the country's population depends on climate sensitive natural resource based activities for its livelihood. The National Environment Policy (2006) notes the human induced pressure on India's variegated desert fauna and recommends activities to reduce further desertification through water conservation through traditional and science-based knowledge and infrastructure; enhancing green cover of local species; reviewing agronomic practices in the desert regions and promoting agricultural practices that are suited to the regions.

19. In recognition of the need to address the poverty-land degradation-biodiversity-climate change nexus, the government has developed the India Sustainable Land and Ecosystem Management (SLEM) Program which takes \$29 million of grant money from the GEF and leverages nearly \$300 million from the government of India and bilateral aid agencies. This MSP focusing on the Thar Desert region contributes to the objective of the SLEM to realize sustainable land and ecosystem management. Specifically, it will contribute to the SLEM goals by supporting the poor and vulnerable communities that live in rural areas of the Thar Desert and depend on the land for their survival, through integrated conservation and management of common property land, water and livestock resources. The project is also in line with the UN system's Country Programme Action Plan (2008-2012) which focuses on "mainstreaming risk reduction concerns in development and planning process including adaptation to climate change" as part of one of the UNDAF outcomes.⁴

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

20. The proposed project is being developed under the Sustainable Land and Ecosystem Management Country Partnership Program (henceforth referred to as the SLEM Program), which was approved by the GEF Council in 2007. It will provide valuable lessons and experiences with promoting sustainable land and ecosystem management through the implementation of an integrated natural resource management strategy in the Thar desert.

21. The project is consistent with Strategic Objective 1 (An enabling environment will place SLEM in the main stream of development policy and practice) and Strategic Program 1 (Supporting sustainable agriculture and rangeland

⁴ UNDAF Outcome 4: By 2012 the most vulnerable people, including women and girls and government at all levels have enhanced abilities to prepare, respond and adapt/recover from sudden and slow onset of disasters and environmental changes.

management), insofar as it will promote policy change, capacity development and on-the-ground demonstration of integrated management of community land, water, and livestock resources. The project also conforms to the GEF's Operational Guidelines for the Strategic Priority "Piloting an Operational Approach to Adaptation" (SPA)⁵.

22. The project will contribute to the GEF's stated objective of reducing vulnerability and increasing adaptive capacity to the adverse effects of climate change by focusing on the Thar Desert ecosystem, specifically the Luni Watershed that has been identified as an area most likely to experience acute physical water scarce conditions in the country due to climate change. The project focuses on the arid Thar Desert ecosystems in Rajasthan State, India. This is one of the most densely populated deserts in the world where the local population faces intense and increasing competition for land resources, which in turn leads to over-exploitation. Based on lessons learned from prior Government support to short-term drought mitigation and relief efforts, the project will promote an alternative approach grounded in integrated ecosystem management by developing the enabling environment and through demonstrations in selected sites led by communities.

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

23. The project is requesting grant resources to provide technical assistance for promoting sustainable and participatory management of community natural resources to achieve ecosystem health and climate change resilience while enhancing the livelihood opportunities of the rural communities of the Thar Desert ecosystem of Rajasthan.

E. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

24. Through the Sustainable Land and Ecosystem Management (SLEM) Partnership, coordination will take place with other projects promoting SLEM in different parts of the country, including drought mitigation programmes as well as rural and desert development programmes. More specifically, linkages to current programmes such as National Afforestation Programme, Integrated Watershed Management Programme and others will be consulted to implement SLEM partnership in this project. Most of these programmes have had limited spatial coverage, nor have they made sufficient impact on conserving natural resources (water, land, biodiversity, etc.), adoption of sustainable management practices, reducing the vulnerability of rural communities in the Thar, or increasing the incomes in a sustainable way. These programmes have been consulted while developing the project and the dialogue will be maintained during implementation.

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

25. Without a GEF intervention, the Thar desert ecosystem continue to suffer from the impacts of increasing human and livestock pressure, reduction in community land resources (grasslands, forests and water catchment areas) due to conversion or encroachment of common lands for cultivation and settlements, non-sustainable use of grasslands and ground water, degradation of water and land resources leading to shortage of water, fodder, fuelwood and timber, absence of participatory institutions, lack of access to scientific assessment and technically sound interventions for regenerating land and water resources that can complement traditional management practices, among others. These factors will persist that will lead to undermining the fragile ecosystem services in the region affecting livelihoods of a large number of people dependent on these resources. The growing pressure on the land due to the ever increasing population of people and animals and absence of any subsidiary occupation compels people to cultivate marginal lands and graze the dunes. There is severe wind erosion in areas that have bare soils with the process of desertification becoming active. This will be further compounded by the effects of climate change and variability because there are no efforts or capacities to mainstream adaptation to climate change in the livelihood system. In order to preserve the range of ecosystem services, the long-term solution is to develop and promote a livelihood system where each component is

⁵ GEF/C.27/Inf.10, October 14, 2005

sustainable over the long term and maximizes the accrual of economic benefits at the village-level. Furthermore, each component of the livelihood system should be adapted to increase its resilience to climate change and variation.

26. The GEF support will be catalytic to contribute towards the long term solution of removing the persistent inter-related barriers of policy and regulatory; institutional capacities, skills and knowledge; and community capacity gaps, by understanding the related gaps and addressing them. Thus the proposed GEF alternative strategy is to promote SLEM as a tool for arresting land degradation, enhancing ecosystem health and resilience, and improving livelihoods. Specifically the project will promote policy change at the state level by developing an integrated and climate resilient strategy for the management of common property land, water and livestock resources, also taking into account adaptation strategies to climate change.

27. The GEF alternative will aim at promoting participatory natural resource management by involving and empowering local communities and their institutions in the decision-making and management of natural resources that they depend on. The project will build the capacity of local communities and institutions through a comprehensive assessment of the capacity development needs of the PRIs and JFCMs with particular emphasis and attention to gender perspectives in natural resource management. The GEF investment will also aim to foster replication of successful technologies and approaches developed through on the ground interventions for climate-resilient SLEM practices demonstrated in selected clusters of villages in four ecosystem blocks of the Thar Desert in Rajasthan. Interventions will include a broad set of physical interventions such as soil and water conservation practices, construction of water harvesting devices, planting grasses and trees, adopting sustainable harvesting practices and integrated land-water-livestock management plans that will be implemented in an area covering approximately 2,488 km² in three districts: Agolai and Luni in Jodhpur district, Panchapadra in Barmer district, and Rohat in Pali district.

28. To ensure ownership and acceptance by the local communities, the design and implementation of the integrated strategy are envisaged to be led by the communities and their representative bodies in the respective villages in accordance with SLEM principles and with adequate regard for climate risks through consideration of vulnerabilities to climate change through intensive and gainful participation of local communities. The project will also monitor, evaluate and disseminate lessons learned during implementation to other similar regions through the SLEM coordination mechanisms to contribute to changes at the national level. The goal is to influence policy change at state and national levels, particularly in terms of developing a strategy for integrated management of common property land, water and livestock resources.

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

Assumptions/ Risks	Mitigation Measures
1. Relevant and appropriate policy changes are recommended and State level NRM planners and policy makers are supportive of policy changes	Relevant state-level departments were actively engaged in project development process and will ensure that adequate interaction are achieved to ensure that the project remains relevant and that project lessons can influence state natural resource management policies. In addition NRM policy makers and planners at state level will be helped with capacities to integrate SLM principles into state plans and policies. Further adequate attention to local conditions such as tenurial systems, local land capabilities and other socio-economic factors will be adequately assessment in developing policy recommendations during the project implementation.
2. Staff turn-over affect efforts to mainstream of SLEM	The capacity needs assessment and design of capacity building measures will be integrated into capacity retention and recommend solutions to be implemented in the capacity building efforts of the project. Sufficient commitment from the Implementing Partner has been secured during the development of the project to assign and retain key staff working for the project.
3. Lack of interest among local communities,	This will be mitigated through extensive awareness building

Assumptions/ Risks	Mitigation Measures
particularly women, to participate in the project.	measures and sensitization among stakeholders about the benefits of participation and visits to successful project sites. The project will also adopt measures to make sure that these efforts are sustained. This risk is considered low as the selected communities have a good history of community action through work with the JBF.
4. Common lands where the project is being implemented are also shared with other villages. This may give rise to conflicts among villages over sharing of resources.	To address this, committees consisting of local leaders will be established at the block level to address issues that arise from such conflicts. Local institutions such as the PRI/Jal Sabhas will be intensively involved in all project activities are responsible for many of the field level interventions.
5. Climate proof technologies that are relevant to the project area and having an impact on socio-economic status of beneficiaries are not well identified.	The project pay adequate attention to the assessments and findings of the National and State level climate change impact assessments available. It will implement soil and water conservation practices, construction of water harvesting devices, planting grasses and trees, adopting sustainable harvesting practices and integrated land-water-livestock management plans which are expected to reduce the vulnerability of local populations to the impacts of climate change and variability.

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

29. The project is being developed as part of the Sustainable Land and Ecosystem Management [SLEM] programme. This is cost effective because of the cross-cutting and multi-sectoral approach, reducing transaction costs and improving communication and influence. This project is dealing with both land management and adaptation to climate change and will help increase understanding of how to optimize synergies between these GEF focal areas in order to sustain ecosystem services and improve livelihoods of local communities and build resilience of local communities and their livelihoods to the impacts of climate change.

30. Lessons learnt from the project will be contributed to the national SLEM coordination mechanism and with the global Adaptation Learning Mechanism (ALM). Such sharing of lessons and best practices is hoped to contribute towards building the capacity in other States and communities where identical problems of desertification, land degradation and climate change impacts are faced. The project development was also based on the analysis of lessons learnt from a number of previous and on-going desert mitigation and drought response projects of the Government of India in the State such as: the need for an integrated policy framework developed through an inter-sectoral participatory approach; importance of involving local communities and their institutions; the need to understand and build on traditional and existing tenurial systems; and coordinating and building synergies with on-going initiatives.

31. Following on these lessons, the project thus focuses on creating the enabling institutional mechanisms to work effectively across sectors. This will help the project to significantly leverage resources and knowledge and reduce duplication. The project is focused on increasing water conservation over the long-term and is likely to generate substantial economic benefits. The community based approaches to natural resource management piloted through the project are conceived explicitly to promote complementarities and encourage payments for services, and thereby reduce costs and increase ownership and sustainability. The project will largely utilize the existing administrative set up and infrastructure of state and local governments and networks established by *Jal Bhagirathi Foundation*. The project will be complementary to ongoing initiatives and investments under the baseline programmes of the Government of Rajasthan and past and ongoing rainwater harvesting projects of JBF with GEF financing coordinated with these interventions.

PART III: INSTITUTIONAL COORDINATION AND SUPPORT

A. INSTITUTIONAL ARRANGEMENT:

32. The project is part of the India Sustainable Land and Ecosystem Management Program. While the program is being led by the World Bank from the donors side, individual projects under the program are being developed by different agencies. UNDP is leading the development and implementation of this project and has had consultations with World Bank-India during the project preparation process. Project development under the SLEM program is being coordinated through the MOEF and the GEF focal point's office. In addition, under the SLEM program, the issue of institutional coordination, and outreach and scaling up of SLEM solutions is being spear-headed through an MSP titled "Policy and Institutional Reform for Mainstreaming and Upscaling SLEM in India" that is to be established within the MOEF. This is to serve as the node for the management, outreach and M&E functions during the implementation phase of the Program. Lessons learned under this project in Rajasthan will be fed into this system for replication in other parts of the country.

B. PROJECT IMPLEMENTATION ARRANGEMENT:

33. The project will be executed following established UNDP national implementation (NIM) procedures. The Project Director will be a high-level government official with primary responsibility for overall implementation of the Project.

34. The Project Manager (appointed by JBF) will assume overall responsibility for the successful implementation of project activities and the achievement of planned project outputs. S/he will work closely with the national and international experts hired under the project, and will lead the Project Management Unit (PMU) that will be set up at the Jal Bhagirathi Foundation including an Administrative and Finance Assistant who will provide assistance to the Project Manager in his/her day-to-day implementation of project activities and be responsible for all administrative and financial record keeping and reporting. The PMU will take responsibility for all the day to day activities of the project. Site level management will be undertaken by the committees at the sites wherein respective Jal Sabhas and Village Panchayats. The PMU, will be responsible for execution of project activities, approval and implementation of the micro-projects and overall monitoring of progress.

35. The project's strategic approach will be guided by a Project Steering Committee (PSC), which will provide guidance and recommendations on annual basis or additionally as needed. The project steering committee (PSC) will constitute representation from the various governmental departments working towards rural development of the region such as department of rural development, water conservation department, agriculture department, forest department etc. the members will include Jalbhagirathi Foundation, other important NGOs in the region, representation from Jal Parishats etc. The PSC will be chaired by a senior level official from the state government. This is the highest policy-level meeting of the parties directly involved in the implementation of the project. The project will be subject to Steering Committee Meetings at least every 6 months. The first such meeting will be held within the first 6 months of the start of full implementation. At the initial stage of project implementation, the PSC may, if deemed advantageous, wish to meet more frequently to build common understanding and to ensure that the project is initiated properly. The TORs for the PSC and key project personnel can be found in Section IV, part II of the project document.

36. A State Level Advisory Group consisting of NGOs, CBOs, heads of research institutions, donor agencies, the Ministry of Rural Development, Environment and Forests and Water Resources will be formed. The Group will meet annually to review the project, suggest approaches for disseminating and replicating project results, and advocate broader policy change in the service of participatory natural resource management. These meetings and outcomes will be linked to the broader meetings of the coordination mechanisms under the SLEM programme to ensure synergies and cross-fertilization of lessons and ideas. In addition the project will receive guidance and advice from the National SLEM coordinating committee to ensure that the project strategy and outputs remain relevant and contribute towards the SLEM programme.

37. Community institutions will integrate the beneficiary communities with project management by a unique amalgam of village-level volunteers and a professional resource base. These forums consist of the village project implementation group, or Jal Sabh, the block development committee, or Jal Samiti, and the stakeholder's forum, or Jal Parishad. Each of these forums addresses grassroot implementation and provides feed back to both the PMC and PMG.

38. The UNDP-CO will be an active partner in the project's implementation. It will draw on its knowledge networks to provide best practice methodologies to the project team as deemed necessary. It will support implementation by

maintaining the project budget and project expenditures, contracting project personnel, experts and subcontractors, undertaking procurement, and providing other assistance upon request of the National Executing Agency. The UNDP-CO will also monitor the project's implementation and achievement of the project outcomes and outputs, and will ensure the proper use of UNDP/GEF funds. Financial transactions, reporting and auditing will be carried out in compliance with national regulations and established UNDP rules and procedures for national project execution.

39. In order to accord proper acknowledgement to the GEF for providing funding, a GEF logo will appear on all relevant GEF project publications, including among others, project hardware purchased with GEF funds. Any citation on publications regarding this project funded by the GEF will also accord proper acknowledgment to GEF. The UNDP logo will be more prominent (and separated from the GEF logo if possible), as UN visibility is important for security purposes

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

There is no change from the original PIF

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
Yannick Glemarec, UNDP-GEF Executive Coordinator	Y. Glemarec	10/16/2009	Doley Tshering, UNDP-GEF Regional Technical Specialist	+66 2288 2600	doley.tshering@undp.org

ANNEX A: PROJECT RESULTS FRAMEWORK

Project Goal	The development and implementation of an integrated and participatory natural resource planning and management strategy in selected arid region of the Thar desert in Rajasthan that is subject to recurrent droughts and land degradation and contribute towards the achievement of the SLEM objective to promote SLEM while taking into account of climate change.
Project Objective	To promote sustainable and participatory management of community natural resources to achieve ecosystem health and climate change resilience while enhancing the livelihood opportunities of the rural communities of the Thar Desert ecosystem of Rajasthan

Project Strategy	Objectively verifiable indicators				
	Indicator	Baseline	Target	Source of verification	Risks and Assumptions
Outcome 1: Creation of an enabling environment for climate-resilient, sustainable land and ecosystem management	Number of sectoral polices that incorporate SLEM and climate risk mitigation guidelines	Discreet sectoral policies with limited incorporation of SLEM and climate risk mitigation	Integrated climate-resilient, SLEM strategy in place by end of the project	Consultation reports; strategy document; interviews with sub-state stakeholders	NRM planners at state and sub-state level are adequately involved and able to use climate resilient SLEM principles; Complete and accurate documentation of tenure rights and related issues are possible; Involvement of local communities and subsequent 'buy-in' limited; Awareness raising and related efforts are sustained
	Number and quality of coordination mechanisms in place	Very limited coordination and lack of a coordination platform	4 committees (1 for each ecosystem blocks) constituted with proper guidelines and functioning coordination mechanisms	Committee meeting minutes; Project monitoring reports;	
	Increased level of awareness on community managed AGO tenure regimes	Lack of documented information and limited understanding of AGO tenure regimes Limited knowledge of local people's awareness of climate change threats and indigenous coping strategies	Comprehensive study of the AGO tenurial system by the end of year 1 Atleast 30-40% of local communities and NRM agents fully cognizant of AGO tenure regimes Increased level of understanding of climate change threats and ability to incorporate this into NRM planning and decision making	Qualitative based surveys and interviews; Review report; Project monitoring reports	
Outcome 2: Community and Institutional Capacity Developed for Climate Resilient	Number of community level integrated natural resources management institutions (<i>Jal Sabha</i>) formed and	Reported inadequate capacities of local communities in natural resource planning and	Participatory capacity needs conducted and strategies to address gaps defined by end of year 1	Consultation reports Capacity assessment report Training reports	Inadequate participation from PRI/Jal Sabhas to assess training needs and strategy;

SLEM	mainstreaming into the PRI for sustainability;; Increased percentage of women in villages participating in resource planning tasks and Women's Self-Help Groups (SHGs);	management Low level of women participation in village level NRM institutions	Capacity development needs of local institutions in the 3 project areas defined and documented by end of year 1 and targeted trainings delivered in years 2 and 3 in the 75 villages of which at least 30% are women Community level NRM institutions formed in all 75 project villages with appropriate mandate capacities and adequate gender representation		
	Percentage of extension programmes incorporating SLEM and climate resilience principles Increased percentage of local administrative staff with abilities in climate risk management and scenario planning	Very low level of capacity for integration of climate risk management and SLEM principles	Atleast 20% of extension programmes integrate SLEM and climate resilience principles by the end of the project Targeted trainings delivered by end of the project for atleast	Analysis of extension programme documents Training reports Field based interviews and surveys	
<u>Outcome 3:</u> Participatory Climate Resilient SLEM demonstrated	Participatory baseline assessments carried out in 75 villages, targeted interventions defined and implemented to operationalise project strategy Total area of land brought under integrated climate resilient SLEM management	Limited information and understanding of natural resource use and management in the project areas Limited understanding of the way in which climatic change is affecting the Thar	Comprehensive baseline studies carried out and implementation of demonstration interventions discussed with communities by end of year 1; Approx 6000 ha of land in 75 villages	Project monitoring reports; Project information management system and baseline reports GIS/GPS surveys; project information management system Review of natural resource management plans	Climate proof technologies that are relevant to the project are not available / are difficult to implement Potential conflicts between communities in implementing natural resource management plans due to competing interests

	Existence of integrated natural resource management plans for the targeted villages	system and the livelihoods that depend on it. Discreet and ineffective drought management projects contributing little to sustainable land and ecosystem management	brought under direct SLEM implementation by the end of the project; Integrated Natural resource management plans for the 75 villages by the end of year 2	Evaluation reports	
	Increase in carbon stock of forests and grasslands	Baseline to be measured	Atleast 30,000 tons during project period	Carbon measurement (in line with methodologies developed by the GEF carbon benefits project)	
	Increase in fuel and fodder yields as a result of farmer adoption of drought resistant technologies	Baseline to be measured in year 1	Atleast 20% increase	Project monitoring information; socio-economic surveys; Project information management system	
	Number of households directly benefitting from the direct project interventions	None			
	Evidence of socio-economic improvement of project beneficiaries from baseline	Baseline to be measured	Increasing trend of households moving out of poverty specific examples of climate resilient development at household level in place	Socio-economic surveys; Project monitoring reports; Project information management system	
Outcome 4: Enhanced knowledge management system for replicating good practices in	% of new natural resources management initiatives/ activities undertaken by state-level departments responsible for forests, rural development, agriculture,	None	Data collection, mining and analysis system established by end of year 1;	Existence of information management system; Review of sub-state and state level NRM plans and activities;	Knowledge products are of limited value as the product lessons are too specific and wider replication opportunities are low.

Integrated and climate resilient Management of community land resources	irrigation, and watershed management that are informed by project lessons and knowledge Number of knowledge products developed and shared with the SLEM programme No of knowledge sharing events organized No of project lessons shared through the Adaptation Learning Mechanism (ALM)	None No contributions from the project to the SLEM programme or ALM	By the end of the project atleast 3 products developed / knowledge sharing events organized; Project monitoring and evaluation reports routinely shared with SLEM programme and ALM By the end of the project, salient elements of integrated resource management and climate adaptation shared on ALM	Knowledge sharing events reports ALM platform	
Outcomes	Outputs				
Outcome 1: enabling environment	Output 1.1: State level and sub-state level committees and inter-sectoral coordination mechanisms in place				
	Output 1.2: AGO lands tenurial regimes assessed and recommendations made				
	Output 1.3 Integrated strategy for natural resource management drafted				
Outcome 2: Community and institutional capacity	Output 2.1: Capacity development needs for sub-state level staff, communities and community institutions assessed				
	Output 2.2: Dedicated training events and capacity building activities implemented to enhance local capacity for promoting and implementing climate resilient SLEM				
Outcome 3: SLEM demonstration	Output 3.1: Integrated resource management plans for climate resilient SLEM defined based on participatory baseline assessments in the project villages				
	Output 3.2: SLEM approaches and climate resilient technologies demonstrated and promoted in the 75 project villages				
Outcome 4: Knowledge management, learning and replication	Output 4.1: Participatory assessment of monitoring and evaluation designed and implemented				
	Output 4.2 Documentation of lessons learnt, preparation of dissemination materials and contribution to the ALM will contribute to greater replication of best practices from the project				

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)

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

Position Titles	\$/ person week*	Estimated person weeks**	Tasks to be performed
For Project Management			
Local			
Project coordinator	500	156	Assume primary responsibility for daily project management - both organizational and substantive matters – budgeting, planning and general monitoring of the project; Ensure adequate information flow, discussions and feedback among the various stakeholders of the project;
Finance assistant	250	156	Provide financial management and reporting
Administrative assistant	250	156	Provide general administrative support to ensure the smooth running of the project management unit Project logistical support to the Project Coordinator and project consultants in conducting different project activities (trainings, workshops, stakeholder consultations, arrangements of study tour, etc.)
Office assistant	200	156	Office upkeep, data entry operations and others
Justification for Travel, if any: Travel includes visit to project sites, project meetings, UNDP and SLEM coordination committee meetings and other			
For Technical Assistance			
Local			
Climate Change Adaptation Consultant/Specialist	500	90	Develop strategies of water harvesting structures that commensurate with climate change adaptation; Advise and articulate with the people about the climate change adaptation strategies with the communities in the project districts; Engage discussion with Government and other NGO partners to develop strategies for institutional platforms and strategies for programme implementation and replication
Water Management Specialist	500	140	Develop specific measures for water management and irrigation in the Dry Land

			development and water harvesting structures and traditional practices; Design implementation arrangements for water management and practices component; Participate in consultative meetings at the state and stakeholder level
Social mobilization / Social work specialist	500	90	Interact with communities and other institutions and individuals directly and indirectly involves in the project to understand the social issues associated with the project more particularly for participation and creating incentives to participate in the project; Understanding the change in the mindset of people and the patterns of cooperation for better implementation strategies.
Social mobilization / Social work specialist	500	90	Interact with communities and other institutions and individuals directly and indirectly involves in the project to understand the social issues associated with the project more particularly for participation and creating incentives to participate in the project; Understanding the change in the mindset of people and the patterns of cooperation for better implementation strategies.
International			
Evaluation consultant	3200	10	Independent final evaluation of the project at the end of the project
Justification for Travel, if any: Travel to various sites where the work is being conducted, to the state capital, district capital and others where consultants have to move to discuss with community, officials, and other stakeholders.			

* Provide dollar rate per person week. ** Total person weeks needed to carry out the tasks.

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. NOT APPLICABLE

B. DESCRIBE FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION, IF ANY: NOT APPLICABLE

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>	
	(Select)					
	(Select)					
	(Select)					
	(Select)					

	(Select)					
	(Select)					
	(Select)					
	(Select)					
Total						

* 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.

ANNEX E: CALENDAR OF EXPECTED REFLOWS

Provide a calendar of expected reflows to the GEF Trust Fund or to your Agency (and/or revolving fund that will be set up)

Not applicable.



UNDP Project Document UNDP-GEF Medium-Size Project (MSP)

Governments of India

United Nations Development Programme
Jal Bhagirathi Foundation
Ministry of Rural Development, Government of Rajasthan
Union Ministry of Environment and Forests, Government of India

Sustainable Participatory Management of Natural Resources to Control Land Degradation in the Thar Desert Ecosystem

PIMS number: 3419

Brief description

The goal of the proposed project is the development and implementation of an integrated and participatory natural resource planning and management strategy in a selected arid region of the Thar Desert in Rajasthan that is subject to recurrent droughts and land degradation, and is also most likely to face acute water scarce conditions due to climate change.

A shift in emphasis to a landscape approach to conserving natural resources, promoting sustainable natural resource management and reducing the vulnerability of rural communities to climate change, including variability, will be achieved with targeted technical and financial support. In light of the limitations of past and existing programmes, the project proposes to promote SLEM as a tool for arresting land degradation, enhancing ecosystem health and resilience, and improving livelihoods. The project will propose changes to the enabling environment and also demonstrate the sustainable management of communally managed lands.

The project aims at developing and disseminating experiences at the state and national levels that would serve to promote a truly participatory approach for the planning and implementation of integrated land use management, which will be built on the baseline of traditional knowledge systems, including those for rainwater harvesting and institutional arrangements for managing common property. This will be achieved through a conscious and concerted effort on managing knowledge, development of best practices and lessons and disseminating them for greater potential of replication both within the state, nationally and elsewhere (through the ALM).

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Acronyms

<i>AFRI</i>	<i>Arid Forest Research Institute</i>
<i>APR</i>	<i>Annual Project Report</i>
<i>AWP</i>	<i>Annual Work Plan</i>
<i>CAZRI</i>	<i>Central Arid Zone Research Institute</i>
<i>CEO</i>	<i>Chief Executive Officer</i>
<i>CO</i>	<i>Country Officer</i>
<i>DEA</i>	<i>Department of Economic Affairs, Government of India</i>
<i>EA</i>	<i>Executing Agency</i>
<i>GEF</i>	<i>Global Environment Facility</i>
<i>HQs</i>	<i>Headquarters</i>
<i>IA</i>	<i>Implementing Agency</i>
<i>IR</i>	<i>Inception Report</i>
<i>IW</i>	<i>Inception Workshop</i>
<i>JBF</i>	<i>Jal Bhagirathi Foundation</i>
<i>MoEF</i>	<i>Ministry of Environment & Forests, Government of India</i>
<i>M&E</i>	<i>Monitoring And Evaluation</i>
<i>MSP</i>	<i>Medium-Sized Project</i>
<i>PIR</i>	<i>Project Implementation Review</i>
<i>PD</i>	<i>Project Director</i>
<i>PM</i>	<i>Project Manager</i>
<i>PMC</i>	<i>Project Management Cell</i>
<i>PMG</i>	<i>Project Management Group</i>
<i>PSC</i>	<i>Project Steering Committee</i>
<i>RFD</i>	<i>Rajasthan Forest Department</i>
<i>RCU</i>	<i>Regional Coordination Unit</i>
<i>ROAR</i>	<i>Results Oriented Annual Report</i>
<i>TBS</i>	<i>Tarun Bharat Sangh</i>
<i>TOR</i>	<i>Terms Of Reference</i>
<i>TPR</i>	<i>Tripartite Review</i>
<i>TTR</i>	<i>Terminal Tripartite Review</i>
<i>UNDP</i>	<i>United Nations Development Programme</i>

SECTION I: Elaboration of the Narrative

PART I: Situation Analysis

Environmental and Socio-economic Context

1. The Thar Desert, located in the arid northwest region of India and southeastern Pakistan, is the world's seventh largest desert and spans an area of about 0.2 million km². About three-fifths of its total geographical area lies in the Indian state of Rajasthan, covering 12 desert districts that together comprise the Marwar region¹. About 10% of the Thar Desert ecoregion is composed of sand dunes, and the other 90% of craggy rock forms, compacted salt-lake bottoms, and interdunal and fixed dune areas. The climate is extreme with annual temperatures ranging from near-freezing in the winter to more than 50° C during the summer. All rainfall is associated with the short July-September southwest monsoon that brings a mere 100-500 mm of precipitation.

2. The habitat is greatly influenced by the extreme climate. Vegetation of the region consists mainly of xerophilous grasslands and scrub vegetation consisting of low trees and shrubs. Due to scanty rainfall, its tree biodiversity is limited. The species that inhabit the region are *Prosopis juliflora*, *Prosopis cineraria*, *Salvadora persica* are the dominant one. *Ziziphus nummularia*, *Capparis decidua*, *Leppedenia pyrotechnica* are some of the other species found apart from abundant grass species such as *Cenchrus seliariis* and *Cenchrus setigurus*. In terms of fauna, a variety of resilient species have survived and adapted to the extreme conditions. Mammalian fauna consists of 41 species that inhabit the open plains and grasslands including the blackbuck (*Antelope cervicapra*), chinkara (*Gazella bennettii*), caracal (*Felis caracal*) and the desert fox (*Vulpes bengalensis*). Eleven reptile species have been reported from the Western Thar region. About 141 birds are known to visit the ecoregion, including the great Indian bustard (*Chiotis nigricaps*), a globally threatened species; migratory birds including the cranes (*Grus grus*, *Anthropoides virgo*) and flamingos (*Phoenicopterus spp.*) cross this ecoregion. This range of diversity, though low, has been conserved traditionally by the Bishnoi tribes, who are known for their exemplary efforts to save forests from an invading army².

3. It is one of the most densely populated deserts in the world with 84 to 90 people per km² (compared to 3 to 6 in other deserts) and the ecologically sensitive desert ecosystem is currently subjected to increasing human and livestock pressure, non-sustainable use of natural resources absence of participatory institutions, unsustainable land use practices, and lack of access to modern techniques to regenerate land and water resources, in the face of vanishing traditional practices. The human population has increased from 5.8 million in 1950 to 22.5 million in 2001. Similarly, the livestock population has increased from 13.7 million in 1961 to 32 million in 1997. Unsustainable human and livestock pressure (over grazing, encroachment and over harvesting of forests) is leading to degradation of land resources – forests, pastures, habitats and species, and water sources. Grazing of livestock is intensive, affecting soil quality and destroying native vegetation. Many palatable perennial species are being replaced with inedible annual species, thus changing the vegetation composition and ecosystem dynamics. Forests are in a degraded state; biodiversity is threatened as a result of over grazing of pastures and the encroachment and over harvesting of forests; water resources have declined as a result of reduced runoff and silting of

¹ It also extends into the southern portion of Haryana and Punjab states, and into northern Gujarat state. In Pakistan, the desert covers eastern Sind province and the southeastern portion of Pakistan's Punjab province.

² Once upon a time, when the king of the region wanted to cut trees to build his palace, the people of this region laid their life down for saving the trees by not allowing the army to cut them.

water bodies due to increased soil erosion from lack of vegetative cover. Data on Iso-Erosion rates for India indicate that this region is affected by moderate to severe erosion³.

4. The economy of the people in the project areas have typically revolved around animal husbandry and subsistence agriculture and its primary ecological resources has been water bodies, pasture, grazing land and sacred groves. However with increasing demands for water and in the absence of regulation, ground water has been over-exploited in most parts of the project area, leaving communities depending on rainfall for meeting their needs for domestic as well as productive uses. Over time, a predominantly agrarian pastoral economy has transformed into an area of intensive agriculture with little regard to the soil profile and ground water system. The growing pressure on the land due to the ever increasing population of people and animals and absence of any subsidiary occupation compels people to cultivate marginal lands and graze the dunes. There is severe wind erosion in areas that have bare soils with the process of desertification becoming active. Further, frequent occurrences of droughts as a result of climate change threaten the livelihoods of the people while these droughts also decrease the resilience of the ecosystem, making it more vulnerable to human pressure.

5. Existing traditional natural resource management in Rajasthan is characterized by community managed lands, consisting of: AGORs (A) that are areas that traditionally served as catchments for water bodies; Gouchars (G) that are areas that served as community grazing lands; and Orans (O) that are areas that served as community forests. All three community resources were traditionally managed by the village community. In the 3 districts where the project proposes to focus, AGORSs cover 50% of the geographic area. Over the years, the total land area under communally managed AGORS lands has declined and the level of degradation of remaining AGORSs has greatly intensified. This is mainly due to encroachment and conversion to agriculture, conversion for settlement, roads, community assets, inappropriate afforestation programmes, and reduction in recharge and over exploitation of ground water due to deep bore-wells, further increasing livestock and human pressure on the remaining AGOs. In recent years, there has been a breakdown of the traditional resource use regime. Grazing lands have effectively become open access resources with no system for controlling and monitoring their use.

6. Though specific data for the Thar Desert region are not available, national data show a decline in the extent of common property lands, ranging from a decline of 26 percent to 52 percent in several states of India during the last four decades⁴, and Rajasthan is among the more severely affected states. Traditionally managed AGO lands are repositories of biodiversity and the source of multiple products such as grass, fodder, fuel wood, timber and non-timber tree products.

7. In terms of climatic factors, 88.7% of the land area of Rajasthan is defined as drought prone, as against 14% of the total area of the country, or 33% of the total arable land. Further, the First National Communication to the UNFCCC on vulnerability assessment to climate change identifies the Luni watershed, which occupies about 60% of the area of Rajasthan, as the most likely to experience acute physical water scarce conditions in the country. More intense rain and more frequent flash floods during the monsoon would result in a higher proportion of runoff and a reduction in the proportion reaching the groundwater and it is also increasing the risk for salinization⁵. Hence, anthropogenic pressures, combined with climate change and variation, are not only destroying the fragile desert ecosystem and threatening the livelihoods of its inhabitants, but also impacting adjacent areas, through changes in water flow, micro-climate and human migration.

³ Singh, G.R. *et al.* (1992), Soil Erosion Rates in India, *Journal of Soil and Water Conservation* 47 (1): 97-99.

⁴ N.S. Jodha, 2005, Paper presented at the UNDP workshop on "Sustainable land Use in Dry Lands: Global and National Perspectives", 2nd February 2005, New Delhi.

⁵ Climate Change and Water. IPCC Technical Paper VI, June 2008.

8. In response, a large number of drought mitigation programs as well as rural and desert development programs have been implemented in Rajasthan. However, afforestation and other rehabilitation programs currently underway are not compatible with local land regimes and native vegetation. The programs do not aim to achieve ecosystem restoration with focus solely on reforestation while the active participation of local communities in planning and implementation is very limited. Adequate attention has not been made to maintain investments, such as de-silting, or caring for damaged seedlings and replanting new seedlings. Further expensive physical protection or fencing measures are adopted without involving local communities and often resulting in reduction of livelihood choices as land is taken out of productive use. As such, these interventions have not made much impact on conserving natural resources, reducing the vulnerability of rural communities to long term climate change impacts or increasing their incomes in a sustainable way.

9. Further, as described earlier community land account for a significant portion of the land. Protection and management of these communal lands are fundamental to the survival of agro-ecosystems in desert areas, as well as maintenance of ecosystem stability, integrity, functions and services in the face of climate change. Despite the clear indication of the need to focus on common property land and its sustainable management to halt degradation, there isn't yet a specific policy for their management, conservation and utilization in place.

10. Additionally, there is no single coordinating agency to undertake sustainable land management following a programmatic approach. There are no real participatory institutions and a lack of capacity in existing institutions such as Panchayats. The role of women, who are the major stakeholders in natural resource management, is not adequately recognized and their participation in local institutions and development programs is minimal. There is also a lack of clarity on the legal status of different land categories, thus allowing government officers and Panchayats to allocate land as they wish, often for unsustainable purposes.

Analysis of barriers and Project rationale

11. A recent authoritative review of drought management strategies in India by the Indian Council of Agricultural Research (ICAR, 2003) as well as an assessment of drought and famine strategies by the Centralized Arid Zone Research Institute (CAZRI, 2003) have identified the following systemic barriers affecting drought mitigation efforts: the lack of integrated planning is a major constraint and most activities are planned and implemented on a sectoral basis; a lack of participation of local communities from the beginning in planning and execution and an inadequate appreciation of indigenous knowledge; drought relief is short-term and rarely mainstreamed within longer-term development and climate change strategies, and there is a lack of accurate and reliable spatial and temporal data. There is also insufficient capacity in the government for implementing and monitoring an integrated strategy at the local level and to undertake sustainable land management in a coordinated programmatic approach that also includes "no regrets" adaptation strategies.

12. Similarly, a review of the Desert Development Programme also cited the lack of integrated planning and management based on a watershed approach, minimal involvement of local people in planning and implementation, and chronic lack of funding and appropriate training as reasons undermining the realization of the programme's objectives. These lessons point to persistent barriers to promoting sustainable land management practices that can help arrest and reverse current land degradation trends and enhance resilience to climate change, including variability that are described below:

13. **Policy and regulatory barriers:** In Rajasthan, even though community managed AGOs account for a significant portion of land area (>50%), there is no integrated policy for the management, conservation and utilization of traditional community land and water resources; activities continue to be planned and implemented on a sectoral basis. There is also a lack of clarity on their legal status. As a result, government officers and Panchayats assume the decision making power on how to allocate these lands for purposes other than their traditional intended use undermining ecosystem health and resilience.

14. **Institutional capacities, skills and knowledge barriers:** Competencies and capacities within institutions are such that of afforestation and other rehabilitation programs currently being promoted are not compatible with local land regimes and native vegetation. Selected species are often not suitable to local ecosystems and appear to be detrimental to the health and productivity of AGOs; exotic and invasive species are spreading fast and replacing native vegetation, resulting in low soil vegetative cover and increased erosion. Institutions involved in the afforestation, watershed development and rural development will be involved while planning the programmes in the villages and their inputs will be sought. Furthermore, the capacities of these institutions will be developed based on need (e.g., capacities for appropriate species selection, water harvesting, etc.).

15. **Capacity barriers at the community level:** Currently the participation of local communities in planning and implementation of programs on afforestation or rehabilitation of degraded lands is limited. Program blueprints are not compatible with local needs or opportunities. Women are largely absent in decision making. Together, this works against the promotion of a sense of ownership for programs and therefore undermines their sustainability. Further, community capacities to implement on the ground interventions to address land degradation and enhance ecosystem resilience to climate change impacts need to be strengthened

16. Thus, with GEF support the project will contribute towards the long term solution of removing the three inter-related barriers by understanding the related gaps and addressing them. The most important gap to address is the sectoral approach of the State with most of their programs being ill-attuned to the special needs of local land regimes and native vegetation. Moreover climate risk and vulnerability information and climate adaptation needs are currently not factored into current natural resource planning mechanisms. Further, community management of resources or community based development approaches have not gained adequate attention given the significant coverage of community owned natural resources in the state. The project will thus also empower people through the creation and strengthening of village level institutions. A bottom-up approach that acknowledges various coping mechanisms based on traditional knowledge and practices will be critical to enhance the adaptive capacity of local communities to the impacts of climate change including variability.

17. The proposed project will draw on the knowledge being developed by the UNDP/GEF medium sized project “World Initiative for Sustainable Pastoralism” and become a key part of the WISP network to which it will contribute lessons learned. Through its objective of providing spatial continuum of interventions from the village level to the sub-state levels, the project will also contribute to impacts at the national level. Impacts at the national level will be mainly achieved through feeding lessons and best practices into the overall SLEM Partnership being led at the national level.

Consistency with National Priorities and Plans

18. The overarching planning tool of the Government of India to chart the country’s development trajectory (covering economic, social, and environmental objectives) is the Five-Year Plan. These are developed, executed and monitored by the Planning Commission, with the Prime Minister as the *ex*

officio Chairman. The tenth plan completed its term in March 2007 and the eleventh plan is currently underway. India aims to achieve inclusive growth as envisioned in its 11th Five Year Plan (2007-2012). Inclusive growth means that the current 8% economic growth rate must reflect growth of marginalized communities. Thus all efforts in the next 5 years will be to sustain livelihood patterns and enhance cash economies of marginalized communities. This salient planning theme for the next 5 years fits very well with the objective of addressing ecosystem degradation trends in the Thar desert that are having a disproportionate effect on marginalized communities that form a significant part of the population inhabiting such areas. At the same time, it is recognized that the key environmental challenge the country faces is related to the nexus of environmental degradation with poverty as well as economic growth (National Environmental Policy, 2006).

19. India has ratified the CBD (1992), UNFCCC (1993) and UNCCD (1996). Recognizing the importance of reducing desertification and soil loss in the arid and semi-arid regions of the country, India has developed a comprehensive 20 year National Action Plan to Combat Desertification (UNCCD-NAP, 2001). This document attributes desertification (land degradation) to a number of factors including climate variation and human activities. The importance of addressing the poverty-land degradation-biodiversity-climate change nexus has also been highlighted in India's Initial National Communication to the UNFCCC (2004), stressing India's serious concern about the possible impact of climate change given that nearly 2/3rd of the country's population depends on climate sensitive natural resource based activities for its livelihood. The National Environment Policy (2006) notes the human induced pressure on India's variegated desert fauna and recommends activities to reduce further desertification through water conservation through traditional and science-based knowledge and infrastructure; enhancing green cover of local species; reviewing agronomic practices in the desert regions and promoting agricultural practices that are suited to the regions.

20. In recognition of the need to address the poverty-land degradation-biodiversity-climate change nexus, the government has developed the India Sustainable Land and Ecosystem Management (SLEM) Program which takes \$29 million of grant money from the GEF and leverages nearly \$300 million from the government of India and bilateral aid agencies. This MSP focusing on the Thar Desert region contributes to the objective of the SLEM to realize sustainable land and ecosystem management. Specifically, it will contribute to the SLEM goals by supporting the poor and vulnerable communities that live in rural areas of the Thar Desert and depend on the land for their survival, through integrated conservation and management of common property land, water and livestock resources. The project is also in line with the UN system's Country Programme Action Plan (2008-2012) which focuses on "mainstreaming risk reduction concerns in development and planning process including adaptation to climate change" as part of one of the UNDAF outcomes.⁶

PART II: Strategy

21. In summary the project will seek to overcome critical barriers, thus helping current and future baseline actions achieve their intended benefits with the following key elements:

- A decentralized approach to natural resource management that ensures capture of and integration of climate change variables to natural resource management.
- Integrated land-water-livestock planning and management with special attention to climate risks
- Development and adoption of sustainable use / harvesting / management practices of pastures and forests that are climate resilient
- Empowerment and participation of local communities, particularly women

⁶ UNDAF Outcome 4: By 2012 the most vulnerable people, including women and girls and government at all levels have enhanced abilities to prepare, respond and adapt/recover from sudden and slow onset of disasters and environmental changes.

- Promotion of livelihoods and equitable sharing of benefits, particularly focusing on women
Empower people through the creation and strengthening of village level institutions.

Conformity with GEF Policy

22. The project is consistent with Strategic Objective 1 (An enabling environment will place SLM in the main stream of development policy and practice) and Strategic Program 1 (Supporting sustainable agriculture and rangeland management), insofar as it will promote policy change, capacity development and on-the-ground demonstration of integrated management of community land, water, and livestock resources. The project also conforms to the GEF's Operational Guidelines for the Strategic Priority "Piloting an Operational Approach to Adaptation" (SPA)⁷.

23. As outlined in these operational guidelines, the project will contribute to the GEF's stated objective of reducing vulnerability and increasing adaptive capacity to the adverse effects of climate change by focusing on the Thar Desert ecosystem, specifically the Luni Watershed that has been identified as an area most likely to experience acute physical water scarce conditions in the country due to climate change. Based on lessons learned from prior Government support to short-term drought mitigation and relief efforts, the project will promote an alternative approach grounded in integrated ecosystem management by developing the enabling environment and through demonstrations in selected sites led by communities.

24. Through the Sustainable Land and Ecosystem Management (SLEM) Partnership, coordination will take place with other projects promoting SLEM in different parts of the country such as those underway in Madhya Pradesh and the recently approved project in Nagaland. Linkages to current programmes at national and state levels such as Integrated Afforestation and Eco-development Project Scheme, Watershed Programme, Integrated Wasteland Development Programme, Desert Development Programme; Drought Prone Area Programme; Rural Works Programmes will be consulted to implement SLEM partnership in this project. Most of these programmes have had limited spatial coverage, nor have they made sufficient impact on conserving natural resources (water, land, biodiversity, etc.), adoption of sustainable management practices, reducing the vulnerability of rural communities in the Thar, or increasing the incomes in a sustainable way. These programmes have been consulted while developing the project and the dialogue will be maintained during implementation.

Project Outcomes and outputs

25. Based on lessons learned from previous drought mitigation and rural and desert development programmes in Rajasthan, the project aims to support an alternative approach to the management and use of land resources. The goal of the project is to promote sustainable and participatory management of natural resources to achieve ecosystem health, climate resilience and integrity, and improve the livelihoods of rural communities in the Thar Desert ecosystems of Rajasthan. The focus is on sustainable management of community land resources, water bodies and livestock.

26. The project will contribute to the achievement of the SLEM Programme "to promote sustainable land management and use of biodiversity as well as maintain capacity of ecosystems to deliver goods and services while taking into account of climate change". It is expected that together with other projects, the Thar Desert project will contribute to this programme objective.

Outcome 1: Creation of an enabling environment for climate-resilient SLEM

⁷ GEF/C.27/Inf.10, October 14, 2005

27. The project will promote policy change at the state level by developing an integrated and climate resilient strategy for the management of common property land, water and livestock resources, also taking into account adaptation strategies to climate change. Land tenure regimes for AGO lands will be clarified. The formation of sub-state level coordination committees (1 for each of the 4 ecosystem blocks being targeted by the project) involving all stakeholders will be instrumental for improving inter-sectoral coordination, monitoring and adaptive management. In the development of such a policy the project will give due consideration to climate risks and climate adaptation needs. While it may not be possible to carry out downscaling of available climate models for Rajasthan and the Thar region, the project will ensure that links are made at the planning level with India's Second National Communication (SNC) process.

28. The project will achieve an efficient sustainable land management system using a landscape approach which fully integrates the ecosystem approach. System boundaries will be defined by combining together biological and ecological systems, watershed topographic boundaries, village boundaries, groundwater table dynamics, movements of pastoral communities and land use systems boundaries.

29. The project will survey village land, water and livestock resources using a participatory GIS approach. Current land use patterns and status and level of degradation of biodiversity, tree density, soil organic matter content, water storage capacity of water bodies, grazing resources, livestock density, and socio-economic factors (household incomes, etc.) will be assessed and the baseline condition established (for monitoring impact). Current resource use patterns and management institutions and policies will be assessed, and the direct causes of land degradation will be analyzed through scientific investigations and village consultations.

30. Traditional management practices will be identified and codified. A participatory approach to the preparation of a package of technical options for sustainable management of resources, in consultation with experts, will be developed, incorporating traditional and modern approaches acceptable to local stakeholders, including nomadic pastoralists who have traditional claims to the use of resources in and around village territories. Efforts will be made to explore indigenous and current practices of the local people in dealing with climate change and these will inform the design of climate resilient strategies and actions for the future based on the identification of suitable "no regrets" approaches. Further, the approach will seek coordination with ongoing desert development, watershed, drought, and afforestation programs to ensure that those that are having a detrimental effect on AGOs are amended or discontinued.

Outcome 2: Institutional and community capacity development for climate resilient SLEM

31. The status of natural resources particularly water has reached the state where people's livelihood is threatened. For these reasons people are showing their willingness of coming together and work out solutions. Within this favorable enabling environment, the project will strive to organize, prepare and build capacity in different local management committees and institutions on technical, financial, management, accounting, and other relevant issues.

32. These activities will benefit from the experience on social mobilization gained by the JBF in previous projects on the management of village water harvesting structure. Community mobilization and organization will be undertaken for Jal Sabhas (water committee) Jal samitis (block committees) and grazing committees, where Panchayat members also become members of water and land development committees. The project will assist women's self help groups to organize in each block. Training programs will be designed for water and land management committees, Panchayats and staff of the JBF. Cash and in-kind contributions will be collected from communities to establish ownership and financial sustainability of project activities. A participatory M&E process (monitoring protocols and train the village communities) will be conducted by organizing peer reviews on the functioning of village level committees (including asking neighboring village communities to monitor each other). Exchange visits

will be organized to successful sites. Public awareness or mobilization campaigns will be undertaken and a cadre of grassroots' workers will be developed.

33. The unique features of the project include a focus on integrated land-water-livestock and climate change resilience planning and development, adaptation of sustainable management practices through incorporation of indigenous knowledge, community mobilization and institutional capacity development - particularly that of women , and building strong partnership with existing institutions to enable large scale impact. Current resource use patterns and management institutions and policies will be assessed, and the direct causes of land degradation will be analyzed through scientific investigations and village consultations. In addition, resource management practices and mechanisms will also be assessed in terms of the capacity to respond to and adapt to the risks posed by climate change. Assessments will help long-term climate risk planning particularly for the sustainable management of community natural resources.

34. To ensure that capacity development interventions are relevant and responsive to client needs, a comprehensive assessment of the capacity development needs of the PRIs and JFCMs will be carried out with particular emphasis and attention to gender perspectives in natural resource management. Capacities that will be developed are foreseen in the areas of technical, financial and management aspects of natural resource planning including capacities to identify climate risks and apply such information in natural resource planning. A capacity development response will be prepared based on this assessment and rolled out to address the identified gaps. The project will through focus on gender dimensions strive to contribute to greater participation of women and other disadvantaged groups in natural resource management.

35. Similarly an assessment of capacity development needs of local institutions such as the Jal Parishad, Jad Samitis to ensure and promote climate resilient SLEM into natural resource planning tasks will be carried out. Dedicated capacity building events based on this assessment is expected to enhance capacities to promote SLEM and integrate climate risk reduction to the various natural resource planning and programmes at the sub-state level. Community-level integrated natural resources management institutions will also be formed with appropriate mandate and capacities.

Outcome 3: Demonstration of participatory climate resilient SLEM

36. On the ground interventions for climate-resilient SLEM practices will be demonstrated in select clusters of villages in four ecosystem blocks of the Thar Desert in Rajasthan covering approximately 2,488 km² in three districts: Agolai and Luni in Jodhpur district, Panchapadra in Barmer district, and Rohat in Pali district.

37. These 3 districts cover approximately 249,000 hectares, and the project will target 75 villages within these districts spanning 6,000 hectares. Rain fed agriculture along with livestock rearing is the dominant livelihood activity in this region. These districts were selected in consultation with the CCD government focal point, based on issues of water scarcity, climate risks and inaccessibility to resources.

38. Another important criterion in selecting these districts is that communities in these districts have a favorable history of community action, particularly with the Jal Bhagirathi Foundation (JBF). The close partnership of the JBF with the Government of Rajasthan in the development and implementation of this project is a unique and notable aspect of this MSP under the SLEM partnership. This partnership will allow the MSP to adopt a strategy and mechanism for replication and upscaling that have greater chance of uptake in the long run. A key lesson learned from a World Bank supported drought adaptation initiative in Andhra Pradesh is that successful upscaling requires more than a transfer of knowledge to government institutions and adoption of new policies. The JBF, given its history can effectively fulfill the role of

empowering local communities for collective community action to gradually hand over the management of the natural resources to the local people.

39. The JBF has been very active in these districts in mobilizing rural communities to use their rich tradition of water conservation to address the water crisis. Since its inception in 2002, JBF has successfully interwoven around the issue of “water”, a program that addresses problems of women’s empowerment, natural resource management and health-care. Considerable community mobilization has been undertaken creating an extensive network of more than 150 grassroots institutions called “Jal Sabhas” which have constructed 76 traditional water harvesting structures. With a permanent staff of 40 officers and 1200 volunteers, JBF will play a critical role in working with the Government of Rajasthan to upscale the successful experiences of the project. This project inasmuch as it partners with the JBF could serve as one good learning opportunity in this respect under the SLEM partnership. The approach will seek coordination with ongoing desert development, watershed, drought, and afforestation programs to ensure that those that are having a detrimental effect on community land are amended or discontinued.

40. A participatory baseline assessment will be carried out in the first six months of the project to take stock of the various socio-economic and environmental conditions including potential climate change impacts on natural resources in the targeted areas (75 villages). The assessment will support further definition and operational detailing of the project strategy that will include an integrated common land resource management plan for the 75 target villages. Interventions will include a broad set of physical interventions such as soil and water conservation practices, construction of water harvesting devices, planting grasses and trees, adopting sustainable harvesting practices and integrated land-water-livestock management plans. It will organize, prepare and build capacity in different local management committees and institutions on technical, financial, management, accounting, and other relevant issues. This will contribute towards strengthening the availability of information on climate and disaster related risk, as well as the capacity to plan for change in local institutions.

41. The planning and management of these interventions will follow a participatory approach directly engaging the communities through their community based institution (Jal Parishads) in decision making and prioritization of potential sustainable land management interventions that are climate resilient. The purpose is to make sure that design and implementation of the integrated strategy envisaged is led by the communities and their representative bodies in the respective villages in accordance with SLEM principles and with adequate regard for climate risks through consideration of vulnerabilities to climate change. This approach of demonstrating the potential of an integrated strategy incorporating SLEM and vulnerability assessment to climate hazards principles and approaches is hoped to motivate farmers both within the 75 villages and beyond to undertake and replicate successful interventions.

Expected global environmental benefits

42. Through these efforts, the project will help arrest land degradation that is compromising the functions and service of the Thar Desert ecosystem and the livelihoods of its inhabitants. The project will decrease the trend and severity of degradation in AGO lands, improve the condition of biodiversity, improve resilience to climate change including variability, and enhance the carbon stored at aboveground and belowground levels. In addition, the project also provides local benefits to the community in the form of enhanced water storage capacity of land, enhanced grass productivity, and indirectly enhances the cash economy of the otherwise subsistence economy. Through structural interventions that are mostly grounded in community participation, the project also addresses climate change adaptation strategies for enhancing water availability in the AGO lands. One such intervention could be to build on indigenous practices in soil and water conservation to draw water from the areas that received high rainfall, due to

climate change phenomena, through locally constructed temporary mud canals. Additionally, the project will design ‘no regrets’ actions to support and build on indigenous practices which will become less and less effective over time.

43. The GEF carbon-benefits project is working on developing a standardized methodology to assess carbon benefits in partnership with the CBP Consortium (2009-2011). The geographic focus of this project also includes conditions similar to those under the project namely the semi-arid and arid regions. When it becomes available, protocols or measurement standards developed by the project will be used to measure the terrestrial carbon storage increased in the project areas.

Outcome 4: Enhanced knowledge management system for replicating good practices in integrated management of community land resources and climate risk management

44. The project will also monitor, evaluate and disseminate lessons learned during implementation to other similar regions through the SLEM coordination mechanisms to contribute to changes at the national level. The goal is to influence policy change at state and national levels, particularly in terms of developing a strategy for integrated management of common property land, water and livestock resources. In particular, at the State level, there will be a focus on clarification of land tenure regimes for the community lands. The formation of a State level coordination committee involving all stakeholders will be instrumental for monitoring and adaptive management and will address the issue of weak government capacity to implement such an integrated strategy.

45. Thus, the knowledge management component of the project will ensure greater state-level capacity to mobilize information in support of planning and decision-making by government and non-government actors in relation to participatory, climate-resilient, and sustainable management of common property land, water and livestock resources.

46. The SLEM programme (of which this project forms a part) addresses the issue of institutional coordination and outreach and scaling up of SLEM solutions through an MSP “Policy and Institutional Reform for Mainstreaming and Upscaling SLEM in India”. As such lessons learnt under this project in the Thar ecosystem will be fed into this system for replication in other parts of the country. The project will also benefit from and contribute to the World Bank led MSP “Institutional Coordination, Policy Outreach and M&E project” in terms of coordination with other projects within the programme resulting in effective implementation of the SLEM programme strategy and successful knowledge exchange both within and outside the programme portfolio.

47. There is currently a limited pool of knowledge and expertise regarding climate change adaptation linked to the issues to integrated natural resource management. As such the elements of climate risk management integrated into the broader integrated resource management framework and the lessons from that will generate lessons for the greater climate change adaptation community. The project will support the capturing of best practices for the implementation of adaptation and building adaptive capacity in a systemic manner through the Adaptation Learning Mechanism.

48. The project will dedicate resources to compiling lessons learnt on the main elements of the project strategy. These will be translated into relevant and easily understandable dissemination materials and distributed to the project partners including community institutions and members as per a documentation plan approved as part of the M&E framework of the project. Community knowledge transfer will be encouraged through cross-visits and knowledge sharing events such as organizing field days at successful

interventions sites among the 75 villages and beyond. Traditional forms of communication such as drama and oral stories will be encouraged for horizontal knowledge transfer efforts.

PART III: Management Arrangements

49. UNDP will be the GEF Implementing Agency (IA) for the project. It will play a key facilitating role in the management and administration of the project providing overall support and guidance on the various actions to be carried out towards the project's implementation, monitoring and evaluation.

50. As is the precedent in India, the Project Director (PD) will be a high-level government official with primary responsibility for overall implementation of the Project. The Jal Bhagirathi Foundation (JBF) will be the Implementing Partner, and as such, JBF will be directly responsible for Project Management in close consultation with Project Director, the Project Manager (PM) to be appointed by JBF will be responsible for project administration and the allocation of the project's resources. The project management and administration activities fall under the fourth component of the project "Project management" and are thus an integral part of the project. JBF, with the assistance of contracted national and regional experts, is tasked with the day to day activities and ensuring that they are adequately executed towards the accomplishment of the project's goal. This will be evaluated against agreed performance indicators.

51. The Project Manager will assume overall responsibility for the successful implementation of project activities and the achievement of planned project outputs. S/he will work closely with the national and international experts hired under the project, and will lead the Project Management Unit (PMU) set up at the Jal Bhagirathi Foundation including an Administrative and Finance Assistant who will provide assistance to the Project Manager in his/her day-to-day implementation of project activities and be responsible for all administrative and financial record keeping and reporting. The PMU will take responsibility for all the day to day activities of the project. Site level management will be undertaken by the committees at the sites wherein respective Jal Sabhas and Village Panchayats. The PMU, will be responsible for execution of project activities, approval and implementation of the micro-projects and overall monitoring of progress.

52. The project's strategic approach will be guided by a Project Steering Committee (PSC), which will provide guidance and recommendations on annual basis or additionally as needed. The PSC will constitute representation from the various governmental departments working towards rural development of the region such as department of rural development, water conservation department, agriculture department, forest department etc. the members will include Jalbhagirathi Foundation, other important NGOs in the region, representation from Jal Parishats etc. The PSC will be chaired by a senior level official from the state government. This is the highest policy-level meeting of the parties directly involved in the implementation of the project. The project will be subject to Steering Committee Meetings at least every 6 months. The first such meeting will be held within the first 6 months of the start of full implementation. At the initial stage of project implementation, the PSC may, if deemed advantageous, wish to meet more frequently to build common understanding and to ensure that the project is initiated properly.

53. A State Level Advisory Group consisting of NGOs, CBOs, heads of research institutions, donor agencies, the Ministry of Rural Development, Environment and Forests and Water Resources will be formed. The Group will meet annually to review the project, suggest approaches for disseminating and replicating project results, and advocate broader policy change in the service of participatory natural

resource management. These meetings and outcomes will be linked to the broader meetings of the coordination mechanisms under the SLEM programme to ensure synergies and cross-fertilization of lessons and ideas. In addition the project will receive guidance and advice from the National SLEM coordinating committee to ensure that the project strategy and outputs remain relevant and contribute towards the SLEM programme.

54. UNDP-GEF will impart the Project Assurance function providing independent feedback through periodic monitoring and evaluation on the management of project activities and completion of milestones.

Detailed TORs for the PSC, PD and PM are attached in SECTION IV, Part 2.

PART IV: Monitoring and Evaluation Plan and Budget

55. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by designated staff of JBF with support from the UNDP Country Office. The Logical Framework Matrix (see Section II Part I) provides *performance* and *impact* 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.

56. The following sections outline the principle components of the Monitoring and Evaluation Plan and indicative cost estimates related to M&E activities. The project's Monitoring and Evaluation Plan will be presented and finalized at the Project's Inception Workshop (IW) following a collective fine-tuning of indicators, means of verification, and the full definition of M&E responsibilities of the UNDP, JBF and national counterpart agencies and staff.

57. The monitoring of the project will be based on the project Monitoring and Evaluation Plan and this will be complemented by monitoring feedback from stakeholders, who will be consulted and supported to communicate with the PSC on observed issues and specific objectives and interests. The project-based monitoring will be organized by the JBF with the guidance of the PSC and in accordance with GEF/UNDP monitoring and evaluation policy. Specific considerations in relation to the monitoring of results and adaptive management approaches will form the basis of Monitoring and Evaluation processes.

58. Risk management forms an intrinsic part of project management, monitoring and evaluation. As such, due diligence will be accorded to the identification, classification, rating and reporting of risks. Whenever such risks are identified that might impede project implementation, the Project Manager designated from the JBF will alert UNDP CO and PSC chair as necessary. A risk identification and management section will be systematically included in all project reports as guided by UNDP's risk management approach which will be presented at the IW.

59. The Implementing Agency (UNDP), in cooperation with the Executing Agency (JBF), will initiate and coordinate an external review process at the end of the project.

MONITORING AND REPORTING

Project Inception Phase

60. A Project Inception Workshop (IW) will be conducted with the Project Team, relevant counterparts from local agencies and institutions, UNDP-CO and the UNDP-GEF at the Regional Centre in Bangkok.

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

62. Additionally, the purpose and objective of the IW will be to: (i) introduce project staff to the UNDP-GEF team, including Country Officers and UNDP Regional Centre staff, which will support the project during its implementation, (ii) detail the roles, support services and complementary responsibilities of UNDP-GEF staff vis à vis the project team; (iii) provide a detailed overview of UNDP-GEF reporting and monitoring and evaluation (M&E) requirements, with particular emphasis on the Annual Project Implementation Reviews (PIRs) and related documentation, the annual project report (APR), as well as final evaluation. Equally, the IW will provide an opportunity to inform the project team on UNDP project related budgetary planning, budget reviews, mandatory budget re-phasing and risk management approaches.

63. 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 such as the PSC will be discussed in order to clarify for all, each party's responsibilities during the project's implementation phase. The IW will provide the opportunity to determine the *modus operandi*, role and scope of the PSC.

Monitoring responsibilities, events

64. A detailed schedule of project review meetings will be developed by the Project Team, 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 PSC meetings, and (ii) project related Monitoring and Evaluation activities.

65. Day to day monitoring of implementation progress will be the responsibility of the Project Team and in particular the designated Project Manager based on the project's Annual Work Plan and its indicators. The JBF will inform UNDP CO and the UNDP/GEF at the Regional Centre, Bangkok of any delays or difficulties faced during implementation so that the appropriate support or corrective measures can be adopted in a timely and remedial fashion.

66. The Project Team led by the Project Manager and Project Director together will fine-tune the progress and performance/impact indicators of the project in consultation with the UNDP/GEF extended team at the IW. Specific targets, progress indicators and their means of verification for the first year implementation will be developed at this Workshop. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team. They 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.

67. Measurement of impact indicators related to global benefits will occur according to the schedules defined in the IW and based on the GEF International Waters results template.

68. *Periodic monitoring of implementation progress* will be undertaken by the UNDP/GEF through quarterly teleconferences with the project proponent, or more frequently as deemed necessary. 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.

69. *Annual Monitoring* will occur through the PSC. This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to PSC meetings at least once every year. The first such meeting will be held within the first twelve months of the start of full implementation, for which the Project Team will prepare an Annual Project Report (APR) and submit it to the members of the PSC at least two weeks prior to the meeting for review and comments.

70. The APR /PIR will be used as one of the basic documents for discussions in the PSC meeting. Project Team will present the APR/PIR to the PSC, highlighting policy issues and recommendations for the decision of the PSC members. The designated IA and EA staff will also inform the participants of any agreement reached by stakeholders during the APR preparation on how to resolve operational issues. The PSC meeting is the opportunity for the Project Team to call upon the PSC members for specific support and interventions to support the achievement of the project's development objective.

71. UNDP Country Offices and UNDP-GEF staff as appropriate, may conduct yearly visits to projects that have field sites, or more often based on an agreed upon schedules to be detailed in the project's Inception Report/Annual Work Plan to assess first hand project progress. Any other member of the PSC is also encouraged to participate in such visits. Field visit or mission reports will be prepared and circulated within one month of completion of the mission to the PSC members, Project Team and others as deemed necessary.

Project Monitoring Reporting

72. The Project Team in conjunction with the UNDP-GEF team will be responsible for the preparation and submission of the following reports that form part of the monitoring process.

(a) Inception Report (IR)

73. A Project Inception Report will be prepared immediately following the IW. It will include the detailed First Year/Annual Work Plan as agreed upon at the IW. The Work Plan will be divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. The Work Plan will include the dates of specific field visits, support missions 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.

74. 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.

75. When finalized the report will be circulated to all PSC members and additional project proponents who will be given a period of one calendar month in which to respond with comments or queries. Prior to this circulation of the Inception Report, the JBF and the UNDP/GEF extended team will review the document.

(b) Annual Project Report (APR) / Project Implementation Review (PIR)

76. The APR is a UNDP requirement and part of UNDP's central oversight, monitoring and project management. It is a self -assessment report by project management to UNDP which provides input to UNDP's reporting process and the Results-Oriented Annual Report (ROAR), and constitutes a key input to the PSC meetings. An APR will be prepared on an annual basis prior to the PSC, 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, CAE and other expenditure reports (ERP generated)
- Lessons learned
- Clear recommendations for future orientation in addressing key problems in lack of progress
- Key risks identified, an update of their status and additional risks identified during implementation.
- Partnerships developed, facilitating factors which contributed to the project's progress and positive impacts and results that were not captured in the annual workplan, logframe and project document.

77. 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 the designated Project Manager with support of the UNDP CO and/or RCU. The PIR is usually prepared around June/July and should be endorsed by the chair of the PSC. In light of the similarities of both APR and PIR, UNDP/GEF has prepared a harmonized format for use and as such only one annual project reporting form will be applied.

(c) Quarterly Progress Reports

78. Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Office and the UNDP Regional Centre by the project team.

(d) Project Terminal Report

79. During the last three months of the project the project team will prepare the Project Terminal Report. This comprehensive report will summarize all activities, achievements and outputs of the Project,

lessons learnt, objectives met, or not achieved, structures and systems implemented, etc. and will be the definitive statement of the Project’s activities during its lifetime. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the Project’s activities.

(e) Technical Reports

80. Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. Such reports are expected to be prepared on key areas of activity during the course of the Project. Technical Reports may be prepared by external consultants and should be comprehensive, specialized analyses of clearly defined areas of research within the framework of the project and its sites. These technical reports will represent, as appropriate, the project's substantive contribution to specific areas, and will be used in efforts to disseminate relevant information and best practices at sub-state, national and international levels.

(g) Project Publications

81. Project Publications will form a key method of crystallizing and disseminating the results and achievements of the Project. These publications may be scientific or informational texts on the activities and achievements of the Project, in the form of journal articles, multimedia publications, etc. These publications can be based on Technical Reports, depending upon the relevance, scientific worth, etc. of these Reports, or may be summaries or compilations of a series of Technical Reports and other research. The project team will determine if any of the Technical Reports merit formal publication, and will also (in consultation with UNDP, the PSC and other relevant stakeholder groups) plan and produce these Publications in a consistent and recognizable format. Project resources will need to be defined and allocated for these activities as appropriate and in a manner commensurate with the project's budget.

INDEPENDENT EVALUATION

Final Evaluation

82. An Independent Final Evaluation will take place three months prior to the terminal PSC meeting, and will focus on determining the progress and success made towards the achievement of outcomes. It will focus on the effectiveness, efficiency and timeliness of project implementation; it will also present lessons learned about project design, implementation and management. The final evaluation will 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 UNOPS as executing agency based on guidance from the UNDP Regional Centre.

83. An audit of project expenditure will be done in accordance with agreed UNDP and GEF requirements

TABLE 1: INDICATIVE MONITORING AND EVALUATION WORK PLAN AND CORRESPONDING BUDGET

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team Staff time</i>	Time frame
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Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team Staff time</i>	Time frame
Inception Workshop	Project Coordinator UNDP CO UNDP/GEF	6,000	Within first two months of project start up
Inception Report	Project team UNDP CO UNDP/GEF	None	Immediately following IW
PIR	Project Team UNDP CO UNDP/GEF	None	Annually
Project Steering Committee (PSC) Meetings / TPR meetings	Project Team UNDP CO & UNDP/GEF staff	None	Following Project IW (August 09) & subsequently at least once a year
Periodic status reports	Project Team	None	To be determined by project team and UNDP CO
Technical reports	Project Team Consultants as needed	10,000	To be determined by project team and UNDP CO
Mid-term review	Project team UNDP CO UNDP/GEF External consultants	6,000	At the mid-point of project implementation
Final External Evaluation	Project team UNDP CO UNDP/GEF External Consultants (i.e. evaluation team)	20,000	At the end of project implementation
Terminal Report	Project team UNDP CO External consultant	None	At least one month before the end of the project
Lessons learnt report	Project team UNDP CO UNDP/GEF	12,000 (average 3,000 per year)	Yearly
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		54,000	

PART V: Legal Context

84. This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together the instrument envisaged in the [Supplemental Provisions](#) to the Project Document. Consistent with the above Supplemental Provisions, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

The implementing partner shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;

b) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

85. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

86. The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

SECTION II : PROJECT RESULTS FRAMEWORK

Project Goal	The development and implementation of an integrated and participatory natural resource planning and management strategy in selected arid region of the Thar desert in Rajasthan that is subject to recurrent droughts and land degradation and contribute towards the achievement of the SLEM objective to promote SLEM while taking into account of climate change.
Project Objective	To promote sustainable and participatory management of community natural resources to achieve ecosystem health and climate change resilience while enhancing the livelihood opportunities of the rural communities of the Thar Desert ecosystem of Rajasthan

Project Strategy	Objectively verifiable indicators				
	Indicator	Baseline	Target	Source of verification	Risks and Assumptions
Outcome 1: Creation of an enabling environment for climate-resilient, sustainable land and ecosystem management	Number of sectoral policies that incorporate SLEM and climate risk mitigation guidelines	Discreet sectoral policies with limited incorporation of SLEM and climate risk mitigation	Integrated climate-resilient, SLEM strategy in place by end of the project	Consultation reports; strategy document; interviews with sub-state stakeholders	NRM planners at state and sub-state level are adequately involved and able to use climate resilient SLEM principles;
	Number and quality of coordination mechanisms in place	Very limited coordination and lack of a coordination platform	4 committees (1 for each ecosystem blocks) constituted with proper guidelines and functioning coordination mechanisms	Committee meeting minutes; Project monitoring reports;	Complete and accurate documentation of tenure rights and related issues are possible;
	Increased level of awareness on community managed AGO tenure regimes	Lack of documented information and limited understanding of AGO tenure regimes Limited knowledge of local people's awareness of climate change threats and indigenous coping strategies	Comprehensive study of the AGO tenurial system by the end of year 1 Atleast 30-40% of local communities and NRM agents fully cognizant of AGO tenure regimes Increased level of understanding of climate change threats and ability to incorporate this into NRM planning and decision making	Qualitative based surveys and interviews; Review report; Project monitoring reports	Involvement of local communities and subsequent 'buy-in' limited; Awareness raising and related efforts are sustained

<p><u>Outcome 2:</u> Community and Institutional Capacity Developed for Climate Resilient SLEM</p>	<p>Number of community level integrated natural resources management institutions (<i>Jal Sabha</i>) formed and mainstreaming into the PRI for sustainability;</p>	<p>Reported inadequate capacities of local communities in natural resource planning and management</p>	<p>Participatory capacity needs conducted and strategies to address gaps defined by end of year 1</p>	<p>Consultation reports</p> <p>Capacity assessment report</p> <p>Training reports</p>	<p>Adequate participation from PRI/Jal Sabhas to assess training needs and strategy;</p>
	<p>Increased percentage of women in villages participating in resource planning tasks and Women's Self-Help Groups (SHGs);</p>	<p>Low level of women participation in village level NRM institutions</p>	<p>Capacity development needs of local institutions in the 3 project areas defined and documented by end of year 1 and targeted trainings delivered in years 2 and 3 in the 75 villages of which at least 30% are women</p> <p>Community level NRM institutions formed in all 75 project villages with appropriate mandate capacities and adequate gender representation</p>	<p>Analysis of extension programme documents</p> <p>Training reports</p> <p>Field based interviews and surveys</p>	
<p><u>Outcome 3:</u> Participatory</p>	<p>Percentage of extension programmes incorporating SLEM and climate resilience principles</p> <p>Increased percentage of local administrative staff with abilities in climate risk management and scenario planning</p>	<p>Very low level of capacity for integration of climate risk management and SLEM principles</p>	<p>Atleast 20% of extension programmes integrate SLEM and climate resilience principles by the end of the project</p> <p>Targeted trainings delivered by end of the project for atleast</p>	<p>Project monitoring reports;</p> <p>Project information</p>	<p>Staff turn-over and transfers do not negate capacity development gains</p> <p>Climate proof technologies that are relevant to the project are available / are</p>

Climate Resilient SLEM demonstrated	<p>interventions defined and implemented to operationalise project strategy</p> <p>Total area of land brought under integrated climate resilient SLEM management</p> <p>Existence of integrated natural resource management plans for the targeted villages</p>	<p>use and management in the project areas</p> <p>Limited understanding of the way in which climatic change is affecting the Thar system and the livelihoods that depend on it.</p> <p>Discreet and ineffective drought management projects contributing little to sustainable land and ecosystem management</p>	<p>implementation of demonstration interventions discussed with communities by end of year 1;</p> <p>Approx 6000 ha of land in 75 villages brought under direct SLEM implementation by the end of the project;</p> <p>Integrated Natural resource management plans for the 75 villages by the end of year 2</p>	<p>management system and baseline reports</p> <p>GIS/GPS surveys; project information management system</p> <p>Review of natural resource management plans</p> <p>Evaluation reports</p>	<p>appropriate and easy to implement</p> <p>Potential conflicts between communities in implementing natural resource management plans due to competing interests</p>
	Increase in carbon stock of forests and grasslands	Baseline to be measured	Atleast 30,000 tons during project period	Carbon measurement (in line with methodologies developed by the GEF carbon benefits project)	Carbon stock measurement methodologies in place
	Increase in fuel and fodder yields as a result of farmer adoption of drought resistant technologies	Baseline to be measured in year 1	Atleast 20% increase	Project monitoring information; socio-economic surveys; Project information management system	
	Number of households directly benefitting from the direct project interventions	None	Atleast 30 participants of all households in the 75 villages	Project monitoring information; socio-economic surveys; Project information management system	Project interventions lead to increased incomes and betterment of local people's livelihood
	Evidence of socio-economic improvement of project beneficiaries from	Baseline to be measured	Increasing trend of households moving out of poverty	Socio-economic surveys; Project monitoring reports; Project information	

	baseline		specific examples of climate resilient development at household level in place	management system	
<p>Outcome 4:</p> <p>Enhanced knowledge management system for replicating good practices in Integrated and climate resilient Management of community land resources</p>	<p>% of new natural resources management initiatives/ activities undertaken by state-level departments responsible for forests, rural development, agriculture, irrigation, and watershed management that are informed by project lessons and knowledge</p> <p>Number of knowledge products developed and shared with the SLEM programme</p> <p>No of knowledge sharing events organized</p> <p>No of project lessons shared through the Adaptation Learning Mechanism (ALM)</p>	<p>None</p> <p>None</p> <p>No contributions from the project to the SLEM programme or ALM</p>	<p>Data collection, mining and analysis system established by end of year 1;</p> <p>By the end of the project atleast 3 products developed / knowledge sharing events organized;</p> <p>Project monitoring and evaluation reports routinely shared with SLEM programme and ALM</p> <p>By the end of the project, salient elements of integrated resource management and climate adaptation shared on ALM</p>	<p>Existence of information management system;</p> <p>Review of sub-state and state level NRM plans and activities;</p> <p>Knowledge sharing events reports</p> <p>ALM platform</p>	<p>Knowledge products are relevant and wider replication opportunities are available and remain sustained</p>
Outcomes	Outputs				
Outcome 1: enabling environment	Output 1.1: State level and sub-state level committees and inter-sectoral coordination mechanisms in place				
	Output 1.2: AGO lands tenurial regimes assessed and recommendations made				
	Output 1.3 Integrated strategy for natural resource management drafted				
Outcome 2:	Output 2.1: Capacity development needs for sub-state level staff, communities and community institutions assessed				

Community and institutional capacity	Output 2.2: Dedicated training events and capacity building activities implemented to enhance local capacity for promoting and implementing climate resilient SLEM
Outcome 3: SLEM demonstration	Output 3.1: Integrated resource management plans for climate resilient SLEM defined based on participatory baseline assessments in the project villages
	Output 3.2: SLEM approaches and climate resilient technologies demonstrated and promoted in the 75 project villages
Outcome 4: Knowledge management, learning and replication	Output 4.1: Participatory assessment of monitoring and evaluation designed and implemented
	Output 4.2 Documentation of lessons learnt, preparation of dissemination materials and contribution to the ALM will contribute to greater replication of best practices from the project

TABLE 2: OBJECTIVELY VERIFIABLE IMPACT INDICATORS

Please refer to the column Verifiable Indicators in the above Table for the project objective and outcome indicator.

SECTION III : Total Budget and Workplan

TOTAL BUDGET AND WORK PLAN

Award ID:	00057823
Award Title:	PIMS 3419 LD MSP: Land Degradation in the Thar Desert Ecosystem
Business Unit:	IND10
Project Title:	PIMS 3419 LD MSP: Sustainable Participatory Management of Natural Resources to Control Land Degradation in the Thar Desert Ecosystem
Project ID: PIMS no. _____	00071579/PIMS 3419
Implementing Partner (Executing Agency)	Jal Bhabirathi Foundation (JBF)

GEF Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Total* (USD)	Budget note
Enabling environment for SLEM	JBF	62000	GEF	71600	Travel	3,900	3,900	3,900	11,700	1
				71300	Consultants	12,000	12,000	6,000	30,000	2
				72100	Contractual Services	7,500	7,500	7,500	22,500	3
				74500	Miscellaneous	2,000	2,000	1,800	5,800	4
					Total			25,400	25,400	19,200
Institutional and Community Capacity Development for SLEM	JBF	62000	GEF	71600	Travel	5,000	5,000	5,000	15,000	5
				71300	Consultants	7,000	7,000	7,000	21,000	6
				72100	Contractual Services	15,000	15,000	15,000	45,000	7
				74500	Miscellaneous	3,000	3,000	3,000	9,000	8
					Total			30,000	30,000	30,000
DEMONSTRATION OF PARTICIPATORY SLEM	JBF	62000	GEF	71600	Travel	17,090	10,000	10,000	37,090	9
				71300	Consultants	50,000	20,000	20,000	90,000	10
				72100	Contractual Services	166,000	140,000	140,000	446,000	11
				74500	Miscellaneous	16,001	15,000	15,000	46,001	12
								249,091	185,000	185,000
Knowledge Management System	JBF	62000	GEF	71600	Travel	1,500	1,500	1,500	4,500	13
				71300	Consultants	5,000	5,000	20,000	30,000	14

for Replicating Good Practices in Integrated Management if Co				72100	Contractual Services	3,000	4,000	4,000	11,000	15
				74500	Miscellaneous	1,500	1,500	1,500	4,500	16
						11,000	12,000	27,000	50,000	
Project Management	JBF	62000	GEF	71600	Travel	3,000	3,000	4,000	10,000	17
				71200	Consultants	18,000	18,000	18,000	54,000	18
					materials and supply	2,000	2,000	2,000	6,000	19
				74500	Miscellaneous	2,000	2,000	6,000	10,000	20
						25,000	25,000	30,000	80,000	
PROJECT TOTAL						340,491	277,400	291,200	909,091	

Summary of Funds:⁸

	Classification	
GEF	Cash	\$909,091
Government of Rajasthan	Cash	\$10,000,000
Government of Rajasthan	In-kind	\$4,000,000
UNDP	In-kind	700,000
TOTAL		\$15,609,091

Explanatory Notes for the TBWP table

For Adaptive Management reasons, the above budget breakdown and budget notes below are only indicative. They will be subject to changes throughout the project execution, based on review of progress and changes in project conditions, risks and assumptions. All the contracts listed below will be procured as per UNDP rules and regulations.

Item no	*Budget Notes
1	Includes cost of travelling of 3 consultants for travel within and sometimes outside the state of Rajasthan meeting various coordination committee members, Government officials, NGO and CBO officials, volunteers and other expert members in the subject. This travel also includes travel various stakeholders attending the meetings at various places.
2	2 Local Consultants (30 weeks each) will be hired for preparation guidelines and strategy papers. The consultants will meet various stakeholders to prepare guidelines and arrange workshop and prepare the document on strategy paper on SLEM and guidelines for institutional coordination

⁸ Summary table should include all financing of all kinds: GEF financing, co-financing, cash, in-kind, etc. etc

3	Contractual Services will be hired for organizing consultations, workshops and meetings at various places, logistics such as meeting halls, food, local conveyance and other local support
4	The Miscellaneous expenses include local support at head office, local offices and others
5	Includes cost of travelling of resource persons, stakeholder participation, consultants etc
6	2 Consultants for 21 weeks (USD 500/week) for designing training modules, for facilitating trainings, imparting need based training to different stakeholders. The consultant will also identify capacity gaps and develop strategy for addressing gaps.
7	Contractual Services will be hired for organizing trainings, design and publishing training material
8	The Miscellaneous expenses include local support at head office, local offices and others
9	Travel cost include cost of travelling of consultants, staff, volunteers for PRA exercises, community mobilization, participatory planning, implementation
10	6 Consultants (local level coordinators at 250 USD/week for 40 weeks) for PRA, social mobilization, baseline survey, strengthening institutional frameworks in 75 project villages
11	Grants to community institutions in project villages for implementing micro projects involving revival of traditional land and water management systems, and other activities related to catchment development
12	The Miscellaneous include expenses related to campaigns, village level activities, hospitality, and others
13	Travel cost include cost of travelling of consultants, staff, for project data collection and report preparation
14	2 Consultants (500/wk for 30 wks) for project evaluation, developing data management system, knowledge sharing events or products
15	Contractual services for knowledge products and events for dissemination of knowledge products such as design and publication, printing and forwarding
16	The Miscellaneous include photocopying, communications, stationary, software etc.
17	Travel includes visit to project sites, project meetings, UNDP and SLEM coordination committee meetings and others
18	5 Consultants (300/wk for 36 wks) for project evaluation, monitoring and assurance roles such as reporting to UNDP and other government organizations, project coordination, implementation etc.
19	includes office stationary, equipments
20	miscellaneous include communication costs, coordination etc

SECTION IV : ADDITIONAL INFORMATION

PART I:

1. Approved MSP PIF

MSP PIF in Annex I

2. Other agreements

Endorsement and commitment letters in a separate file attached.

PART II: Terms of References for key project staff and main sub-contracts

Terms of References for key project staff and consultants

Project manager

Duration: 3 years, full-time

Location: Based in Jodhpur; duty travel in India

Scope of the assignment: The Project Manager assumes overall responsibility for the successful implementation of project activities and the achievement of planned project outputs. He/she reports to the Project Director assigned by the JBF, and the UNDP Country Office.

Duties and responsibilities: The Project Manager will have the following responsibilities:

- Supervise and coordinate the project to ensure its results are in accordance with the Project Document and the rules and procedures established in the UNDP Programming Manual;
- Assume primary responsibility for daily project management - both organizational and substantive matters – budgeting, planning and general monitoring of the project;
- Ensure adequate information flow, discussions and feedback among the various stakeholders of the project;
- Ensure that participatory methodologies employed by the project are particularly sensitive to women’s participation;
- Ensure adherence to the project’s work plan, prepare revisions of the work plan, if required;
- Assume overall responsibility for the proper handling of logistics related to project workshops and events;
- Prepare GEF quarterly project progress reports, as well as any other reports requested by the Executing Agency and UNDP;
- Prepare, and agree with UNDP on, terms of reference for national and international consultants and subcontractors;
- Guide the work of consultants and subcontractors and oversee compliance with the agreed work plan;

- Maintain regular contact with UNDP Country Office and the National Project Director on project implementation issues of their respective competence;
- Monitor the expenditures, commitments and balance of funds under the project budget lines, and draft project budget revisions;
- Assume overall responsibility for the meeting financial delivery targets set out in the agreed annual work plans, reporting on project funds and related record keeping;
- Liaise with project partners to ensure their co-financing contributions are provided within the agreed terms;
- Ensure collection of relevant data necessary to monitor progress against indicators specified in the logframe;
- Assume overall responsibility for reporting on project progress vis-à-vis indicators in the logframe;
- Undertake any other actions related to the project as requested by UNDP or the National Project Director.

Expected Results:

- Successful delivery of all project outputs and milestones, as indicated in the project logical framework.
- Qualifications and skills:
 - University degree in the field of environment protection and management, sustainable human development or related field
 - Outstanding communication, project management and organizational skills
 - At least 5 years of experience in development cooperation and project management
 - Familiarity with the working environment and professional standards of international non-profit organizations
 - Working experience with GOI institutions involved in sustainable land management
 - Experience in working with NGOs and civil society, and with participatory approaches
 - Proficiency in English and Hindi
 - Computer literacy

Terms and conditions for provision of the services:

- The Project Coordinator reports to UNDP and to the Project Director at JBF
- Citizen of India
- The Project Coordinator cannot be employed elsewhere during the entire course of the project

Administrative and Financial Assistant

Duration: 3 years, full-time

Location: Based in Jodhpur; duty travel in India

Scope of assignment:

The Administrative and Financial Assistant provides assistance to the Project Manager in the implementation of day-to-day project activities. He/she is responsible for all administrative (contractual, organizational and logistical) and all accounting (disbursements, record-keeping, cash management) matters under the project.

Duties and responsibilities:

- Provide general administrative support to ensure the smooth running of the project management unit
- Project logistical support to the Project Coordinator and project consultants in conducting different project activities (trainings, workshops, stakeholder consultations, arrangements of study tour, etc.)
- During the visits of international experts, bear the responsibility for their visa support, transportation, hotel accommodation etc
- Organize control of budget expenditures by preparing payment documents, and compiling financial reports
- Maintain the project's disbursement ledger and journal
- Keep files with project documents, expert reports
- Control the usage of non expendable equipment (record keeping, drawing up regular inventories)
- Keep regular contact with project experts and consultants to inform them about the project details and changes
- Provide English translation as required
- Draft correspondence and documents; finalize correspondence of administrative nature; edit reports and other documents for correctness of form and content
- Arrange duty travel
- Act on telephone inquiries, fax, post and e-mail transmissions, and co-ordinate appointments
- Perform any other administrative/financial duties as requested by the Project Coordinator
- Organize and coordinate the procurement of services and goods under the project

Expected Results:

- Successful operation of project office

Qualifications and skills:

- University degree
- Fluency in written and spoken English
- Outstanding time-management, organizational and inter-personal skills

- At least 2-year experience in office administration, preferably within UNDP projects
- Excellent computer literacy

Terms and conditions for provision of the services:

- The Administrative and Financial Assistant reports to the Project Manager and works under his/her direct supervision

Specialist Consultants:

1. Climate Change Adaptation Consultant/Specialist

This placement ensures that global environment concerns are mainstreamed in the overall project portfolio of planned activities. The work on Climate Change Mitigation is one of project outcome design areas. The role of a the climate change specialist/consultant is to support project implementation partner and their associated agencies, stakeholders in the efficient, effective, and high quality delivery of project development and implementation services in one or more focal areas or sub-focal areas of the project design and activities.

The consultant for Climate Change Mitigation works under the overall guidance and supervision of the UNDP/Govt of Rajasthan for Climate Change adaptation. The geographic scope of work is Rajasthan in the project districts of Jodhpur, Pali and Barmer. S/he will be based in the JBF, Jodhpur,. This scope is dynamic in nature and subject to change, as imposed by changes in demand. As needed, s/he will also provide support to the development, implementation and/or evaluation of the climate change project activities in the focal districts of Rajasthan. The Consultant/ Specialist will be responsible for advising proponents of project on the most suitable sources of activities, policy change measures etc.

Duties and Responsibilities

- Develop strategies of water harvesting structures that commensurate with climate change adaptation
- Advise and articulate with the people about the climate change adaptation strategies with the communities in the project districts
- Engage discussion with Government and other NGO partners to develop strategies for institutional platforms and strategies for programme implementation and replication

Required Skills and Experience

- Master's degree in Environmental Sciences, Environmental Economics, Environmental Management, related to climate change or a closely-related field;
- 7 years of professional experience in providing development assistance of which at least 5 years formulation and implementation of CC adaptation/mitigation activities in combination with knowledge on economic and financial analysis, institutional, regulatory and policy frameworks;
- At least 5 years experience in the field in developing countries in Climate Change Mitigation; recent and relevant experience with working in India/Central India in the areas of sustainable energy and climate change strongly preferred;

- Extensive experience with project development, implementation and management (in-depth knowledge of and experience in applying log frame methodologies is an asset);
- Experience in the policy development processes associated with environment and sustainable development issues;
- Previous experience with GEF, Climate Change Mitigation and with carbon finance mechanisms in particular specific project origination experience for carbon projects will be highly desirable;
- Skills in facilitation and coordination, entrepreneurial spirit and demonstrated ability to work in an independent manner;
- Fluency in English/Hindi is required

2. Water Management Specialist

Working with the local partners to improve the water resources and delivery systems by undertaking reconstruction and rehabilitation of irrigation, water harvesting, main drainage systems, and installation of drainage and salinity areas; improving and optimizing on-farm water management including proper storage of water, efficient irrigation techniques and systems, and crop selection.

The consultant should have a proven record in water management and irrigation, particularly in small and medium scale systems in India and a background in agricultural engineering, farming systems, or related discipline.

Responsibilities

As the International Farming Systems and Commercial Agriculture Specialist:

- Develop specific measures for water management and irrigation in the Dry Land development and water harvesting structures and traditional practices.
- Design implementation arrangements for water management and practices component
- Participate in consultative meetings at the state and stakeholder level
- Identify prospective beneficiaries and service providers in the proposed program
- Conduct institutional analysis of the service providers likely to be involved in the proposed program

3. Social mobilization / Social work specialist

Working with the local partners to improve the water resources and other delivery support systems by undertaking reconstruction and rehabilitation of irrigation, water harvesting, main drainage systems. The specialist needs to understand the socio-economic context of the people working with the project and advise the implementation on the strategies of implementation and cooperation of the community in the project. S/he should Have a proven record in social mobilization especially in the natural resource management aspects are required.

The responsibilities include;

- Interact with communities and other institutions and individuals directly and indirectly involves in the project to understand the social issues associated with the project more particularly for participation and creating incentives to participate in the project
- Understanding the change in the mindset of people and the patterns of cooperation for better implementation strategies.

Project Management Unit:

A Project Management Unit (PMU) with a full-time project manager supported by one programme officer, one administrative assistant and one accounts officer will assist in the implementation of this project. The PMU will be located in the JBF.

The key responsibilities for the PMU will include:

- Coordinating project implementation with all the implementing partners, concerned state government and central government agencies and UNDP-GEF.
- Providing the required support related to technical reporting to the implementing partners.
- Providing the required support related to financial matters including financial reporting to the implementing partners.
- Coordinating with all the implementing partners to ensure that all the required technical and financial reports are submitted in a timely manner.
- Ensuring that there is adequate documentation by all the implementing partners at all stages of implementation and in collating this documentation.
- Facilitating the publication of project outputs.

The programme officer (PO) is responsible for the day-to-day guidance and operational management of the project and support activities. The PO will support, initiate, monitor and manage the project. The PO will report to the project manager and help liaise with the government departments.

Key responsibilities will include:

- Consult with key partner institutions on a frequent basis and co-ordinate all actions with these partner institutions and on going programs.
- Provide overall technical assistance to the development and delivery of project activities.
- Select, recruit and supervise project professional staff and administrative support staff.
- work closely with partner institutions and project manager and other to manage project, prepare and revise workplans
- organize and implement project activities according to work plans

- prepare and submit financial reports, quarterly progress reports and other technical reports for effective project implementation

Project Steering Committee:

The Project Steering Committee (PSC) will be the apex body, which will be responsible for ensuring that the project is implemented in line with the agreed project design and consistent with national and state development policies. The PSC will meet at least once a year and it will provide the required oversight to this project and also ensure the overall co-ordination of the programme. The PSC will be chaired by the xxxx. Its membership will include the concerned Secretary; representatives of UNDP; and two non government representatives nominated by the government,.

Key responsibilities of the PSC will include:

- Approving the Project Implementation Plan and the project's annual work plans and budget allocations.
- Ensuring that the project is implemented as per the agreed project design and in line with the Project Implementation Plan to be developed during the Inception Phase and the more detailed Annual Workplans and Budgets
- Ensuring that implementation is consistent with national and state development policies.
- Facilitating and monitoring the required level of inter-sectoral coordination for the successful implementation of the project.
- Facilitating additional resource mobilization both from donors as well as from Government programmes.
- Ensuring the required levels of participation from the three project districts.
- Ensuring that the committed co-financing is made available on a timely basis for project implementation by all concerned.
- Ensuring that funds are available for the state governments for carrying out the implementation.
- Reviewing performance of the project on an annual basis and based on the major findings recommend adjustments to the project implementation strategies and plans to enable it to remain relevant to the global, national and local contexts.
- Provide policy guidance to the project, especially to enable it to leverage emerging opportunities.
- Facilitate the linking and mainstreaming of project implementation experience into national policy and practice.

Annex I



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: MEDIUM SIZE PROJECT

THE GEF TRUST FUND

Submission Date: 13 November 2008

Re-submission Date:

PART I: PROJECT IDENTIFICATION

GEFSEC PROJECT ID⁹: 3024

GEF AGENCY PROJECT ID: 3419

COUNTRY: India

PROJECT TITLE: Sustainable Participatory Management of Natural Resources to Promote Ecosystem Health and Resilience in the Thar Desert Ecosystem

GEF AGENCY: UNDP

OTHER EXECUTING PARTNERS: Ministry of Rural Development, Government of Rajasthan; Union Ministry of Environment and Forests, Government of India; and Jal Bhagirathi Foundation (JBF)

GEF FOCAL AREA (S): Land Degradation and Climate Change (Strategic Priority on Adaptation)¹⁰

GEF-4 STRATEGIC PROGRAMME(S): SO 1 and SP 1 (LD); SPA (Climate Change)

NAME OF PARENT PROGRAMME/UMBRELLA PROJECT: Sustainable Ecosystem and Land Management (SLEM) Country Partnership Programme

INDICATIVE CALENDAR	
Milestones	Expected Dates
Work Programme (for FSP)	N/A
CEO Endorsement/Approval	June 2009
GEF Agency Approval	July 2009
Implementation Start	August 2009
Mid-term Review (if planned)	January 2011
Implementation Completion	July 2012

A. PROJECT FRAMEWORK:

Project Objective: To promote sustainable and participatory management of community natural resources to achieve ecosystem health and climate change resilience while enhancing the livelihood opportunities of the rural communities of the Thar Desert ecosystem of Rajasthan.

Project Components	Type	Expected Outcomes	Expected Outputs	Indicative GEF Financing		Indicative Co-financing		Total (\$)
				(\$)	%	(\$)	%	

⁹ Project ID number will be assigned initially by GEFSEC.

¹⁰ GEF funding will come from the Land Degradation focal area and SPA. However, the project will also generate associated benefits in terms of biodiversity conservation in accordance with the objectives of the SLEM Programme.

Project Components	Type	Expected Outcomes	Expected Outputs	Indicative GEF		Indicative financing		Co-	Total (\$)
				Financing (\$)	%	(\$)	%		
1. Enabling Environment for SLEM	TA	<p>A strategy based on SLEM principles for the sustainable conservation and management of common property resources (Land Water, Community Forests) developed through participatory approach.</p> <p>Enhanced awareness regarding land tenure regimes for community managed AGO (<i>Agors, Gauchars, Orans</i>) lands.</p> <p><u>Indicators of impact:</u> Approximately 6,000 hectares of land in 75 villages brought under SLEM directly by the project which is approximately 18% of AGO lands in Rajasthan; potential to bring remaining AGO lands (additional 240,000 hectares) in the 3 districts under SLEM through replication; Natural Resource Management strategy for AGO lands incorporates climate change projections</p>	<p>Formation of sub-state level committees (1 for each of the 4 ecosystem blocks being targeted) involving all stakeholders (including local community and local administration) for inter-sectoral cooperation on development of the strategy</p> <p>Integrated strategy for the reduction of pressure on climate-sensitive natural resources on AGO lands, based on climate change scenario planning</p> <p>Recommendations on appropriate ownership and management rights over AGO lands for sustainable use of common natural resources.</p>	70,000	4%	1,900,000	96%	1,970,000	
2. Institutional and Community Capacity Development for SLEM	TA	<p>Local bodies such as PRIs and JFM (particularly women members) and local communities have improved capacity to prepare and implement an integrated plan to manage land, water and community forest resources under changing climatic and socio-economic conditions</p> <p>Sub-state level institutions responsible for forests, rural development, agriculture, irrigation, and watershed management have improved capacity to implement a strategy for integrated management of common property land and water resources in changing climatic conditions</p> <p><u>Indicators:</u> At least 20% of extension programs offered by key state-level institutions include SLEM and climate resilient planning principles; Community level integrated natural resources management institutions (<i>Jal Sabha</i>) formed in all 75 project villages with appropriate mandate and adequate capacities; Increased percentage of women in project villages participating in natural</p>	<p>Assessment of capacity development needs among PRIs and JFMCs (with a gender sensitive perspective) and local communities in technical, financial and management aspects of natural resource planning</p> <p>Assessment of capacity development needs among PRIs and JFMCs to access, interpret and apply climate risk information in natural resource planning</p> <p>Assessment of capacity development needs in local administrative bodies to promote SLEM and integrate climate risk reduction into natural resource planning tasks</p> <p>Dedicated training events to address identified capacity gaps</p>	90,000	4%	2,000,000	96%	2,090,000	

Project Components	Type	Expected Outcomes	Expected Outputs	Indicative GEF		Indicative financing		Co-	Total (\$)
				Financing (\$)	%	(\$)	%		
		resource planning tasks and Women's Self-Help Groups (SHGs); Increased percentage of local administrative staff with abilities in climate risk management and scenario planning	in climate resilient natural resource management and scenario planning						
3. Demonstration of Participatory SLEM	TA	<p>Common property land and water resources in selected communities are managed based on SLEM principles to improve vegetation cover, improve water storage capacity and augment the desert ecosystem</p> <p>Sustainable natural resource management practices increase local income, rural employment, biomass availability, and resilience of livelihoods to climate change and variability</p> <p><u>Indicators of impact:</u> In the target area of 75 villages covering 6,000 hectares: Increase in carbon stock of forests and grasslands through improved land management (approx. 30,000 tons of carbon during the project period); Enhancing ecosystem services such as: Approx. 5% increase in biomass production; 25% increase in water storage (volume and duration); 5% increase in availability of fodder and fuelwood; 10% increase in grass yield in <i>Gauchars</i>; improvement in general soil quality; increased extent of drought-tolerant grass and tree varieties; additional protection of climate sensitive natural resources in extreme climatic events; reduced fragmentation of ecosystems containing climate-sensitive natural resources; improved income and rural employment</p>	<p>Baseline assessment of 75 target communities to operationalize the project strategy with local communities and administrations</p> <p>Integrated common land resources management plans, defined for 75 target communities, including soil and water conservation practices, sustainable water harvesting, planting of drought resistant grasses and trees, crop diversification, sustainable crop harvesting practices and integrated land-water-livestock management</p> <p>Integrated land resources management plans for 75 communities implemented and analyzed for ecological and adaptation benefits</p>	619,090	6%	9,000,000	94%	9,619,090	
4. Knowledge Management System for Replicating Good Practices in Integrated Management of Community Land Resources	TA	<p>Greater sub-state level capacity to mobilize information in support of planning and decision-making by government and non-government actors in relation to participatory, sustainable and adaptive management of common property land, water and livestock resources</p> <p><u>Indicators:</u> % of new natural resources management initiatives/ activities undertaken by state-level departments responsible for forests,</p>	<p>Information system that enables data collection and mining</p> <p>Specific knowledge products developed for, and disseminated to, public and private target groups in the natural resource management sector (project lessons will be replicated through the central</p>	50,000	3%	1,550,000	97%	1,600,000	

Project Components	Type	Expected Outcomes	Expected Outputs	Indicative	GEF	Indicative	Co-	Total (\$)
				Financing		financing		
				(\$)	%	(\$)	%	
		rural development, agriculture, irrigation, and watershed management that are informed by project lessons and knowledge	institutional mechanism that is to be established under the national SLEM programme) Project lessons captured in, and disseminated through, the Adaptation Learning Mechanism (ALM)					
4. Project management				80,000	24%	250,000	76%	330,000
Total project costs				909,090	6%	14,700,000	94%	15,609,090

B. INDICATIVE FINANCING PLAN SUMMARY FOR THE PROJECT (\$)

	Project Preparation	Project	Agency Fee	Total
GEF	25,000 (from GEF-3)	909,090	90,909	1,025,000
Co-financing		14,700,000		14,700,000
Total	25,000	15,609,090	90,909	15,725,000

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE and BY NAME (\$)

Sources of Co-financing	Type of Co-financing	Amount
Project Government Contribution	In kind	4,000,000
	In cash	10,000,000
	Total	14,000,000
UNDP	In kind	700,000
Bilateral Aid Agency(ies)		
Multilateral Agency(ies)		
Private Sector		
NGO		
Others		
Total co-financing		14,700,000

D. GEF RESOURCES REQUESTED BY FOCAL AREAS:

GEF Agency	Focal Area	Country Name/ Global	(in \$)			
			Project Preparation	Project	Agency Fee	Total
UNDP	Land Degradation	India	25,000 (from GEF-3)	681,818	68,182	775,000
UNDP	Climate Change (Strategic Priority on Adaptation)	India		227,272	22,727	250,000
TOTAL			25,000	909,090	90,909	1,025,000

PART II: PROJECT JUSTIFICATION

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

The Issue

1. The Thar Desert, located in the arid northwest region of India and southeastern Pakistan, is the world's seventh largest desert and spans an area of about 0.2 million km². About three-fifths of its total geographical area lies in the Indian state of Rajasthan, covering 12 desert districts that together comprise the Marwar region¹¹. About 10% of the Thar Desert ecoregion is composed of sand dunes, and the other 90% of craggy rock forms, compacted salt-lake bottoms, and interdunal and fixed dune areas. The climate is extreme with annual temperatures ranging from near-freezing in the winter to more than 50° C during the summer. All rainfall is associated with the short July-September southwest monsoon that brings a mere 100-500 mm of precipitation. The habitat is greatly influenced by the extreme climate. Vegetation of the region consists mainly of xerophilous grasslands and scrub vegetation consisting of low trees and shrubs. Due to scanty rainfall, its tree biodiversity is limited. The species that inhabit the region are *Prosopis juliflora*, *Prosopis cineraria*, *Salvadora persica* are the dominant one. *Ziziphus nummularia*, *Capparis decidua*, *Leppedenia pyrotechnica* are some of the other species found apart from abundant grass species such as *Cenchrus seliaris* and *Cenchrus setigurus*. In terms of fauna, a variety of resilient species have survived and adapted to the extreme conditions. Mammalian fauna consists of 41 species that inhabit the open plains and grasslands including the blackbuck (*Antelope cervicapra*), chinkara (*Gazella bennettii*), caracal (*Felis caracal*) and the desert fox (*Vulpes bengalensis*). Eleven reptile species have been reported from the Western Thar region. About 141 birds are known to visit the ecoregion, including the great Indian bustard (*Chirootis nigricaps*), a globally threatened species; migratory birds including the cranes (*Grus grus*, *Anthropoides virgo*) and flamingos (*Phoenicopterus spp.*) cross this ecoregion. This range of diversity, though low, has been conserved traditionally by the Bishnoi tribes, who are known for their exemplary efforts to save forests from an invading army¹².

2. The Thar Desert is one of the most densely populated deserts of the world with 84 to 90 people per km² (compared to 3 to 6 in other deserts). The human population has increased from 5.8 million in 1950 to 22.5 million in 2001. Similarly, the livestock population has increased from 13.7 million in 1961 to 32 million in 1997. Unsustainable human and livestock pressure (over grazing, encroachment and over harvesting of forests) is leading to degradation of land resources – forests, pastures, habitats and species, and water sources. Grazing of livestock is intensive, affecting soil quality and destroying native vegetation. Many palatable perennial species are being replaced with inedible annual species, thus changing the vegetation composition and ecosystem dynamics. Forests are in a degraded state; biodiversity is threatened as a result of over grazing of pastures and the encroachment and over harvesting of forests; water resources have declined as a result of reduced runoff and silting of water bodies due to increased soil erosion from lack of vegetative cover. Data on Iso-Erosion rates for India indicate that this region is affected by moderate to severe erosion¹³. In terms of climatic factors, 88.7% of the land area of Rajasthan is defined as drought prone, as against 14% of the total area of the country, or 33% of the total arable land. Further, the First National Communication to the UNFCCC on vulnerability assessment to climate change identifies the Luni watershed, which occupies about 60% of the area of Rajasthan, as the most likely to experience acute physical water scarce conditions in the country. More intense rain and more frequent flash floods during the monsoon would result in a higher proportion of runoff and a reduction in the proportion reaching the groundwater and it is also increasing the risk for salinization¹⁴.

¹¹ It also extends into the southern portion of Haryana and Punjab states, and into northern Gujarat state. In Pakistan, the desert covers eastern Sind province and the southeastern portion of Pakistan's Punjab province.

¹² Once upon a time, when the king of the region wanted to cut trees to build his palace, the people of this region laid their life down for saving the trees by not allowing the army to cut them.

¹³ Singh, G.R. *et al.* (1992), Soil Erosion Rates in India, *Journal of Soil and Water Conservation* 47 (1): 97-99.

¹⁴ Climate Change and Water. IPCC Technical Paper VI, June 2008.

Hence, anthropogenic pressures, combined with climate change and variation, are not only destroying the fragile desert ecosystem and threatening the livelihoods of its inhabitants, but also impacting adjacent areas, through changes in water flow, micro-climate and human migration.

3. Traditional natural resource management in Rajasthan is characterized by community managed lands, consisting of: Agors (A) that are areas that traditionally served as catchments for water bodies; Gouchars (G) that are areas that served as community grazing lands; and Orans (O) that are areas that served as community forests. All three community resources were traditionally managed by the village community. In the 3 districts where the project proposes to focus, AGOs cover 50% of the geographic area. Over the years, the total land area under communally managed AGO lands has declined and the level of degradation of remaining AGOs has greatly intensified. This is mainly due to encroachment and conversion to agriculture, conversion for settlement, roads, community assets, inappropriate afforestation programmes, and reduction in recharge and over exploitation of ground water due to deep bore-wells, further increasing livestock and human pressure on the remaining AGOs. In recent years, there has been a breakdown of the traditional resource use regime. Grazing lands have effectively become open access resources with no system for controlling and monitoring their use. Though specific data for the Thar Desert region are not available, national data show a decline in the extent of common property lands, ranging from a decline of 26 percent to 52 percent in several states of India during the last four decades¹⁵, and Rajasthan is among the more severely affected states. Traditionally managed AGO lands are repositories of biodiversity and the source of multiple products such as grass, fodder, fuel wood, timber and non-timber tree products. Protection and management of AGOs are fundamental to the survival of agro-ecosystems in desert areas, as well as maintenance of ecosystem stability, integrity, functions and services in the face of climate change.

4. A number of drought mitigation measures as well as rural and desert development programmes have been implemented in Rajasthan, including: Watershed Programme, Desert Development Programme, Drought Prone Area Programme, Rural Works Programmes, Social Forestry and Joint Forest Management Programme. However, most of these initiatives have suffered from limited spatial coverage, whereas integrated initiatives to conserve natural resources (water, land, biodiversity) could have yielded greater coverage. Often, afforestation and rehabilitation measures have not been compatible with the integrated development of AGOs. Furthermore, development programmes are undertaken based on targets and allocations that are fixed by the national and state governments – an approach that is often not conducive to management and devolution of authority to the lower levels such as the village councils and Panchayats.

5. A recent authoritative review of drought management strategies in India by the Indian Council of Agricultural Research (ICAR, 2003) as well as an assessment of drought and famine strategies by the Centralized Arid Zone Research Institute (CAZRI, 2003) have identified the following systemic barriers affecting drought mitigation efforts: the lack of integrated planning is a major constraint and most activities are planned and implemented on a sectoral basis; a lack of participation of local communities from the beginning in planning and execution and an inadequate appreciation of indigenous knowledge; drought relief is short-term and rarely mainstreamed within longer-term development strategies, and there is a lack of accurate and reliable spatial and temporal data. There is insufficient capacity in the government for implementing and monitoring an integrated strategy at the local level and to undertake sustainable land management in a coordinated programmatic approach that also includes “no regrets” adaptation strategies. Similarly, a review of the Desert Development Programme also cited the lack of integrated planning and management based on a watershed approach, minimal involvement of local people in planning and implementation, and chronic lack of funding and appropriate training as reasons undermining the realization of the programme’s objectives. These lessons point to persistent barriers to promoting sustainable land management practices that can help arrest and reverse current land degradation trends and enhance resilience to climate change, including variability.

¹⁵ N.S. Jodha, 2005, Paper presented at the UNDP workshop on “Sustainable land Use in Dry Lands: Global and National Perspectives”, 2nd February 2005, New Delhi.

6. **Policy and regulatory barriers:** In Rajasthan, even though community managed AGOs account for a significant portion of land area (>50%), there is no integrated policy for the management, conservation and utilization of traditional community land and water resources; activities continue to be planned and implemented on a sectoral basis. There is also a lack of clarity on their legal status. As a result, government officers and Panchayats assume the decision making power on how to allocate these lands for purposes other than their traditional intended use undermining ecosystem health and resilience.

7. **Institutional capacities, skills and knowledge barriers:** Competencies and capacities within institutions are such that afforestation and other rehabilitation programs currently being promoted are not compatible with local land regimes and native vegetation. Selected species are often not suitable to local ecosystems and appear to be detrimental to the health and productivity of AGOs; exotic and invasive species are spreading fast and replacing native vegetation, resulting in low soil vegetative cover and increased erosion. Institutions involved in the afforestation, watershed development and rural development will be involved while planning the programmes in the villages and their inputs will be sought. Furthermore, the capacities of these institutions will be developed based on need (e.g., capacities for appropriate species selection, water harvesting, etc.).

8. **Capacity barriers at the community level:** Currently the participation of local communities in planning and implementation of programs on afforestation or rehabilitation of degraded lands is limited. Program blueprints are not compatible with local needs or opportunities. Women are largely absent in decision making. Together, this works against the promotion of a sense of ownership for programs and therefore undermines their sustainability. Further, community capacities to implement on the ground interventions to address land degradation and enhance ecosystem resilience need to be strengthened.

How the project seeks to address it

9. Based on lessons learned from previous drought mitigation and rural and desert development programmes in Rajasthan, the project aims to support an alternative approach to the management and use of land resources. The goal of the project is to promote sustainable and participatory management of natural resources to achieve ecosystem health, resilience and integrity, and improve the livelihoods of rural communities in the Thar Desert ecosystems of Rajasthan. The focus is on sustainable management of community land resources, water bodies and livestock.

10. In terms of the enabling environment, the project will promote policy change at the state level by developing a strategy for integrated management of common property land, water and livestock resources, also taking into account adaptation strategies to climate change. Land tenure regimes for AGO lands will be clarified. The formation of sub-state level coordination committees (1 for each of the 4 ecosystem blocks being targeted by the project) involving all stakeholders will be instrumental for improving inter-sectoral coordination, monitoring and adaptive management. The project will strengthen institutional capacity to implement an integrated strategy. At the community level, the project will establish efficient and sustainable water and land management practices using a landscape approach which fully integrates the ecosystem approach. This will include a broad set of physical interventions such as soil and water conservation practices, construction of water harvesting devices, planting drought tolerant grasses and trees, adopting sustainable harvesting practices and integrated land-water-livestock management plans. It will organize, prepare and build capacity in different local management committees and institutions on technical, financial, management, accounting, and other relevant issues.

11. On the ground interventions for climate-resilient SLEM practices will be demonstrated in select clusters of villages in four ecosystem blocks of the Thar Desert in Rajasthan covering approximately 2,488 km² in three districts: Agolai and Luni in Jodhpur district, Panchapadra in Barmer district, and Rohat in Pali district. These 3 districts cover approximately 249,000 hectares, and the project will target 75 villages within these districts spanning 6,000 hectares. Rain fed agriculture along with livestock rearing is the dominant livelihood activity in this region. These districts were selected in consultation with the CCD government focal point, based on issues of water scarcity, and inaccessibility to resources.

12. Another important criterion in selecting these districts is that communities in these districts have a favorable history of community action, particularly with the Jal Bhagirathi Foundation (JBF). The close

partnership of the JBF with the Government of Rajasthan in the development and implementation of this project is a unique and notable aspect of this MSP under the SLEM partnership. This partnership will allow the MSP to adopt a strategy and mechanism for replication and upscaling that have greater chance of uptake in the long run. A key lesson learned from a World Bank supported drought adaptation initiative in Andhra Pradesh is that successful upscaling requires more than a transfer of knowledge to government institutions and adoption of new policies. There needs to be capacity in place that has learned the new way of doing things both in terms of techniques and in terms of social organization. The JBF, given its history. Can effectively fulfill this role of setting up a system for gradually providing hands on support to new villages in the new way of managing resources. The JBF has been very active in these districts in mobilizing rural communities to use their rich tradition of water conservation to address the water crisis. Since its inception in 2002, JBF has successfully interwoven around the issue of “water”, a program that addresses problems of women’s empowerment, natural resource management and health-care. Considerable community mobilization has been undertaken creating an extensive network of more than 150 grassroots institutions called “Jal Sabhas” which have constructed 76 traditional water harvesting structures. With a permanent staff of 40 officers and 1200 volunteers, JBF will play a critical role in working with the Government of Rajasthan to upscale the successful experiences of the project. This project inasmuch as it partners with the JBF could serve as one good learning opportunity in this respect under the SLEM partnership.

13. Finally, the knowledge management component of the project will ensure greater state-level capacity to mobilize information in support of planning and decision-making by government and non-government actors in relation to participatory, climate-resilient, and sustainable management of common property land, water and livestock resources. It will be linked to the knowledge management and coordination mechanism of the overall SLEM programme, thus laying the ground for replication beyond Rajasthan.

Expected global environmental benefits

14. Through these efforts, the project will help arrest land degradation that is compromising the functions and service of the Thar Desert ecosystem and the livelihoods of its inhabitants. The project will decrease the trend and severity of degradation in AGO lands, improve the condition of biodiversity, improve resilience to climate change including variability, and enhance the carbon stored at aboveground and belowground levels. In addition, the project also provides local benefits to the community in the form of enhanced water storage capacity of land, enhanced grass productivity, and indirectly enhances the cash economy of the otherwise subsistence economy. Through structural interventions that are mostly grounded in community participation, the project also addresses climate change adaptation strategies for enhancing water availability in the AGO lands. One such intervention could be to build on indigenous practices in soil and water conservation to draw water from the areas that received high rainfall, due to climate change phenomena, through locally constructed temporary mud canals.

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

15. India aims to achieve inclusive growth as envisioned in its 11th Five Year Plan (2007-2012). Inclusive growth means that the current 8% economic growth rate must reflect growth of marginalized communities. Thus all efforts in the next 5 years will be to sustain livelihood patterns and enhance cash economies of marginalized communities. At the same time, it is recognized that the key environmental challenge the country faces is related to the nexus of environmental degradation with poverty as well as economic growth (National Environmental Policy, 2006).

16. India has ratified the CBD (1992) and UNCCD (1996). Recognizing the importance of reducing desertification and soil loss in the arid and semi-arid regions of the country, India has developed a comprehensive 20 year National Action Plan to Combat Desertification (UNCCD-NAP, 2001). This document attributes desertification (land degradation) to a number of factors including climate variation and human activities. The importance of addressing the poverty-land degradation-biodiversity-climate change nexus has also been highlighted in India’s Initial National Communication to the UNFCCC

(2004), stressing India's serious concern about the possible impact of climate change given that nearly 2/3rd of the country's population depends on climate sensitive natural resource based activities for its livelihood. The National Environment Policy (2006) notes the human induced pressure on India's variegated desert fauna and recommends activities to reduce further desertification through water conservation through traditional and science-based knowledge and infrastructure; enhancing green cover of local species; reviewing agronomic practices in the desert regions and promoting agricultural practices that are suited to the regions.

17. In recognition of the need to address the poverty-land degradation-biodiversity-climate change nexus, the government has developed the India Sustainable Land and Ecosystem Management (SLEM) Program which takes \$30 million of grant money from the GEF and leverages nearly \$300 million from the government of India and bilateral aid agencies. This MSP focusing on the Thar Desert region contributes to the objective of the SLEM to realize sustainable land and ecosystem management. Specifically, it will contribute to the SLEM goals by supporting the poor and vulnerable communities that live in rural areas of the Thar Desert and depend on the land for their survival, through integrated conservation and management of common property land, water and livestock resources.

C. DESCRIBE THE CONSISTENCY OF THE PROJECT WITH GEF STRATEGIES AND STRATEGIC PROGRAMMES:

18. The project is consistent with Strategic Objective 1 (An enabling environment will place SLM in the main stream of development policy and practice) and Strategic Program 1 (Supporting sustainable agriculture and rangeland management), insofar as it will promote policy change, capacity development and on-the-ground demonstration of integrated management of community land, water, and livestock resources. The project also conforms to the GEF's Operational Guidelines for the Strategic Priority "Piloting an Operational Approach to Adaptation" (SPA)¹⁶. As outlined in these operational guidelines, the project will contribute to the GEF's stated objective of reducing vulnerability and increasing adaptive capacity to the adverse effects of climate change by focusing on the Thar Desert ecosystem, specifically the Luni Watershed that has been identified as an area most likely to experience acute physical water scarce conditions in the country due to climate change. The project focuses on the arid Thar Desert ecosystems in Rajasthan State, India. This is one of the most densely populated deserts in the world where the local population faces intense and increasing competition for land resources, which in turn leads to over-exploitation. Based on lessons learned from prior Government support to short-term drought mitigation and relief efforts, the project will promote an alternative approach grounded in integrated ecosystem management by developing the enabling environment and through demonstrations in selected sites led by communities.

D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

19. Through the Sustainable Land and Ecosystem Management (SLEM) Partnership, coordination will take place with other projects promoting SLEM in different parts of the country, including drought mitigation programmes as well as rural and desert development programmes. More specifically, linkages to current programmes such as Integrated Afforestation and Eco-development Project Scheme, Watershed Programme, Integrated Wasteland Development Programme, Desert Development Programme; Drought Prone Area Programme; Rural Works Programmes will be consulted to implement SLEM partnership in this project. Most of these programmes have had limited spatial coverage, nor have they made sufficient impact on conserving natural resources (water, land, biodiversity, etc.), adoption of sustainable management practices, reducing the vulnerability of rural communities in the Thar, or increasing the incomes in a sustainable way. These programmes have been consulted while developing the project and the dialogue will be maintained during implementation.

E. DISCUSS THE VALUE-ADDED OF GEF INVOLVEMENT IN THE PROJECT DEMONSTRATED THROUGH

¹⁶ GEF/C.27/Inf.10, October 14, 2005

INCREMENTAL REASONING :

20. The goal of the proposed project is the development and implementation of an integrated and participatory natural resource planning and management strategy in a selected arid region of the Thar Desert in Rajasthan that is subject to recurrent droughts and land degradation, and is also most likely to face acute water scarce conditions. Under the business-as-usual scenario, the area will suffer from the impacts of increasing human and livestock pressure, reduction in community land resources (grasslands, forests and water catchment areas) due to conversion or encroachment of common lands for cultivation and settlements, non-sustainable use of grasslands and ground water, degradation of water and land resources leading to shortage of water, fodder, fuelwood and timber, low employment and incomes particularly during drought years, absence of participatory institutions, lack of access to scientific assessment and technically sound interventions for regenerating land and water resources that can complement traditional management practices, among others. The response of the state and national government has been to provide short-term drought relief that is typically sectoral and fragmented, lacks integrated approaches to planning and implementation at the village level, does not effectively combine modern and traditional practices, and is not accompanied by training or capacity building programs for village communities or women. A shift in emphasis to a landscape approach to conserving natural resources, promoting sustainable natural resource management and reducing the vulnerability of rural communities to climate change, including variability, is unlikely without targeted technical and financial support. In light of the limitations of past and existing programmes, the proposed GEF alternative strategy is to promote SLEM as a tool for arresting land degradation, enhancing ecosystem health and resilience, and improving livelihoods. The project will propose changes to the enabling environment and also demonstrate the sustainable management of communally managed AGO lands.

F. INDICATE RISKS, INCLUDING CLIMATE CHANGE RISKS THAT MIGHT PREVENT THE PROJECT OBJECTIVE FROM BEING ACHIEVED, AND IF POSSIBLE INCLUDING RISK MEASURES THAT WILL BE TAKEN:

Assumptions/ Risks	Mitigation Measures
1. State government and relevant departments are supportive of implementing needed policy change	Relevant departments are going to be actively engaged in project development and implementation. In addition, capacity development measures aim to enhance awareness, understanding and technical skills for SLEM. This will emphasize the development benefits from SLEM and motivate policy change.
2. Trained Staff remain committed and are retained in roles that can promote mainstreaming of SLEM	The capacity needs assessment and design of capacity building measures will be integrated into capacity retention and recommend solutions.
3. Lack of interest among local communities, particularly women, to participate in the project.	This will be mitigated through extensive awareness building measures and sensitization among stakeholders about the benefits of participation and visits to successful project sites. This risk is considered low as the selected communities have a good history of community action through work with the JBF.
4. Common lands where the project is being implemented are also shared with other villages. This may give rise to conflicts among villages over sharing of resources.	To address this, committees consisting of local leaders will be established at the block level to address issues that arise from such conflicts.
5. There are strong linkages between climate change and desertification and biodiversity loss which can have adverse socio-economic implications for inhabitants of the desert region.	The project will implement soil and water conservation practices, construction of water harvesting devices, planting grasses and trees, adopting sustainable harvesting practices and integrated land-water-livestock management plans which are expected to reduce the vulnerability of local

Assumptions/ Risks	Mitigation Measures
	populations to the impacts of climate change and variability.
6. The increasing trend of growing human and livestock populations in the Thar region that has placed stress on the drought prone desert lands will be offset with greater opportunities for alternative employment in other economic growth nodes of the economy.	A number of drought mitigation programs as well as rural and desert development programs are being implemented in Rajasthan, with some emphasis on creating economic opportunities and alternative employment. During further development of the MSP, the risk of this assumption not holding will be assessed in greater detail.

G. DESCRIBE, IF POSSIBLE, THE EXPECTED COST-EFFECTIVENESS OF THE PROJECT:

21. The project strategy and approach is cost-effective for a number of reasons. The project focuses on creating the enabling institutional mechanisms to work effectively across sectors. The project will significantly leverage resources and knowledge and reduce duplication. The project is focused on increasing water conservation over the long-term and is likely to generate substantial economic benefits. The community based approaches to natural resource management piloted through the project are conceived explicitly to promote complementarities and encourage payments for services, and thereby reduce costs and increase ownership and sustainability. The project will largely utilize the existing administrative set up and infrastructure of state and local governments and networks established by *Jal Bhagirathi Foundation*. The project will be complementary to ongoing initiatives and investments under the baseline programmes of the Government of Rajasthan and past and ongoing rainwater harvesting projects of JBF. GEF financing would be coordinated with these interventions.

H. JUSTIFY THE COMPARATIVE ADVANTAGE OF THE GEF AGENCY:

22. UNDP-India has been working on issues concerning biodiversity, land degradation, climate change, governance and poverty reduction for several years. UNDP has close links with state and local level partners from government, non-government and the research community as a result of its work in different sectors ranging from disaster management to poverty reduction as well as through its environmental work, including policy interventions, such as the development of the National Biodiversity Strategy and Action Plan and community-level engagement on livelihoods issues. At present, UNDP is developing GEF projects on land degradation in the Indian states of Madhya Pradesh and Nagaland involving community and various Government partners. UNDP is also working in close consultation with local communities of selected districts in the states of Arunachal Pradesh, Chhattisgarh, Jharkhand and Orissa with a focus on natural resource management and local employment generation. In the Gulf of Mannar, UNDP is working with coastal communities to improve and diversify their livelihood, while contributing to the conservation and management of coastal and marine biodiversity. A Government of India-UNDP project in the densely populated and economically deprived Sundarbans area of West Bengal seeks to promote sustainable livelihoods and biodiversity conservation.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT AND GEF AGENCY

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT ON BEHALF OF THE GOVERNMENT: (Please attach the [country endorsement letter\(s\)](#) with this template).

Mr. Sudhir MITAL Joint Secretary and	Date:
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GEF Operational Focal Point for India, Ministry of Environment and Forests (MOEF), Government of India, Paryavaran Bhawan, CGO Complex, Lodhi Road, New Delhi, Tel: 011-24363956, Fax: 011-24369192, mital_sudhir@nic.in	
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B. GEF AGENCY CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation.	
Yannick Glemarec GEF Agency Coordinator	Anna Tengberg & Gernot Laganda Project Contact Person
Date:	Tel. and Email: +66 2288 2730/2644; anna.tengberg@undp.org / gernot.laganda@undp.org

SIGNATURE PAGE

Country: India

UNDAF Outcome(s)/Indicator(s):

(Link to UNDAF outcome., If no UNDAF, leave blank)

Expected Outcome(s)/Indicator (s):

(CP outcomes linked t the SRF/MYFF goal and service line)

Expected Output(s)/Indicator(s):

(CP outcomes linked t the SRF/MYFF goal and service line)

Implementing partner:

(designated institution/Executing agency)

Jal Bhagirathi Foundation (JBF)

Other Partners:

Programme Period: 2009-2012
Programme Component: _____
Project Title: Sustainable Participatory Management of Natural Resources to Control Land Degradation in the Thar Desert Ecosystem
Project ID: 00071579
Project Duration: 3 years
Management Arrangement: Jal Bhagirathi Foundation (JBF)

Total budget:	15,609,091
Allocated resources:	
• GEF	909,091
• Government of Rajasthan	10,000,000
In kind contributions	
• Government of Rajasthan	4,000,000
• UNDP	700,000

Agreed by **(Government)**: _____

Agreed by **(Implementing partner/Executing agency)**: _____

Agreed by **(UNDP)**: _____