



**PROJECT IDENTIFICATION FORM (PIF)**  
**PROJECT TYPE: Full-sized Project**  
**TYPE OF TRUST FUND: LDCF**

**PART I: PROJECT IDENTIFICATION**

<b>Project Title:</b>	Integrating Community-based Adaptation into Afforestation and Reforestation Programmes in Bangladesh		
<b>Country(ies):</b>	Bangladesh	<b>GEF Project ID:</b>	4700
<b>GEF Agency(ies):</b>	UNDP	<b>GEF Agency Project ID:</b>	4878
<b>Other Executing Partner(s):</b>	Ministry of Environment and Forests / Bangladesh Forest Department	<b>Submission Date:</b>	November 23, 2011
<b>GEF Focal Area (s):</b>	Climate Change	<b>Project Duration (months):</b>	48
<b>Name of parent programme For SFM/REDD+ N/A</b>	n/a	<b>Agency Fee (\$):</b>	565,000

**A. FOCAL AREA STRATEGY FRAMEWORK:**

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Indicative grant amount (\$)	Indicative co-financing (\$)
CCA-1	Outcome 1.1: Mainstreamed adaptation in broader development frameworks at country level and in targeted vulnerable areas	Output 1.1.1: Adaptation measures and necessary budget allocations included in relevant frameworks	LDCF	640,000	8,000,000
CCA-1	Outcome 1.3: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	Output 1.3.1: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	LDCF	4,740,000	31,670,000
Sub-total				5,380,000	39,670,000
Project management cost			LDCF	<b>270,000</b>	1,949,000
<b>Total project cost</b>			<b>LDCF</b>	<b>5,650,000</b>	<b>41,619,000</b>

**B. PROJECT FRAMEWORK:**

<b>Project Objective:</b> Reduce vulnerability of communities to the adverse impacts of climate change through participative design, community-based management and diversification of afforestation and reforestation programmes						
Project Component	Grant type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative co-financing (\$)
Integration of community-based adaptation principles and actions into the design and rollout of new and ongoing afforestation programmes	INV	1. Vulnerability of communities in new afforestation and reforestation sites reduced through diversified livelihood options and more effective greenbelts	1.1. Community-based adaptation and livelihood diversification measures, such as integrated fish/fruit/forest-farming, diversified livestock rearing and salt tolerant/flood resistant crop farming are integrated with baseline afforestation and reforestation activities in 19 districts	LDCF	3,240,000	30,670,000

			1.2. Diversified trial plantations of up to 10 mangrove and non-mangrove varieties are established in 4 districts to increase the adaptive capacity of greenbelt structures on newly accreted lands			
Increasing community participation and involvement in forestry-based adaptation planning	TA	2. Strengthened community involvement in, and ownership of, forestry-based adaptation and climate risk reduction programmes	<p>2.1. Dialogue platforms established in all coastal districts to enable participative planning and management of climate resilient afforestation programmes between district, upazila and union officials and local communities</p> <p>2.2. A forest product benefit sharing agreement between coastal communities and national government is developed and adopted in at least 5 districts</p> <p>2.3. An institutional cooperation agreement and code of practice between community-based organizations and the Forest Department is developed and adopted to enable effective co-management of community-based adaptation and afforestation programmes</p>	LDCF	640,000	8,000,000
Improving Early Warning and disaster preparedness of communities in all afforestation and reforestation sites	INV	3. Communal livelihood assets in afforestation and reforestation sites are protected from extreme climate events through effective early warning and preparedness planning	<p>3.1. Effective early warning communications for extreme climate events are regularly disseminated to communities in all afforestation and reforestation sites</p> <p>3.2. Communal livelihood assets in new afforestation and reforestation sites are protected from extreme climate events through dedicated disaster preparedness and risk reduction measures (such as flood-resistant agricultural plots; protection of aquaculture and freshwater supply infrastructure; safe havens for livestock)</p>	LDCF	1,500,000	1,000,000
Sub-total				LDCF	5,380,000	39,670,000
Project management cost <sup>1</sup>				LDCF	270,000	1,949,000
<b>Total project costs</b>				<b>LDCF</b>	<b>5,650,000</b>	<b>41,619,000</b>

<sup>1</sup> The PPG phase will provide a detailed justification of project management costs. Given the large regional spread of project areas and their inaccessibility in the delta (requiring motorized ship transport to disconnected chars), the assessment of costs for project management-related costs (including travel and local supervision capacity in the target districts) needs to be based on more detailed assessments from the PPG phase. At the point of PIF submission, an assessment of 5% has been provided in compliance with a request by the GEF Secretariat. A detailed assessment of local oversight costs will be necessary over the course of the PPG phase to justify all necessary cost positions.

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

Sources of Co-financing for baseline project	Name of Co-financier	Type of Co-financing	Amount (\$)
National Government	Ministry of Environment of Forest (MoEF), through the 'Poverty Reduction through Social Afforestation' programme	Grant	15,670,000
Bilateral Aid agencies	Bangladesh Climate Change Resilience Fund (BCCRF)	Grant	24,949,000
GEF Agency	UNDP (through the Comprehensive Disaster Management Programme – CDMP)	Grant	1,000,000
Total Co-financing			41,619,000

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

Not applicable, as this is a single country, single focal area and single GEF Agency 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 proposed project was formulated in alignment with the Updated Results-Based Management Framework and Adaptation Monitoring and Assessment Tool for the Least Developed Countries Fund (GEF/LDCF.SCCF.9/Inf.4 from October 20, 2010). It corresponds to Objective CCA-1 "Reducing Vulnerability: Reduce vulnerability to the adverse impacts of climate change, including variability, at local, national, regional and global level". Corresponding Outcomes are provided in Part I/Section A. of this PIF.

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

Consistent with the Conference of Parties (COP-9), the project will implement priority interventions from the Bangladesh NAPA and therefore satisfies criteria outlined in UNFCCC Decision 7/CP.7 and GEF/C.28/18. The project will transform the way greenbelt afforestation and reforestation programmes in Bangladesh are designed and developed. It will ensure that new afforestation programmes are made resilient to anticipated climate change risks through a combination of (a) planting of climate resilient mangrove and non-mangrove varieties, (b) adoption of new planting and management techniques by communities that take climate change risks into account; and (c) greater and continued community participation in the management and long-term protection of new greenbelt structures, in partnership with relevant sub-national government entities.

Through alignment with a substantive forestry project that is financed by the Government of Bangladesh, this LDCF-funded project will increase the resilience and adaptive value of ongoing government investments in vulnerable areas and communities. Besides the immediate vulnerability reduction benefits this LDCF project will generate, it will leverage additional public, bilateral and multilateral investments for community-based adaptation in the context of business-as-usual forestry activities (for further information, see Section B.6 of this PIF).

In line with LDCF eligibility criteria and guidelines, the project will use LDCF resources to finance the additional costs of achieving resilience against climate change risks of a government-funded baseline programme, which is not yet taking climate change resilience aspects into account. The proposed project is exclusively country-driven, well coordinated with a number of other LDCF- and non-LDCF-funded projects, and will integrate climate change risk considerations into areas that are priority interventions eligible under

LDCF guidelines (especially coastal development and forest management). In alignment with LDCF guidelines, the project will

- (1) Expand the resilience of natural and social systems against climate change hazards, focusing on the community level;
- (2) Enable the development of response strategies to reduce the adverse effects of sea level rise;
- (3) Improve local and national awareness and understanding of the benefits of preparedness for climate change risks.

These priorities are in line with the expected interventions articulated in the LDCF programming paper and decision 5/CP.9.

## **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 Government of Bangladesh (GoB) is acutely conscious of the country's vulnerability to climate change and has been developing national working groups and policies related to climate change adaptation for several years. In 1992, the GoB established an Inter-ministerial Committee on Climate Change headed by the Minister for Environment and Forest (MOEF), with representation from relevant government ministries and departments as well as key non-governmental organizations (NGOs) and research institutions. The Department of Environment (DOE) under the MOEF has set up a Climate Change Cell (CCC) to act as Secretariat for climate change related work within the government. There is also a National Environment Committee to determine environmental policies chaired by the Prime Minister and with representation from Members of parliament (MPs) as well government and civil society.

In 2005, the Government concluded the development of Bangladesh's National **Adaptation Programme of Action (NAPA)**, following extensive consultations with communities, professional groups, and other members of civil society. Following a similar line of argumentation as the **Initial and Second National Communications** of Bangladesh to the UNFCCC, the NAPA document provides a compelling argument that risk reduction in coastal areas of Bangladesh can only be achieved if the maintenance of protective greenbelts is connected to tangible livelihood support and economic development options of adjacent communities. Responding to this realization, the NAPA document of Bangladesh has identified the "reduction of climate change hazards through coastal afforestation with community participation" (p.24) as number one adaptation priority, valued at 23 million USD.

Responding to this urgent and immediate need, Bangladesh has allocated a first tranche of LDCF financing to a NAPA follow-up project titled '**Community-Based Adaptation to Climate Change through Coastal Afforestation in Bangladesh**'. This project, which recognizes vulnerable communities both as victims of climate change as well as critical partners for finding and sustaining adaptation solutions, is supported by UNDP as the designated GEF Agency and jointly financed by the LDCF (3.3 million USD), UNDP (4.1 million USD) and the Government of Bangladesh (3 million USD). The project is currently in its second year and has delivered a number of highly visible, substantive results. It has received important national and international recognition, including an award for innovation at the 5<sup>th</sup> International Conference on Community-Based Adaptation, and has featured in a documentary that was recently aired in the Discovery Channel. The project displays how 'business as usual' afforestation activities by the Bangladesh Forest Department can be reoriented to

- a) Incorporate a climate-resilient mix of mangrove and non-mangrove varieties;
- b) Adopt new planting patterns and techniques to enhance the protective and economic functions of new greenbelts; and
- c) Couple livelihood diversification and support actions with the planting of new greenbelt structures to create incentives for communities to maintain the long-term integrity and protective utility of the new plantations.

At the same time, during the first 2 years of implementation, the project has recognized that the revision of national policies will not be sufficient to trigger a replication of the project approach at a national scale. As the country is faced with similar policy implementation and compliance gaps as many other LDCs, change at the local

level can only materialize if there are tangible, visible and practical examples of adaptation that can be accessed and understood by local-level institutions and authorities. Along these lines, many more project sites along the entire coastline are required to institutionalize climate-smart afforestation on newly accreted lands and create community-based adaptation hubs that gain the attention of civil society organisations, district, Union and Upazila officials. While the ongoing LDCF-funded project is delivering Outcomes that create the enabling environment for adaptive greenbelt management (including necessary policy change and initial demonstration sites), the proposed follow-up phase is aimed at much larger transformational change at the national level. Such change is only possible if the current planning and investment behaviour of District, Upazila and Union officials in all districts can be influenced, and if there are resources which allow community involvement and participation in new afforestation projects beyond once-off paid labour. Only districts in which ‘business as usual’ afforestation programmes can be coupled and strengthened with additional resources to provide back-to-back livelihood support and community-based adaptation benefits will be able to replicate ‘what works’ in community-based adaptation.

Realizing that the investment requirements for NAPA Priority 1 cannot be matched by public financing alone, the Government of Bangladesh is proposing to allocate a second tranche of LDCF resources to upscale and replicate community-based adaptation in current and planned afforestation programmes of the Forest Department under the Ministry of Environment and Forests. This follows a strategic decision by the Government to concentrate LDCF resources on the achievement of NAPA priority 1, rather than spreading limited LDCF resources too thinly across too many different sectors. Apart from synergies with Bangladesh’s first NAPA follow-up project, this approach will simplify coordination and reduce duplication with other prominent climate change funds (including the multi-donor “Bangladesh Climate Change Resilience Fund” (BCCRF, formerly also known as the ‘Multi-Donor Trust Fund for Climate Change’)); the Government-owned Climate Change Trust Fund; and the World Bank-led Strategic Programme for Climate Resilience (SPCR). It is an explicit requirement of this submission to ensure that LDCF funds do not replicate or duplicate with the BCCRF and SPCR; On the contrary, LDCF funding is envisaged to integrate largely absent community-based adaptation activities with BCCRF and SPCR investments (see Section B.6 of this PIF).

Finally, in addition to alignment with the NAPA, the proposed project aligns with the **Bangladesh Climate Change Strategy and Action Plan (BCCSAP)**, which was officially approved in 2008. Activities under the BCCSAP fall under 6 pillars: (1) food security, social protection and health, (2) comprehensive disaster management, (3) infrastructure, (4) research and knowledge management, (5) mitigation and low carbon development, (6) capacity building and institutional strengthening. The Ministry of Environment coordinates activities under the BCCSAP and has established a Climate Change secretariat to implement the plan. The proposed project aligns directly with activities under all 6 pillars, with particular relevance to pillars 1, 2, 3 and 6.

## **B. PROJECT OVERVIEW:**

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

Bangladesh has over three decades of experience with coastal greenbelt projects. As part of the current Forest Management Plan, newly accreted land (i.e. land that emerges on the basis of sedimentation processes in the river delta) is under the administration of the Forestry Department for 20 years, where it is subject to new afforestation and reforestation activities. After 20 years, when plantations are mature and the land is compacted, the land is formally released to the Bangladesh Water Development Board and distributed to local communities. While past afforestation efforts in coastal areas (such as the Coastal Greenbelt Project (1995-2002), the Coastal Afforestation Project (2005-2010), and the Char Development and Settlement Project III (2005-2010)) have successfully secured new land on the basis of natural sediment-trapping processes, the protection afforded by new plantations gets undermined once communities or commercial ventures move autonomously into fledgling greenbelt areas to farm crops, livestock, fish and shrimp. In principle, all greenbelt projects in coastal areas that are implemented by the Government of Bangladesh are intended to build sustainable buffer zones, prevent erosion and reduce potential loss of life and damage to property from climate-related impacts. However, as these projects generally fail to engage communities beyond once-off paid labor, neglect options to provide

alternative livelihood options, neglect the integration of diversified mangrove and non-mangrove varieties which can buffer changing climatic conditions, and are overall not innovative enough to leverage additional resilience benefits for local communities, most afforestation projects achieve limited long-term impact in vulnerability reduction.

Against this backdrop, the proposed project aims to integrate community-based adaptation and livelihood diversification options into the baseline project '**Poverty Alleviation through Social Forestry**'. This baseline project has a financial envelope of US\$ 15,670,000.- and is implemented by the Bangladesh Forest Department (BFD) under the Ministry of Environment and Forests (MoEF). The reference to poverty alleviation and social forestry in the title of this project refers to the cash-for-work modality that is adopted to engage local communities in tree planting and nursery activities. The main objectives of the project are to increase green vegetation coverage, increase the overall tree resource base of the country, arrest depletion of forest resources and enhance conservation of forests. To achieve these objectives, the project is financing 300 hectares of afforestation activities on newly accreted Char (= silt islands within rivers) land; 50 hectares of second rotation afforestation on existing Char lands (filling gaps that have emerged after the initial plantation); 7100 km of strip plantations along main roads, feeder roads, railways and embankments; and 10563 km of second rotation strip plantations along main roads, feeder roads, railways and embankments.

Although the project is undertaking community training activities in nursery management, it does not consider additional livelihood support and -diversification activities that could complement and sustain afforestation activities over the longer term. The persistent lack of alternative livelihood options and the pressures of poverty leave local communities with limited incentives to nurture and protect new greenbelt plantations: The ensuing effects of human and livestock encroachment result in a situation in which many afforested patches need to be repeatedly re-planted before they reach maturity to serve as protective shields. The baseline project is therefore at risk of perpetuating this problem and doing 'more of the same': Its objective is to create and conserve coastal forests with community participation, but the lack of livelihood resilience and the pressures of poverty (which are in turn exacerbated by climate-related shocks such as seasonal flooding and tropical cyclones) create a situation in which the incentives for encroachment on new plantations keep outweighing the incentives to nurture them. This can only be reversed if the planting of trees is coupled with targeted activities to strengthen and diversify livelihoods. If greenbelts are not perceived as an essential protective asset of rural livelihood systems, they will be used as a free economic resource that will continue to get replenished by the government. As the underlying baseline project does not make a systematic connection between forestry measures and complementary investments to sustain these new plantations through long-term community engagement, the proposed LDCF funding is clearly an additional measure to ensure that greenbelt forestry in Bangladesh can evolve from the business as usual scenario to a long-term model which generates adaptation benefits for future generations.

An additional factor that makes the aforementioned baseline project vulnerable to the effects of climate change is the continued use of monoculture practices: The BFD propagates the use of a single mangrove species (locally known as 'Keora'), which is suitable to trap sediment on newly accreted lands but keeps encountering a new set of climate change-related challenges: The temperature of coastal waters is rising (following global trends), and there is greater variability in inundation levels, inundation times, as well as salinity of soil and water. As a result, Keora plantations suffer from a higher rate of diseases and fail to regenerate naturally. Field assessments have found that at the maturity stage of 'business as usual' mangrove plantations (after 15 years), only 800 to 900 trees per hectare survive out of 4444 seedlings that had originally been planted. This represents a loss of up to 80% of planted trees and generates big gaps in greenbelt structures on moderately accreted lands, which need to be continuously re-planted. There is an urgent necessity to fill these gaps with a more innovative mix of mangrove species that have vigorous regenerating abilities and increase the genetic diversity of these greenbelts. The proposed LDCF project will introduce a diversified set of 8-10 selected mangrove species in 4 coastal districts, in which this problem is most apparent. In doing so, LDCF resources will address an evident climate change-related problem in a baseline afforestation project: Without LDCF investments, the baseline project will not be able to sustain critical plant density per hectare, and buffer the effects of higher water temperatures, higher/longer tidal inundations, and shifting salinity levels.

At present, it is fair to say that without additional improvements in the functional design and community

ownership of the above baseline project, the planting of trees in coastal belts does not qualify as a long-term adaptation and/or resilience measure. There are evident and substantive problems in establishing and sustaining new greenbelt structures as protective buffer zones from climate-induced stresses, which need to be addressed by additional activities, such as: a) Changing the mix of mangrove and non-mangrove species to increase the natural adaptive capacity of coastal forests; b) Providing economic incentives for communities to nurture, protect and conserve newly planted greenbelt structures; and c) Developing long-term benefit sharing agreements between communities and the national government for the selective logging of economic tree varieties.

With a view on the interface between LDCF financing and the aforementioned baseline project, it is important to emphasize that the Government of Bangladesh is focusing its LDCF programming on community-based adaptation in connection with the rollout of baseline afforestation programmes. Bangladesh's first NAPA follow-up project, which focuses on community-based afforestation in the coastal districts of Patuakhali, Bhola, Noakhali and Chittagong, is considered as the starting point to showcase how such dovetailing can take place. With NAPA priority 1 assessed at an investment cost of 23 million USD, and the LDCF contributing only 3.3 million USD to this priority to date (with additional 7.1 million USD leveraged from UNDP and the government), there is insufficient critical mass for a comprehensive and transformational approach that incorporates all coastal districts. In addition, there is no project interface which could ensure the transfer of community-based adaptation know-how between coastal and hilly afforestation/reforestation sites. Without additional LDCF support, there will be a limited number of districts which can generate sustainable community-based adaptation benefits from new afforestation and reforestation programmes. A critical mass of visible project platforms are the only way to transform the planning and investment behaviour of local administrative authorities and planners over the long term.

**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:**

In alignment with the primary adaptation strategy identified by the Bangladesh NAPA ('Reduction of climate change hazards through coastal afforestation, with community participation'), the proposed project will ensure integration of community-based adaptation and livelihood diversification measures into the baseline project described in Section B.1. of this PIF. In addition, the project preparation phase for this FSP will be synchronized with the preparation of the BCCRF-funded project "Afforestation and Reforestation for Climate Change Risk Reduction in Coastal and Hilly Areas of Bangladesh" and the appraisal phase of Investment Project 2 of the Strategic Programme for Climate Resilience (SPCR) (see Section B.6).

The proposed project will propagate community-based adaptation and livelihood diversification measures (such as integrated fish/fruit/forest-farming; diversified livestock rearing; salt tolerant/flood resistant crop farming; measures to protect aquaculture and freshwater supply infrastructure from flooding and storm events; and measures to provide safe havens for livestock) in 20 Upazilas (sub-districts) across 19 coastal districts (Cox's Bazar, Chittagong, Noakhali, Lakshimpur, Pakuakhali, Barguna, Bhola, Jhalokhati, Pirojpur, Feni, Barishal, Chandpur, Bagerhat, Khulna, Satkhira, Shariatpur, Madaripur, Faridpur and Gopalganj). In parallel, trial plantations will be established in 4 coastal districts to display resilient combinations of, and planting patterns for, mangrove varieties which demonstrate better performance in withstanding climatic variations and extremes (pertaining to effects of salinity, inundations, temperature, humidity, windspeed).

## **Component 1: Community-based afforestation and management of coastal greenbelts**

### *Baseline situation:*

In Bangladesh, many communities are situated close to the shoreline and largely reliant on agriculture and fishing for their livelihoods. An increase in both i) gradual long term climatic changes, such as sea level rise, and ii) changes in the frequency and intensity in extreme events, such as cyclones and storms, are raising the

incidences and severity of flooding, salt water inundation and erosion, not to mention loss of livelihoods, shelter and life. In such settings, coastal greenbelts serve multiple important functions. They trap sediment and accrete new land (thereby countering trends of erosion and sea level rise), provide protection for communities in exposed areas of the delta, and provide economic services such as food and fiber products. Unfortunately, these functions are under threat from climatic as well as non-climatic stresses: In recent decades, coastal development in Bangladesh has been sub-optimal, due to the combined impacts of climatic and anthropogenic influences. Massive deforestation of mangroves for fuel wood and conversion of land into commercial shrimp farms has greatly reduced the extent of mangrove cover which acted as a protective barrier against coastal erosion, cyclones and storm surges. New afforestation activities need to be developed and managed in a way that includes a number of important factors which have not been duly considered in the past. These include: the right mix of mangrove and non-mangrove varieties needs to be chosen to withstand higher degrees of salinity, longer inundation times and higher inundation levels; Protective and economic benefits of new greenbelt structures need to be better balanced so that communities have incentives to maintain these greenbelts as part of their livelihood assets; Community participation in coastal afforestation programmes needs to be strengthened beyond paid labour to generate additional natural, social and human capital for adaptation; and fragile new plantations need to be protected from extreme events, human and livestock encroachment.

One element of ‘business as usual’ afforestation and reforestation programmes in Bangladesh, such as the baseline project of the proposed LDCF initiative, is that mangrove plantations on newly accreted lands employ monocultures of a single mangrove species (locally known as ‘Keora’). While this mangrove species is suitable to trap sediment on newly accreted lands, Keora plantations now encounter a number of problems which are aggravated by climate change impacts. As a result, there is a risk of disease in large scale plantations, and a lack of natural regeneration. These effects can lead to losses of up to 80% of planted trees and create big gaps in greenbelt structures. There is an urgent necessity to regenerate these gaps and introduce new mangrove species with vigorous regenerating abilities. Without such diversification, current and future baseline afforestation projects of the BFD will not be able to sustain the necessary plant density per hectare and buffer effects of rising water temperatures, water levels and salinity levels. Another drawback in the business as usual scenario is that community benefits in local, district and national afforestation and investment programmes are generally limited to once-off paid labor for the planting of trees. BFD baseline projects are caught in costly and iterative loops of tree planting and re-planting, and unable at present to apply more innovative approaches to community involvement and empowerment. Such alternative approaches could include measures such as: Introducing new tree varieties (such as fruit trees) in greenbelt plantations to increase economic benefits; Coupling mangrove plantations with adjacent agriculture and aquaculture plots to provide longer-term economic incentives for the protection of greenbelt structures; or applying new forms of benefit sharing between communities and the national government (e.g. for the selective logging of economic tree varieties at maturity stage).

Existing programmes on the disaster management side are generally focused on disaster response and relief planning; The second phase of CDMP (which serves as the second baseline project for this intervention) is the only existing programme in the target upazilas which advocates for a more proactive and anticipatory risk management approach and provides some flexibility in addressing hazards before they turn into disasters. The main focus of CDMP, however, is largely on risk reduction for extreme events. Smaller scale climatic events, which do not result in visible disaster effects but keep undermining the resilience of coastal livelihoods (such as erosion of fertile soil, increasing salinity of soil and groundwater, or higher inundation levels during monsoonal floods) are not yet considered an integral element of a comprehensive disaster risk reduction approach.

#### *Adaptation alternative:*

With LDCF funding, communities in all coastal districts that are covered by new afforestation or reforestation programmes of the Government will be able to maximize protective and economic benefits from their involvement in these programmes and have the necessary incentives to maintain the integrity of new plantations. As existing afforestation programmes are largely focusing on short-term land accretion rather than long-term protective and economic benefits for vulnerable communities, the proposed project will involve communities in the design and implementation of afforestation programmes which are interspersed with additional livelihood diversification measures to create new benefits.

LDCF funding will be used to launch combined afforestation/livelihood support schemes: Baseline afforestation and reforestation projects will provide resources for the planting of greenbelts, while LDCF resources will ensure that additional livelihood options are created. Measures financed by LDCF will include:

- Introduction of diversified mangrove and non-mangrove varieties into baseline monoculture plantations to increase the adaptive capacity and regeneration ability of greenbelts on newly accreted land. These ‘Trial plantations’ (Output 1.2) will demonstrate new and innovative mixes of tree varieties, regenerate gaps in existing monoculture greenbelts and increase the abilities of mangrove plantations to adapt to climate change-related pressures (salinity, inundation, temperature, wind). Trial plantations will be restricted to 4 districts in which the drawbacks of the existing monoculture model are especially severe, and government baseline projects continue to propagate the deficient ‘business as usual’ monoculture pattern.
- Introduction of a new mix of mangrove and non-mangrove varieties to balance protective and economic benefits for local communities (see Fig.1);
- Introduction of new plantation techniques and patterns (such as mound-and-dyke plantations and small-scale interspersed aquaculture) to enhance protective benefits for local communities (see Fig.1);
- Strengthening community involvement and engagement in coastal afforestation programmes beyond once-off paid labor through:
  - Farming of climate-resilient crops adjacent to new greenbelt structures;
  - Diversified livestock rearing which reduces effects of animal trampling and feeding on new plantations;
  - Small-scale crab farming in dyke structures adjacent to new greenbelts;
  - Aquaculture in dyke structures of mound-and-dyke plantations;
  - Bee farming in areas adjacent to new greenbelt structures.

The project will propagate the community-based “Fish, Fruit and Forest” (FFF) management model which was demonstrated in Bangladesh’s first LDCF project and combines a mound-ditch-type plantation of mangrove and palm species (serving predominantly protective functions) with interspersed fruit trees (Bau Kul, Apple guava) and aquaculture (serving predominantly economic and livelihood support functions).

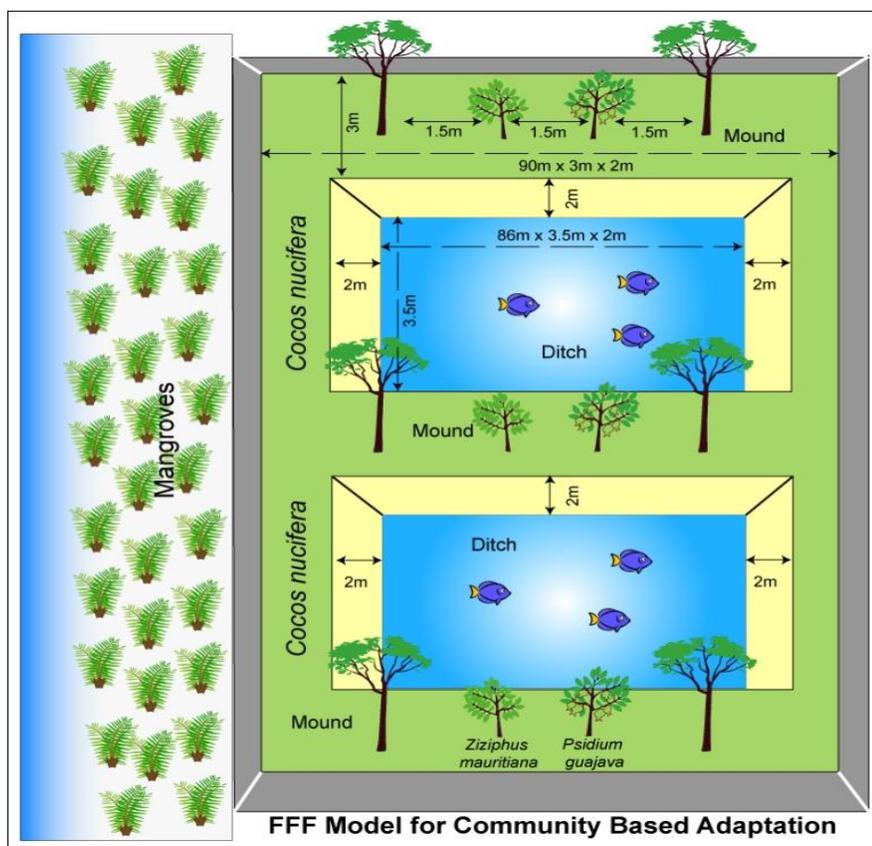


Fig.1: Sketch of community-based ‘Fish, Fruit and Forest’ (FFF) adaptation technique proposed under this project (Bangladesh Forest Department & UNDP, 2010)

The top surface of the mounds will provide an opportunity to grow vegetables and gourds, whereas aquaculture in the ditch will sustain fish production for local communities. This type of integration will ensure that the coastal greenbelts which protect the livelihood assets of communities will be valued, maintained and managed in a participatory manner.

## **Component 2: Community participation and involvement in adaptation planning**

### *Baseline situation:*

In Bangladesh, the management of erosion and disaster impacts along coastlines and waterways is largely tackled with costly engineering solutions (including dredging, sea walls and cyclone shelters). The awareness of district, Union and Upazila authorities as well as community leaders about the benefits of ‘soft’ coastal adaptation measures (including climate-smart afforestation and livelihood diversification) is very weak. This lack of awareness reinforces existing trends of indiscriminate deforestation, land erosion and encroachment on fresh greenbelt plantations. Existing baseline forestry projects do not provide sufficient guidance on how communities can and should be engaged to enhance their ownership of new plantations. District officials implementing government-driven greenbelt projects have expressed concern regarding a lack of participatory approaches to coastal afforestation and indicated that this can cause community and commercial encroachment in new plantation areas. Furthermore, the present and planned coastal plantations of the forest department do not include a clear forest product sharing arrangement with the adjacent communities, increasing the likelihood of community disengagement and deforestation. Bangladesh’s first NAPA follow-up project, which is currently under implementation in the four districts of Chittagong, Noakhali, Bhola and Patuakhali, has started to address some of these concerns. The project undertakes focused training events for national, district and Upazila officials on climate resilient coastal development and community-based adaptation approaches. The project is attempting to revise 2 coastal zone management policies and 2 land-use planning policies to introduce a greater focus on livelihood resilience, sustainable land management, and coordinated coastal planning. While this is an essential start at the national level, the project does not have sufficient leverage to mainstream community based adaptation approaches more comprehensively into sub-national (especially district and Upazila-level) plans, strategies and investment plans across the country. Such subnational mainstreaming activities are crucial for the scale-up of coastal adaptation measures: Without a critical mass of concrete, visible and accessible project sites at the Upazila level, local authorities will not be convinced about the viability and benefits of participative adaptation approaches. A systematic increase of project sites is therefore critical to ensure that there are no friction losses between national policy formulation and district-level policy compliance and enforcement.

### *Adaptation Alternative:*

LDCF funding will increase the awareness of public authorities at the district, Upazila and Union levels, as well as local communities in the target Upazilas, about the economic and resilience benefits of community-based adaptation measures that are undertaken back to back with baseline afforestation and reforestation programmes. Using communication means such as participatory rural appraisals, community consultations, leaflets, posters, radio and exchange visits, the project will share different approaches to community-based forest, agriculture and aquaculture management. In doing so, LDCF funding will help to institutionalize participative and adaptive afforestation approaches in district-level investment programmes and plans. LDCF funding will be used to train all district, Union and Upazila officials who are involved in the planning, monitoring and management of new afforestation and reforestation programmes on approaches to strengthen community involvement and enhance community resilience benefits on a much broader scale than through the business as usual practice of paid labor. The proposed project will provide know-how on livelihood diversification and support options that can be promoted and supported back-to-back with the planting of trees. These options will include the Fish-Fruit-Forest adaptation model; diversified farming of climate-resilient crops adjacent to new greenbelt structures; diversified livestock (such as duck & poultry) rearing; small-scale aquaculture and crab farming in dyke structures of mound-and-dyke plantations; bee farming in areas adjacent to new greenbelt structures; communal rainwater harvesting; Protection of wells and water distribution systems from the effects of extreme weather events (especially storms and floods); and other options as appropriate in the context of the selected target sites. Complementary to these awareness raising and training activities, the project will establish benefit-sharing agreements between local communities and the government that determine and secure long-term financial

benefits for the communities upon successful protection and maintenance of new greenbelt plantations.

### **Component 3: Risk Reduction from Extreme Climate events**

#### *Baseline situation:*

At present, there is no systematic connection between new afforestation/reforestation programmes in coastal areas and the delivery of disaster prevention and early warning services. New plantations remain vulnerable and exposed to extreme events (cyclones, swell waves, inundations, landslides) and a number of critical livelihood assets (such as freshwater supply and storage systems, community shelters, fishing boats, agricultural plots and livestock sheds) keep suffering catastrophic losses from extreme events. Afforestation and reforestation programmes can provide an innovative outreach mechanism to connect exposed local communities to disaster early warning systems and provide complementary support mechanisms that reduce risks from extreme climate events (e.g. through the flood-proofing of communal infrastructure; establishment of flood-proof agriculture plots; safe havens for livestock; and contingency protocols in times of extreme weather). At present, the UNDP-supported Comprehensive Disaster Management Programme (CDMP) is the only programme of critical scale that has a disaster prevention and risk reduction focus. Its first phase (2006-2009) has laid the foundations to institutionalize a new, prevention-oriented paradigm to disaster management in its host Ministry of Food and Disaster Management, but also more broadly across 13 key ministries and agencies that have a stake in disaster management issues. In its second phase (2010-2014), CDMP is providing a launching pad for concrete investments to reduce disaster risk before different hazards materialize, rather than concentrating almost exclusively on relief and response planning.

#### *Adaptation alternative:*

By building on the UNDP-supported CDMP programme as a delivery platform, the project will ensure that all communities who are engaged in livelihood diversification actions under the proposed project are systematically connected to disaster early warning systems (including systems that transport warning signals through cellular phone, radio and volunteer outreach). A dedicated suite of community based support measures will be dedicated to the flood-proofing of agricultural plots and community infrastructure (such as communal ponds and reservoirs, freshwater tanks, hand pumps). The project will complement investment activities of Investment Project 2 under the Strategic Programme for Climate Resilience (SPCR), which will be focusing on the repair of coastal embankments. Building on existing relationships with local government and development partners, civil society and NGOs that were developed under CDMP Phase I, the proposed project will ensure that Disaster Risk Reduction and Climate Change Adaptation can be coupled into an integrated risk reduction approach that can provide both short-term protection from intensive risk, as well as long-term protection from extensive risk.

**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 (LDCE/SCCF). As a background information, read [Mainstreaming Gender at the GEF.](#)":**

Engaging with community-based afforestation and disaster risk reduction measures, community members in each vulnerable target district will not only benefit directly from cash-for-work and seeds-for-work approaches applied by the baseline project, but also from climate change adaptation benefits that persist long after project completion. At the local level, communities will benefit from increased resilience to climate related disasters through timely reception of disaster risk and early warning information; improved access to natural capital, such as forest, food and fiber plots, aquaculture ponds and livestock rearing facilities; improved human capital through involvement in forestry-related and non-forestry-related training activities in climate risk management; improved access to physical capital such as protective buffer zones around communal infrastructure; and improved financial and political capital on the basis of new benefit-sharing agreements with the national government. These activities will enhance human security to climate change and increase the number of local economic and social development opportunities.

Similar to the benefits communities are deriving from Bangladesh's first NAPA follow-up project, both men and women will be engaged in nursery and forest management activities. The societal roles of men and women will be assessed during the project preparation phase, and based on this assessment, the envisaged livelihood support measures will be designed to take equal opportunities for both men and women into account. Lessons learned from the first LDCF project, which has a strong track record of women involvement (see Fig.2) will be incorporated in this project.

At national level, socioeconomic benefits will be enhanced through the integration of community-based approaches into ongoing and planned afforestation and reforestation frameworks and investment programmes. A forest product benefit sharing agreement between government and local communities (under Outcome 2) will ensure that there are economic incentives for the management and nurturing of new greenbelt plantations. By promoting active community engagement across all Outcomes, this project will improve public ownership, reduce conflict and create a culture of integrated land and resource management. This will address the need for greater community engagement outlined in the Bangladesh Climate Change Strategy and Action Plan.



Fig.2: Female beneficiaries of Bangladesh's first LDCF project engaging in the processing of mangrove seedlings. Good practices in women's empowerment from ongoing demonstration sites in Patuakhali, Bhola, Noakhali and Chittagong will be replicated in 19 coastal districts.

Finally, through engagement and training of community-based organisations, the project will develop institutional capacity at the local level which will support communities' political engagement, advocacy and participation in participatory, forward-looking risk management. This will greatly be assisted by UNDP's long-standing track record working with NGOs and CBOs in the project areas on a variety of livelihood support and disaster management tasks.

**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 proposed project can draw on important pilot experiences from Bangladesh's first LDCF-supported project. This reduces strategic and organisational risks to the project, and ensures that risks are detected before they turn into problems. The main risks at this point are related to a possibility of staff turnover in the responsible government department (Bangladesh Forest Department): The transfer of Divisional Forest Officers (DFOs) in each district occurs frequently and may present issues of continuity and support for project activities. In order to minimize these risks, the project will establish a number of supporting relationships during the preparatory phase. These linkages will include ongoing and planned baseline development activities by UNDP and other donors; consultations with subnational authorities, NGOs and CBOs in the targeted project areas; definition and formalization of co-financing partners and arrangements; and the securing of local buy-in through a comprehensive

stakeholder participation plan. Implementation arrangements for this project will be structured in such a way that the benefits of co-located project management units, shared government line responsibilities of baseline and LDCF project teams, as well as the benefits of shared Project Board structures can be brought to bear.

The proposed project will be successful if it can facilitate a shift in thinking within government, local planners and communities from business as usual afforestation and reactive crisis management to proactive community involvement in a diversified suite of climate risk management actions. The greatest risk here is inertia within key stakeholders towards change, and a preference to revert back to business as usual. This risk will be mitigated by creating highest political and geographic visibility for local-level adaptation and livelihood support activities, which are closely connected and co-branded with new afforestation and reforestation programmes. Media reports, ministerial communications, videos and widespread dissemination of project-related lessons will provide incentives and positive feedback to local officials for doing things differently. UNDP, through its track record working with local NGOs and CBOs in the target areas of this project (including through projects such as CBA and CDMP), has already established a network of partners to enhance regular dialogue with communities and local authorities. This comparative advantage is expected to mitigate the above risk.

In terms of environmental risks, unfavorable climatic conditions may occur during the project life cycle and impact on the investments made by the project. An important assumption is that these climatic extremes will remain within local coping ranges, and that existing institutions and community groups will rapidly absorb and act on the new skills, technical approaches and knowledge acquired.

#### **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:**

The proposed project will coordinate closely with public, private and communal stakeholders that are involved in the design and implementation of the following initiatives:

- The government-funded project 'Poverty Alleviation through Social Forestry', which will provide the baseline resources for new tree planting and reforestation activities in coastal districts;
- The BCCRF-funded project 'Afforestation and Reforestation for Climate Change Risk Reduction in coastal and Hilly areas of Bangladesh', which will undertake complementary tree planting and reforestation activities in coastal and hill districts;
- Investment Project 2 of the Strategic Programme for Climate Resilience (SPCR), which will focus on the rehabilitation of embankments and small-scale afforestation measures to stabilize these embankments (target areas yet to be determined);
- The UNDP-led Comprehensive Disaster Risk Management Programme (CDMP), which will provide financial resources and partnerships to connect adaptation with disaster risk reduction investments in the target areas of the project;
- Phase IV (2011-2016) of the Char Development and Settlement Project (CDSP), which is an existing afforestation project which can potentially integrate the community-based adaptation approaches employed by the ongoing and proposed LDCF-funded projects;
- The global Community-based Adaptation (CBA) Project, which is a global, SPA-funded project to which Bangladesh is a party. The CBA project will work in the same project areas, thereby providing complementary financing for community-based adaptation.<sup>2)</sup>

The project will be implemented by the Bangladesh Forest Department (BFD) under the Ministry of Environment and Forests (MoEF). The BFD will host the Project Management team and be responsible for collaborating at the national level with other government ministries and departments, non-governmental organisations (NGO's) and research institutions through the Inter-ministerial Committee on Climate Change.

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<sup>2)</sup> As CBA is funded by the SPA, it is not counted as co-financing under the proposed project

Other government ministries involved in the project include the Ministry of Land, Ministry of Fisheries and Livestock and the Ministry of Water Management. Research institutions will provide the scientific basis to the adaptation measures implemented through Outcomes 1 and 3, based on findings from the ongoing, BFD-hosted and LDCF-funded coastal afforestation project in Patuakhali, Bhola, Noakhali and Chittagong. Such institutions include the Bangladesh Forest Research Institute, the Bangladesh Agricultural Research Council, Bangladesh Rice Research Institute and the Institute of Water and Flood Management.

Vulnerable communities are the key stakeholders of this project and will be engaged in all project Components. They will implement community-based adaptation and climate risk management activities under Outcomes 1 and 3, be empowered through awareness, training and benefit-sharing actions under Outcome 2, and gain and transfer knowledge on relevant livelihood diversification and community-based adaptation options across districts. In promoting community-based adaptation at the local level, the project recognizes that risks associated with climate change threaten to reinforce gender inequalities and erode progress that has been made towards gender equality and women's empowerment. Poor women's limited access to resources, restricted rights, limited mobility and voice in community and household decision-making can make them much more vulnerable than men to the effects of climate change. This is unfair and can lead to unfortunate consequences for all, as women play a unique role in the stewardship of natural resources and support to households and communities. With their knowledge, they can shape adaptive mechanisms in vulnerable areas. When promoting climate resilient planning in the context of village development plans, training local authorities and stakeholders on the application of climate change adaptation strategies, and planning community-based adaptation activities in coastal areas, this LDCF project will take gender equality considerations, as well as men's and women's different needs, perspectives and knowledge, into account.

NGOs and CBOs which are active and committed to work on issues of natural resource and disaster risk management in the target regions will be contracted by UNDP to work as local partners with communities on the development of community-based adaptation schemes. Existing institutional relationships that have emerged from the Community-Based Adaptation (CBA) project, CDMP and Bangladesh's first LDCF follow-up project (such as the practice of designating community outreach workers to each target site) will be utilized, saving costs and avoiding risks of duplication. Local government counterparts and research institutions (such as the Bangladesh Forest Research Institute) will participate in participatory planning efforts as necessary. Union, Upazila and District officials from the Ministry of Environment and Forests, Ministry of Agriculture, Ministry of Land, Ministry of Fisheries and Livestock and the Ministry of Water Management will be trained to support community-based adaptation measures back to back with the planting of trees under ongoing afforestation and reforestation programmes (Outcome 2). They will also be responsible for implementing policy changes at the Union, Upazila and District level. The point of contact for engagement of district officials will be through the District Environment and Forest Development Committee (DEFDC), the District Disaster Management Committee and the Upazila Coordination Committee.

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

The proposed project is highly complementary to Bangladesh's first LDCF-funded NAPA follow-up project (**'Community-based Adaptation through Coastal Afforestation in Bangladesh'**) which started implementation in mid 2009 and is co-financed with 1.1 million US\$ in grant co-financing by UNDP. It will share the project's linkages with relevant regional and national programmes, including: (i) the Second National Communication (currently under preparation); and (ii) the Comprehensive Disaster Management Programme (CDMP), which supports participatory community-based risk reduction, multi-hazard preparedness, response and mitigation plans for disaster risk management. Other on-going UNDP-led programmes of relevance to the proposed project include the Coastal and Wetland Biodiversity Management Project (USD 7.3m) and the Empowerment of Coastal Fishing Communities for Sustainable Livelihood project (USD 6m). These projects address baseline natural resource, disaster response, and economic development issues in the proposed project areas. The project will be linked to UNDP's Adaptation Learning Mechanism and other regional knowledge networks such as the Adaptation Knowledge Platform coordinated by UNEP, SENSEA, SEI and UNDP.

A central initiative this project will coordinate with is the project **"Afforestation and Reforestation for Climate Change Risk Reduction in Coastal and Hilly Areas of Bangladesh"** (2011-2016), which was submitted

by the Bangladesh Forestry Department to the Bangladesh Climate Change Resilience Fund (BCCRF, formerly known as the 'Climate Multi-Donor Trust Fund'). This project is expected to provide investments for the establishment of 3500 ha of mangrove plantations; 2500 ha of non-mangrove plantations; 2500 km of strip plantations; 5000 ha of core zone plantations; and 5000 ha of buffer zone plantations. It draws on public and donor financing to plant mangroves on newly accreted land and non-mangroves in hilly areas, with a view of enhancing and supporting natural sedimentation processes in the river delta and preventing soil erosion on landslide-prone slopes. Although the preliminary design of this project (as per November 2011) is considering the need for 'alternative livelihoods for forest conservation' in hilly areas, there are no specific provisions to integrate livelihood diversification and risk reduction activities back to back with new afforestation activities in coastal areas. Consequently, there is a risk that new coastal greenbelts financed by BCCRF resources will remain vulnerable to human and livestock encroachment. UNDP is actively engaged in supporting the coordinating government entity (BFD) to align BCCRF programming with LDCF-funded adaptation initiatives. The MoEF and BFD have indicated strong interest to finance new afforestation and reforestation programmes in coastal areas with government baseline as well as BCCRF resources, and complement these investments with additional livelihood support and –diversification actions that have been proposed under this LDCF project. For these reasons of integration and complementarity, the BCCRF project has been included as parallel grant co-financing in Table C of this PIF. Over the course of the PPG phase, a series of consultations will take place to ensure coordinated sequencing of activities, geographic complementarity and institutional alignment between the programming of BCCRF and LDCF resources.

The proposed project will coordinate with the World Bank-funded **Strategic Programme for Climate Resilience (SPCR)** in Bangladesh. UNDP Bangladesh has been an active member of SPCR missions since February 2010 and undertook considerable efforts to link LDCF-financed initiatives on coastal afforestation with the SPCR. In a number of bilateral and multilateral meetings, including the SPCR Sub-Committee Meeting held on 10 November 2010 in Washington, D.C., UNDP recommended that in line with the SPCR's aim to build on existing and ongoing initiatives in climate risk management, replication and upscaling of LDCF-funded projects in Bangladesh should be considered. The SPCR in Bangladesh has a timeframe of 5 years and proposes an Investment Project (Investment Project #2 titled "Coastal Embankments Improvement and Afforestation") to repair coastal embankments and stabilize them through the complementary planting of trees. This investment project has a financial scope of 25 million US\$ in grants and 300 million US\$ in IDA Credit, and focuses on civil works on coastal embankments, the upgrading of hydraulic structures, re-excavation of clogged drainage systems; and afforestation of embankment systems to reduce erosion. A feasibility study for 17 polders has been contracted by BWDB, and pre-appraisal, appraisal and decision meetings are planned over the course of 2012 (which coincides with the PPG phase of the proposed LDCF project). The key envisaged results of the SPCR are the strengthening of coastal embankments to withstand daily, seasonal and erratic climate extremes, including floods and cyclonic storms. The bulk of the respective investments will therefore be used to rehabilitate 'hard' coastal embankment infrastructure, with localized afforestation activities to help stabilize and protect the new embankments. It is important to note that these afforestation activities are highly localized and linked with the specific setup and shape of new embankments; these investments are not aimed at generating broad greenbelt buffer zones or trapping new sediment on newly accreted lands. Despite these differences, coordination with the SPCR is seen as a relevant interface under this project to ensure that the SPCR can adopt principles of sustainable plantation management and engage communities in a sustainable and participatory manner. At the point of PIF formulation, no information was available on the financial scope of the afforestation component under the SPCR. The PPG phase will provide a detailed map in which locations SPCR-related investments will take place, and which complementary LDCF-financed adaptation activities can be undertaken in these areas.

While both BCCRF and SPCR are funding sources to increase climate risk resilience, they do not apply the same additionality logic as the LDCF. BCCRF and SPCR are both investing in a range of 'no regrets' risk management measures, which include baseline investments in coastal forestry and infrastructure. Although the projects are not yet fully operational, they are designed to focus on investments in 'hard' coastal barriers (in the case of the SPCR) and afforestation/reforestation across the country (in the case of the BCCRF). The proposed LDCF project is well placed to share relevant know-how and undertake complementary investments which can sustain the forestry components of the BCCRF and SPCR in the face of a changing climate. In the design phase of the proposed LDCF project, the Government of Bangladesh, UNDP and the World Bank have agreed that

LDCF-financing should be complementary to both BCCRF and SPCR. LDCF financing should be used to finance community-based adaptation and livelihood diversification activities in coastal areas, back to back with the planting of trees that will be primarily financed by BCCRF and SPCR. The PPG phase will ensure close coordination of this LDCF project with all BCCRF- and SPCR-related feasibility assessments. With the executing government agency of the proposed LDCF project (BFD) also serving as the focal point for BCCRF and SPCR, the proposed project will be able to ensure that there is a maximum degree of complementarity and no duplication between investments.

Another government-owned programme that will benefit from the inclusion of lessons learned from the proposed project is the “**Char Development and Settlement Project (CDSP) IV**” (2011-2016), which provides funding for the plantation of 4000ha of foreshore mangroves; 645 ha of non-mangrove block plantations; 350 ha of non-mangrove foreshore plantations; plantations along 205 km of drainage canals; 300km of roadside plantations; and 41.5 km of embankment plantations. As of now, these afforestation activities are not yet replicating the models developed by the ongoing LDCF-funded project; The mix of tree varieties and choice of planting patterns does not incorporate considerations of climate projections and sea level rise, and no complementary livelihood support activities (such as the fish-fruit-forest model) are connected with afforestation activities. The proposed project will coordinate closely with the CDSP to ensure that lessons learned are made available, CDSP stakeholders are trained, and the project can make use of innovative adaptation approaches.

Bangladesh is one of the 10 pilot countries for UNDP’s (GEF Council Approved and SPA-funded) **Community-Based Adaptation (CBA)** Project. The CBA Project in Bangladesh has commenced operation in early 2010 and provides small grants for community-based adaptation in the same vulnerable areas that have been chosen for LDCF-funded interventions. The proposed project will draw on existing CBA delivery mechanisms to ensure that livelihood support in the project areas is provided in a complementary bundle, and that the most appropriate local NGO and CBO partners are selected. The Climate Change Cell at the MOEF (focal point for the CBA project) and UNDP (Headquarters & Country Office) will ensure coordination between the CBA and the proposed project.

Finally, the project will actively coordinate with capacity development actions undertaken by the **Sundarbans Environmental and Livelihoods Security (SEALS)** project (2010-2014), which is active in the Sundarbans impact zone and can provide a complementary platform for community outreach, awareness and training activities in the western coastal zone of Bangladesh.

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

UNDP’s comparative advantage for the proposed project lies in its long-standing experience working with, and providing financing to, the Bangladesh government on community-based adaptation and disaster risk reduction projects throughout the country. UNDP has supported the formulation and implementation of the Bangladesh NAPA and was selected as the lead agency to support Bangladesh’s first LDCF-funded NAPA follow-up project, which is targeted at the same sector as the proposed intervention. UNDP support is provided in both technical as well as financial terms: Financially, UNDP is contributing 1.1 million USD of core resources (cash co-financing) and 3 million USD in parallel co-financing to the delivery of Bangladesh’s first NAPA follow-up project. This financing will also benefit the proposed intervention.

Apart from leveraging new co-financing contributions, UNDP will be able to ensure a range of financial synergies with the ongoing LDCF project on coastal afforestation. These synergies will include:

- Using the same project office and administrative staff in the Bangladesh forest Department (thereby reducing administrative costs);
- Drawing on existing training and awareness materials (thereby avoiding duplication of works a multiple procurement);
- Building on existing results and impact monitoring systems, including questionnaire-based surveys to verify vulnerability of target groups at the beginning, mid-term and end of the project (thereby supporting the

aggregation of impacts delivered by LDCF financing);

- Drawing on research partnerships developed by the existing projects, such as the Bangladesh Forest Research Institute (thereby shortening the project preparation phase);
- Combining field visits by monitoring staff (thereby facilitating cross-district sharing);
- Synchronizing annual work planning processes to optimize use of resources in both projects.

In addition, UNDP is implementing the Comprehensive Disaster Management Programme (CDMP), which is a 5 year, multi-donor framework with support from UNDP, DFID, the EU, Sida, Norad and AusAID. CDMP serves as the central disaster risk reduction platform of the Government of Bangladesh and integrates targeted Outputs on community-based disaster risk reduction, poverty alleviation and climate change adaptation. It follows a multi-hazard approach to disasters, supporting a paradigm shift from disaster relief and rehabilitation to proactive and anticipatory disaster risk reduction and preparedness. CDMP aims to institutionalize the adoption of forward-looking climate risk reduction not only in its host Ministry (the Ministry of Food and Disaster Management (MoFDM)), but more broadly across key ministries and agencies that have a stake in risk management programming.

Based on the government's experience working with UNDP on CDMP as well as the first LDCF-funded NAPA follow-up project, a formal request was communicated by the GEF OFP to UNDP Bangladesh that a second LDCF project focusing on community-based afforestation should be developed for submission to the LDCF. The explicit expectations by the Government of Bangladesh are that the proposed project will:

- a) Build on, complement and replicate benefits of the ongoing LDCF project;
- b) Integrate community-based adaptation and livelihood support measures into afforestation and reforestation baseline programmes undertaken by the Government of Bangladesh;
- c) Connect with CDMP support to strengthen and reinforce risk reduction efforts.

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

UNDP will provide 1 million US\$ in grant financing through the Comprehensive Disaster Management Programme (CDMP), which will be programmed to help achieve Outcome 3 of the proposed PIF. This contribution will ensure that there is systematic connectivity between LDCF investments and an effective climate hazard Early Warning System (EWS). CDMP is a UNDP-administered, 69 million US\$ programme which pools bilateral resources provided by UNDP, DFID, the EU, Sida, Norad and AusAID for disaster risk reduction. It aims to reduce Bangladesh's vulnerability to adverse natural and anthropogenic hazards and extreme events, including the adverse effects of climate change. Its pioneering first phase (2006-2009) has laid the foundations to institutionalize a new, prevention-oriented paradigm to disaster management in its host Ministry of Food and Disaster Management, but also more broadly across 13 key ministries and agencies that have a stake in disaster management issues. In its second phase (2010-2014), CDMP is strengthening the capacity of government agencies to reduce disaster risk before different hazards materialize, rather than concentrating its efforts on relief and response planning. A number of Outputs and Activities under CDMP II are targeting development and disaster management issues that are related to the effects of extreme weather. Without systematic connection to these Outputs, not all communities who are participating in the proposed LDCF project would be able to receive disaster management services (such as early warning communications for extreme events); At the same time, a large part of the CDMP would remain focused on the effects of extreme weather only, and neglect the more extensive types of climate change-related risks which materialize in communities as 'creeping' sea level rise, salinisation of soils and aquifers, and coastal erosion.

With a view on UNDP's co-financing contribution, it is worth highlighting that UNDP is providing further 4.1 million US\$ in grant co-financing to Bangladesh's first LDCF project, which is financing deliverables that will be drawn on by the proposed project (such as training and communication materials, baseline vulnerability data, etc.). To avoid double-counting, this contribution is not captured as co-financing under the proposed LDCF project.

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

The project is in line with the new UN Development Assistance Framework (2012-2016), which was endorsed by the Government of Bangladesh in June 2011, and the UNDP Country Programme Document (2012-2016). These major assistance frameworks to the Government of Bangladesh emphasize the UN’s goal to promote equitable and sustainable growth in Bangladesh that contribute to faster and more efficient poverty reduction and sustainable use of natural resources in a changing climate.

In this context, it is important to note that the new UNDAF for 2012-2016, which has been formulated and endorsed by the UN Country Team on the basis of an MDG gap analysis, has defined UNDP as the lead UN agency for Climate Change, Environment, Disaster Risk Reduction and Response. This role was assigned on the basis of long-standing technical and financial support to the government of Bangladesh in the implementation of the Bangladesh Climate Change Strategy and Action Plan (BCCSAP), the NAPA, and existing disaster risk reduction frameworks such as the CDMP.

Along these lines, the proposed project is in full compliance with Outcome 1 (‘By 2016, populations vulnerable to climate change and natural disaster have become more resilient to adapt with the risk’ under UNDAF Pillar 5 on ‘Climate Change, Environment, Disaster Risk Reduction and Response’. In relation to the UNDP Country Programme, the proposed project corresponds to Outcome 3.1 (‘Improved resilience of vulnerable communities and institutions to adapt to risks’) and Outcome 3.2 (‘The poor and vulnerable benefit from better management of natural resources and access to low carbon energy’).

**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:**

NAME	POSITION	MINISTRY	DATE (MM/DD/YYYY)
Mesbah ul Alam	Secretary in-charge and GEF Operational Focal Point	Ministry of Environment and Forests	12/09/2011

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

This request has been prepared in accordance with GEF policies and procedures and meets the GEF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	Date	Project Contact Person	Telephone	Email Address
Yannick Glemarec, Executive Coordinator, UNDP/GEF		November 23, 2011	Gernot Laganda, Regional Technical Advisor, (G-LECRDS) UNDP	+66-(0)2304 9100 Ext.2644	gernot.laganda@ undp.org