PROJECT IDENTIFICATION FORM (PIF) [1]

PROJECT TYPE: Full-sized Project
TYPE OF TRUST FUND:GEF Trust Fund

PART I: PROJECT IDENTIFICATION

Project Title:	**Integrated management of wetland biodiversity and ecosystem services for water and food security**		
Country(ies):	India	GEF Project ID:[2]	5132
GEF Agency(ies):	UNEP	GEF Agency Project ID:	00695
Other Executing Partner(s):	Ministry of Environment and Forests, Government of India (Executing Agency) Lead technical and management partner: Wetlands International South Asia (Delhi) With: State Governments / nodal wetland authorities of Bihar and Rajasthan	Submission Date: Resubmission Date:	11 September 2012 10 April 2013
GEF Focal Area (s):	Biodiversity	Project Duration (Months)	60
Name of parent program (if applicable): ➢ For SFM/REDD+ ☐		Agency Fee ($):	398,675

A. FOCAL AREA STRATEGY FRAMEWORK[3]:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative Amount ($)	Co-financing ($)
BD-1	Outcome 1.1: Improved management effectivenss of existing protected areas	Three existing wetland protected areas (total area 0.1 million hectares) expanded with 1.3 million ha of previously unprotected and/or unmanaged catchments (as measured by GEF METT)		2,170,715	14,397,000
BD-2	Outcome 2.1: Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation	- Three (3) sub-national (lake basin) land-use plans that incorporate biodiversity and ecosystem services valuation		1,816,032	4,000,000
		Sub-Total		3,986,747	18,397,000
		Project Management Cost[4]	(select)	209,828	1,820,000
		Total Project Cost		4,196,575	20,217,000

[1] It is very important to consult the PIF preparation guidelines when completing this template.
[2] Project ID number will be assigned by GEFSEC.
[3] Refer to the reference attached on the Focal Area Results Framework when filling up the table in item A.
[4] GEF will finance management cost that is solely linked to GEF financing of the project.

B. PROJECT FRAMEWORK

Project Objective: Enhanced management effectiveness of wetlands of national and global importance through strengthening their management partnership, economic case and mainstreaming at landscape level						
Project Component	**Grant Type**	**Expected Outcomes**	**Expected Outputs**	**Trust Fund**	**Indicative Grant Amount ($)**	**Indicative Cofinancing ($)**
I. National NPCA policy support through ES-based knowledge systems	TA	1.National wetland PA network expanded through application of guidelines on inventorization and prioritization based wetland ecosystem services and biodiversity	1.1 Methodology and best practices for multiscalar and hierarchical wetland assessment developed and integrated in national (NPCA) programme based on pilot assessments at 3 sites 1.2 Values of wetland ecosystem services assessed and used in management planning based on application of UNEPs IEA & TEEB, and Corporate Ecosystem Services Review (ESR) methodologies 1.3 Best practice guidelines and tools made available to national wetland managers through website(s), forums, audio-visuals, and publications on ES-based wetland assessment, prioritization and monitoring 1.4 Links and networks established with national and international wetland data and information systems 1.5 National guidelines on wetland ecosystem services and biodiversity developed and used by the states for prioritization of additional sites or expansion of existing sites under the NPCA and Wetlands of International Importance	GEFTF	500,000	1,700,000
		2. Management	2.1 Management			

		effectiveness of national wetland PA system enhanced through adoption of best practices through the project	effectiveness tool developed and used by national site managers to assess degree of achievement of conservation outcomes 2.2 Implementation of Wetland (Conservation and Management) Rules, 2010 reviewed and strengthened through using ES based monitoring systems and reporting mechanisms 2.3 Adaptive risk management system and national response policy framework developed and piloted under Comp III in 3 wetland PA sites based on vulnerability assessments 2.4 Managers able to apply best-management practices through a program of applied-research grants			
II. Building capacity on mainstreaming integrated wetland management at state-level	TA	3. Enhanced institutional capacity and trained human resources for integrated management of wetland biodiversity and ecosystem services 4. Strengthened stakeholder involvement on ES-	3.1 Skills of wetland managers and local stewards developed for formulation of integrated management plans based on assessment and monitoring of ecosystem services and biodiversity 3.2 Capacity of wetland managers developed on linking site management plans with lake basins 3.3 Policy & decision makers, as well as key government and private sectors are able to use built capacity to integrate wetland ecosystem services and biodiversity into sectoral planning and decision making 4.1 State and site level stakeholder communications,	GEFTF	400,000	3,497,000

		based wetland management in 3 pilot sites within their lake basins	education and participation programs in ES-based wetland management developed and used for building partnership and synergy 4.2 Awareness raising on role of industries, infrastructure, agriculture and other key development sectors in maintaining wetland ecosystem health 4.3 Established learning networks for capacity building and feedback into state government policy and wetland site management			
III. Piloting integrated wetland management and restoration for national upscaling	TA	5. Enhanced management effectiveness in 3 protected wetlands applied and best practices integrated at national scale	5.1 Ecological and economic role of wetland biodiversity & ecosystem services in food and water security agreed with stakeholder for 3 sites within their lake basins, based on assessed scenarios for economic development trends, resource needs and landscape-wide wetland changes 5.2 Integrated management plans with clearly defined implementation arrangements for cross sectoral coordination , agreed by multi-stakeholders designed and implemented for 3 wetland sites, including pilots on buffer zones, resource utilisation and wetland restoration 5.3 Conservation of the 3 wetland sites and lake-basins sustained through formalised cross-sectoral & co-management agreements, including business plans for sustained financing at State level.	GEFTF	2,786,747	11,975,000

			5.4 Reduced impact to the wetland PAs and strengthened community stewardship in wetland management through small grant investments in Community Conservation Agreements and adaptive/alternative resources utilization 5.5 Public- private partnership on wetland restoration, biodiversity conservation, water management, and pollution control programs scoped for implementation in 3 lake basins 5.6 Best practices for integrated wetland management developed and disseminated for use of wetland managers under the NPCA (Comp I)			
IV. Project M&E and dissemination of best practices	TA	6. Project impact and performance measured	6.1 Project monitoring and reporting systems established, including on capacity building through the GEF scorecard 6.2 Site and lake basin monitoring implemented - assessing PA management effectiveness, maintenance and restoration of wetland ecosystem and biodiversity 6.3 Project best practice guidelines on ES-based wetland management disseminated for national replication	(select)	300,000	1,225,000
				Sub-Total	3,986,747	18,397,000
				Project Management Cost[5]	GEFTF	209,828	1,820,000
				Total Project Costs		4,196,575	20,217,000

[5] Same as footnote #3.

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

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount ($)
National Government	Ministry of Environment and Forests	Cash	13,900,000
		In-kinds	
Local Government	State Governments	Cash	5,557,000
		In-kinds	
CSO	Wetlands International - South Asia	Cash	150,000
		In-kinds	350,000
GEF Agency	UNEP	In-kinds	260,000
Others	Science centers	Unknown at this stage	0
Total Cofinancing			20,217,000

D. GEF/LDCF/SCCF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY[1]

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (a)	Agency Fee (b)[2]	Total c=a+b
UNEP	GEF TF	Biodiversity	India	4,196,575	398,675	4,595,250
Total Grant Resources				4,196,575	398,675	4,595,250

[1] In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table

[2] Please indicate fees related to this project.

PART II: PROJECT JUSTIFICATION

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

A.1.1 The GEF focal area/LDCF/SCCF strategies:

The project is consistent with **FA objectives 1 and 2 of the GEF-5 Biodiversity Results Framework**. Strengthening integrated management of wetlands within the country would contribute to conservation and sustainable use of their biodiversity and ecosystem services which forms the base of food and water security. In particular, the project will contribute to **BD Outcome 1.1** by improving management effectiveness of 3 wetlands identified as national priority, through creation of ES-based knowledgebase and decision support system, formulation and implementation of management plans that enable stakeholder support through alliances with communities and businesses, incorporate the inter-linkages between local economic development and maintaining the health of protected areas through minimum environmental flows, addressing drivers and pressures on wetland ecosystems at multiple scales, as well as building the capacity of wetland managers for upscaling at state level. Supporting incorporation of the value and contribution of wetland ecosystem services to various water management and sustainable development programs within the context of lake basins and highlighting the upstream – downstream linkages would promote mainstreaming of wetland biodiversity and ecosystem services into landscapes and sectors thereby supporting **BD Outcome 2.1** (increase in sustainably managed landscapes that integrate biodiversity conservation) of the FA strategy.

A.1.2. For projects funded from LDCF/SCCF: the LDCF/SCCF eligibility criteria and priorities:

Not Applicable

A.2. National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NAPs, NBSAPs, national communications, TNAs, NIPs, PRSPs, NPFE, etc.:

The project would support implementation of several national strategies and plans, key being the **National Environment Policy (2006), National Biodiversity Action Plan (2008) and National Climate Action Plan (2008)**. Conservation of wetlands has been identified as a high priority area under the **National Environment Policy** by recognizing their biodiversity and ecosystem services as "entities of incomparable value" and recommending integration into river basin management and sectoral development plans for poverty alleviation and livelihood improvement. The Ministry of Environment and Forest (MoEF) has identified conservation and sustainable use of wetlands as one of the key areas under natural resources management. Investment in conservation of wetlands is done under the flagship **National Plan on Conservation of Aquatic Ecosystems** (a new national scheme launched in February 2013 with a merger of National Wetland Conservation Programme (NWCP) and National Lakes Conservation Programme of the ministry). The National Programme on Mangroves and Coral Reefs supports investment in conservation and management of coastal wetlands. **National Biodiversity Action Plan** identifies wetlands as key components of biodiversity and thereby seeks their integrated management as one of the key pathways for achieving national biodiversity conservation objectives. **National Climate Action Plan** identifies Conservation of Wetlands as a component of the National Water Mission, which is one of the 8 missions identified by the government as a response strategy to climate change mitigation and adaptation.

The MoEF has notified the **Wetland (Conservation and Management) Rules** in 2010 under the Environmental Protection Act which will apply to all Ramsar sites, wetlands within ecologically sensitive and important areas, UNESCO Heritage sites, high altitude wetlands with an area of 5 ha and above, and other wetlands having area of 500 ha and above. The rules prohibit various developmental activities which degrade wetlands. A Central Wetland Regulatory Authority at national level has also been constituted to ensure implementation of the rules. The proposed project would provide support to strengthen implementation of the regulatory regimes by enhancing management effectiveness for conservation and sustainable use of wetlands. Complementing the regulatory regime, a national inventory on wetlands based on remote sensing techniques has been completed, including preparation of state level atlases to enhance management effectiveness; however this has not involved the valuation, review and integration of ecosystem services at multiple scales and their linkages at landscape level. **Coastal Regulation Zone notification (2011)** provide regulatory framework for conservation of coastal wetlands as mangroves and coral reefs. The project would strengthen implementation of the regulatory frameworks by supporting development of integrated decision- support systems and building capacity of wetland managers. By working with knowledge centers as IIT – Roorkee, the project would strengthen delivery as well as broaden the reach of capacity building courses on lake basin management.

The project would also support national level implementation of the **Convention on Wetlands (Ramsar Convention)** and **Convention on Biological Diversity (CBD).** Specific contribution to implementation of CBD Strategic Plan 2011-20 include support to achieving target 11 (conservation of 17% of terrestrial and inland waters and 10% of coastal waters especially areas of particular importance of biodiversity and ecosystem services), target 14 (conservation of ecosystems that provide essential services, including services related to water) and target 6 (sustainable management of fish and aquatic plants).

Wise use of wetlands is one of the three pillars of the Ramsar Convention, and also forms the core implementation strategy of this project. The various component of the project will support implementation of several resolutions of the Conference of Parties to the Convention, most notably Resolution X.19 on wetlands and river basin management; Resolution VIII.14 on integrated management planning for wetlands; Resolution X.15 and X.16 on describing and detecting change in ecological character; Resolution X.24 on climate change and wetlands; and series of resolutions related to communication, education and participation and awareness (CEPA).

B. PROJECT OVERVIEW:

B.1. Describe the baseline project and the problem that it seeks to address:

Wetlands in India exhibit enormous diversity owing to wide variations in rainfall, hydrology, physiography, geomorphology and climate. The ecosystem services provided by wetland ecosystems play a central role in water and food security, human health and wellbeing. The rich biodiversity supported by wetlands include over 800 fish, 33 freshwater turtles, 325 waterbirds, several of which are classified as being endangered and rare and of international conservation significance. Assessments by Space Application Center based on remote sensing imageries of 2006-07 indicate that there are 0.75 million inland and coastal wetlands in the country covering an area of 15.26 million ha (equivalent to 4.6% of India's geographical area).

Efforts to conserve and sustainably manage wetland ecosystems have been initiated by the Government of India since 1980s, beginning marked with ratification of Ramsar Convention in 1982. A dedicated national scheme for conservation

of wetlands (National Wetland Conservation Plan–NWCP) was introduced by the Ministry of Environment and Forests (MoEF) during the seventh national plan period (1985-1990) to provide 100% financial assistance to the state governments for implementing management plans. Till 2012, the coverage of the scheme included 115 wetlands, and financial grants provided for management plans components including catchment conservation, water management, biodiversity conservation, sustainable livelihoods, communication and awareness generation and institutional development. Financial outlay under the scheme has grown from US$ 0.6 million to over US$ 20 million in the 11th plan period. Under the Ramsar Convention, the Government of India designated 26 wetlands as Wetlands of International Importance (Ramsar Sites) underlining its commitment to ensure wise use of these ecosystems. The ecological restoration of Chilika Lake which led to removal of the site from the Montreaux Record (a list of sites with negative changes maintained by Ramsar Convention) and significant recovery of biodiversity and livelihoods was conferred the Ramsar Award in 2002, and recognized as a model initiative. In 2010, a regulatory framework for wetlands at national level in the form of Wetland (Conservation and Management) Rules, 2010 (notified under the Environmental Protection Act, 1986) which regulates a range of detrimental activities impacting wetlands notified under the said rules. All the 115 wetlands identified under NWCP have a formal protection status under the aforementioned rules.

Despite the implementation of the NWCP and efforts placed by various state governments, wetlands have continued to degrade and biodiversity of wetland dependent species under stress. Recent assessments have indicated at least 30% loss in inland wetlands in the last three decades. Wetlands, inland as well as coastal, are particularly affected by changes in hydrological regimes and pollution, most often originate beyond the actual site boundaries such as e.g. experienced in the habitat of globally endangered *Rucervus eldii* within Loktak Lake, Manipur and Sarus Crane in Keoladeo National Park, Rajasthan. Fragmentation of Mahanadi Delta floodplains through construction of embankment and water control structures is one of the major drivers of loss of wetlands in the central deltaic region. Increased upstream abstraction of water thereby leading to reduced availability downstream has been one of the major factors for domination of high salinity tolerant mangroves species (such as *Avicennia marina*) and drastic reduction in species sensitive to salinity in the coasts of West Bengal, Tamil Nadu and Andhra Pradesh. Effective cross-sectoral and multi-stakeholder led institutional arrangements for management of wetlands is yet to develop for several sites.

Efforts to promote integrated management of wetlands have been severally challenged by sectoral approaches to developmental planning at state and district levels within wetland basins, catchments and coastal zones. Seldom are ecological requirements of water for wetland functioning considered within water resources planning and development. Programmes aimed at securing water and food security without recognizing the role of wetlands have led to development decisions that tend to fragment wetland regimes or favor alternate uses. The need for multi-agency and multidisciplinary management approaches is further constrained by lack of knowledgebase systems which enable systematic accounting of wetland ecosystem services at river- and lake basin and wetland catchment scale. Wetland management and investment plans are mostly focused on site level drivers and thereby weakly address the indirect ones, which include but are not limited to changes in site and regional hydrological regimes, coastal zone development, agriculture intensification, industrial use and urbanization. The economic role of wetlands as suppliers of water, regulator of flows, providers of food security, supporters of livelihoods especially for the poor, and climate benefits have not been well recognized and integrated into sectoral policies and action plans, and as a direct result state governments have shown less than optimal commitment to protect, invest and manage their wetlands. Given the fact that most of the impacts of climate change in the country would be water-mediated, the opportunities wetlands provide for climate change adaptation and mitigation remain to be fully harnessed and integrated into relevant policies and action plans. Some of the key constraints limiting the effectiveness of efforts made thus far for wetland management include:

Lack of inter-sectoral coordination and integrated management planning at river- and lake basin scales to sustain wetland protected areas, biodiversity & ecosystem services, as well as wetland services dependent production sectors, communities and economies.

Limited capacities of wetland managers and other related stakeholders to design and implement ES-based and landscape-wide management plans including restoration programs which can address drivers of wetland degradation at multiple scales, through multi-stakeholder processes, and based on a long-term vision.

Limited knowledgebase and decision support systems to support mainstreaming of wetland ecosystem services in planning and decision making and monitoring impact of developmental activities (both governments, private sector and local resource users). This has led to sub-optimal support to wetland protected areas by state governments and degradation or loss of valuable wetland ecosystem services.

Weak national and state-level monitoring of management effectiveness of conservation programmes as well as compliance with regulatory frameworks to assess changes in the status of wetlands of national priority.

Following a review of the NWCP and NLCP implementation during the XIth plan, the Ministry of Environment and Forests approved merger of the two schemes under the National Plan for Conservation of Aquatic Ecosystems (NPCA), ***which forms the baseline for current proposal***. The scheme envisages allocation of investments into implementation of management action plans, developing inventories and information systems, and undertaking research. Implementation of the merged scheme is being led by National River Conservation Directorate (NRCD). A distinct focus on target oriented implementation of site management plans is envisaged, with particular emphasis on creating strong institutional mechanisms at state levels for coordination with different user agencies and concerned organizations to ensure effective implementation. The present GEF project is designed to support NPCA to built the economic case for wetland sites, as well as river- and lake basin management by enabling focus on ecosystem services and biodiversity through following specific contributions:

- Developing national guidelines for inventorization and prioritization based on wetland ecosystem services and biodiversity at site, lake basin and regional scales
- Developing management effectiveness tacking tools for wetland managers
- Building capacity of wetland managers to design and implement integrated management plans to enhance biodiversity and ecosystem services
- To establish cross-sectoral and multi-stakeholder mechanisms for mainstreaming conservation of wetland services and values at lake basin scales;
- Piloting integrated wetland management and restoration for national upscaling

As a means to demonstrate practical application of integrated management and cross sectoral mainstreaming approaches, the project aims to work within 3 pilot wetland sites, including Kabar Taal, Bihar; Sambhar Lake and Gapsagar Lake, both in Rajasthan. The three pilot sites provide opportunities for demonstrating management of lacustrine and riverine wetland systems, lessons from which can be applied to strengthen implementation of the national programme.

The Kabar wetland complex within the Gangetic floodplains is one of the most important waterbird habitats of the Indo-Gangetic plains. The wetland plays an important role in regional economy, in particular local livelihoods through a range of ecosystem services which include provision of water for irrigation and domestic purposes, fisheries, wild rice, edible mollusc (*Pila globosa*), and reducing flood risk. Communities living in 21 villages around the wetland system practice a mix of dry season agriculture and fisheries for sustenance. Kabar is eutrophic, sustains rich plant and animal diversity and teems with waterbirds. Every year, over 20,000 waterbirds of more than 26 species are known to descend into the wetland, making it one of the most important waterbird habitats in Indo-Gangetic Plains. Considering its rich diversity, a part of the wetland complex was declared as a protected area in 1986 under the Wildlife (Protection) Act, 1972. Increasing upstream demand of water for agriculture and fragmentation of hydrological regimes through construction of dykes and channels has led to overall reduction in water availability, sedimentation and the shrinkage in area (by over 800 ha during 1984 – 2002). The hydrological connectivity with River Kosi has been almost severed by choking of the connecting channels. Invasive species like *Phragmites karka* and *Eichhornia crassipes* infest the wetland growing luxuriantly on the nutrient enriched waters from the runoff of adjoining agriculture fields.

Sambhar Lake is the largest inland saline wetland of India located about 80 km northwest of Jaipur in central Rajasthan. Spanning an area between 190 – 230 km^2, the lake is known for its rich biodiversity including wintering areas for flamingoes (Phoniconaias minor and Phoenicopterus roseus), endemic brine shrimp (*Artemia salina* and *Sevellestheria sambharensis*) and characteristic flora (*Dunaliella salina* and *Serratia sambhariana*). The lake is also used for producing nearly 0.2 million tonnes of salt, equivalent to around 10% of national production. Sambhar was declared as a Ramsar Site in 1990. Major threats on the site include unmanaged salt abstraction, increased tourism pressure, fragmentation of habitat by construction of roads and hydraulic structures.

The Gapsagar Lake located within Dungarpur is a perennial lake, prioritized for conservation by the state government of Rajasthan to address the threats due to pollution, and encroachments. Built in 14th century, and currently extending to an area of 250 ha, the manmade lake plays an important role in local hydrology and serves as an important water source. It also supports rich biodiversity within and urban environment, but is under high stress due to increasing urbanization.

B. 2 Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF financing and the associated global

environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

This proposed project complements the investment made by the Government of India under NPCA. The current (baseline) investment portfolio nearly of US$ 20 million (over five years planning period) includes support to site level management plans, research and evaluation, capacity building of wetland managers, institutional development and awareness generation. The GEF financing would enhance and complement the above activities by introducing a broad multi-stakeholder and ES-based focus on improving sustainability of current management efforts in the three targeted wetland protected areas through support to development of knowledge systems, building capacity and piloting integrated wetland management and restoration (*GEF BD-1*). The project will also support increase in sustainably managed landscapes that integrate wetland ecosystem services and biodiversity conservation though mainstreaming wetland conservation in management of their respective lake basins – of national and international importance to biodiversity conservation, for national upscaling *(GEF BD-2)*. Specific reference to complementarity and incremental change expected within the various project components is discussed below:

Comp 1- ES-based knowledge systems for national policy support: Majority of wetland assessments available till date are based on remote sensing and GIS, providing information on extent, and features as turbidity and extent of vegetation. At site levels, state governments and wetland authorities are supported to undertake baseline investigations on wetland features. *However*, there is no systematic attempt to link datasets and information related to various drivers of wetland degradation (for example water resources projects, industrial use, land use changes) at a management relevant scale (e.g. river basin, landscape level) to wetland features. These inventories therefore provide very limited information on understanding ecosystem services tradeoffs that are generated due to wetland degradation, and the resultant impact on ecosystem processes and biodiversity. The potential to use these knowledge base systems to support management planning for enhancing ecosystem services and biodiversity is therefore highly limited. In particular, very limited effort has been placed to express the consequence of tradeoffs in economic terms to support their mainstreaming in local level policy and decision making, and enabling multi-stakeholder partnerships to this effect.

The *proposed GEF project* will complement NPCA by the following:

Development of guidelines for wetland inventorization and prioritization: These guidelines will be based on hierarchical assessment of wetland ecosystem services and biodiversity at site, lake basin and regional scales, focused on identification of management relevant drivers and pressures at river basin / landscape level. Elements related to extent of benefits provided by wetlands at site, regional and national scales, role in food and water security, and the cost of inaction for allowing degradation of wetland ecosystem services and biodiversity will be included in the methodological frameworks. These assessments – which will benefit from the ongoing programs of national partners and UNEP in TEEB and IEA methods, would strengthen additional leveraging of funds for wetland conservation in general and also allow cross sectoral integration, particularly into state and district-level developmental planning processes, industrial investments, and community participatory approaches in poverty alleviation. In the context of supporting site level management (Component 3), ecosystem service based assessments would focus on stakeholder linked values, tradeoffs and identification of means of incentivizing local resource use stewardship. Best practice guidelines and publication on ES-based wetland assessment, conservation management and relevant technologies will be also disseminated to support improving wetland management practices. Proponents also seek to establish links with national and international wetland related database and information systems (for example, Critical Site Network Tool developed under GEF assisted Wings over Wetlands Project) in order to provide relevant information and create synergy amongst various activities.

Assessment guidelines would lay specific emphasis on *supporting development of adaptive risk management systems* based on understanding of biophysical and social vulnerabilities related to wetland ecosystem services and biodiversity. These would be piloted for the identified sites as a part of the management planning process (Component 3).

To strengthen the effectiveness of this knowledge, various tools of communication such as websites, forums, audio-visuals and publications will be employed. Communications has been proven the be well spent conservation money specifically if targeted at establishing change with decision maker which in the medium to long term leads to more sustained policy changes, increase in wetland management funding levels, and moreover incorporation of wetland resources, their values and need for putting restriction on wetland development benefitting biodiversity and ecosystem services protection. Without a communications program the government is unlikely going to change their practices even with the optimized data and information process sponsored through the project.

Management effectiveness tool: A management effectiveness tool for site managers as well as NPCA programme managers will be developed to assist in assessing efficiency with which identified management results have been

achieved, and needs for resource reallocation. Ecosystem services based monitoring and reporting systems are also intended to be designed to strengthen implementation of Wetland (Conservation and Management) Rules, 2010.

Comp 2: Building capacity on mainstreaming integrated wetland management at state level: With an increase in the coverage and scope of national programmes on conservation of wetlands, there is an increasing need for trained wetland managers to effectively implement the integrated restoration projects *However*, review of the management plans submitted by various state government agencies indicate that the requisite integration of available technologies and professionalism is yet to be achieved. The main reason for this is the lack of capacity within the agencies involved in wetland management to design and deliver multi-stakeholder, cross sectoral and multi-scalar programmes for conservation and wise use of these ecosystems. In fact, integrated management of wetlands has received little attention except in Loktak, Chilika and few other sites. This not only weakens the efforts made by the national government, but poses serious limitation to address wetland conservation in the face of increasing anthropogenic and non-anthropogenic pressures as climate change. Within the national programme, the MoEF has supported capacity building workshops in all zones of the country for the same, sustained efforts are required for continued support to wetland managers in the form of training in restoration techniques, inventory and assessment tools, cross sectoral management planning, monitoring and evaluation and communication, education, stakeholder participation and awareness (CEPA).

The *GEF investment* would complement the efforts made by the Ministry of Environment and Forests through strengthening of local science centers in the four regions of the country namely Indian Institute of Technology (IIT-Roorkee) (which hosts a masters level programme on lake basin management, Wetland Research and Training Center of the Chilika Development Authority, Institute of Wetland Management and Ecological Design, Salim Ali Center for Ornithology and others); developing and implementing tailored and need-based courses for wetland managers aimed at developing capacities within wetland managers for application of standard methods, valuation of wetlands & ES, procedures and tools for monitoring sustainable use and management of wetlands; and maintaining built capacity through follow up support and networking. Further, the component would also seek strengthening stakeholder involvement in ecosystem services based wetland management through implementation of focused Communication, Education, Participation and Awareness (CEPA) Programme and establishing learning networks for feedback into state government as well as site level policy design. Strengthening the capacity of local communities would be an important focus of the capacity building programmes, particularly their role in assessing ecological health, managing local developmental pressures, and promoting awareness of wetland values and functions. On similar lines, the project would aim at raising awareness and seeking participation of corporate and various development sectors in wetland management.

Comp 3: Piloting integrated wetland management and restoration for national upscaling: The *GEF investment* would be used to develop integrated management plans addressing drivers of degradation as well as the need to ensure conservation of biodiversity through appropriate management regimes for three pilot wetlands (Kaabar Wetland complex in Bihar, Sambhar Lake and Gapsagar Lake in Rajasthan). Despite playing an important role in ensuring water and food security and supporting rich biodiversity, these wetlands continue to degrade due to lack of integrated management, in particular integration in water resources management planning and decision making within the basins they are linked to. None of these sites have an integrated management plan in place.

Building on assessment of ecosystem services and linked biodiversity values, these sites are proposed to be used as pilots to demonstrate application of hierarchical inventory systems, risk and vulnerability assessment procedures, management planning and cross sectoral and scalar institutional development. The restoration plans would include, *inter alea*, specific actions for managing catchments, restoration of hydrological regimes, conservation of habitats (including management of invasive species), sustainable resource development and improvement of livelihoods and institutional development (including coordination mechanisms between state government departments, results based performance assessment and monitoring and evaluation system, capacity building and CEPA - communication, education, participation and awareness programmes). Implementation of these plans is proposed to be jointly taken with the central and the state governments, as well as incorporate other groups such as communities and private businesses where feasible.

Wetland managers will be able to apply best management practices through a programme of applied research grants focused on improving management effectiveness, including expanding the management of ecologically linked wetland habitats around the wetland protected areas for purposes of maintaining minimum ecological flows as well as biodiversity conservation. Livelihood of communities will be enhanced via small grant investments in community-led conservation activities such as wetland conservation and adaptive/alternative resources utilization. This will also reinforce the ownership of the communities in wetlands protection. The process of ES-based/integrated management planning and implementation of restoration plans would create linking and learning opportunities for wetlands managers

in the entire country and through the project facilitation benefit implementation of the national wetland conservation programme. Given the high dependence of communities on wetlands for livelihoods and overall well-being, the project would focus on an inclusive and stakeholder led management planning processes, would ensure that the vulnerabilities and capacities of the wetland dependent communities are effectively integrated in project design and sustainable livelihoods, with focus on achieving gender equity, included within intervention plans. Similarly, project monitoring and evaluation mechanism would ensure that social indicators are included in the design process, and positive changes in vulnerability reduction and capacity building status ensured.

A key *incremental advantage of GEF investment* would be to support integration of wetlands into water management based on their economics of ecosystem services. Replicable restoration projects, which highlight pathways of assessing the role of wetlands in lake basins, determination of minimum environmental flow requirements for balancing human requirement with ecological requirements, negotiating protection of ecosystem services flows within the existing institutional arrangements, ensuring the role of wetlands as natural infrastructure in water management objectives and promoting stakeholder-led water management, would enable mainstreaming of wetlands in water management. As an innovative element, the project would also scope on the role of corporate sector corporate sector in wetland management, through their role in influencing water quality and quantity and ultimately in biodiversity conservation and communities' livelihood. The built capacity of wetland managers in the field of wetlands and integrated water resources management, practical skills that could be applied in national contexts and enhanced cross sectoral communication would leverage further investments within the various sectoral plans for integrating wetlands into water resources management. The lake basin pilot projects also envisage supporting grants to support community conservation agreements and alternate livelihood options to reduce pressure on wetlands as well as provide an incentive for stewardship.

Comp 4: Project monitoring and evaluation and dissemination of best practices: The GEF investment would be used to support project monitoring and evaluation system. The ambit would include project performance assessment against the set Outcomes, with specific focus on assessing management efficiency and increase in capacity within wetland managers. This would provide the much needed framework for assessing overall effectiveness of the NCPA at national, state and site levels, included under Comp 1 – on 'policy support'. The frameworks in use at present involve assessments against physical and financial targets, and do not provide much insight into changes in management practices, adoption of integrated ES-based approaches, and cross scalar and stakeholder management inter-linkages. Therefore this component would implement site and lake-basin monitoring to assess PA management effectiveness in the 3 pilot PAs, maintenance and restoration of wetland ecological flows and quality including in the three selected river basins, as well as the provision of ecosystem services for economic sectors and communities.

The central focus of the project design is on wetlands as a means of food and water security considering their role in provision of water, food, fiber along with regulating services (as regulation of hydrological regimes, buffering of extreme events, groundwater recharge). Conventional solutions for achieving food and water security are mostly physical infrastructure based with environmental costs and sustainability implications. Use of wetlands as 'natural infrastructure' provides a cost effective means of delivering a range of services as co-benefits while at the same time addressing food and water security objectives. While several estimates are available indicating cost effectiveness of these measures globally, the project would use valuation and ecosystem service assessment tools to enable site managers and policy makers use these arguments for cross sectoral communication (for example promoting synergies between water management, wetlands and agriculture sectors) and multi-scalar interventions. The ultimate intent is to create a national dataset of these evidences which can be used by policy makers systematically during evaluation of development programmes within the river basin, and implementation of provisions of Wetland (Conservation and Management) Rules, 2010 and other regulatory frameworks.

Given the strategic nature and nation-wide relevance of the outcomes, implementation would include specific emphasis on dissemination of the project outcomes, including tools, case studies, best practices, lessons learnt to stakeholders, including those concerned with policy and decision making. A communication strategy would be developed to guide actions in this regard.

The expected **global environmental benefits** arising from this intervention include:

- Progressive reduction in rates of natural resource degradation in protected wetlands in India.
- Maintenance of the flow of (transboundary) ecosystem goods and services, especially hydrology and water and purification, climatic regulating, pollinating services, carbon sequestration and preservation of genetic diversity, wildlife and migratory bird habitat in three wetlands of national and international (RAMSAR) importance.

- Effective protection of globally threatened and endemic bird species, including e.g. the habitat of Black necked Crane (*Grus nigricollis*), Bar-headed goose (*Anser indicus*) and other migratory species.
- Through adoption of new ES-based management and monitoring approaches at national level, strengthened conservation capacity, as well as enhanced PA management effectiveness applied to the various wetlands targeted under the NPCA of the MoEF, incl. 115 wetlands (with 26 Wetlands of International Importance under Ramsar Convention).
- Implementation of Aichi targets 11 (seeking conservation of 17% of inland waters) and 14(conservation of ecosystems providing essential services including related to water) and 9 (related to management of invasive species) enhanced through work in the seven pilots and three river basins and additionally through effective implementation of NWCP
- Restoration of globally significant forest, grassland and wetland habitats and services through field level activities in and around the targeted protected areas.

B.3. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF). As a background information, read Mainstreaming Gender at the GEF.:

At local levels, the wetland communities who depend on wetland resources such as fish, water for agriculture, or building and other materials for sustenance would be the direct beneficiaries to the project. All the sites included within the project have indigenous communities living within and around the wetlands and with livelihoods dependent on wetland resources. Degradation of wetlands, and changes in ecosystem services have impacted local livelihoods , for example major decline in floodplain fisheries in Kaabar. Implementation of integrated management plans would provide specific focus on ensuring reduction in vulnerabilities and enhancing capacities of the wetland dependent communities through integrating sustainable livelihood options within implementation plans, with focus on achieving gender equity, included within intervention plans. Project monitoring and evaluation mechanisms would ensure that social indicators are included in the design process, and positive changes in vulnerability reduction and capacity building status ensured. Securing representation of local communities and CSOs in institutional set up for wetland management would also be emphasized. Sustained provision of wetland products would reduce their costs of livelihoods – as compared having to purchase them on the market, as well as sustain the production of food. Containment of both floods and drought through healthy wetlands is another socio-economic benefit to communities and local economies directly affected. Enhanced wetland management, including at landscape-level, will provide a more stable environment in which both communities and business can thrive better, including through a more balanced local economic development path. Additionally, co-management of wetlands provide additional opportunities for diversification of livelihoods and reduced dependence on wetland resources Opportunities for engaging into wetland management planning and decision making would be ensured through participatory processes and ensuring that the community views, rights and capacities are integrated and safeguarded. The management planning process would pay specific attention to ensuring gender equity, as women in particular suffer differentiated impacts of wetland degradation, are repository of local information, can play an important role within the households for creating awareness on wetland values and functions, and ensuring better participation of community groups in management planning. The management planning processes would serve to empower the role of women within wetlands or river basin / landscapes through information sharing, education and training, technology transfers, organizational development, financial assistance and policy development.

B.4 Indicate risks, including climate change risks that might prevent the project objectives from being achieved, and if possible, propose measures that address these risks to be further developed during the project design:

The potential risks to project implementation and measures to address these are as follows:

Risk	Likely /Impa	Management Strategy

	ct	
Commitment at state levels and district-level to maintain and enhance focus on wetland conservation is not sufficient	Low/ Medium	The national government has a very proactive approach to maintaining environmental sustainability within its policies and programmes with wetlands placed at high priority, however enactment at local government level remains to be improved. The project would seek to support this momentum and enable sub-national delivery by establishing multi-stakeholder consultation bodies and decision support mechanisms, strengthening stakeholder commitment by awareness & capacity building, supported by providing policy relevant knowledge on the economic role of wetlands in local developmental planning and other emerging issues, provide solutions to how best mitigate the impacts on wetlands due to development projects and ensure liaison with policy makers at national, state and district levels on issues related to wetlands.
Cross sectoral communication between conservation and development sectors does not take place / is not sufficient	Low/ Medium	The project design process would seek participation of all relevant sectors, including cross sectoral management and communication structures, for both site and lake-basin level. The project would also focus on highlighting and bringing to fore the economic benefits of integrated approaches and ways of achieving a common institutional design in the context of wetland management. The project would also build capacity of wetland managers to engage across sectors, work at river- and landscape level, including equipping them with relevant assessment and communication tools.
The stakes and related conflicts on wetland resources such as e.g. access to land and water resources are too high to be solved in the timeframe of the project.	Medium /High	The project includes investment in science-based assessments, communication, education and awareness raising and consensus building, multi-stakeholder approaches and conflict management, to showcase that investment in natural capital as water and wetlands is crucial to economic development. The project would specifically invest into opportunities wherein communities can derive sustainable livelihoods through conservation of wetlands rather than overexploitation or resource degradation.
Uneven progress across various components and sites	Low / Medium	Addressing this risk will be built explicitly into the monitoring and evaluation strategy, determining roles and responsibilities for all actors and identifying potential bottlenecks and solutions.
Climate risks	Medium /Low	One of the core ideas of the project is to highlight the role of wetlands in climate change adaptation specifically related to good water management. The project would serve to build baseline information and provide practical demonstration on the ways wetlands, biodiversity conservation and water management can contribute to climate change adaptation. The project would seek more emphasis on the role of wetlands in climate policies.

B.5. Identify key stakeholders involved in the project including the private sector, civil society organizations, local and indigenous communities, and their respective roles, as applicable:

At wetland site level, wetland managers, dependent communities, local government as well as civil society organizations would be the key partners to the project. The project would also work with tour operators (to promote sustainable tourism) and industries (to seek participation in better management of water resources within the river basins). Enhancing effectiveness of wetland management would mean building on the roles and strengths of the communities, local government and civil society organizations to ensure participatory management addressing the multiple benefits provided by the wetlands. The role of wetland managers would be broadbased to gain the necessary skills for ensuring knowledge

sharing and seeking involvement of various local partners particularly the respective Gram Sabhas, Village Panchayats and other local bodies (as fisher and farmer associations) in effective wetland management, monitoring and stewardship where appropriate. The site specific management plans would be developed through participatory processes, particularly local communities, community based organizations and civil society. The restoration approaches and intervention strategies would be subject to the consent of the local communities, safeguarding their rights and capacities, including those related to access to wetland resources within sustainable limits. The project would also partner with national and local level research centers including universities and research organizations (for example as National Institute of Hydrology and Indian Institute of Technology-Roorkee for assessments of hydrological functions of wetlands and scenario modeling , Centre for excellence in Environmental Economics at the Madras School of Economics for ecosystem services based assessments, Delhi University for biophysical assessments) to develop the envisaged integrated knowledgebase at multiple scales. Within a given river basin, the project would aim to partner with a range of stakeholders involved in water management, including state water boards and basin organizations, hydropower agencies; central and state government departments dealing with irrigation, revenue, forests, wildlife, agriculture, fisheries, planning; and private sector agencies dealing with water (quality or quantity). The project would also partner with media to communicate wetlands and issues related to wetland management better. The project would partner within the TEEB-India project for assessing the role of ecosystem services in economic development. Wetlands International would serve to provide back stopping to implementation by bringing in international experiences and best practices in wetland management as well as support capacity building.

Project implementation would be managed within the country by a dedicated Project Management Unit, supported by Wetlands International South Asia. The three site pilots would be led by designated state wetland authorities, with strong capacity building support from the project. These are the Forest Department for Kaabar Taal, Bihar and Sambhar Lake, Rajasthan and Local Self Government under the Urban Development Department, Government of Rajasthan. These agencies, by government mandate, will also serve as the nodal agencies for leading and ensuring mainstreaming of wetlands within developmental planning, particularly water management. Integrated management plans would provide the basis for intersectoral coordination, including inter alea establishing and monitoring conservation and livelihoods related results framework for the sites. The Ministry of Environment and Forests would provide complementary support at the national level, ensuring coordination with other ministries and line departments, particularly those related to water resources and rural development. A key element of the institutional design of the pilots would be stakeholder engagement in wetland management planning, implementation and monitoring, particularly the role of local communities. Free Prior Informed Consent (FPIC) mechanisms will be introduced at site level to reach agreement with local and indigenous communities on the project approach – this will be elaborated during the PPG project design. Similarly implementation of work within the three basins would be done collaboratively with the basin management and site management authorities, with engagement of local stakeholders in assessment, planning, implementation and monitoring processes. Project dissemination and outreach would include local stakeholders in the target groups.

B.6. Outline the coordination with other related initiatives:

Since the project would be implemented at national and state level and in congruence with the objectives of the National Programme on Conservation of Aquatic Ecosystems, effective linkages would be made to ensure that existing and planned investments under the programme benefit from the various concepts, approaches and interventions undertaken within the framework of GEF investment, particularly within the fields of monitoring, economic assessments, and establishing co-management. To achieve the mainstreaming within river basin management, the project would collaborate with National Ganga River Basin Authority set by the MoEF (for Kaabar wetland complex). The project would also build on the outcomes of the proposed TEEB- India initiative, being undertaken in cooperation with GIZ-Germany, aimed at assessing the value of services for three ecosystem types (inland waters, coastal and marine, and forests) and supporting their integration in policy making. The project would also provide a platform for assessing the efficiency of site level wetland restoration plans being implemented by the state governments (e.g. Wular Lake by Department of Wildlife, Government of Jammu and Kashmir) through application of ecosystem services based assessment and management planning approaches, and building capacity of wetland managers involved in implementation of the programmes. The project would also liaise with various wetland conservation related programmes led by government organizations (e.g. Coastal and Marine Biodiversity Conservation Initiative in East Godavari River estuarine Ecosystem led by Wildlife Institute of India and UNDP); non-government organizations (e.g. Asian Waterbird Census and International Bird Conservation Network led by Wetlands International and Bombay Natural History Society; Partners for Resilience Initiative of Wetlands International South Asia aimed at highlighting the role of wetlands in disaster risk reduction; High Altitude Wetlands Initiative of WWF-India; Mangroves for the Future Initiative led by IUCN and others); and private sector (Godrej's mangrove conservation initiative). The project will also establish cooperation with the Integrated

Watershed Management Project of the Government of India, specifically on landscape-wide and river basin assessment and planning activities of the project. Related to this, the project may also benefit from the investments of the proposed WB/GEF Integrated Biodiversity Conservation and Ecosystem Services Improvement project, through the forest quality improvement investments to increase the hydrological potential in sub-watersheds. The project would also collaborate with the GEF supported project Integrated Biodiversity Conservation and Ecosystem Services Improvement Project, The World Bank, especially on ecosystem services related methodologies and monitoring systems. Experiences of implementation of the project Mainstreaming Coastal and Marine Biodiversity The project – specifically its river-basin programs, will also benefit from collaboration with the Biodiversity Conservation and Rural Livelihoods Improvement Project (BCRLIP), an ongoing World Bank project (GEF/IDA blend), which seeks to integrate the production and protection areas within the landscape for conservation outcomes.

UNEP project (31-P1) - 'Tools and Methodologies for Assessing and Maintaining Freshwater Ecosystems' has generated useful knowledge and materials for using in assessment of water resources, use and protection of minimum ecological flows in the targeted pilot sites and three river-basins. UNEPs ongoing global program and partnership (incl. in India) on TEEB and Integrated Ecosystem Assessment, has definitely added value and will be used in providing example methodologies for establishing the national knowledgebase, as well as conducting the state-level integrated assessments of wetland resources, value and scenario analysis. Collaboration has been agreed with the UNEP/ROAP project 'Policy Support to Sustainable Polices and Innovation for Resource Efficiency in Asia' (SWITCH) in fields such as sector specific policies and training tools, such as e.g. on efficient water use in agriculture and industries, and mainstreaming resource efficiency aspects in local economic development planning.

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

UNEP has extensive program and staff experience in wetland water resources management and biodiversity conservation, monitoring of wetland biodiversity and its connectivity along national and/or transboundary networks of wetland sites, participatory management approaches, and wetland restoration in recently concluded projects such as the Siberian Carne Wetland Project (China, Russian Federation, Iran and Kazakhstan), the Africa-Eurasian Wetlands Project (or Wings over Wetlands project), the Peatland, Biodiversity and Climate project (SE Asia), restoration and water resources management of Lake Faguibine in Mali, Kenya's Mau Forest complex, and many others. Its recent work and publications on "Dead Planet, Living Planet: Biodiversity and Ecosystem Restoration for Sustainable Development (2010)' as well as 'Estimated Costs and Benefits of Restoration Projects in Different Biomes (2012) is further prove of UNEP comparative advantage to this field of work. UNEP has a large portfolio in India of GEF funded Agro-biodiversity projects, most of which have on the ground participatory management pilots, national monitoring components, as well as science-to-policy work to mainstream biodiversity conservation in state and national government policies – which is the core approach of the proposed project.

UNEP has a considerable portfolio in the field of ecosystem services, valuation, incorporation on policy and strategies, as well as capacity building in applicable tools such as Invest, TEEB Integrated Ecosystems Analysis, and related works. UNEPs work under the TEEB program, as well as its recent adoption of the global Green Economy Initiative gives it a definite advantage on making the case, building the capacity, as well as develop local sector specific policy and management models to enhance protection of wetland goods and services, strengthened local economies, as well as protected globally significant biodiversity.

UNEP has extensive experience, expertise and a track-record in planning for and setting up PA networks, supporting PA management effectiveness, and monitoring BD indicators and targets of PA networks. It has a portfolio of at least 34 ongoing and completed projects in these fields over the last 8 years, and its staff team available includes experienced resource economists, conservation specialists, field ecologists, social sciences and ABS staff, applied science & monitoring specialists, public communications staff, law enforcement and governance experts, and specialist on institutional development, many with over 20 years professional experience in these fields. UNEP/GEF projects, including on national and regional PA management programs benefit from its extensive partnership network through agencies such as WCMC, IUCN, WWF, WCS, universities, ASEAN Center for Biodiversity, CIFOR, CABI, Interpol, TRAFFIC, UNODC, and many other CBD Partners delivering on the Programme of Work on Protected Areas, and the Lifeweb Initiative

This proposed project is in line with UNEP's role in the GEF to catalyze the development of scientific and technical

analysis and advancing environmental management in GEF-financed activities. In particular, the project further complements UNEP's aim to promote specific methodologies and tools that could be replicated on a larger scale by other partners (such e.g. the case in mainstreaming the TEEB and Green Economy approaches in natural resources management, PAS support, and poverty alleviation programs).

C.1 Indicate the co-financing amount the GEF agency is bringing to the project:

Co-funding on UNEP's projects is leveraged through establishing a robust partnership, specifically during the PPG design phase. At this stage of project conceptualization, UNEP and partners already managed to identify good co-financing potential, some already committed, with a total of $20,020,000 specifically through the Ministry of Environment and Forests, state governments, and Wetlands International

The following UNEP programs are anticipated to provide co-finance, yet to be detailed and confirmed during the PPG phase:

- Spatial Planning in the Coastal Zone – disaster prevention and sustainable development in project in COBEA countries. The project, will provide valuable lessons and tools – specifically to incorporating CC adaptation and risk reduction in spatial planning, as well as participation in training workshops – with estimated in-kind of US$15,000 over first 3 years.
- Life Web Initiative. The 2nd phase of the multi-country Spain-UNEP LifeWeb Initiative is being developed for 2012 onwards with a possible element of direct support to improving management effectiveness of PAS in Asia. Overall support has a total estimated value of approximately $20,000 over 3 years.
- SWITCH – Policy Support to Sustainable Policies and Innovation for Resource Efficiency in Asia. This specific but relevant UNEP project will provide support in the field of capacity building & SCP training tools, and support to sector specific SCP Round Table(s) in India (already ongoing). Total estimated (cash & in-kind) co-finance value is $100,000 over 5 years.
- UNEP/ROAP management support and technical backstopping on water resources management in India, transition to a green economy, and communications support - worth $25,000 in-kinds over 5 years
- UNEP International Ecosystem Management Partnership (IEMP, based Beijing)) program. An estimated total of $100,000 worth of capacity building support specifically on assessing, valuing and related scenario analysis of balancing local economic development with maintaining minimum environmental flows for wetland protection.

The cumulative estimated contributions through UNEP would amount at least US$ 260,000 cash and in-kind.

C.2 How does the project fit into the GEF agency's program (reflected in documents such as UNDAF, CAS, etc.) and staff capacity in the country to follow up project implementation:

The project's participatory ecosystem-based approach on the management of wetlands in India is aligned with UNEP's Medium Term Strategy 2010-2013 and it's Programme of Work for 2012-2013. Specifically, it addresses PoW Sub-programme 3 on Ecosystem Management: which reads "*UNEP will facilitate a cross-sectoral, integrated approach to ecosystem management to reverse the decline in ecosystem services and improve ecosystem resilience with respect to such external impacts as habitat degradation, invasive species, climate change, pollution and overexploitation. UNEP will continue to catalyse integrated approaches for the assessment and management of freshwater, terrestrial, coastal and marine systems*".

The project intervention is strongly geared towards strengthening the scientific knowledge base for wetland ecosystem services-based analysis and management, to build capacity through training & practice in applying those new tools, as well as facilitating multi-stakeholder governance processes to conduct wetland habitat restoration, biodiversity conservation and monitoring, water managements and quality control, as well as piloting enhanced wetland management in seven demonstration sites and three river basin areas. This is consistent with UNEP PoW Sub-programme 3 targets on Ecosystem Management which targets *(a)(i) Increased number of national and regional development planning processes that consider ecosystem services as a component for sustainable development with the assistance of UNEP & (b)(i)*

Increased number of countries addressing ecosystem degradation through the application of UNEP-supported ecosystem management tools with the assistance of UNEP & (b)(ii) Increased number of terrestrial, marine/coastal or aquatic ecosystems managed to maintain or restore ecosystem services with the assistance of UNEP. Additionally it fits with UNEP PoW Sub-programme 4 on Environmental Governance, which aims to *'Improve access by national and international stakeholders to sound science and policy advice for decision-making'*.
Functionally, the project is aligned with the following Outputs as described in UNEP's Programme of Work 2012-2013:

Ecosystem Management Program:

- (A-1) Global, regional and national awareness and understanding of the importance of biodiversity and ecosystem services for sustainable development (*project link: making the case, conducting the analysis and planning, as well as establishing the multi-stakeholder collaboration on incorporating ecosystems services such as BD conservation, water supply & purification in river basin management and wetland conservation*)

- (A-2) Policy dialogue with all sectors of society using economic evidence of the value of biodiversity and ecosystem services promoted and used for development planning (*project link: conducting economics-based wetland planning, management and restoration through a multidisciplinary and multi-stakeholder partnership)*

- (B-1) 1. Ecosystem management tools to address ecosystem degradation are applied at local, national or regional level by countries and their uptake catalysed through United Nations agencies (*project link: designing, testing and upscaling of wetland restoration techniques, and monitoring ecological recovery)*

- (C-1) Technical support provided to member states to use science to inform policy in management of biodiversity and ecosystem services for sustainable development (*project link: applying a ecosystem services and valuation approach – e.g. through TEEB, to redirect local government policy in support of sustaining wetland and water resources*)

- C-2) The impacts of Land-Based Activities (LBAs) affecting river basins and coastal areas are reduced through provision of technical support to countries to improve ecosystem management at regional or national level (*project link: incorporating water and river basin management in achieving wetland protected area objectives*)

The Results Framework of the India - United Nations Development Action Framework 2013-2017, has the following relevant outcomes:

- Outcome 2: Food and Nutrition Security - the goal is to concentrate more on animal husbandry and fisheries. Since land and water are the critical constraints, technology would focus on land productivity and water use efficiency. *The project does align with this through targeted support for wetland-based agriculture, improved water management and security for wetland dependent agriculture and communities, as well as incorporating resilience to CC in river basin management planning.*

- Outcome 5: Governance Systems are more inclusive, accountable, decentralized and programme implementation more effective for the realization of rights of marginalized groups, especially women and children. *The project does align with this through facilitating multi-disciplinary and multi-stakeholder processes on wetland management at state and district level.*

- Outcome 6: Sustainable Development - government, industry and other relevant stakeholders actively promote more environmentally sustainable development, and resilience of communities is enhanced in the face of challenges of Climate Change, Disaster Risk and natural resource depletion. Specifically, Output 6.3 'community-based institutions are better able to value the ecosystem goods and services for sustainable ecosystem management'. *The project does align with this by adopting a ecosystem-services and economics approach to wetland management and decisions making – including through applied science as well as multi-stakeholder processes.*

The project would be supervised and technical backstopping provided through the UNEP Regional Office in Bangkok, lead by the GEF task manager biodiversity, supported by the South Asia Regional Programme Coordinator – who is bi-monthly travelling to Delhi for programme coordination, a UNEP water resources management specialist, as well as UNEP staff in the field of resource efficiency (industries & agriculture). Close working relationship through Wetlands International –South Asia office will affirm a strong project support and management mechanism. Additionally, UNEP Executive Director has approved the setting up and staffing of a national UNEP office in India (likely in early 2013 latest), which would enable a locally-based UNEP staff to support the GEF project.

Project implementation would be managed within the country by a dedicated Project Management Unit – likely to be based at the wetlands unit of the Ministry of Environment and Forests, supported by Wetlands International South Asia.

Yet the bulk of the work planned for the four PA site pilots and three river basins would be done collaboratively by designated nodal wetland management agencies, with the river basin management-, as well as PA site management authorities, including with engagement of local stakeholders such as private companies, key community organizations as well as science institutions (mentioned in more detail in B5).

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

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

(Please attach the Operational Focal Point endorsement letter(s) with this template. For SGP, use this OFP endorsement letter).

NAME	POSITION	MINISTRY	DATE *(MM/dd/yyyy)*
Dr Hem Kumar Pande	Operational Focal Point, Joint Secretary	MINISTRY OF ENVIRONMENT AND FORESTS	4 September 2012

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.					
Agency Coordinator, Agency name	**Signature**	**DATE** *(MM/dd/yyyy)*	**Project Contact Person**	**Telephone**	**Email Address**
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