PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Medium-sized Project
THE GEF TRUST FUND

Submission Date: May 28, 2009
Re-submission Date:

PART I: PROJECT IDENTIFICATION

GEFSEC PROJECT ID*:
GEF AGENCY PROJECT ID: 604144
COUNTRY(IES): INDIA
PROJECT TITLE: Reversing Environmental Degradation and Rural Poverty through Adaptation to Climate Change in Drought Stricken Areas in Southern India: A Hydrological Unit Pilot Project Approach
GEF AGENCY(IES): FAO
OTHER EXECUTING PARTNER(S): Bharati Integrated Rural Development Society (BIRDS)
GEF FOCAL AREA (S): Climate Change (SPA)
GEF-4 STRATEGIC PROGRAM(S): Climate Change – SPA
NAME OF PARENT PROGRAM/UMBRELLA PROJECT: INDIA SUSTAINABLE LAND AND ECOSYSTEM MANAGEMENT PROGRAMME (SLEM)

INDICATIVE CALENDAR	
Milestones	**Expected Dates**
Work Program (for MSP)	
CEO Endorsement/Approval	31/07/2009
GEF Agency Approval	31/08/2009
Implementation Start	1/09/2009
Mid-term Review (if planned)	
Implementation Completion	31/08/2012

A. PROJECT FRAMEWORK (Expand table as necessary)

Project Objective: Establish a knowledge base for large-scale interventions in 650 habitations† in Andhra Pradesh, for adaptation to climate change in relation to natural resource management. Knowledge and capacities of communities in Pilot Hydrological Units in Andhra Pradesh, India, will be strengthened to respond to climate change impacts

Project Components	Indicate whether Investment, TA, or STA**	Expected Outcomes	Expected Outputs	Indicative GEF Financing*		Indicative Co-financing*		Total ($)
				($)	%	($)	%	
1. Capacity building of farmers groups and networks in pilot hydrological units using Farmer Field School approaches to dryland agriculture and to sustainable land management	TA Investment	Enhanced capacities of the farmers to make informed decisions about land and water management on a scientific basis taking into account impacts of climate variability and change.	Study on the local impacts of climate variability/change on natural resources in Andhra Pradesh completed, and appropriate adaptation measures identified through a participatory approach. Farmers trained on sustainable	400,000	25	1,200,000	75	1,600,000

* Project ID number will be assigned initially by GEFSEC.
† Habitation is a place where people live. Using terms like "village" and Gram Panchayat" is avoided as they are revenue and political units, respectively. A village may have one or more habitations. Gram Panchayat may consist of one or more villages.

			land management practices with measures to manage climate variability/change impacts integrated; Approximately 15,*000* male and female farmers *in drought-prone districts of* Andhra Pradesh trained at the end of the project.					
2. Integration of local knowledge into more effective management practices and strengthening of local level institutions for improved SLM in pilot hydrological units	TA	Improved governance of ecosystem management inclusive of drought adapted NRM and Farming Systems with dynamic institutional framework	At least 9 Hydrological Unit level community based institutions established, techniques and approaches tested for alternative management of land and (ground) water resources by 2012	273,182	25	819,543	75	1,092,725
3. Integration of sustainable land management practices in pilot hydrological unit level through demonstration and lessons learned	TA, STA	Land based Climate change adaptation measures suitable to drought prone areas field tested, documented and disseminated	Community action initiated on climate change adaptation at HU level Project lessons documented and disseminated at state, national and international levels.	100,000	25	300,000	75	400,000
4. Project management	Monitoring and evaluation activities			85,909	25	257,727	75	343,636
Total project costs				859,091	25	2,577,270	75	3,436,361

* List the $ by project components. The percentage is the share of GEF and Co-financing respectively to the total amount for the component.
** TA = Technical Assistance; STA = Scientific & Technical Analysis.

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

	Project Preparation*	Project	Agency Fee	Total
GEF	50,000	859,091	90,909	1,000,000
Co-financing	25,000	2,577,270		2,602,270
Total	75,000	3,436,361	90,909	3,602,270

* Please include the previously approved PDFs and planned request for new PPG, if any. Indicate the amount already approved as footnote here and if the GEF funding is from GEF-3.

C. INDICATIVE CO-FINANCING FOR THE PROJECT (including project preparation amount) BY SOURCE and BY NAME (in parenthesis) if available, ($)

Sources of Co-financing	Type of Co-financing	Amount
Project Government Contribution*	Unknown at this stage*	
GEF Agency(ies)	In kind and cash through other donor-funded projects	1,300,000
Bilateral Aid Agency(ies)	(select)	
Multilateral Agency(ies)	(select)	
Private Sector	(select)	
NGOS	In-kind	1,000,000
Others	In-kind	302,270
Total co-financing		2,602,270

* The proposed project will tap the funds from the various on-going government schemes, which is estimated to be USD 1.0 million, implemented by the different agencies (Department's of Agriculture, Horticulture, Irrigation , Revenue, Rural Development , Forestry and Rural Employment Guarantee Scheme, etc.) to directly support the farmers in the form of infrastructure (water saving equipment, plant protection materials, implements) inputs(seeds, plantation, organic inputs) labour (employment), etc. GOI schemes with full subsidies will also be tapped. HUN's shall liaise with the local (district level) government agencies in identifying the potential farmers. The project will collaborate at the State and District levels in supporting the various programmes and in strengthening the the capacity of government officers and lead farmers through training activities envisaged under the project. The confirmed level of co-financing will be indicated in the fully prepared MSP.

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

GEF Agency	Focal Area	Country Name/ Global	(in $)			
			Project Preparation	Project	Agency Fee	Total
FAO	Climate Change	India	50,000	859,091	90,909	1,000,000
(select)	(select)					
(select)	(select)					
(select)	(select)					
Total GEF Resources			50,000	859,091	90,909	1,000,000

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

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. Specific agro-climatic and socio-economic factors set the limits for development across the Peninsular India. An extensive rain-shadow/drought-prone area across the southern States, India has now reached the limits of its carrying capacity. The environmental and socio-economic baseline is conditioned by the several factors, as outlined below. With a rainfall between 500 and 750 mm, dryland farming has predominated. But increasing human and animal populations, urban demand for timber, fuel and forest products, and expanded road systems have placed the environmental systems at risk. The intensive abstraction of surface water and groundwater for food production is now compromising regional food production, reducing rural employment and degrading natural systems. The degraded land and water systems are no longer as resilient in the face of extended drought periods. Current land use practices are already making dryland farming increasingly unviable, and studies show that climate change will further exacerbate the low and uncertain rainfall conditions in these areas. On the farms, soil erosion, declining soil fertility, low soil organic matter and reduced water holding capacity have impacted yields. Degraded farming conditions have grave social consequences including male migration, disoriented residuary families, and distorted family and community relationships. Lowland soils are impacted by water-logging and salinity where management of soil structure and drainage have not kept pace with increased application of surface and groundwater for irrigation. The productivity of these once fertile soils is now starting to decline rapidly. Poverty is driving people toward indiscriminate exploitation of the meagre natural resources, firmly entrenching communities in poverty traps. Rural women and landless populations are the most adversely affected.

2. Climate change is an issue that threatens small and marginal farmers in these areas faced with changing rainfall patterns and rising temperatures, which represent a vulnerable section prone to negative impact on livelihoods with severe economic consequences. Climate change in drought prone areas in India is projected to have a major impact on all the natural resources including land, soil, water, biomass and thereby agriculture and living conditions. Farmers in these areas have long been victims of vagaries of climate and have faced these challenges in their own way with varying levels of success. Farmers in these drought prone areas are disproportionately vulnerable to climate change due to their over dependence on rainfall.

3. As agriculture is a mainstay in India providing livelihood opportunities for millions of it populace, the climate change inevitably is going to hit its socio-economic fabric. Farmers in drought prone areas, who have long been victims of vagaries of monsoon, will be disproportionately vulnerable to climate change. The effect of drought or climate variability in Andhra Pradesh found to be in terms of loss of crop production output of five major corps viz., rice, maize, sorghum, groundnut, and sunflower (World Bank, 2006). The poor especially rural small-holder producers, pastoralists, rural wage labours, rural women, malnourished children, handicapped and infirm people are the most vulnerable. Considering the impact of climate change in the next few decades, the mitigation costs are going to be beyond the reach of individual farmers. Participation of vulnerable people in identifying the strategies of climate change adaptation and applying the lessons to support adaptation decisions can be more cost-effective than later mitigation activities.

How the project seeks to address it

4. The project seeks to build upon the experience gained in the Andhra Pradesh Farmer Managed Groundwater Systems project[‡] (APFAMGS) project which made hydrological and hydrogeological information accessible and usable by some half-a-million farmers in a set of established hydrological units. Critically, the APFAMGS project also trained 9,000+ farmers who are now being recruited by government as farmer trainers. While the APFAMGS raised the baseline in terms of groundwater management and associated land management practices in key drought-prone areas of Andhra Pradesh, the project results revealed a very changed set of environmental and socio-economic conditions that present

[‡] http://www.apfamgs.org/

broader opportunities for enhanced land management and climate change adaptation. The project will establish a set of nine pilot initiatives across the region in selected, representative hydrological units to extend this environmental knowledge and propagate alternative land and water management practices to reverse environmental degradation through locally identified climate change adaptation measures. In addition the pilots will establish platforms for more effective mobilization of government support and private sector services. Empowerment of farmer groups and NGO networks through knowledge based participatory approaches is proving to be a crucial catalyst in enhancing local capacities for sustainable natural resource management and adaptation to climate change. For all the people living in precarious environment there is little hope (going by past experience) that fruits of massive global level research with huge funding undertaken by academic and research institutes will come directly to their rescue. If the change is imminent then the task on hand is to enable the most vulnerable sections to take up parallel independent research and studies on their own. This would mean that the vulnerable groups are brought into the mainstream of preparing for climate change adaptations.

5. The success achieved with groundwater based farmers will be extended to rain-fed farmers under the GEF proposal while also preparing them to adapt to the risks posed by climate change. The farmers dependent on rain fed farming will be prioritized in the 650 habitations to begin with. As part of this approach the rain fed farmers in the pilot hydrological units will be brought under the existing habitation level institution and their skills and capacities built for optimizing the use of rainfall, improving soil moisture and work towards integrated soil, land, water, crop and animal system. The farmers shall be enabled to gather all technical data related to rainfall, soil moisture, runoff, soil quality along with appreciation of the process of carbon sequestration at the farm level, The Farmer Water School shall be used as the vehicle for capacity building to the farmers. The field data collection would sharpen the farmers' ability to make critical and informed decisions on crop varieties, planting season, managing pest attacks etc to match with the emerging climate change. The worst anticipated impact of climatic change on land, water, soil, crop production, soil fertility, pest incidence and various other effects shall come to the attention of farmers and local level solutions will be developed. The data gathering shall help in building alliance with different stake holders for working together to mitigate the impact. The overall impact shall help in setting the ground rules to mitigate/manage while developing the technological options is the critical requirement.

6. Reversing these trends and progressively adapting to the effects of climate change/variability is a key concern of small and marginal farmers in the drought prone areas and is critical for the sustainability of productive land and water systems and associated livelihoods. Ongoing work in 650+ communities implicated under APFAMGS demonstrates that systematic and people-centred development approaches can enable these communities to escape from the current "poverty-poor environment" downward spiral and establish positive cycles of sustainable resource management and secure livelihoods.

7 Hence, using these field-tested approaches, the project will aim to propagate alternative SLM practices in representative hydrological units in the state of Andhra Pradesh by empowering the end users (farmers) with scientific knowledge, sound data and analysis carried out by them. The project will establish coordination mechanisms with relevant government agencies and NGO networks in the state to provide an institutional framework in which to address both national and state-level priorities. For example, the project could identify pilots across seven drought prone districts viz., Anantapur, Chittoor, Kadapa, Kurnool, Mahbubnagar, Nalgonda and Prakasam. Specifically the project will generate simple improved practices for SLM moving towards broader improvements that are relevant and acceptable, combining scientific methods with traditional ones; scale up and build upon the lessons of the ongoing work in APFAMGS. Representative hydrological units will be selected on the basis of environmental degradation and socio-economic need. In addition the project will intensify the institutional strengthening interventions and enable to consolidate lessons learned and enable analysis of the impact of the various interventions and document for wider dissemination.

8. Specific tools that will be used are: participatory technology development (PTD) and participatory hydrological monitoring (PHM): In particular, PTD will be used as a problem solving process – enabling people to own and build upon the gains they make. In addition Farmers' Field Schools (FFS) & Farmers' Water Schools (FWS) with a focus on experiential learning and non-formal education as a basis for scientific literacy of farmers will complement the participatory learning process.

9. Three project components are envisaged: 1) Capacity building of farmers groups and networks in pilot hydrological units using Farmer Field School approaches to dryland agriculture and to sustainable land management; 2)

Integration of local knowledge into more effective management practices and strengthening of local level institutions for improved SLM in pilot hydrological units; and 3) Integration of sustainable land management practices in pilot hydrological unit level through demonstration and lessons learned.

Expected global environmental benefits

10. The global environmental benefits will be achieved through reversing the current land degradation trends which are negatively affecting critical ecosystem services - soil carbon sequestration, water holding capacity of the land and agricultural productivity, soil carbon sequestration. Through an innovative approach of farmer driven grass-root level environmental action which takes into account the effects of climate variability and change, the project will result in rehabilitation and protection of critical ecosystems, improved soil carbon sequestration while also raising agricultural productivity. Protection of critical ecosystems in dry land project area can be equated with judicious use of depleting water resources, decreasing stress on the over-exploited aquifer systems. Approximately, an area of 535,000 ha will be affected by pilot activities in hydrological units notified as "over-exploited groundwater zones". The project envisages on-the-ground investments to enhance biomass and sustainable resource management, leading to Low External Inputs for Sustainable Agriculture (LIESA) and improved management of soil and water leading to increased carbon sequestration, in the order of 450,000 tons using the values of ICRISAT from project RNPS-25 which gives the rate of increase as 0.8 tonne per Ha for horticultural systems. The project promotes production and delivery of high value and environmentally beneficial produce resulting in an enhanced value of the natural resource base which in turn will be reflected in investments in its sustainability and agricultural productivity. An increase of 7% is expected in agricultural productivity which was estimated based on past data comparing the years 2006-07 to the base year 2004-05 in the same area. The data is sourced from HRIS data and Crop Water Economics data of APFAMGS project.

11. The project will establish and strengthen the large-scale viability of knowledge-based approaches, as the critical means for achieving sustainable natural resources management by resource-poor communities in the dryland agricultural areas characterized by scarce water and degraded lands. Apart from equitable sharing of benefits from sustainable land and ecosystem management, it is expected that the project contributes to poverty reduction and enhanced livelihood opportunity for communities in 650 habitations. This path-breaking modality could provide global guidance on building community action on natural resources management in similarly difficult environmental situations around the world, and would be a key contributor to the global environment.

12. Implementation of a GEF Alternative over the duration of the project will increase the Carbon dioxide (CO_2) reservoir in the project area. This will be achieved through improved management of rain-fed areas using a mix of productive and cover plants to improve the store of soil organic material. It is planned to enhance the carbon sequestration through the adoption of no-till farming, mulching, cover cropping and crop rotation as part of an overall organic farming approach. This would also reduce soil erosion, improve soil moisture retention and provide sustainable harvest of the valuable timber. Mulching and deep tilling will be promoted to enhance carbon sequestration. Potential traditional practices that use crop waste and residues to enhance nutrients and soil moisture will be identified and promoted to enhance and increase overall carbon storage capacity.

13. New crop varieties that have higher tolerance to temperature and moisture stresses, as well as to erratic rainfall, will be tested by farmers in small plots in several agro-ecosystems. Hardier drought and heat resistant varieties will be grown along with new varieties developed by agricultural research stations. Growth and resilience shall be monitored systematically and the results discussed by community-based organizations (CBOs). New/traditional varieties of rice, maize, sorghum, millets other coarse cereals (available in research stations) that have early maturing characteristics to withstand intermittent drought conditions occurring at critical stages in crop development shall be tested. New/traditional varieties of rice that have the capacity to withstand submergence (heavy rainfall/cyclones) for longer periods of 5-10 days will be tested with farmers.

14. Involvement of farmers in plant/vegetable breeding along with research stations will be tried out for selective crops. The farmers will be encouraged to partner with research stations in testing new varieties that can withstand harsh growing conditions. The potential effects of pests as a result of climate change will also be considered, and. Integrated Pest Management (IPM) will be an important element of farmer research.

15. Water use efficiency is a great concern and should be a top priority list for the future. Demand management of water resources will be the key approach to tackling water deficits as well as stresses. The approach to ensure increased release of moisture from the soil to the crops in periods of stress will be tried out through various intercrops, soil manipulations, and organic applicants. Experiments on improvements in the drip, sprinkler, water guns, and water conveyance shall be tested by farmers in collaboration with leading industries and research stations.

16. Collective action to exercise governance in the use and protection of local resources shall be identified and appropriate measures encouraged. The empowerment required to establish local governance shall be accomplished through structured training of beneficiary groups. The impact of climate change shall be first on the confidence and on the spirit of the farmer individually and as a community. To help the farmers cope with the situation it is necessary to prepare them mentally through knowledge dissemination followed by capacity building in adaptive management. This will attenuate large scale out-migration from drought-prone areas that would otherwise be anticipated. Finally, strong people's institutions will be supported to provide guidance and direction to their respective members as well as act as a pressure groups to ensure that the vulnerable groups are involved in the project activities.

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

17. The Government of India has given big impetus to land degradation issue in the 11th five year plan and had recently setup the National Rainfed Areas Authority and also is shaping specific attention to sustainable groundwater management as part of which GoI last year organised a first National Congress on Groundwater. A large national initiative, the National Rural Employment Guarantee Scheme (NREGS) which foresees 100 days of assured employment for the population in a number of districts across the country, includes nine schemes which directly addresses the land degradation issues and managed recharge of groundwater. The 11th five year plan recognizes that rising agricultural productivity cannot be achieved with the ongoing shrinking and degradation of the country's natural resources and commits to conservation, harnessing and developing of the natural resources. The plan further acknowledges that in order to be effective, sustainable land and ecosystem management has to be seen by stakeholders to be contributing directly to poverty reduction at household and community levels, in addition to maintaining land quality and ecosystem integrity.

18. The Government of India signed the United Nations Framework Convention on Climate Change (UNFCCC) on 10 June 1992 and ratified it on 1 November 1992. India acceded to the Kyoto Protocol on 26 August 2002. India's Initial National Communication to the UNFCCC (2004) further underlines the importance of addressing the poverty/land degradation/biodiversity/climate change nexus. Indian policy makers now acknowledge the significance of land degradation in impacting livelihoods for the rural populations which is evident from the setting up of National Rainfed Areas Authority. Various policies and programmes such as the Artifical Recharge of Groundwater Program and Community Tank Rehabilitation program, etc. have been devised to give specific attention to this. This is also coupled with the revealtion that most of the surface irrigation systems are not able to realise the full irrigation potential and that groundwater being largely used for irrigation in dryland areas and also for conjunctive use in canal systems.

19. The Prime Minister formally launched India's National Action Plan on Climate Change (NAPCC) on June 30, 2008. NAPCC incorporates India's vision of sustainable development and a broad and extensive range of measures. Climate change for India is projected to be the most serious threat to sustainable development, with adverse impacts expected on the environment, human health, food security, economic activity, natural resources and physical infrastructure. Climate change in drought prone areas in India is projected to have a major impact on all the natural resources including land, soil, water, biomass and thereby agriculture and living conditions. India has taken number of steps towards developing a national plan on tackling the effects of climate change. At the policy level the Government of India has brought about a number of changes that promotes sustainable development of land, soil, crop, water prioritizing the interests of small and marginal farmers. Eight National Missions on Solar Energy, Enhanced Energy Efficiency, Sustainable Habitat, Conserving Water, Sustaining the Himalayan Ecosystem, creating a "Green India", Sustainable Agriculture and establishing a Strategic Knowledge Platform for Climate Change, will be pursued as key components of strategy for sustainable development.

20. India's National Environmental Policy (NEP) of 2006 mentions the nexus of environmental degradation with poverty as well as with economic growth as India's key environmental challenges. The project activities are explicitly

linked to State government priorities in the Deccan Plateau region and will contribute to the overall understanding of land management in rural poverty alleviation and natural resource management. Several efforts have been initiated by Government of India to improve scientific understanding about climate change and prepare action plans to adapt to the impact of climate change. The present proposal is an extension of this thinking process focusing on the participation of the communities to initiate steps to adapt to negative effects of climate change. Government of India and the State Agencies have been encouraging the participation of multi-national agencies in partnership with NGO's to take up specific programmes that can help consolidate policies that match with the requirements for handling climate change. Department of Science and Technology, Ministry of Environment & Forests, Ministry of Rural Development have come forward to fund various programmes initiated by Universities, NGO's, Research agencies and private enterprise to learn to adapt to the climate change effects. A national data base is being established to help consolidate various learning's for assisting policy level actions. The project will build upon the successful experiences of 650+ habitation communities in Southern India and the wide experiences of implementing various national watershed management programs of Government of India.

21. The National Water Policy 2002 recognizes water as part of a larger ecological system and has to be safeguarding for sustaining all life forms. Participatory approach in water Management by involving users and all stakeholders, in an effective and decisive manner, in various aspects of planning, design, development and management is prioritized. Necessary legal and institutional changes have been identified at various levels for providing adequate space for different stake holders especially women. Indian National Food Security Mission 2008 is a serious attempt to ensure long term food security through improved ecological sustainability of agriculture production. The push is to look beyond the areas endowed with canal networks to those areas where the environment is under threat and the soil, land water and crops are vulnerable to degradation and disasters both natural and manmade. National Policy for Farmers, 2007 has moved away from mere production and productivity to the human dimension, economic well being of farmers. The definition of farmers is expanded to include all categories of persons engaged in the sector so that they can access all benefits of the Policy. The policy guarantees access to productive asset to poor farmers. Income per Unit of Water is given the critical thrust than mere production numbers. Rural Business Hubs, a collaborative initiative between Government of India and Confederation of Indian Industries, to act as a bridge between the widening disparity between rural and urban India. This would help foster and permeate economic growth into and for rural India through marketing linkages, improved infrastructure, consolidation of farm holdings and through standardizations.

22. While the Government of India has been taking initiatives in defining policies that support integrated development of natural resources especially to service the farmers in resource poor areas, a multitude of government departments, private, NGOs, CBOs and individuals have been involved in making serious efforts to conserve energy, harness renewable energy, protect forests, and enhance understanding about climate change. The government believes that apart from government, it is necessary for the various academic institutions, research institutes, NGO's and local communities to initiate steps that can lead to climate change adaptation measures.

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

23. As the proposed project areas will be adversely affected by climate change through higher temperatures and variable and more uncertain precipitation, the project will contribute to thinking in the Climate Change focal area, particularly with respect to management of land use, land-use change and forestry in resource poor drought affected regions. With regard to the adaptation to climate change, the project is consistent with the Strategic Priority Piloting an Operational Approach to Adaptation (SPA) in that it will give priority to integrating climate change risk management into sustainable land management planning but also in adapting production systems to better cope with climate variability and change. The project will contribute to Sustainable Land and Ecosystem Management (SLEM) in ensuring the resilience of activities promoting sustainable land management to adverse impacts of climate change and variability thereby ensuring lasting global and local environmental benefits. The project is consistent with and addresses the priorities established under the Programme framework SLEM whose purpose is to promote sustainable land management and use of biodiversity as well as to maintain the capacity of ecosystems to deliver goods and services while taking account of climate change. The project will build on win-win combinations of innovative sustainable land

and water management that takes into account traditional techniques and approaches to natural resource management, seeking to adapt them to current challenges. The project will be implemented in close collaboration with other technical assistance, capacity-building and investment initiatives falling under the SLEM.

24. The project will enhance the capacities of farming communities on a scientific basis to understand their natural resources and create a suitable environment for scaling up viable innovative techniques and approaches, thus also supporting GEF strategic programs LD-SP1 (Supporting sustainable agriculture and rangeland management) and LD-SP3 (Investing in innovative approaches in SLM). The proposal is consistent with the GEF's programme of providing support for capacity building needs of governments and local institutions in a cost effective manner. As part of this mandate, the GEF approach of assisting countries to identify complementary sources of financial and technical assistance, both multilateral and bilateral, to meet capacity building needs is built into the proposal. Consistent with GEF practices the proposal has recognized the need to build capacity of principle stakeholders (local communities) within projects as an effective means for sustainable capacity development.

25. The present project is proposed under the umbrella of– the India Sustainable Land and Ecosystem Management (SLEM) Country Partnership Program, which is led by the Ministry of Environment and Forests (MoEF) and was approved by GEF Council in November 2007. This proposed project is consistent with and address the priorities established under the SLEM whose purpose is to promote sustainable land management and use of biodiversity, as well as to maintain the capacity of ecosystems to deliver goods and services while taking account of climate change. SLEM draws GEF resources from three focal areas: climate change, combating land degradation and conserving biodiversity. This project is consistent with the Strategic Priority "Piloting an Operational Approach to Adaptation" in that it will give priority in integrating climate change risk management into sustainable land management planning but also in adapting production systems to better cope with climate variability and change. The project conforms to the expected output 2 of the outcome 1 of SLEM, which envisages a certain number of farmers practicing coping systems to climate change variability. The project also conforms to expected output 2 under outcome 2 which, among other things, envisages that public and private agencies will integrate adaptation coping systems into sectoral planning.. The project will build on win-win combinations of innovative sustainable land and water management that takes into account traditional techniques and approaches to natural resource management, seeking to adapt them to current challenges. The project will be implemented in close collaboration with other technical assistance, capacity-building and investment initiatives falling under the SLEM.

26. The GEF incremental funding will enable the larger program of the government to uptake new lessons in partnerships, networking and bringing in a holistic participatory approach by the way of documentation that will be produced based on research and impact assessments of the similar initiatives. The project will also provide lessons learned that might be applied in similar agro-ecological systems in other countries.

D. OUTLINE THE COORDINATION WITH OTHER RELATED INITIATIVES:

27. The project falls under the World Bank-led Sustainable Land and Ecosystem Management Country Partnership Programme in India. Strong linkages with projects under the programme which are being implemented by UNDP and the World Bank will be maintained to ensure exchange of lessons learned and best practices.

28. This project will be a complementary activity for various national programmes and will provide a platform for coordination to ensure cross learnings among the projects. At the district level the coordination will be in direct interaction with the government programs and tapping finances from those schemes for the benefit of the communities. The learnings of this project will be presented at the workshops/seminars organised by the government. It is expected that once the National Rainfed Area Farming Authority is well established this project will have a more structured integration at the policy level. The project will also try to be in synergy with the National Agricultural Innovation Program of Government of India.

29. The project will contribute to the World Bank's strategic development objectives, as expressed in the Country Assistance Strategy (CAS) 2004, to increase its lending in support of enhancing rural livelihoods and accelerating rural growth based on a sustainable utilization of the natural resource base. This project will build on the knowledge base that

was built up by various projects of FAO in India and will partner with Medicinal, Aromatic & Dye Plants project and land and water projects to bring in enhanced sustainability for the initiatives.

30. The project will be in regular touch with the World Bank funded Andhra Pradesh Drought Adaptation Initiative (AP-DAI) implemented by the Department of Rural Development (Govt of Andhra Pradesh) through Watershed Support Services and Activities Network (WASSAN), covering 30 villages in Mahaboobnagar and Anantapur districts, for cross learning. Close coordination will be established between the two projects to benefit from each other's experience and lessons learned as part of the coordination mechanisms to be established by the project. The Farmer Water Schools adopting the Non Formal Education techniques proposed in the project will help facilitate alternative knowledge processing by the farmers themselves to find local innovative solutions to the current problem as well as take adequate steps in adapting to the risks of climate change. The proposed 650 villages are also part of notified Mandals where the project has established linkages with local government agencies to tap the various financial schemes made available to the farmers.

31. The project by its design sees a major role for the local government agencies to put into practice the decisions taken by the farmers based on their new knowledge and understanding. At the State government level the government counterpart is Department of Rural Development and Department of Irrigation Government of Andhra Pradesh dealing with implementation of all rural development and irrigation programmes in the state. APFAMGS has been providing intellectual input to the department in number of on-going programmes. All new proposals are developed by the project based on the demand arising from the various project implementing agencies in the state and district.

32. The Department of Rural Development has facilitated the dissemination of the learning's from the Demand Side Groundwater Management of the project to 21 districts in Andhra Pradesh for implementing the Government of India funded programme on artificial groundwater Recharge. BIRDS has been identified as the agency to develop the capacities of all NGO's and project implementers in the 21 districts. The Department of Rural Development has also invited BIRDS to be on the advisory committee for the implementation of the new Watershed guidelines which considers Hydrological Unit as the unit of development. BIRDS is identified by government of Andhra Pradesh as the only one agency in India which has worked in 65 Hydrological units in partnership with over 30,000 farmers in technical data collection and implementing the Demand Side Groundwater Management Concept.

33. Command Area Development Agency (Dept of Irrigation) has adopted the APFAMGS concept in the implementation of Tank Rehabilitation programme in the State of Andhra Pradesh. APFAMGS acts as the capacity building agency for institution building for the programme.

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

INCREMENTAL REASONING :

34. The Government of India and various State Governments have established a number of land management initiatives with significant budget outlays in an attempt to arrest land degradation and rehabilitate unproductive for the benefit of poor farming communities. In most cases these initiatives are pushed through existing delivery mechanisms without testing alternative innovative practices and objectively evaluating the economic and environmental benefits and the degree to which they can be taken to scale. Without the project further SLM investment will simply maintain the status quo and miss a critical opportunity to innovate across rural development sectors and empower farmers with scientific knowledge and skills that can reverse trends in environmental degradation and resource depletion.

35. By leveraging the momentum gained through FAO, Government and NGO co-operation in India, the project will deepen the impact of a set of innovative programmes in which the risk is spread among a range of local and state-level institutions, including active networks of NGOs. The project will thus shift the current baseline toward an outcome with improved land management and natural resource conservation. The result will be realized in renewed environmental services and biodiversity plus a pattern of much less volatile rural development.

36. Another incremental reason would be that the GEF funds will enable more effective decentralization of the governance of natural resources by the communities themselves. Under the current baseline, capacities to effect such transformation are constrained. This project, which enhances the knowledge of the communities on a scientific basis, will enable institutionalisation of the sound knowledge with the Panchayat Raj Institutions (PRIs) by working as knowledge based agencies for the PRIs which will lead to qualitative implementation of activities by PRIs. The GEF incremental funding will enable the larger program of the government to uptake new lessons in partnerships, networking and bringing in a holistic participatory approach by the way of documentation that will be produced based on research and impact assessments of the similar initiatives. The confidence with which government streamlines the learnings from BIRDS partners' initiatives is seen in the fact that BIRDS is invited to be the main nodal implementing agency for government funded program and to be a member of an advisory committee as described above. GEF funding will also enable a global uptake of emerging lessons in community NRM (Natural Resource Management) through knowledge empowerment and thereby provide guidance to other similarly difficult areas of various countries.

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

Risk	Rating	Risk Mitigation Strategy
The Project assumes a functional cohesion between communities, government and NGOs and builds on the expectation that the communities will seek to maximize benefits and services over a long period. Although there will be ample scope and space for each of these actors to play their own roles, any serious shift in the government policies may change the relations among these actors.	Medium	The risk will be mitigated through the current decentralization process where the governments are delegating the governance to the lowest level in the country (Panchayat) including financial delegation.
If the institutional framework among farming communities is subject to any adverse change of policy of government, then there will be risk of slowdown of activities of program.	Low	Since farming communities do act on their own and in their own space, if they are convinced of the gains for them it is anticipated that this risk will be minimal. Additionally, these 'soft initiatives the availability of scientific information at farmers' level is turning out to be a major motivator for the farming community
Climate change projections are made using high – low confidence rates. There is a risk that the projections may not be relevant at the local level and communities can be mislead to make unsuitable adaptation measures	Medium	The risk is minimized through the project component of contextualizing global level research findings with the local knowledge on climate change and climate change adaptation measures

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

37. The project is predicated on the delivery of information services to rural communities but deliberately avoids distorting expectation and reliance on the project for hardware provision. Project inputs are therefore distributed widely with low-risk of wholesale project failure. This project does not foresee any major investments or subsidies and it has already proved in the earlier years that farmers welcome knowledge transfer efforts without any subsidies to them. The project will also have the advantage of building on the successful experiences of the earlier years works and as a next logical step towards a sustainable natural resources management. Hence the project will be highly cost-effective.

H. JUSTIFY THE COMPARATIVE ADVANTAGE OF GEF AGENCY:

38. FAO's comparative advantage for the GEF is its technical capacity and experience in agricultural development and natural resources management. FAO is recognized as having comparative advantage in sustainable land management and associated water management. FAO India has specific advantage of working with large network of non-governmental partners on the field apart from working with Government of India and various State governments. In particular, FAO has developed a national execution model emphasizing utilization of local capacity and the spreading of risk among key actors. On technical aspects FAO India has large experience with land and water programs and working with large numbers of farmer organizations.

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

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):

(Please attach the country endorsement letter(s) or regional endorsement letter(s) with this template).

Sudhir Mital Joint Secretary and GEF Operational Focal Point in India Government of India Ministry of Environment and Forests	Date: *September 19, 2008*
(Enter Name, Position, Ministry)	Date: *(Month, day, year)*

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation.	
Charles Riemenschneider Director, Investment Centre Division Technical Cooperation Department FAO Barbara Cooney FAO GEF Coordinator Email: Barbara.Cooney@fao.org Tel: +3906 5705 5478	Gavin Wall FAO Representative to India and Bhutan FAO, New Delhi Project Contact Persons
Date: *May 27,2009*	Tel. : +91 11 24652201 FAO-In@fao.org