GOVERNMENT OF THE PEOPLE'S REPUBLIC OF BANGLADESH
MINISTRY OF ENVIRONMENT AND FORESTS
FOREST DEPARTMENT

FOREST INVESTMENT PROGRAMME, BANGLADESH 2017

FIP Sub Committee Meeting
Climate Investment Funds (CIF)

Date: 13-14 December 2017

Venue: World Bank Headquarters, Washington, D.C.

DESCRIPTION OF THE COUNTRY AND SECTOR CONTEXT

Forest Area (in million ha.): 2.6 (17.5 Percent)
Rate of Deforestation Per Annum (in %): 0.2

GDP Contribution From Forest: 3 % (6.4% If forest ecosystem services are considered)

Labour Force: 2 % Engaged in forestry activities

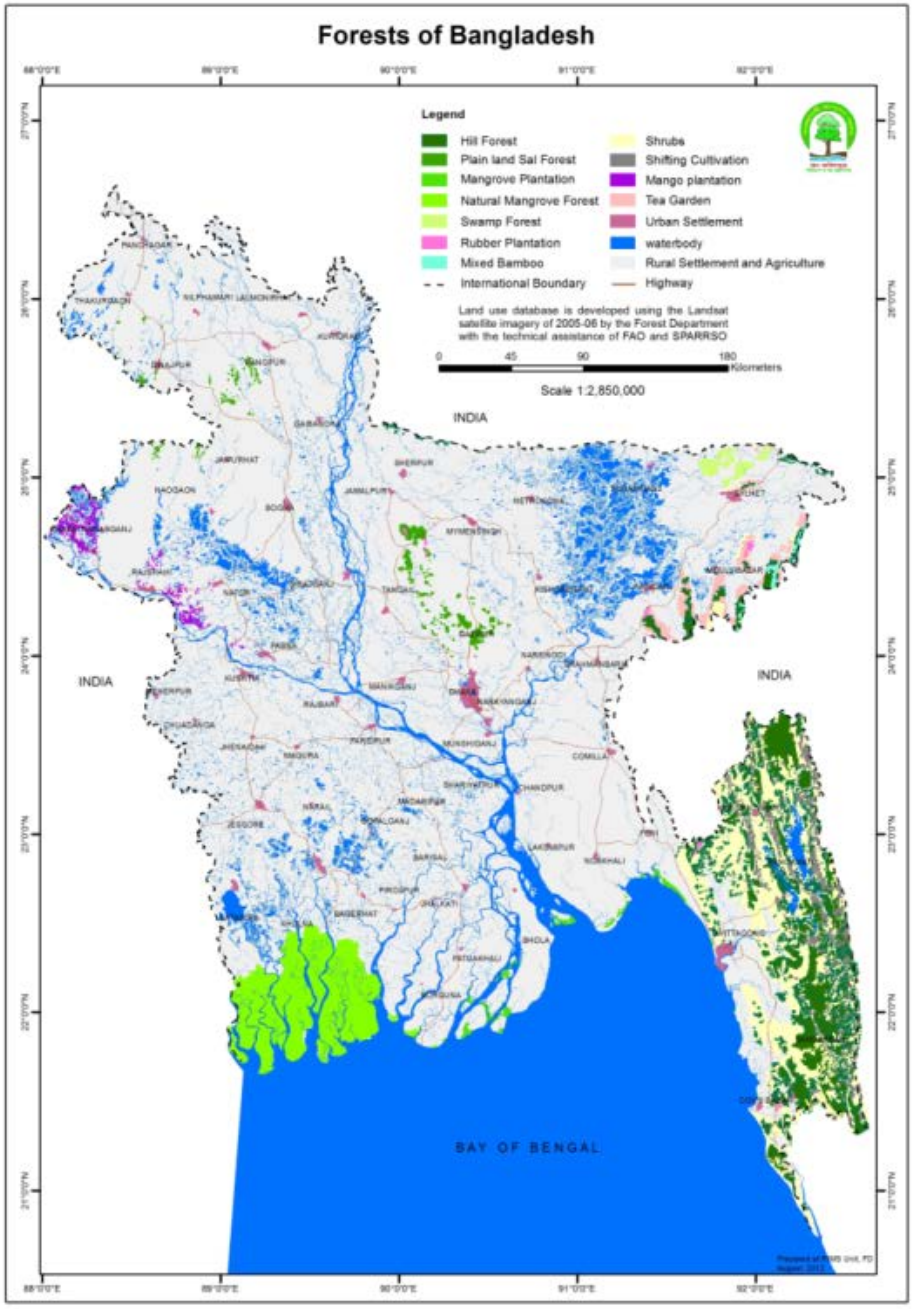
Employment in Forestry Sector (in million): 1.5 Full time equivalent in 2015
(Women 0.60)

Forest Dependent People (in million) : 19.00

Village Forest Contribution: 8.9% to 18.6% to the house hold income

Policy Goal of Forest Restoration: 20% of the land surface

Climate Vulnerability: One of the most vulnerable countries (Ranks no. 1 regionally and no. 6 globally in terms of weather related losses, fatalities and properties).



DESCRIPTION OF THE COUNTRY AND SECTOR CONTEXT

LAND USE PATTERN IN BANGLADESH

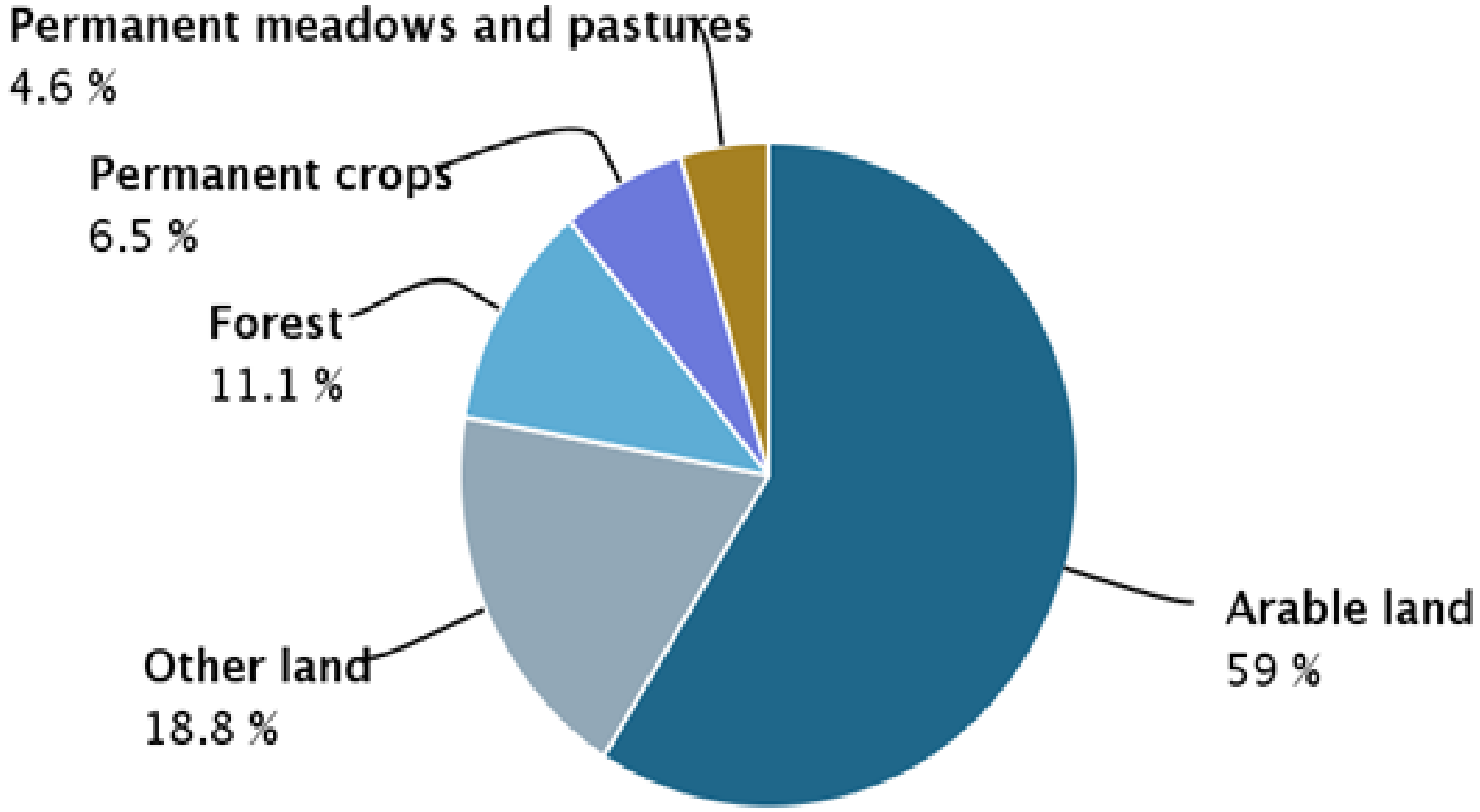


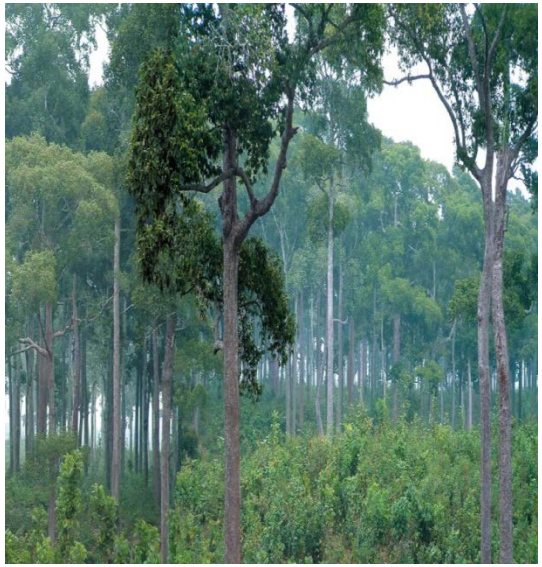
Figure: Area under different land use categories in Bangladesh during2011 (Source: FAOStat 2015)

DISTRIBUTION OF FOREST TYPES IN BANGLADESH

Forest Type	Area (In million ha.)
Tropical Evergreen Forest (Hill Forest and USF)	1.40
Sundarbans and Other Mangroves	0.79
Tropical Deciduous Forest (Sal dominated)	0.12
Freshwater Swamp Forest	0.02
Homesteads	0.27
Total:	2.60

Forests Definition: "Land spanning more than 0.5 hectares with trees higher than 5 meters and a canopy cover of more than 10%, or trees able to reach these thresholds *in situ*".

Source: NFA 2007



TROPICAL EVERGREEN FORESTS (HILL FORESTS AND USF)

TROPICAL DECIDUOUS FORESTS (SAL DOMINATED)

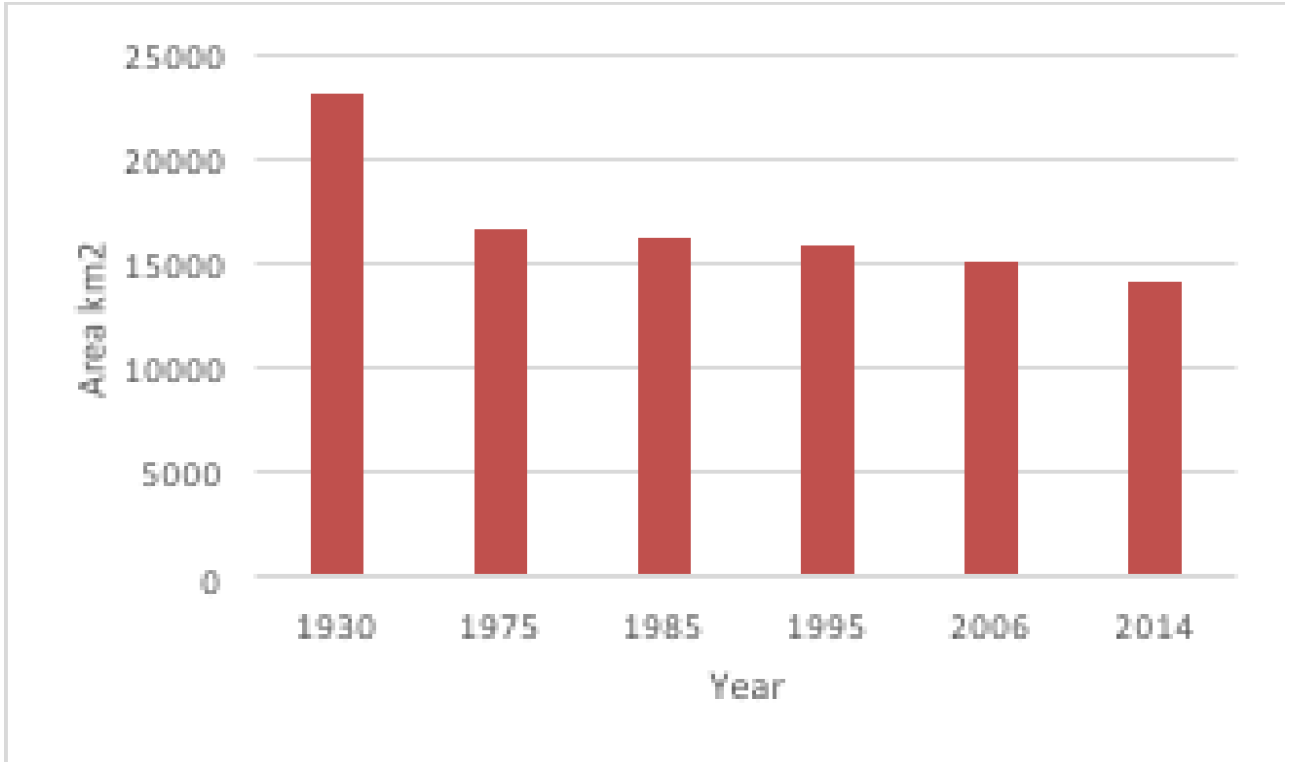
NATURAL MANGROVE FORESTS (SUNDARBANS)

MANGROVE PLANTATIONS

VILLAGE FOREST

COMMUNITY PARTICIPATION

TRENDS IN AREA UNDER FORESTS, DEFORESTATION AND FOREST DEGRADATION



Forest area declined from 1.65 M ha in 1975 to 1.40 M ha in 2014

Figure: Trends in area under forests during the period 1975 to 2014, according to remote sensing data (Source: Reddy et al, 2016)

CO_2 EMISSIONS ($Gg\ of\ CO_2$) FROM LULUCF (LAND USE, LAND-USE CHANGE AND FOREST) SECTOR

Year	Forest and other woody biomass	Forest and grassland conversion	Abandonment of managed lands	Soil carbon	Total carbon emission
2000-2001	5884.67	4951.91	+0.01	17582	28418.97
2004-2005	-4328.78	4951.91	+0.01	17582	18205.52

Source: National Communication, Bangladesh

KEY DRIVERS OF DEFORESTATION (BANGLADESH UN REDD PROJECT)

- Huge population pressure
- High demand for biomass fuel and other forest products
- Illegal felling
- Over-exploitation and unsustainable harvesting.
- Encroachment
- Conversion of forest land for other land uses
- Forest boundaries, land tenure not well defined in some regions.
- Inadequate investment in forest sector
- Natural causes such as cyclones and tidal surges, salinity, sea level rise etc.

IDENTIFICATION OF OPPORTUNITIES FOR GHG ABATEMENT

- Bangladesh forest sector (LULUCF): **A net source of 4.95 Mt CO_2** during 2010
- Draft **FSMP** has set clear goal for **forestry sector and climate actions**.
- **GHG abatement opportunities and investment gaps of on-going development efforts** are identified by reviewing following policy documents:

  - 7th Five Year Plan
  - Draft National Forest Policy 2016
  - **Draft FSMP (2017-2036)**
  - **NDC**
  - CIP, Bangladesh
  - NCS
  - BCCSAP
  - UN-REDD Programme

Government of Bangladesh is undertaking a forest restoration project with an estimated IDA Loan of US$175.00 million and GoB contribution of US$20.0 million for a period of 5 years (01 July 2018 to 30 June 2023).

THE SPECIFIC OBJECTIVES OF BANGLADESH FIP

1. *To promote* “Sustainable Forests and Livelihoods for Carbon Sequestration, Resilience to Climate Change and Biodiversity Conservation and improved livelihoods”
2. *To promote* “Climate change mitigation and adaptation synergy on private lands (farm land, homesteads, TOF planting, etc.) for meeting biomass demand for household and industries and expand carbon sink”
3. “Securing and conservation of government forestland through physical survey, demarcation and digitization to facilitate carbon sink conservation and sequestration”
4. To facilitate leveraging of additional financing resources for REDD including through multilateral banks, bilateral agencies and UNFCCC financing mechanisms.

RELEVANCE WITH DRAFT FORESTRY SECTOR MASTER PLAN (2017-2036): IMPORTANT STRATEGIES AND TARGETS

1. Afforestation / reforestation on government lands
2. Strengthening of Protected Area system and wildlife conservation
3. People's participation in forestry and conservation activities
4. Boosting of private tree planting activity, especially in areas that have been identified as TOF (Trees Outside Forest)
5. Control on encroachments
6. Address the drivers of deforestation/degradation.

RELEVANCE WITH LULUCF OR FORESTRY SECTOR UNDER NDC

The forestry sector mitigation actions are included in NDC, but under conditional financing.
The following 4 mitigation strategies are included for the forest sector.

- Continuation of coastal mangrove plantation
- Reforestation and afforestation in the reserved forests
- Plantation in the island areas of Bangladesh
- Continuation of Social and Homestead forestry
- NDC doesn’t provide any specific targets or area to be covered

POLICES FOR TRANSFORMATIONAL CHANGE

The transformational change in forest sector would involve the following key components; many of them will be addressed in the FIP.

- Forest Policy, 1994 and 7th FYP target of achieving 20% of land area under forest or tree cover and forests to have 70% crown density.
- Halting deforestation or conservation of all existing natural forests.
- Meeting all the biomass (fuelwood, timber, pulpwood, etc.) needs from plantations, tree plantations/agroforestry in fallow and marginal lands, homestead gardens, etc.
- Reclaiming Sal and CHT, through natural regeneration and protection to promote biodiversity and ecosystem services.
- Promotion of climate resilient afforestation/reforestation practices along with AIG (Alternate Income Generation) activities to enhance the resilience of forest dependent communities.

POTENTIAL INVESTMENT OPTIONS AND CARBON SEQUESTRATION POTENTIAL OF PROPOSED FIP PROJECT- 1.

Projects	Components	Total C sequestration in 20 Yr. of the total project area ($tCO_{2\text{-}eq}$)
FIP Project -1 (Estimated Budget US$25.00 million): Sustainable Forests and Livelihoods for reducing emissions from deforestation and forest degradation and enhance carbon sequestration, resilience to climate change and biodiversity conservation and improved livelihoods in hill forests\	1.1 Restoration/ reforestation of degraded and deforested hill forestlands through SFM **(16000 ha.)**	-7,597,802 
	1.2 Community identification from backward/marginal people (also gender sensitive), engagement, promoting AIGs and capacity building in the Hill forest areas **(5000 Households)**	
	1.3 Strengthening BFD, improve management, monitoring, logistics and maintenance	

POTENTIAL INVESTMENT OPTIONS AND CARBON SEQUESTRATION POTENTIAL OF PROPOSED FIP PROJECT-2.

Projects	Components	Total C sequestration in 20 Yr of the total project area ($tCO_{2\text{-}eq}$)
FIP Project-2 (Estimated Budget US$25.00 million): Climate change mitigation and adaptation synergy on private lands (farm land, homesteads, TOF planting, etc.) for meeting biomass demand for household and industries and expand carbon sink	2.1Tree planting on private lands involving people (gender sensitive) for meeting biomass needs and enhanced carbon sequestration **(18000 ha)**	-8,507,648
	2.2 FENTC & SFPC **(50 nos.)** renovation/temporary nursery establishment	
	2.3 Capacity building of BFD frontier staffs and farmers **(BFD 200 Persons)**	
	2.4 Management & monitoring including logistics	

POTENTIAL INVESTMENT OPTIONS AND CARBON SEQUESTRATION POTENTIAL OF PROPOSED FIP PROJECT-3.

Projects	Components	Total C sequestration in 20 Yr of the total project area ($tCO_{2\text{-}eq}$)
FIP Project-3 (Estimated Budget US$25.00 million): Securing and conservation of government forestland through physical survey, demarcation and digitization to facilitate reducing emissions from deforestation and forest degradation, enhance carbon sink conservation and sequestration in hill forests and plain land Sal forest	3.1 Forestland survey and settlement of updated record **(24,969 ha.)**	4,728,401
	3.2 Capacity building for survey, forestland record management and strengthening forestland litigation	
	3.3 Project management, monitoring, logistics and maintenance	

THREE FIP PROJECTS TO PROMOTE FOREST SECTOR TRANSFORMATIONAL GOAL FOR BANGLADESH

1	*To promote* "Sustainable Forests and Livelihoods for reducing emissions from deforestation and forest degradation and enhance carbon sequestration, resilience to climate change and biodiversity conservation and improved livelihoods in hill forests"
2	*To promote* "Climate change mitigation and adaptation synergy on private lands (farm land, homesteads, TOF planting, etc.) for meeting biomass demand for household and industries and expand carbon sink"
3	"Securing and conservation of government forestland through physical survey, demarcation and digitization to facilitate reducing emissions from deforestation and forest degradation, enhance carbon sink conservation and sequestration in hill forests and plain land Sal forest"

EXPECTED CO-BENEFITS FROM FIP INVESTMENT

- **Environmental Co-benefits**: Conservation of carbon sink and enhancement of carbon stocks, synergistically contributing to conservation of biodiversity, protection of watersheds and reclamation of degraded forests and lands.
- **Socio-economic Co-benefits:** All FIP activities will provide multiple forest products, income and employment generation benefits, contributing to enhancement of livelihoods. Further, through AIGAs for forest dependent communities, incomes sources could be diversified.
- **Institutional Co-benefits:** All the three proposed projects and components are expected to strengthen the forest departments and NGOs and build capacity in BFD, NGOs and local community institutions.
- **Climate resilience**: All the FIP activities incorporate climate resilience practices to ensure sustained carbon mitigation benefit; through promotion of multi-species and native species dominated forestry, fire protection and management, anticipatory planting of tree species, linking forest fragments, creation of corridors, etc.
- **Carbon sequestration benefit**: The net carbon sequestration benefits estimated using EXACT tool for a period of 20 years is 7.59 $MtCO_{2\text{-}eq}$ for the 16,075 ha considered under Project FIP-1. Similarly, the net carbon sequestration benefit estimated for Project FIP-2 (Trees outside Forests) is 8.51 $MtCO_{2\text{-}eq}$, considering an area of 18,000 ha. FIP-3 where 24,969 ha will be subjected to protection due to secure land tenure and digitization, which is projected to lead to conservation of Carbon sink of 4.72 $MtCO_2$-eq.

EXPERIENCES OF COLLABORATION AMONG MDBS AND OTHER PARTNERS IN FOREST SECTOR

- Main international agencies are: USAID, IUCN, JICA, DFID, GIZ, and agencies of UN Systems (FAO, UNDP, UNEP, etc. to provide technical assistance

- The World Bank are providing investment finance in Forest Sector

- UNDP and FAO for UN REDD National Programme implementation with following expected outcomes:
  a. Improve stakeholder awareness
  b. National REDD+ strategy is formulated
  c. A national forest reference emission level is established

IDENTIFICATION AND RATIONALE FOR PROJECTS TO BE CO-FINANCED BY FIP

Transformational Objective of Proposed FIP Project-1

- To restore and regenerate degraded and deforested forestlands with resilient species and enhance management efforts in developing multi-storied forests to maximize carbon sequestration in forestlands
- To enhance carbon sequestration, climate change resilience and biodiversity conservation in forest ecosystems, through forest restoration and afforestation/ reforestation.
- To engage communities in sustainable forest management and biodiversity conservation through alternate income generation activities and education

IDENTIFICATION AND RATIONALE FOR PROJECTS TO BE CO-FINANCED BY FIP

Transformational Objective of Proposed FIP Project-2

- To introduce climate change mitigation and adaptation synergy on private lands by planting trees on farm lands, homesteads and marginal lands, at local level
- Coastal green belt (non-mangrove) plantation on government (non-forest) and private land.
- To improve sources of planting materials at local market.
- To improve organizational capacity and infrastructural development of social forestry wing of forest department at local level.

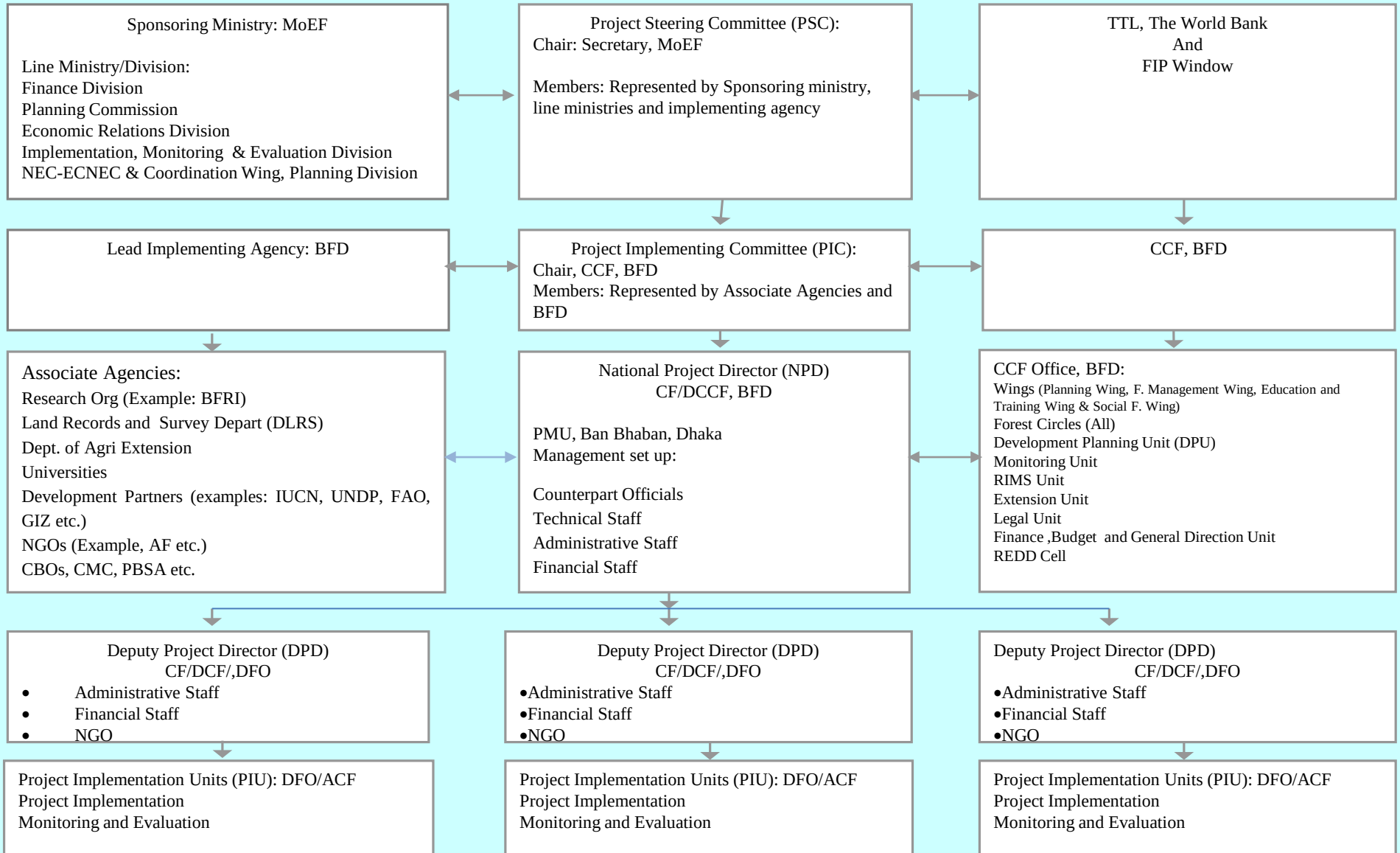
IDENTIFICATION AND RATIONALE FOR PROJECTS TO BE CO-FINANCED BY FIP

Transformational Objective of Proposed FIP Project-3

- Conservation of existing natural forests and government forest land through secure land tenure, forest boundary demarcation, digitization of the forest maps and the use of ICT to strengthen the forest department.
- The project aims to strengthen forest law enforcement by surveying and demarcating forestland boundary, resolve forestland dispute/ tenure, enhance governance and update forest land records.

7. IMPLEMENTATION ARRANGEMENT AND RISK ASSESSMENT

Project Implementation Arrangement for the FIP Projects



POTENTIAL RISKS

Risks	Level of Reisk
1. Inadequate technical, managerial and administrative staff at BFD	**High**
2. Lack of technical capacity within the BFD, BFRI and RIMS Unit.	Moderate
3. Weak land tenure system	**High**
4. Financial Risk: The budgetary support to BFD and other related organizations is low	**High**
5. Lack of coordination between different departments such as BFD, Department of Agriculture Extension, Ministry of Land, DLRS	Low
6. Lack of private investment	Low
7. Risk of climate change: Bangladesh is one of the most vulnerable countries in the world	Moderate

*** Necessary mitigation measures are proposed for identified risks through FIP projects**

FIP PROJECT-1: RESULTS FRAMEWORK

Outcome/ Impact	*Explanation*
Carbon sequestration in the hill forests	Increase in carbon stocks in degraded forests and deforested areas due to restoration and reforestation
Biodiversity conservation	Biodiversity of the deforested lands and degraded forest lands will be enhanced through promotion of natural regeneration, planting of multi-species and native species
Enhanced climate change resilience	Climate change is projected to impact degraded forests, fragmented forests and biodiversity poor forests. Thus, through forest restoration using multispecies and native species, climate resilience of restored forest areas will be enhanced

FIP PROJECT-2: RESULTS FRAMEWORK

Outcome/ Impact	*Explanation*
Carbon sequestration through expanding forest area by planting trees (TOFs) in crop lands, private lands and homesteads	• Increase tree cover on ToF • Sequester carbon in the private lands. • Increased supply of fuelwood and timber from private lands • Reduce pressure of deforestation and forest degradation
Improved livelihoods by planting economically valuable tree species on private lands; farm lands and homesteads	• Improve livelihoods at local level • Can be used by the households or marketed.
Meeting biomass demands of households and industries	• Meet biomass demands • Enhancing supply of timber and forest products from private lands.

FIP PROJECT -3: RESULTS FRAMEWORK

Outcome/ Impact	Explanation
Securing forestland through physical survey and boundary demarcation. Facilitating reduction in Carbon emissions from deforestation and forest degradation and Carbon sequestration through reduced pressure on forests.	• Land survey, fixing boundaries and demarcation and digital map preparation will facilitate forest protection and reduced pressure on public forest land. • This will enable BFD to enforce forest laws • This will lead to reduced Carbon emissions from deforestation and forest degradation.
Capacity building for survey, forestland record management and strengthening forestland litigation resolution	• Strengthened forest department staff with additional tools and methods are expected to enforce forest laws which ban forest encroachment.

FIP DEVELOPMENT PROCESS IN BANGLADESH

- The Government of Bangladesh submitted an **Expression of Interest** in **March 2015** to become FIP pilot country and **received a grant of US$250,000 to prepare FIP IP for Bangladesh**.
- A Scoping Mission was held on **19-21 January 2016** in Bangladesh.
- MoEF has approved Technical Assistance Project Proposal (TAPP) **on 2 February 2017** for utilizing the grant
- World Bank Mission held **on April 27 to May 7, 2017** for reviewing the progress
- A total of **seven regional consultations** and **two national consultations** were organized
- **Independent reviewer** was hired for comments on the draft FIP for Bangladesh
- Forest Investment Programme was **translated into Bangla** to keep it into the public domain for better access by the NGOs, CSO, research organizations including local people
- Finally FIP IP for Bangladesh was submitted on **9 November 2017**


THANK YOU