

Annex 1a: National REDD+ Management Bodies

REDD+ Steering Committee Membership

	Designation	Role
1	Secretary, MoEF	Chairperson
2	Secretary, MoL	Member
3	Director General, DoE	Member
4	Chief Conservator of Forests, FD	Member
5	Director, BFRI	Member
6	Joint Secretary (Environment), MoEF	Member
7	Deputy Secretary (Environment-1), MoEF	Member
8	Director (Climate change and International Convention), DoE	Member
9	One representative from MoA	Member
10	One representative from Local council of CHT	Member
11	One representative from SPARRSO	Member
12	Chairman, Institute of Forestry and Environment Science, Chittagong University	Member
13	Dr. QaziKholiquzzaman Ahmad, Chairman, Palli Karma Sahayak Foundation (PKSF)	Member
14	Dr. AinunNishat, VC, BRAC University	Member
15	Dr. M. Asaduzzaman, Research Director, Bangladesh Institute of Development Studies (BIDS)	Member
16	Professor Dr. Ansarul Karim, Environment Expert	Member
17	Deputy Chief Conservator of Forests, Planning Wing, FD	Member
18	Mr. Md. Shamsuddoha, Chief Executive, Center for Participatory Research and Development (CPRD)	Member
19	Mr. HaradhanBanik, UN-REDD National Focal Point and Project Director of Bamboo, cane and Murta plantation project of Forest Department.	Member Secretary

REDD+ Technical Committee Membership

	Designation	Role
1	Secretary, MoEF	Convener
2	Joint Secretary (Environment), MoEF	Member
3	Dr. A	Member
4	Professor Dr. A	Member
5	Director, BFRI, Chittagong	Member
6	Deputy Chief Conservator of Forests, Planning Wing, FD	Member
7	Deputy Secretary (Environment-1), MoEF	Member

8	Director (Climate change and International Convention), DoE	Member
9	Representative, Institute of Forestry and Environment Science, Chittagong University	Member
10	Representative, Forestry and Wood Technology Discipline, Khulna University	Member
11	Representative, BFIDC, Matijhil, Dhaka	Member
12	Conservator of Forest, Social Forest Circle, FD	Member
13	Representative, UNDP, Dhaka office	Member
14	Representative, USAID, Dhaka office	Member
15	Chief Conservator of Forest, FD	Member Secretary

REDD Cell Membership and Terms of Reference

Considering the growing importance to deal with the matters of Reducing Emissions from Deforestation and Forest Degradation (REDD) and REDD related activities and realizing the potential need for establishing a REDD CELL under Forest Department (FD) of Bangladesh, the Chief Conservator of Forest (CCF) is pleased to establish a REDD CELL within the Forest Department with following members:

	Designation	Role
1.	Deputy Chief Conservator of Forests (DCCF), Planning Wing, Forest Department.	Convener
2.	Conservator of Forests and Focal Point, UN REDD Programme	Member
3.	Conservator of Forests, Wildlife and Nature Conservation Circle, Dhaka	Member
4.	Deputy Conservator of Forests (DCF), Legal Unit, Forest Department	Member
5.	Assistant Chief Conservator of Forests (ACCF), Development Planning Unit, Forest Department	Member
6.	Deputy Conservator of Forests (DCF), Monitoring Unit, Forest Department	Member
7.	Deputy Conservator of Forests (DCF), RIMS Unit, Forest Department	Member
8.	Md. Abdullah Abraham Hossain, Assistant Conservator of Forests, Development Planning Unit, Forest Department	Member Secretary

Terms of Reference for the REDD Cell are as follows:

1. Recommendation for policy decision;
2. Site selection for REDD projects;

3. Coordinate carbon inventory and reporting through involving Management Plan Divisions and RIMS Unit;
4. Coordinate MRV operation through coordination of Monitoring Unit, Management Plan Division and RIMS Unit;
5. Resolve legal issues by involving the Legal Unit;
6. Oversee preparation of project for carbon inventory through Development Planning Unit;
7. Endorse research and development of REDD related activities done by other agencies in Bangladesh;
8. Operate REDD register and keep records of REDD related activities of Bangladesh;
9. Keeping liaison with Ministry of Environment and Forests (MoEF) and other national and international agencies;
10. The committee will sit twice in a year and may sit as and when will be required;
11. The committee may co-opt new member if deemed necessary

Annex 1b-1: Information Sharing and Early Dialogue with Key Stakeholder Groups

First National REDD+ Consultation Workshop

25th October 2011, Dhaka

The objective of this workshop was to initiate national-level technical discussions on the national REDD+ Roadmap. The workshop effectively launched the Bangladesh Roadmap process, with facilitation from the Secretary of the Ministry of Environment and Forests and the Deputy Director General of the Forest Department. The programme was designed for those with at least a basic familiarity with the concept of REDD+ and included over 80 participants from the government, civil society, academics, donor partners and the media. Participants were invited directly from a list prepared by the Technical Advisory Team and the Forest Department.

The first session was organized as an expert panel session, with questions from the chair and the floor designed to give a brief update on the theory and potential benefits of REDD+, the current state of international negotiations and the relevance of the mechanism for Bangladesh. There followed presentations on the REDD+ Roadmap process according to the latest R-PP template, updates on the latest developments in monitoring systems for REDD+ and a proposal for the management of the Roadmap process in Bangladesh (see Section 1). The second half of the workshop was devoted to three parallel, facilitated group sessions on MRV, Strategy and Safeguards. These groups became the precursors of the TWGs described in section 1. In this way, the TWGs thus formed were able to continue discussions on their respective themes after the workshop had concluded.

The sessions of the workshop were organised as follows:

Session One: Setting the Scene

Expected Outcome: Participants are up-to-date on basic information on REDD+ negotiations, policy and practice and in-country progress

Panel discussion: Status of REDD+ in Bangladesh: briefings, questions and answers on:

- The latest news from UNFCCC negotiations
- Relevance of REDD+ for Bangladesh
- The diverse benefits of REDD+
- Capacity development needs
- Lessons from ongoing field activities

Session Two: What is the REDD+ Roadmap

Expected Outcome: Participants are familiar with the concept, process and outcomes of the REDD+ Roadmap

Presentations on:

- Introduction to the REDD+ Roadmap
- Management of the Roadmap process

- UN-REDD approach to MRV

Session Three: Technical Working Group discussions

Expected Outcome: Comprehensive plans for the activities of three technical working groups have been developed

Three parallel sessions with participants divided into groups on the basis of interest in:

- Monitoring and MRV
- Strategy
- Safeguards

Second National Consultation Workshop on REDD+ Readiness Roadmap

17th January 2012, Dhaka

This workshop, held on 17th January 2012, had the objective of updating national-level stakeholders on the progress made since the previous workshop, particularly the follow-up meetings of the Working Groups and the outcomes of the regional-level consultation workshops on forestry issues and strategies (see below). The programme gave an opportunity for participants to respond to the proposed outline of the Roadmap. This workshop was followed up by circulation of the Roadmap outline by the Working Groups to a wider audience for comment and feedback.

Minutes of the Proceedings

Introduction

The second national stakeholder consultation workshop on the REDD+ Readiness Roadmap for Bangladesh took place on 17th January 2012 at the Pan Pacific Sonargaon hotel, Dhaka. The objective of this workshop was to share and discuss national and local perspectives on issues relating to Strategies, Safeguards and MRV (Measurement, Reporting and Verification), as they relate to the forest sector and potential approaches of a REDD+ programme. A total of 80 participants attended the workshop, from government bodies and NGO/CSOs. The participant list is attached.

The workshop was divided into an inaugural session and a technical session. The sessions were chaired by the Chief Conservator of Forests, Mr Ishtiaq Uddin Ahmad, and Mr Yusuf Ali (Deputy CCF) respectively. Dr. Nasir Uddin, Joint Secretary, MoEF gave the welcome address. The chief guest, Mr. Mesbahul Alam, Secretary MoEF, gave a speech during the inaugural session, alongside UNDP country director Mr. Stefan Priesner and FAO representative Mr. Dominique Burgeon. The session also included a briefing by the technical advisory team (represented by Ben Vickers and Dr Ansarul Karim) on progress with the Roadmap, and the challenges, opportunities and benefits of REDD+ for Bangladesh.

Technical session: summary of presentations

In the technical session, the technical advisory team presented more details on Roadmap progress. Ben Vickers and Dr. Matieu Henry began with an outline of the Roadmap sections and contents and illustrations of Roadmap development in other countries in the Asia-Pacific region and the lessons for Bangladesh.

Dr. Karim gave a summary of the drivers of deforestation and degradation, and the key issues facing the forest sector around the country, based on the outcomes of sub-national workshops in Rangamati and Cox's Bazar and meetings of the Strategy Working Group.

Dr Henry and Dr Mariam Akhter outlined the activities of the MRV Working Group to date, and the work that will lead towards an Action Plan for MRV under the Roadmap. This presentation covered the importance of the phased approach to REDD+, the National Forest Monitoring System and Inventory.

Mr Vickers summarized the issues to be covered under the Safeguards Working Group, including the development of a consultation process in accordance with the principles of Free, Prior and Informed Consent (FPIC) and the development of national-level indicators for Social and Environmental Standards within a future REDD+ programme.

Issues raised by the participants, and the responses of the technical team were as follows:

Strategy:

- The participants agreed with the general assessment of drivers of deforestation and potential strategic interventions outlined by the technical advisory team.
- Representative from Chittagong University agreed that obtaining the correct rate of deforestation in Bangladesh is not currently possible. He also inquired about the methods of carbon stock calculation. *Response: The MRV section of the Roadmap will outline activities to test appropriate measurement methods in Bangladesh.*
- Arannayak Foundation highlighted the exceptional regenerative capacity of the soil in Bangladesh, and suggested that the country therefore has the potential to recover from much of the environmental degradation it has suffered in recent years. There may therefore be more cause for hope than is assumed by some other participants and REDD+ stands a chance of demonstrating swift positive results.
- Arranayk further proposed that independent private organizations with appropriate capacity could potentially serve as the REDD+ accounting hub, as another option besides the Forest Dept.
- Deputy Secretary, MoEF, opined that existing Unclassified State Forests (USF) should also be considered in formulating REDD+ Readiness roadmap. *Response: They must be considered.*
- Forest Department officials highlighted two major issues that must be addressed within the REDD+ Readiness Roadmap; land tenure clarification and capacity building for all sectors.
- Government sponsored settlement is a major driver of deforestation.
- Trans-boundary issues have, in the past, impeded forest area survey by aerial photos because of alleged national security issues. Satellite imagery does not face this problem.
- Representative from Coastal Land Zoning System (CLZS) informed that the drivers of deforestation should also include the increasing salinity of water and suggested that there should be a plan to control the flow of water in the rivers. He also offered to share the updated aerial images captured by the CLZS for future reference.
- Participant from Dhaka University requested to consider the impacts of growing eco-tourism industry in Bangladesh. Establishment of BaganBaris (Farm House) in several forest areas by influential elites was flagged and attention has been sought in this particular regard.

Safeguards:

- Existing policies and legislation must be reviewed before the REDD+ programme is fully developed. This may require the creation of formal links between village courts and the formal Judiciary systems – both lower and higher courts. Environmental disputes should be dealt with under a dedicated dispute resolution system. *Response: Review of existing policies is a key part of Roadmap development. The development of a Grievance Mechanism for REDD+ must indeed include clear links between dispute resolution mechanisms at local and national levels.*
- Officials from the Bangladesh Water Development Board enquired whether individually owned forest lands can be included under the REDD+ programme in Bangladesh. *Response: the programme should be developed so that actions on private lands can be included in a national REDD+ accounting system.*
- Raising awareness within the Forest Department itself is very important. The department needs to be very clear about the scope and limitations of REDD+ so that expectations do not get out of hand. Public expectations must also be managed through targeted awareness programmes.
- Representatives from the Department of Environment noted that the second national communication report made by the department on Inventory of Emissions has already been made, and highlighted the need for progress on REDD+ to be included in the upcoming third national communication so that duplication of effort can be avoided.
- Participants from POUSH (NGO) reiterated the need for community-based organisations to have a central role in dealing with deforestation and forest degradation.

MRV:

- A question was raised regarding the appropriate government ministry for dealing with the MRV related aspects of a REDD+ programme in Bangladesh. It was recommended that MoEF could take the lead in initial stages but in due course some responsibilities may be shared with other ministries e.g. Ministry of Agriculture, Ministry of Land.
- Forest Department officials suggested more inclusion of local people in decision making and policy analysis and also enquired about the probable mechanism to ensure participation in MRV. They also focused on setting up of a dedicated institutional framework, distinct from the current FD structure, to look after the MRV related aspects and communication with UNFCCC.
- It was recommended that a new permanent forest inventory unit should ensure continuity with the work done by FD units in the past.
- Representatives from SPARSO recommended the use of GIS and other recent technological developments in the REDD+ programme for Bangladesh.

Conclusion:

During the workshop, support and enthusiasm for the REDD+ programme in Bangladesh was evident. It was also agreed, in principle, that the comments and recommendations from the participants recorded in this workshop will be incorporated in the REDD+ Readiness Roadmap, as appropriate. Mr. Yunus Ali, DCCF, FD concluded the technical session and expressed his gratitude towards UNDP and FAO in supporting the national REDD+ Readiness Roadmap process.

Third National Consultation Workshop on REDD+ Readiness Roadmap

27th March 2012, Dhaka

Introduction

The Third national stakeholder consultation workshop on the REDD+ Readiness Roadmap for Bangladesh took place on 27th March 2012 at Hotel Ruposhi Bangla, Dhaka. The objective of this workshop was to share, discuss and validate the draft national roadmap document among the key stakeholders in Bangladesh. A total of 72 participants attended the workshop, from government bodies and NGO/CSOs.

The workshop was divided into an inaugural session and a technical session. Mr. Munjurul Hannan, Deputy Secretary, Ministry of Environment and Forests (MoEF) inaugurated the event. Mr. Aparup Chowdhury, secretary in charge, MoEF, was Chief Guest and delivered the opening address on behalf of Dr. Hasan Mahmud, Hon'ble Minister of Environment and Forests. Stefan Priesner, UNDP Country Director and Dominique Burgeon, FAO Country Representative, spoke as Special Guests. Mr. Md. Yunus Ali, Chief Conservator of Forests presented the keynote speech. This was followed by the technical session, chaired by Tim Boyle, Regional Coordinator (UN-REDD), Asia-Pacific Region.

Strategy Presentation:

This presentation captured the feedback from all the regional stakeholder consultation workshops regarding the drivers and underlying causes of deforestation and forest degradation in different forest areas. The presentation generated the following comments.

- Individual consultant Ms. Shireen Syed appreciated the pace of the REDD+ Readiness Roadmap preparation in Bangladesh and the summary made by Dr. Karim. She opined that there needs to be capacity development doorways for the forest department officials. She also cited World Bank's Wild Life Conservation project and expressed her intention whether more new projects can be identified from the existing effort of REDD+.
- Centre for Natural Resources Studies (CNRS) emphasized on the policy level support that needs to be there to support co-management.
- Representative from POUSH categorically focused on the arrangement of ministry level coordination that needs to be clarified and how this will be done.
- Nature Conservation Management (NACOM) mentioned that there needs to be other options of household needs/dependency on forest and in this connection active involvement of Upazilla council, local government was cited.
- Prof. Alamin from Chittagong University felt the strong need for research work on REDD+ in Bangladesh as it is a new theme
- Representative from Chittagong Hill Tracts Development Facility (CHTDF) opined that Chittagong Hill Tracts and its governance structure is different from the rest of the country. In this context the executive body for the CHT area known as Hill District Council needs to be under serious consideration specially its up-gradation of capacity. He also advised that the best practices/examples of village common forest management needs to be identified and promoted for future replication.

- Arannayk Foundation critically emphasized on the scope of the strategy specifically whether it covers national or regional challenges
- Forest Department representative drew that historically it took long time to include local community with the existing forest management policy and keeping that in mind particular attention needs to be there to ensure/clarify the process of inclusion of the community into REDD+ mechanism
- Another Forest Department official felt the need to formulate a new law as “Forest Conservation ACT”

Legal Issues Presentation:

The main focus of this presentation was to highlight the legal implications of REDD+ in Bangladesh. Subsequently other relevant legal issues were discussed and the following comments were recorded:

- Representative from LRI enquired how the existing laws/framework will deal with the REDD+. He also envisaged on the integration of fragmented laws(human rights) and the probable mechanisms to include indigenous people.
- Another Forest Department official cited that the existing REDD+ effort shouldn't take much time to formulate new rules/regulations simultaneously he enquired whether that needs to go through the parliament or amendment will serve the purpose
- Suggestion came from the presenter that the REDD+ initiative has created a new doorway to rethink about the probable legal framework and its full-fledged review

Stakeholder Mapping Presentation:

This presentation helped to understand the process been followed to map the stakeholders in the REDD+ Readiness Roadmap for Bangladesh. Subsequent comments are mentioned below:

- Chief Conservator of Forests enquired on what ground Parliamentary Standing Committee can be considered as a stakeholder.
- Representative from Poush cited that it will be cumbersome to come up with a stakeholder heavy project as coordination will be difficult and might end up with conflicting situation.
- Ubinig representative emphasized that it will be much easier to be under one law instead of several acts
- Arannayk Foundation representative categorically emphasized that the weightage ascertained in the Stakeholder Mapping exercise is confusing

MRV Presentation:

FAO representative Dr. Henry and consultant Dr. Akhter jointly presented the draft MRV action plan. The following comments came up after the presentation:

- Institute of Water Modeling (IWM) representative transmitted the participants about the modeling experience they have and offered to extend their expertise as needed.
- SPARRSO representative enquired how the reviewers from REDD review team will verify the ground inventory part and also focused on the training need for Forest Department officers in this regard
- Forest Department official cited whether there will be a gap for the context of MRV in Bangladesh as explained in the IPCC or GHG guideline and how it will be minimized
- Representative from Chittagong University shared that Bangladesh Bureau of Statistics(BBS) have their own way of doing census and survey and how the requirement for REDD+ will be satisfied when it comes about statistical support from an organization like BBS
- Bangladesh Centre for Advance Studies(BCAS) resource person wanted to know how the carbon estimation will be made or the volume will be calculated subsequently whether RIMS unit had that capacity or not
- In this connection Additional Secretary, MoEF elaborated that as a least developed country Bangladesh got preferential treatment/higher opportunities to get the funding for capacity development of Forest Department but necessary ground work needs to be done to find the donors. He also emphasized the need on coordinated effort from the Government Ministries

Group Discussions:

At the end of the technical session three groups were formed to represent the Strategy, Safeguard and MRV Working Groups. The groups were asked to address the following questions:

- What activities remain to complete the Roadmap?
- How do we achieve them?

Conclusion:

During the workshop, support and enthusiasm for the REDD+ programme in Bangladesh was evident. It was also agreed, in principle, that the comments and recommendations from the participants recorded in this workshop will be incorporated in the REDD+ Readiness Roadmap, as appropriate. Mr.HaradhanBanik, national REDD+ focal point chaired the group presentation. Mr.Ratan Kumar Mazumder, Deputy Conservator of Forests, FD concluded the technical session and expressed his gratitude towards UNDP and FAO in supporting the national REDD+ Readiness Roadmap process.

Regional Stakeholder Consultation Workshop, sample agenda and facilitation guide

Forests in the Chittagong Hill Tracts: Local Issues and Potential Approaches,

27th October 2011

Time	Session
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09:00	Welcome and Introduction <i>Rationale for the workshop, in the context of national REDD+ Roadmap process</i>
09:20	What is Driving Deforestation and Forest Degradation in the CHT? <i>Group work (see below)</i> <i>Objective: To reach consensus on the direct and root causes of deforestation and forest degradation in the region</i>
10:30	Morning tea break
10.45	Group work continued
11.15	Group presentations and discussion
12.00	Lunch
13.00	Sustainable Approaches to Forestry in the CHT <i>Objective: To identify existing and potential future tools and approaches to address the drivers of deforestation and forest degradation in the CHT</i>
14.45	Afternoon tea break
15.00	Group presentations and discussion
15.45	REDD+ Q+A <i>Objective: To address pressing concerns about the impact of a national REDD+ process on the people and forests of CHT</i>
16.30	End

Facilitation Guide: Session 1

“What is Driving Deforestation and Forest Degradation?”

OBJECTIVES

At the end of the session participants will be able to:

- Identify the direct and underlying (or root) causes of deforestation and forest degradation.

- Identify and prioritize which 'causes' of deforestation and forest degradation must be considered when establishing forest management and protection strategies

MATERIALS: Flip charts, Marker pens, Index cards, Glue or tape

TIME: 2 hours

PREPARATION

- Write up three flip charts with a definition of 'Forest', 'Deforestation' and 'Forest Degradation' (see session support material).
- Photocopy sample Deforestation Root Cause Analysis for each participant (see Session Support Material). Distribute only if required (see below)

STEPS

1. Present a flip chart with the following definitions:

- Deforestation
- Degradation

Make sure participants clearly understand the difference between forest degradation and deforestation.

2. Explain that direct causes of deforestation and forest degradation are often only symptoms of more complex, underlying causes or 'root' causes. Explain that gaining a full understanding of both causes of deforestation and forest degradation is important to develop a long-term and successful approach to forest management and conservation.
3. Break participants into small groups based on stakeholder type, for example:
 - a. Local forestry officials
 - b. Community members and small forest owners
 - c. Media and civil society
 - d. Elected representatives

Explain the following small group work:

- Each group is to clearly identify a geographical area that is currently being deforested or degraded – even if not all group members have intimate knowledge of the particular area, they should at least be able to provide input to the discussion.
- Write the deforestation or degradation problem or issue on a card and place at the top of the flip chart (refer to Session Support Material to illustrate – Step 1).
- The group is then to brainstorm the direct (or proximate) causes leading to deforestation or degradation. Each reason should be written on a card and placed below the main heading on the flip chart (Step 2).
- Then, for each of the direct causes identified, the group should work 'downwards' by asking 'why this event or activity is happening'. At each level participants should clearly identify the reason, or cause. These reasons need to be written on a card to help fully explore the 'roots' of the problem (Steps 3-10).
- Once the first direct cause has been fully explained, participants need to explore the second direct cause (Step 11) and so on.

- The group members need to continue to ask 'why' until the 'root causes' of the problem are identified.
 - Due to time constraints each group may only be able to explore 3-5 'direct' causes.
 - Finally the group members should connect all the index cards with lines that show the linkages between cause and effect. Remind participants to check their logic by repeating the process of asking 'why?' down through the levels of cause.
4. The facilitator will need to spend some time with each of the groups to ensure that the groups have understood the task and that their logic in asking 'why?' and responding is correct.
 5. If groups are experiencing difficulty with the exercise, hand out copies of the sample 'Deforestation Root Cause Analysis' (see Session Support Material) to illustrate the 'problem tree'. If the exercise is going smoothly, distribute these copies only at the end of the session, to allow participants to compare their efforts with this abstract example.

Facilitation Guide: Session 2

"Sustainable Approaches to Forestry in the region"

OBJECTIVES

At the end of the session participants will be able to:

- Identify the existing approaches to forest management in the region
- Assess the relative strengths and weaknesses of these approaches in addressing the root causes of deforestation and degradation.
- Identify potential new, sustainable approaches to forest management in the region, in the light of the root cause analysis

MATERIALS: Flip charts, Marker pens, Index cards, Glue or tape

TIME: 1 hour

PREPARATION: Session 1 is the preparation for this session

STEPS

1. Participants stay in their small groups from session 1
2. Put the completed flipchart from session 1 on the wall
3. Explain to the participants that they are now going to work back from the root causes of deforestation/degradation to identify potential solutions
4. Give participants 5 minutes to review the output of the previous session
5. Ask them to list the forest policy tools and approaches that are currently used in the region (e.g. social forestry, protected area, biodiversity corridor, commercial forestry concessions)
6. For the first identified tool/approach, compare with the first identified 'root cause' according to the session 1 results and ask:
 - a. Does this tool/approach contribute to addressing this root cause?
 - b. If yes, what are the key factors in success (look up the flowchart from the root cause to see which factors are affected by this tool)

- c. If no, what are the key blocks to success (look up the flowchart from the root cause to see which factors are not addressed by the tool)
 - d. Proceed to the next root cause and repeat a to c.
7. Repeat step 6 for each identified tool/approach and record answers on a flipchart
8. Ask the group to consider what are the most common blocks to success of existing forest tools/approaches and list the key factors that any potential new tool/approach would need to ensure success.

TO CONCLUDE

1. When the small-group work is completed, ask each group to post their flip charts on the training room wall and then get all participants to walk around the room examining the other groups' outcomes.
2. Initiate a discussion with the following questions:
 - How does this activity help us think about the causes of deforestation and degradation?
 - What activities and mechanisms can be put in place to stop deforestation and forest degradation?
 - How does this activity help us to think about possible strategies to reduce deforestation and degradation?
3. Conclude that any forestry strategy must not only consider the obvious or apparent causes of deforestation and degradation, but also the underlying causes, which are generally institutionally entrenched in a county's economic and social systems.

COMMENT:

- The time provided for this exercise is quite short therefore care must be taken in clearly explaining the steps and purpose of the exercise.
- The root cause analysis tool (or problem tree) is useful for participants to explore and understand the context and interrelationship of the problems, and the potential impacts when targeting projects and programs toward specific issues.
- Many of the linkages will be based on assumptions. Areas where more information is required should be noted as the analysis is being conducted.

Annex 1b-2: Results of initial Stakeholder Mapping exercise for Bangladesh REDD+ programme

CTORS / STAKEHOLDERS	STAKES	POTENTIAL ROLES
LOCAL LEVEL REDD + STAKEHOLDERS		
<ul style="list-style-type: none"> ▪ Local level communities are the main beneficiaries of REDD+. The main role of district and national level stakeholders is to coordinate so that benefits are received by these local stakeholders. ▪ The Local Communities who have traditionally owned, occupied or otherwise used or acquired rights to forest resources. Or who have traditionally been enjoyed certain right on the ecosystem. 		
<p>1. Local people traditionally dependent on forest. (Villagers living in and around the Forest). Local people were segregated or grouped by their profession. This group includes vulnerable groups, affected people, marginal and poor people. - Local women – destitute women, marginal, landless and poor women, widows and elderly women fall within the forest community.</p> <p><i>Vulnerable groups and poverty issues are discussed separately while identifying the stakeholders as these have different levels and scales --</i></p> <ul style="list-style-type: none"> ▪ <i>A Vulnerability index can be used with the occupational categories</i> ▪ <i>There are various risk factors. A risk matrix can be used to identify that</i> 		
<p>a. Resource collectors and extractors (Fuelwood / timber collectors, honey extractors, fishers, crab collectors, shrimp farmers, shrimp fry collectors, Golpata collectors / harvesters, bamboo collectors and etc.)</p> <p>b. Animal Collectors,</p>	<ul style="list-style-type: none"> ▪ Enjoy or been enjoying certain ecosystem of the forest. ▪ Livelihood fully or partially depends on forest resources extraction or collection from the forest. ▪ May be impacted due to REDD+ activities. ▪ Farmers are engaged in farming within forest impact zone. ▪ The dadon-dars may not live in the community but they play a 	<ul style="list-style-type: none"> ▪ May be engaged as the major beneficiaries for the REDD+. ▪ Local community may protect the forest through con-management. ▪ May secure the carbon and be part of the local monitoring system. ▪ Take local level action for the protection of the

<p>hunters, poachers</p> <p>c. Farmers,</p> <p>d. Non wood forest product extractors / collectors</p> <p>e. Other minor forest product collectors</p> <p>f. Primary few levels of actors of the product value chain (Dadon-Dar¹ / Money lenders)</p> <p>g. Forest based entrepreneurs (s mills, wood traders, brick field owners, furniture), business; small and medium Industries</p>	<p>major role in resources extraction from the forest.</p> <ul style="list-style-type: none"> ▪ The forest based entrepreneurs depend on forest resources for their businesses. ▪ Some of them may cause degradation to the forest. ▪ They enjoy some traditional rights on the forest. 	<p>forest areas.</p> <ul style="list-style-type: none"> ▪ May work as watch-dog for reducing degradation and enhancing forestations. ▪ May maximize protection for conservation by obtaining alternative for the livelihoods.
<p>2. Local Decision Making Formal and Informal bodies</p>		
<p>- Traditional decision making entity – <i>Shomaj</i>²; and <i>Matabbors</i> lead the entity.</p> <p>- Local elites / teachers (although local elites may overlap with the <i>Shomaj</i>.)</p>	<ul style="list-style-type: none"> ▪ as local decision making entity, the <i>Shomaj</i> of the forest village has significant influence onto the decision making regarding success or failure of the REDD+ ▪ Are able to motivate the forest villagers as the forest villagers follow their <i>Matabbors</i>. 	<ul style="list-style-type: none"> ▪ May influence and mobilize the community for the REDD+ activities. ▪ Give a community level decision for the protection.
<p>- Religious leaders: imams, Purohits, Bhikkhus, Fathers etc. -</p> <p>- Religious institutions</p>	<p>- can influence the Forest Community</p> <p>- can mobilize the community for greater interest</p>	<ul style="list-style-type: none"> ▪ May influence and mobilize the community for the REDD+ activities.

¹Dadon-dar, means who gives Dadon. This does not necessarily means money lender but similar to that. It provides opportunities with complexity. The terms and conditions are also complex than that of the money lenders.

²Shomaj is the lowest tire of the traditional decision making entity at the village or Gram level. Matabbors are the head of the Shomaj.

<p>- Community Based Organizations. Co-management organizations etc.</p> <p>- Also other social clubs and associations.</p>	<p>- Already are in action for certain services in the community.</p> <p>- motivational activities for the greater interest of the community</p> <p>- Some of their activities may depend on forest related activities, may be resources extraction or protection.</p> <p>- already are in action in co-managing the forest</p>	<ul style="list-style-type: none"> ▪ May mobilize and motivate community in alternative income generation and getting benefits from the carbon stocks.
<p>- Local Youth Groups / clubs and school children</p>	<p>- recipients of forest eco-system services</p> <p>- have potential impact in mobilizing the community.</p>	<ul style="list-style-type: none"> ▪ May work as key mobilizers for the community as they can influence their parents and elderly.
<p>- Local media and information system.</p>	<p>- are involved with the local information and are secondary participants for the REDD+</p>	<ul style="list-style-type: none"> ▪ May be provocative in favor of the REDD+.
<p>- Local Politicians</p>	<p>- are secondary participants of REDD+. And get the by product benefit of the REDD+</p>	<ul style="list-style-type: none"> ▪ Influence the people in favor of forest protection. ▪ May ensure the benefits of REDD+ to the community.
<p>- Local Governments (Union Parishad&UpazilaParishad)</p>	<p>- As the LGI of the local areas, they play a major role in the local decision making and work as a bridge between the government and the people.</p>	<ul style="list-style-type: none"> ▪ Take local decision as LGI; ▪ Able to motivate and mobilize the communities; ▪ Initiator of the local development. ▪ Watch dogs for the new intervention
<p>- NGOs working in the area; and similar service providers</p>	<p>- The local development service providers are already in action through forming different groups in</p>	<ul style="list-style-type: none"> ▪ May act as the service provider for the REDD+ activities management. ▪ They may be able to

	<p>the local areas.</p> <ul style="list-style-type: none"> - Many of them are well aware of the issues, relevance, trend and tradition of those local areas. 	<p>relate the local issues to benefit from the REDD+.</p>
<p>Union Disaster management Committee (UDMC) / Union Relief and Rehabilitation Committee (URRC)</p>	<ul style="list-style-type: none"> - play major role in managing the disaster at Union level. The committee is involved in various activities, taking the local people with them. 	<ul style="list-style-type: none"> ▪ May adopt REDD+ in managing the disaster at the local level. ▪ Conduct relief and rehabilitation from the carbon stocks.
<p>Upazila Development Coordination Committee (UDCC)</p>	<ul style="list-style-type: none"> - Major player for the Development at the Upazila level. 	<ul style="list-style-type: none"> ▪ May consider REDD+ as part of their development initiative for the greater good of the community.
<p>Upazila level LGI – <i>UpazilaPorishod</i></p>	<ul style="list-style-type: none"> -Major decision maker in Upazila regarding the local development and issue. - can influence the decision at the Upazila Level. 	<ul style="list-style-type: none"> ▪ May influence and mobilize the Upazila community in favor of the REDD+. ▪ Motivate the communities to participate with REDD+ activities.
<p><u>Indigenous people</u></p> <ul style="list-style-type: none"> - Have traditionally owned, occupied, or otherwise used or acquired. - Who have traditionally been enjoyed certain right on the ecosystem. 		
<p>- Indigenous Communities</p>	<ul style="list-style-type: none"> - Enjoy certain traditional right on the forest. - Receive certain ecosystem services as forest community. - Marginal people of the community, these people are 	<ul style="list-style-type: none"> ▪ May be engaged as the major beneficiaries for the REDD+. ▪ Local community may protect the forest through con-management. ▪ May secure the carbon

	<p>expected to have more dependency on the forest. - And for sharing benefit they get more priority within the community.</p>	<p>and be part of the local monitoring system.</p> <ul style="list-style-type: none"> ▪ Take local level action for the protection of the forest areas. ▪ May maximize protection for conservation by obtaining alternative for the livelihoods.
<p>- Village Headman / Karbari / LGI for the indigenous Community</p>	<p>- They control the decision of the tribal community. The voice of the community may be heard through them.</p>	<ul style="list-style-type: none"> ▪ Take local decision as LGI; ▪ Able to motivate and mobilize the communities; ▪ Initiator of the local development. ▪ Watch dogs for the new intervention
<p>Same as <u>section - 1</u></p>	<p>- same as above like <u>section-1</u></p>	
<p>DISTRICT LEVEL STAKEHOLDERS</p> <p>District level Stakeholders are those who may not be the direct beneficiaries of the REDD+; but represent the local level stakeholders as an upper tier. Their major role is to monitor that if the local level stakeholders are getting the benefits. Some of the district level stakeholders may be direct beneficiaries if they are located within the Forest Impact Zone.</p>		
<p>1. Communities at district level living in and around Forest</p>	<p>- Enjoy certain eco-system services from the forest.</p> <p>- As many of their livelihood is depended on forest they may be subject to be impacted by the REDD+ activities.</p>	<ul style="list-style-type: none"> ▪ Potential roles as con-management group / REDD+ beneficiaries. ▪ Also can be mobilizer for the REDD+.
<p>- Small / medium / large industries / entrepreneurs based on forestry.</p>	<p>- As the industries running based on agro-forestry they may be impacted by the REDD+ activities.</p>	<ul style="list-style-type: none"> ▪ Manage the industry worker in favor of the REDD+. ▪ Reduction of forest

	<i>i.e. Dada Match Factory, newsprint paper mills etc.</i>	<p>degradation.</p> <ul style="list-style-type: none"> ▪ Emphasize in Forest management.
2. Government agencies / local service providers		
Forest Department / DFO	- They are the district level implementing agency for the REDD+.	<ul style="list-style-type: none"> ▪ Coordinating agencies for the REDD+ activities and its management at district level. ▪ Watch dog for the REDD+ benefits.
Land administration (ADC Revenue)	- Important stakeholders at district level as they do the district level land administration.	<ul style="list-style-type: none"> ▪ Administration of the land in favor of the REDD+. ▪ Ensure protection for the REDD+
Local Government Engineering Department (LGED)	- As they are engaged in building local infrastructure for communication and trade, they are important stakeholders for the REDD+.	<ul style="list-style-type: none"> ▪ More involved with REDD+ as government line service agencies. ▪ Help in required infrastructural development for the REDD+ activities. ▪ Can also generate carbon stocks in building infrastructures and facilities.
Department of Agricultural Extension (DAE)	- The DAE is involved in administering the extension services for agriculture to the communities living within the forest impact zone.	<ul style="list-style-type: none"> ▪ Give extension services to the farmers in favor of the REDD+.
Department of Fish (DoF)	- are involved activities related to fishing and development in the forest areas.	<ul style="list-style-type: none"> ▪ Involve fish activities in more numbers to increase carbon stocks by reducing degradation and providing alternative income options for the

		people.
Bangladesh Water Development Board (BWDB)	- are involved in water related activities and building water infrastructures in the forest areas.	<ul style="list-style-type: none"> ▪ Increase carbon stocks while building water infrastructures.
Police / law enforcement agencies	- They are partner with REDD+ as they are to provide support for the enforcement of the law and order in the area.	<ul style="list-style-type: none"> ▪ Protection of the carbon stock by enforcement procedures.
Department of Environment (DoE)	- They are the agency for monitoring the environment and enforcing the environmental law.	<ul style="list-style-type: none"> ▪ Enforce environmental standards for the REDD+ in the country.
District Level LGI – ZilaPorishod (District Council) and Pouroshova	<p>- This body represents and protects the interest of the people in the local area at district level.</p> <p>- They are influential decision making body, both formal and informal, at district level.</p> <p>- They are also good mobilizer for the community at the district.</p>	<ul style="list-style-type: none"> ▪ Take district level decision in favor of the REDD+. ▪ Mobilize the communities for the REDD+ activities. As the safeguards for the REDD+ benefits on be half of the respective communities.
Hill district Councils	Major player in community decision making at the district level.	<ul style="list-style-type: none"> ▪ Influence the decision of the Indigenous communities in favor of the REDD+
Social Welfare	- playing a major in social safety net and in the local development of the communities.	<ul style="list-style-type: none"> ▪ Create more opportunities for the social safety net by safeguarding the carbon stock in the forest areas.
Department of Cooperative (DOC)	- The federation of Co-management-Committee or similar organization represents the perceptions of the local level organizations of similar kinds at Upazila level.	<ul style="list-style-type: none"> ▪ Manage the cooperative activities for the REDD+ beneficiaries through different trainings on financial management and other cooperative activities.

	<ul style="list-style-type: none"> - They also protect the interest of the community at local level on behalf of the local CMC or similar organization, at the Upazila level. 	
District level federation of CMOs/ similar organization or their federations	<ul style="list-style-type: none"> - The federation of Co-management-Committee or similar organization represents the perceptions of the local level organizations of similar kinds at District level. - They also protect the interest of the community at local level on behalf of the local CMC or similar organization, at the District level. 	<ul style="list-style-type: none"> ▪ Work as representative of the local CMOs through a body of their federation or similar things. ▪ Protect the interest of the CMOs of the district through advocacy, and various motivational activities.
Civil Society Organization (CSOs) / Activists / Pressure Groups	<ul style="list-style-type: none"> - The district level CSO deals with the greater interest of the community and are in action for continuous advocacy on interested issues. - They perceive the societal interest at district and Upazila level. 	<ul style="list-style-type: none"> ▪ May work as pressure group in favor of the REDD+.
NGOs	<ul style="list-style-type: none"> - They are in action for delivering the development services in the local areas, related to forest. - They mobilize the community through forming different groups and other means for the causes. 	<ul style="list-style-type: none"> ▪ May work more effectively as a development service provider for the REDD+. ▪ Mobilize the community in favor of the REDD+.
District level Media	<ul style="list-style-type: none"> - interested about local issues. - impacted and influenced by the local issues. 	<ul style="list-style-type: none"> ▪ Provocative measures may be taken to protect the interest of the REDD+.

District Development Coordination Committee (DDCC)	<ul style="list-style-type: none"> - interested about local issues. - Major player in initiating the district level development. 	<ul style="list-style-type: none"> ▪ Initiate the REDD+ activities in the local development framework.
NATIONAL LEVEL STAKEHOLDERS		
<p>National level stakeholders are involved, in most of the cases, to facilitate and overall administrative support for the REDD+. They set out strategies, tactics, policy support and etc. for smooth operation of REDD+. Their primary job is to improve the REDD+ as a continuous process. Some of the categories of this National Stakeholders groups are the visionaries, implanting partners, and secondary beneficiaries for REDD+.</p>		
Ministry of Environment and Forest (MoEF)	<ul style="list-style-type: none"> - Strategic decision of Policy Support for REDD+ 	<ul style="list-style-type: none"> ▪ Formulate and support REDD+ friendly policies and strategies.
Forest Department (FD)	<ul style="list-style-type: none"> - Project 'implementation participants' with REDD+. - They manage and responsible for the all aspects of the REDD+ activities. - Management of peoples' participation with the REDD+. 	<ul style="list-style-type: none"> ▪ Smooth Operation of REDD+ management. ▪ Enforcing protectional activities for the REDD+. ▪ Encourage co-management in higher degree for the overall forest management and REDD+.
Department Of Environment (DOE)	<ul style="list-style-type: none"> - Enforce the environmental standard through various monitoring system. - have specific mandate from the government regarding monitoring the environmental standards. 	<ul style="list-style-type: none"> ▪ Enforce the environmental standard and regulation for the REDD+. ▪ Watchdog for the REDD+ and the Carbon stocks.

Department Of Fisheries (DoF)	- Public stakeholders of forest fisheries. -	<ul style="list-style-type: none"> ▪ Tactical action for the enhancement of the REDD+ activities relating fisheries.
Ministry of Agriculture	- Responsible for making the agricultural policy and overall agricultural administration in the country.	<ul style="list-style-type: none"> ▪ Strategic approach in agricultural development by taking REDD+ activities in account.
Department of Agricultural Extension (DAE)	- Responsible for giving extension services to the farmers in the forest areas and all over the country.	<ul style="list-style-type: none"> ▪ Mobilize the farmers in favor of the REDD+. ▪ Tactical activities from the Extension services considering the REDD+.
Ministry of Law	- Responsible for making and improving the legal framework of the environmental and forest related laws.	<ul style="list-style-type: none"> ▪ Favorable law to support the smooth operation of the REDD+.
Ministry of Land	Responsible for Land administration of the country.	<ul style="list-style-type: none"> ▪ Strategic action incorporating REDD+ activities and issues in the land administration system.
Ministry of Food and Disaster Management	Responsible for Food security, and disaster management in the country.	<ul style="list-style-type: none"> ▪ Bring REDD+ into the food safety issue and social safety-net.
Ministry of Chittagong Hill tract Affairs	Responsible for the policies and strategic planning for the development of the Chittagoing Hill Tracks.	<ul style="list-style-type: none"> ▪ Consider the REDD+ in the planning of the ministry's future activities for the Hill tracks.
Chittagong Hill Tracks Development Foundation (CHTDF)	Tactical intervention for the development of the Chittagong Hill Tracks developments.	<ul style="list-style-type: none"> ▪ Bring REDD+ as part of CHTDF interventions also. ▪ Strategic support for the smooth operation of the REDD+.
Ministry of Local Government, Rural Development &	Major ministry in developing rural infrastructure and market communications, and cooperatives.	<ul style="list-style-type: none"> ▪ Incorporate REDD+ activities into the ministry's tactical intervention for the

Cooperatives		development of rural infrastructures and connectivity.
Ministry of Industries	<ul style="list-style-type: none"> - Responsible of industrial development within the country. - make effective industrial policies. 	<ul style="list-style-type: none"> ▪ Formulate and implement REDD+ friendly policies.
Ministry of Finance	<ul style="list-style-type: none"> - Financial management and sectoral financial policy formulation for the country; and allocation of budget. 	<ul style="list-style-type: none"> ▪ Budgetary allocation for the smooth operation of the REDD+ to the concern and relevant departments.
Ministry of Water Resources	<ul style="list-style-type: none"> - Strategic Planning for the water related intervention (Medium – 1000 Hectors – 2500 Hectors and Large Scale – above 2500 Hectors). - engaged in building water infrastructures. 	<ul style="list-style-type: none"> ▪ Incorporate REDD+ activities in building water structures as much as possible.
Ministry of Planning	<ul style="list-style-type: none"> - planning for the ADP; and sectoral plans for Bangladesh. 	<ul style="list-style-type: none"> ▪ Smooth policy support for the REDD+.
External Resources Division (ERD)	<ul style="list-style-type: none"> - Manage external Resources for Bangladesh. 	<ul style="list-style-type: none"> ▪ Generate funding for the carbon stocks / REDD+ activities.
Civil Societies Organizations (CSOs) / Activists (BAPA, BELA)	<ul style="list-style-type: none"> Work as a National level pressure groups. 	<ul style="list-style-type: none"> ▪ May work as national level pressure group. ▪ Protect general interest of the REDD+ beneficiaries.
Politicians	<ul style="list-style-type: none"> Influence and interest on the matter. 	<ul style="list-style-type: none"> ▪ Motivate and promote REDD+ in persuasions.
INGOs, NGOs relevant to Forest / NR management	<ul style="list-style-type: none"> Development service providers. 	<ul style="list-style-type: none"> ▪ Smooth operation and management of the REDD+ activities as service provider.

Think Tank Academia, Research Institutions (BARC, BARI, BRRRI, SRDI, BIDS, IWM, CEGIS,SPARSO, Universities)	<ul style="list-style-type: none"> - Conduct research in the related fields how more benefits can be derived for the stakeholders in managing REDD+. - Some of them also work as pressure groups. 	<ul style="list-style-type: none"> ▪ Conduct research on the REDD+ to understand that how community can be more benefited? ▪ Pressure and advocacy group for smoother operation of REDD+
Donors / Investors	<ul style="list-style-type: none"> - Invest money - give donation for various activities. 	<ul style="list-style-type: none"> ▪ Keep the investment pipeline on for the REDD+.
Association of Banks / insurances.	<ul style="list-style-type: none"> - perceive the view of the bankers or insurance companies. 	
Bangladesh Forest Research Institute (BFRI), Bangladesh Fish Research Institute (BFIRI)	<ul style="list-style-type: none"> - Government Agencies; engaged in Forest and Fisheries Research. - 	<ul style="list-style-type: none"> ▪ Conduct research on REDD+ to understand that how community can be more benefited?
Bangladesh Forest Industrial Development Corporation (BFIDC)	<ul style="list-style-type: none"> - engaged in forest based industrial development for the country. 	<ul style="list-style-type: none"> ▪ Improvement of forest industries by not harming the REDD+ activities.
FBCCI	<ul style="list-style-type: none"> - This Federation has a national stake regarding business, commerce and industries in Bangladesh. 	<ul style="list-style-type: none"> ▪ Spokesman of the business community in favor of the REDD+.
Media	<ul style="list-style-type: none"> - Influence by the national issues. - Secondary participants of the REDD + 	<ul style="list-style-type: none"> ▪ Interests can be inclined to the REDD+.
Board of Investment	<ul style="list-style-type: none"> - Potential investor in the Carbon trade and related issues. 	<ul style="list-style-type: none"> ▪ Seek investors for the REDD+ activities.
Network of CBOs / federation of CMOs or similar organization	<ul style="list-style-type: none"> - convey the perception of the CBOs / CMOs. - Protect the interest of the CBOs / CMOs 	<ul style="list-style-type: none"> ▪ Spokesman for the Community and the beneficiaries for the CMOs or similar organizations.
Parliamentary standing	Parliamentary committee on Forest	<ul style="list-style-type: none"> ▪ Strong Monitoring for the

Committee	and environmental matters.	REDD+.
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Annex 1b-3: Bangladesh NGOs/CSOs with stakes in REDD+

NGO/CSO ³	Field of Expertise	Experience relevant to REDD+
Arannayk Foundation	Management of environmental funds; planning, implementation (in partnership with field level NGOs and resource organizations), monitoring and evaluation of forest and biodiversity conservation projects; promotion of alternative livelihood of forest dependent communities; knowledge management	Implementing forest co-management projects in five protected areas and reserved forests in collaboration with FD and partner NGOs; six projects on sustainable management of community conserved forests in the Chittagong Hill Tracts; two projects on community based conservation and restoration of fresh water swamp forests; one project on biodiversity (flora, fauna) monitoring in six protected forest areas and one project on conservation and restoration of critically endangered tree species of Bangladesh forests in collaboration with two Universities (JU, IFESCU); involving alternative livelihood development of forest dependent people in about 20 projects including the GIZ-funded Management of Natural Resources and Community Forestry (MNRCF) project at Chunati Wildlife Sanctuary that aims to eventually sell carbon credits in voluntary or off-set market (REDD+ pilot)
IUCN	Policy research, policy formulation, advocacy and knowledge management, and networking on nature (ecosystem, biodiversity) conservation issues; implementation of community based natural resource management projects in partnership with local NGOs and	Key player in the formulation of various national policies related to sustainable management of environmental resources (forests, wetlands) of Bangladesh. Participates in national REDD+ stakeholders consultation meetings

³ The list is not comprehensive. There are many other NGOs and CSOs that are involved in social forestry project implementation and environmental conservation movements at national and local levels

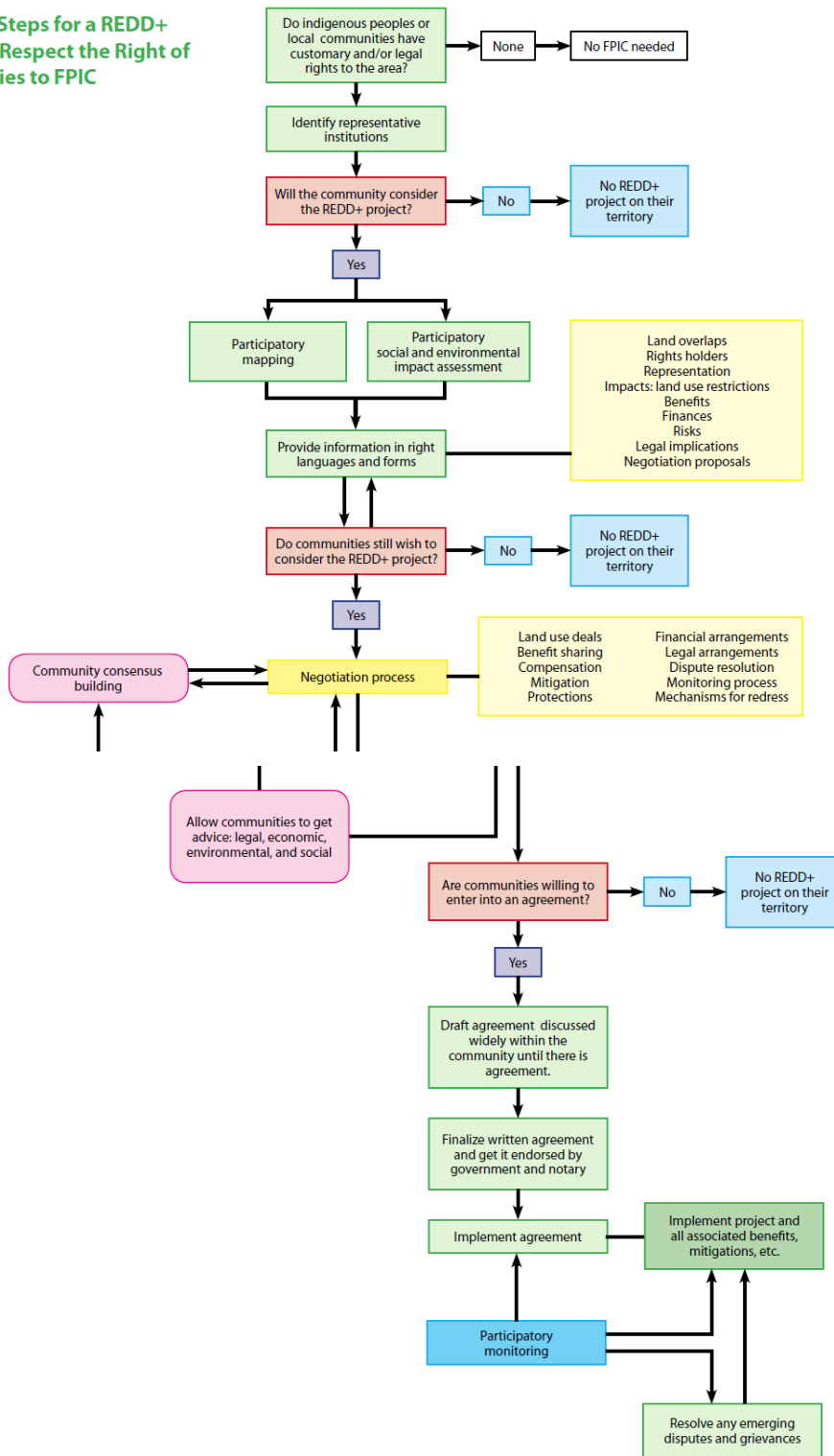
NGO/CSO ³	Field of Expertise	Experience relevant to REDD+
	government line agencies	and should be included in RSF.
Bangladesh Centre for Advancement of Science (BCAS)	Policy research, policy formulation and advocacy on environmental issues; implementation of community based natural resource management and climate change adaptation projects in partnership with local NGOs and government line agencies	Ditto
Bangladesh Environmental Lawyers' Association (BELA)	Policy analysis; legal support to natural resource dependent poor and indigenous communities; legal movement for environmental safeguard issues	May be included in the RSF (national level)
Bangladesh ParibeshAndolon (BAPA)	Creating mass awareness and organizing social movement for environmental protection	Ditto
BRAC	Microcredit operations; microfinance (SME); primary and mass education; socio-economic research; community empowerment; health and sanitation; social forestry. Operations throughout Bangladesh	Has implemented social forestry projects in many places of Bangladesh in collaboration with Forest Department
Proshika	Microcredit operations; primary and mass education; socio-economic research; community empowerment; health and sanitation; social forestry. Operations throughout Bangladesh	Ditto
CNRS	Implementation of community based natural resource management (NRM) projects; policy research and policy advocacy on NRM issues	Implementing IPAC projects (sustainable management of protected areas and livelihood improvement of forest dependent people through co-management approach) in Sylhet and Modhupur clusters
NACOM	Ditto	Was involved in the implementation of Nishorgo project (predecessor of IPAC) dealing with conservation and sustainable management of PA forests through

NGO/CSO ³	Field of Expertise	Experience relevant to REDD+
		co-management approach
CODEC	Implementation of community based NRM (biodiversity conservation, sustainable forest management, afforestation) and livelihood development projects in the coastal regions of Bangladesh	Implementing IPAC projects (sustainable management of protected areas and livelihood improvement of forest dependent people through co-management approach) in Sundarban and Cox's Bazar clusters
SHED (Teknaf)	As above (CODEC)	Implementing the Arannayk Foundation funded Inani Protected Area Co-management project and the GIZ-funded MNRCF project at Chunati Wildlife Sanctuary (REDD+ pilot)
Transparency International Bangladesh		Assessments of corruption and unaccountable practices. Monitoring of corruption and governance.
Uttaran	Implementation of community based NRM and livelihood development projects in the coastal region in the southwest of Bangladesh with particular experience on disaster management and adaption to climate change	Implementing an AF-funded coastal biodiversity conservation project in Satkhira
YPSA	As above (Uttaran)	Implementing a FD-AF collaborative project on community based restoration and conservation of the degraded hill forests in Sitakunda and Mirsarai (Chittagong) that may be eventually brought under REDD+ program
Anando	Implementation of sustainable hill farming and biodiversity conservation, community empowerment and peace building projects in CHT	Has the potential to contribute to alternative livelihood development activities in REDD+ projects
Taungya	Networking of civil society organizations	Has the potential to implement

NGO/CSO ³	Field of Expertise	Experience relevant to REDD+
	and capacity development of indigenous communities in CHT for conservation of natural resources, ecosystem, culture and customary rights of people	REDD+ projects in CHT and to facilitate networking among the stakeholders of the community conserved forests (Village Common Forests) in CHT
Hill Flower	Implementation of community based NRM (biodiversity conservation, sustainable forest management), livelihood development, and health projects in Rangamati Hill District of CHT	VCF in CHT
Green Hills	As above	VCF in CHT
Humanitarian Foundation	Implementation of community based NRM (biodiversity conservation, sustainable forest management), livelihood development, and health projects in Banderban Hill District of CHT	VCF in CHT
Tahzingdong	As above	VCF in CHT

Annex 1c: Process to Respect the Right of Communities to FPIC⁴

Indicative Steps for a REDD+ Process to Respect the Right of Communities to FPIC



⁴ RECOFTC/GIZ (2011), "Free, Prior and Informed Consent in REDD+: Principles and Approaches for Policy and Project Development"

Annex 1c-2: Existing Dispute Resolution Mechanisms in Bangladesh

Higher Judiciary

Article 102 empowers the High Court Division of the Supreme Court of Bangladesh to issue orders enforcing the fundamental rights of Part III of the Constitution. Article 102, provides that, when ‘no other equally efficacious remedy is provided by law – ‘on the application of any person aggrieved...’ the High Court Division of the Supreme court of Bangladesh can exercise its extraordinary jurisdiction. The primary requirement, therefore, to establish ‘standing’ is that the petitioner has to be any ‘person aggrieved’. In 1994, Bangladesh Environmental Lawyers Association (BELA), an NGO first filed a petition which become the turning point in the history of Public Interest Environmental Litigation in Bangladesh⁵.

Therefore, any aggrieved person, or community or any compatible organization can bring any legitimate claim of violation of fundamental rights before the High Court Division of the Supreme Court of Bangladesh. As such, violation of fundamental rights due to implementation of REDD+ activities can be subject to the higher judiciary in Bangladesh in the absence of any other established dispute resolution mechanisms.

The Subordinate Courts and Tribunals

The Subordinate Courts are the basic courts of the judicial system in Bangladesh. These subordinate courts can be classified broadly as 1) Criminal Courts and 2) Civil Courts.

These are further subdivided as:

1) Criminal Courts:

- a) Sessions Courts
- b) Metropolitan Session Courts
- c) Special Criminal Courts
- d) Metropolitan Magistrate Courts
- e) Magistrate Courts

2) Civil Courts:

- a) Assistant Judge Court
- b) Senior assistant Judge Court
- c) Joint District Judge Court
- d) Additional District Judge Court
- e) District Judge Court
- f) Family Court
- g) Money loan Court
- h) Bankruptcy Court

⁵ FAP case, 49 DLR, 1997, AD), The appellate Court commented that an aggrieved person need not suffer directly. In the case of violation of fundamental right affecting particularly the weak, downtrodden or deprived section of community or that there is a public cause involving public wrong or public injury, any member of the public or organisation, weather being a sufferer himself or not, become a person aggrieved if it is for the realization of any if the objectives or purposes of the constitution.

Criminal courts deal with serious criminal offenses, some of which may even lead to a death sentence. The Session Courts have three layers of Judges: namely, Sessions Judges, Additional Session Judges, and Joint Session Judges. The Session Judge and the Additional Session Judge have more powers than the Joint Session Judge. The Session Court Judges also hear civil matters. The Metropolitan Session Court Judges only deliver judgments over criminal matters. Such courts also have a system for providing justice in lesser time as compared to the regular system, which may take ten or more years for resolving such criminal matters. The Metropolitan Session Courts of Bangladesh are located at Dhaka and Chittagong. The different types of tribunal courts in Bangladesh include but are not limited to: income tax, administrative, election, and public safety tribunals.

Environmental Court

The Environment Court Act, 2000⁶ provides for establishment of environmental courts in all the six divisional headquarters of the country, and also beyond if needed. The Courts shall deal exclusively with environmental offences under the “environmental laws” and are meant to ensure speedy trial. Environmental laws in turn shall mean the Environment Conservation Act, 1995 and such other laws as may be defined as environmental law from time to time by official notification. This has created a great deal of confusion as to the jurisdiction of the courts. While the Act of 1995 only provides punishment for vehicular pollution, industrial pollution and offences related to the ECAs and no other sectoral law was subsequently notified as ‘environmental law’, a vast range of issues remained outside the purview of the Environment Courts. Therefore, question arises whether this specific court would be able to deal with conflicts related to REDD+ activities.

Village Courts

The Village Courts are created in Bangladesh under The Village Court Ordinance, 1976⁷ with a view to get easy access to justice without any cost for the poor villagers. The ultimate objective of the Village Court is to provide a forum for disputant parties to solve their problems by themselves with a little or necessary assistance from these dispute resolution forums. However, the Village Court Act 2006 was enacted which repealed the Village Court Ordinance, in accordance with the section 21(1) of the said Act. Section 3 of the Act of 2006 specified the particular suits which can be tried by the village court. It has power to deal with the disputes both in civil and criminal nature.

In a union the chairmen of that union shall constitute village court on the basis of an application from the parties of the dispute. The court shall be constituted with two members of each party and the chairman of Union Parishad shall act as the chairman of that court. From the two member of each party one must be a union member⁸. The jurisdiction of the court shall be limited to that union where the causes of action arise or offence committed (section 6). Power of village court- for the offence mentioned in the first schedule of the Act it can award 25000 tk as compensation. For the matter mentioned in the second schedule it can order to give that amount of money mentioned in the said schedule or can give order to give back the property or the possession of it to its original owner (section-7).

⁶ Subsequently amended in 2010

⁷ Ordinance No. LXI of 1976)

⁸ Section 4 and 5 of the Village Court Act 2006

The decision of the court is binding on the parties and no appeal shall lie against if it is given with the vote of all four members or with the vote of 4:1 or 3:1 member. But if decision is given with support of two third majorities in the matter of offence mentioned in the 1st schedule an appeal shall lie before the first class magistrate who have territorial jurisdiction. But it must be file within 30 days. For the matter mentioned in the 2nd schedule an appeal shall lie before the assistant judge (Section 9). Compensation awarded under the Act can be recovered under the public Demand Recovery Act 1913. It is worth mentioning that the Village Courts are statutory courts and are composed of with local government (Union Parishad) representatives (as community leaders) and members from disputant parties. But these courts are legally required to follow informal procedure of trial or dispute settlement, meaning thereby that the application of Code of Civil Procedure, Code of Criminal Procedure and Evidence Act has been barred. Also is barred the appointment of lawyers.

However, a grievance mechanism for forestry issues under a REDD+ programme would deal largely in disputes between villagers and external actors, such as local or national forest authorities, other government agencies, project proponents or investors in REDD+. The existing village court system is therefore not directly applicable to the REDD+ context, but provides a suitable entry point for a study into village-level access to a grievance mechanism for REDD+. In the REDD+ context, it is essential that *Matbarsand* Headmen are the basis of the mechanism, rather than the Union Parishad chair.

Annex 2a: Assessment of Existing Strategy, Policy and Legal Framework

Pertinent to REDD+

This annex provides information and analysis on how the following pertain to implementing REDD+ in Bangladesh

- The Constitution;
- Strategies and policies related to climate change;
- Policies and laws related to forest management and protection;
- Specific policies, laws and regulations related to the CHT;
- Land tenure;
- Customary rights;
- Legislative measures related to environmental protection;
- The emerging legislative framework related to community management, social forestry and co-management; and,
- Carbon rights.

The Constitution

The Constitution of the Peoples' Republic of Bangladesh, 1972, the country's fundamental legal document, did not initially contain any specific provision on forest resource management, but was amended in 2000 to endorse the importance of environment and biodiversity conservation and to incorporate provisions for Social Forestry. A number of provisions in the Constitution have implications for forest regulation.

Part II of the Constitution lays down Fundamental Principles of State Policy and some of the articles provided the guidance for forest resource management. Article 13 of this part recognizes the validity of State, Co-operative and Private ownership⁹. Article 15 declares that the State has a responsibility to promote economic growth and to assure provision of food, clothing, shelter, work and recreation to citizens. Article 16 puts special emphasis on the development of rural communities¹⁰. Article 31 of Part III of the Constitution recognises the right to life, and notes that this includes the right to a healthy and stable environment. Furthermore, an amendment in 2011 led to the addition of Article 18A, which states that, '*the state shall endeavour to protect and improve the environment and preserve and safeguard the natural resources, bio-diversity, wetlands, forest and wild life for the present and future citizens.*'

Relevant Provisions of the Constitution include Article 42, which provides the right to hold the property by the citizens of the country and requires legal authority and compensation for Government acquisition of any such property. Article 47 qualifies the Article 42 in two important ways. The Parliament can pass laws to acquire property in pursuit of the national policy goals spelled out in Part II of the Constitution and a group

⁹Bangladesh Constitution Article 13: **Principle of ownership:** The people shall own or control the instruments and means of production and distribution, and with this end in view ownership shall assume the following forms –(a) state ownership, that is ownership by the State on behalf of the people through the creation of an efficient and dynamic nationalized public sector embracing the key sectors of the economy; (b) co-operative ownership, that is by co-operatives on behalf of their members within such limits as may be prescribed by law; and (c) private ownership, that is ownership by individuals within such limits as may be prescribed by law.

¹⁰Bangladesh Constitution Article 16: **Rural development and agricultural revolution:** The State shall adopt effective measures to bring about a radical transformation in the rural areas through the promotion of an agricultural revolution, the provision of rural electrification, the development of cottage and other industries, and the improvement of education, communications and public health, in those areas, so as progressively to remove the disparity in the standards of living between the urban and the rural areas.

of existing laws, including the State Acquisition and Tenancy (SAT) Act, 1950. Article 84 requires all revenues received by the Government to “form part of one fund to be known as the Consolidated Fund”. This Article might imply for reserving forest revenues for reinvestment in forest management or for payment to participants in community forestry programs needs to be considered in drafting any legislation.

The Constitution of Bangladesh prescribes measures to remove inequality between ‘man and man’ [Article 19(2)]. It aims at ensuring ‘equitable distribution of wealth among citizens’ and at providing opportunities to attain a uniform level of economic development. It is a fundamental principle of State policy to ‘adopt measures to conserve the cultural traditions and heritage of the people.’ The above principles of State policy explicitly enshrine the protections of private rights and traditions from all forms of exploitation and interference. The forest laws and the laws governing tenancy are mostly pre-constitution laws, but these are to be interpreted and applied within the letters and spirit of the Constitution.

Moreover, it is a fundamental right of every citizen not to be discriminated on ground of religion, race, caste, sex or place of birth, rather the government is empowered to adopt special provision for the advancement of any backward section of citizens. The laws recognizing rights through prescription or adverse possession applies to all tribal and non-tribal people living in or around a forest, if the nature of their exercise or enjoyment of rights falls within the scope of the law. Special legal provisions are also ample to protect the cultural integrity and territoriality of tribal population. These rights should not be regarded as inferior to other forms of rights. It is submitted that all regular legal provisions are equally valid for tribal people’s rights in or over forests and the special laws are specific addition to other existing provisions.

Strategies and policies related to climate change

The Bangladesh Climate Change Strategy and Action Plan (MoEF, 2009)

This (BCCSAP) prioritizes adaptation in the short to medium-term. The BCCSAP is built on six pillars, which are:

- (i) Food security, social security and health;
- (ii) Disaster management;
- (iii) Infrastructure development;
- (iv) Research and knowledge management;
- (v) Mitigation and low carbon development, and
- (vi) Capacity building and institutional development.

The BCCSAP includes a total of 37 programmes under these six pillars. Forestry is only explicitly included under mitigation and low carbon development through a programme to expand afforestation and reforestation, particularly in coastal areas. However, REDD is mentioned within this programme as a way to involve local communities in reforestation efforts through providing a new source of funding. As an action under this programme, the BCCSAP highlighted the need to ‘study the scope for REDD’ as early as 2008 (MoEF, 2009).

Besides contributing directly to pillar (v), a comprehensive REDD+ programme will also contribute directly to pillar (iv), by ensuring that Bangladesh is networked into the expanding global knowledge network on REDD+, and to pillar (vi) by building the capacities of existing and new institutions in order to sustain good forest management practice in the long term.

National Adaptation Programme of Action (NAPA)

The strategic goal and objective of Bangladesh's NAPA are to reduce adverse effects of climate change including variability and extreme events such as the frequency of cyclones, while promoting sustainable development. The plan suggests appropriate coping mechanisms and recognizes the importance of community involvement in these projects. It also recognises the importance of mangrove ecosystems as a part of Bangladesh's coastal defences. A REDD+ strategy that incorporates restoration and establishment of mangroves would therefore serve a unique double purpose in Bangladesh's efforts to combat climate change, as both a mitigation and an adaptation strategy.

Bangladesh Climate Change Trust Fund (BCCTF)

The GoB created the BCCTF, through the CCTF Act of 2010, with the objective of implementing the actions and programmes of the BCCSAP. The Climate Change Unit (CCU) was then created under the MoEF specifically to administer the BCCTF. The BCCTF is financed by internal GoB resources, and the Government has so far allocated about 21 billion Taka (253 million USD) for the three year period 2009-12.

To facilitate the approval of projects under BCCTF, sub-Committees have been formed for each of the Six Thematic pillars of BCCSAP (see above). A 12-member Technical Committee under the chairmanship of the Secretary, Ministry of Environment and Forest has been formed in order to scrutinize the projects and programmes recommended by sub-committees. A 17-member Trustee Board under the chairmanship of the Minister has been formed in order to scrutinize and approve the projects and programmes recommended by the Technical Committee.

Bangladesh Climate Change Resilience Fund (BCCRF):

With a view to building a medium- to long-term program for enhancing resilience to climate shocks and facilitating low carbon and sustainable growth, Bangladesh launched the BCCSAP at the UK-Bangladesh Climate Change Conference in London in September, 2008. This was later updated in 2009. In the wake of the London conference, a multi-donor trust fund for climate change was proposed as a modality for the development partners to support Bangladesh in implementing the BCCSAP. This became the BCCRF, endowed with an amount of US\$ 110 million.

The overall objective of the BCCRF is to protect and improve the lives of 10 million climate vulnerable people in Bangladesh by 2015 through climate change adaptation, mitigation and disaster risk reduction measures. The purpose is to support the Government of Bangladesh with the implementation of the BCCSAP. Donors also assured the government of providing more assistance to the BCCRF to cope with the adverse impacts of climate change. The Ministry of Environment and Forests has taken an initiative to set up the BCCRF Secretariat.

The BCCRF is being managed and implemented by the Government of Bangladesh. A technical assistance portion of the BCCRF is executed by the World Bank with agreement of the Government of Bangladesh. Besides, the World Bank group and Asian Development Bank have initiated a project entitled Pilot Program for Climate Resilience (PPCR) with an amount of US\$110 million from the global Climate Change Investment Fund (CCIF).

Bangladesh Green Development Programme (BGDP):

The BGDP would, for example, facilitate and advocate across society broad attitudinal changes towards green development. Analytical work would be expected to determine how equitable and sustainable growth of green jobs can help reduce energy consumption, decarbonizes the economy, and protect and restore ecosystems to arrest biodiversity decline. This programme would be responsive to the articulated demands of the government to create and strengthen a network of green business actors and organizations. In the near term it could assist the thinking of the Bangladesh Government as it prepares for Rio 20+.

This is an umbrella initiative to explore new programming opportunities in the areas of environment, energy and climate change and in fulfilling the programming needs so that vulnerable people benefits from better natural resource management and access to low carbon energy. The programme will support low emission development in areas of pro-poor and pro-gender renewable energy, energy efficiency, climate technology, and demand side management. This will also provide support to environmental governance and pro-poor ecosystem management through pollution abatement of land degradation, coastal, wetland and other biodiversity management, and sustainable urban management.

In partnership with government, donors, and private sector, national capacity will be enhanced for forest resource management including REDD+ implementation. Forest resource management, especially REDD+ readiness, will be part of national capacity forest resource management. There is a need for enhanced capacity in forest management and keen interest from GoB for support from UNDP to enhance its capacity to comply with REDD readiness requirements. A series of inter-related activities for backstopping GoB's ongoing efforts on initial REDD+ readiness process as well as for preparing grounds for future UN-REDD country programme in Bangladesh is planned.

Policies and laws related to forest management and protection

In addition to the Constitution, the basic laws regulating forestry resources in Bangladesh are the Forests Act, 1927 and its subsequent amendments¹¹ and the Private Forests Ordinance, 1959¹². The Forest Policy of 1994 outlined the Forestry Sector Master Plan (FSMP) for 1995-2015, which is currently the main policy document for natural resource management in the country. The FSMP provides the basis for the people-oriented forestry programmes of recent years. The GoB has also adopted further the Social Forestry Rules of 2004, which were amended in 2010 and 2011. The relevant provisions regarding forest resource management are outlined below.

The Forest Act, 1927

The Forest Act (1927) is the key law regulating forest resources in Bangladesh. This Act encompasses the provisions for conservation and protection of Government-owned forests, and also of some private forests. This Act stipulates the provisions for establishing Reserved Forests (RF) and Protected Forests (PF) and assigns responsibility to the Forest Department (FD) for managing forests with these designations. It stipulates control over forest land which is not the property of Government. Moreover, the Act provides scope for participatory management approaches in the context of joint management and establishment of village forests. It provides for the collection of duties on timber and other forest products, control on the transportation of these products, collection of drift and stranded timber, penalties and procedures, and the role of forestry officers.

Chapter II of the Act covers Reserved Forests. Most of the lands under the Forestry Department's management are RFs, established according to the rules under this chapter. The Government may establish RFs on lands that it owns. It stipulates that the establishment of an RF must be accompanied by the appointment of a Forest Settlement Officer [FSO] to investigate and adjudicate regarding any competing claims to such lands, and sets out the procedures that the FSO must follow. The Act also provides the scope of appeal to the Divisional Commissioner against a decision passed by Forest Settlement Officer. The FD must publish a declaration of the reservation in an official Gazette, with a description of the forest's boundaries, before the RF is confirmed.

¹¹ Act No. XVI of 1927

¹² Ordinance No. XXXIV of 1959

Chapter IV defines rules of establishment Protected Forests. Like RFs, the FD can only establish PFs on Government-owned lands and by following a declaration process. Unlike RFs, for PFs the Government must inquire into, and resolve, private rights before publishing the notification. Once the Government establishes a PF, the FD has extensive authority to limit the forest's use.

The 1927 Act further requires the protection of right of way, right of pasture or rights to forest products or a watercourse (sections 12-15). If it becomes essential to commute such rights, the government must compensate the aggrieved persons with a sum of money or grant of land (section 16). However, the above rights cannot be alienated, sold or bartered (section 24). If the government stops any public or private right of way or watercourse in a RF, it must provide a substitute. In the case of a PF, such a notification cannot be made unless the nature and extent of the rights of the government and private persons are settled and recorded. No such action can abridge or affect any existing right of an individual (section 29). In the case of reserving any class of trees no such measure can extend beyond 30 years.

Chapter III creates the category of Village Forests. The Chapter was renamed "*Of Village Forests and Social Forestry*" by the 2000 Amendment. The Government may assign parts of RFs to particular villages for their use. The 1927 Forest Act explicitly recognizes the possibility of co-management of public and private forest. Section 28 states:

- (i) The Government may assign to any village community the right of management and use over any land that has been constituted RF, and may cancel such assignment. All forest so assigned shall be called village forest;
- (ii) The Government may make rules for regulating the management of village forests, prescribing the conditions under which the community can exploit timber, other forest products or pasture, and their duties for the protection and improvement of such forests.
- (iii) All the provisions of this Act relating to RFs shall apply to village-forests, as long as they are not inconsistent with the rules made under (2) above.

Chapter V concerns control over forests on private lands. However, the East Pakistan Private Forest Ordinance, 1959, repealed this chapter and created new authorities to regulate private lands.

The 2000 Amendment to the Forest Act sanctions Social Forestry (SF) on any government or private land and provides the scope to adopt Rules and programs, which were followed up by the Social Forestry Rules of 2004 (see below).

Private Forest Act

A Private Forest Act was introduced in 1945 which was followed by the promulgation of The Private Forest Ordinance 1959, to bring in management for the privately owned forests. Prior to this, private forests had no formal forest management framework to follow. The only practice was to harvest wood and/or clear the forest for conversion to agriculture. Under such situation the management of private forests was taken over by the government under the provisions of this Private Forest Act and Private Forest Ordinance.

The Private Forest Ordinance, 1959

The Private Forest Ordinance, 1959 was adopted with a view to manage private forests. It classifies private forests into Controlled and Vested Forest and defines 'forest' as "*any land recorded as forest in a record-of-rights prepared under Chapter IX of the Sylhet Tenancy Act, 1936 ... or under Chapter IV of the State Acquisition and Tenancy Act, 1950 or such other land containing tree growth as may by notification be declared as forest by the Government*".

This Ordinance defines when the GoB has the right to exercise control over private forests for the purposes of conservation. 'Conservation' when used in reference to a forest, "*includes such measures as are necessary in the opinion of the Regional Forest Officer for the prevention or remedying of the erosion of the soil or any flood or landslide*". In Controlled Forest, the Government may obtain limited control of such private forest through the adoption of a working plan for the conservation of the forest or by afforestation of wasteland under private ownership. The proprietary titles to these forests do not vest with the Government. In the case of Vested Forest, the control is vested in a Regional Forest Officer, and they are managed according to working plan developed by the officer.

The Bangladesh Wild Life (Preservation) Order, 1973

This 1973 law updated and consolidated the older provisions on wildlife. The Act has one section dealing specifically with lands, or more specifically, with creation of protected areas, while the rest of the Act deals with hunting and wildlife conservation generally. This Order earmarks the wildlife habitats of the country into three categories of Protected Area (PA), namely: wildlife sanctuary, national park and game reserve. The forests of the country have adopted the appropriate or suitable notion of protected areas for preserving their wildlife. The Forest Department has primary responsibility for implementing the Act. On the basis of the experience of the USAID-funded IPAC project (see below), many of the provisions of this Order are due to be superseded by new Rules for Protected Area Co-management, currently under the process of approval by the MoEF.

Forestry Policy, 1994

The first National Forest Policy was adopted in 1979 with the objective of greater protection and conservation of the country's forest assets while developing its rural and industrial economies. The current forest policy, introduced in 1994, represents the first shift towards recognition of the importance of people's participation in forestry and sustainable development. The Policy and the corresponding Forestry Sector Master Plan (FSMP, from 1993) are primarily aimed at raising the total forest cover of the country to 20% by the year 2015 through 'Social/Participatory Forestry' (SPF). This has been defined in the FSMP as "*programmes implemented on private land, encroached Sal forest land or on underused land under the jurisdiction of government departments other than the Forest Department.*" It suggests afforestation, tree plantation and nursery establishment, development, maintenance and preservation through involving, encouraging and extending co-operation to the people. It further suggested that all State owned forests of natural origin and the plantations of the Hills and Sal forest will be used for producing forest resources keeping aside the areas earmarked for conserving soil and water resources, and maintaining biodiversity.

The Policy also recommended identifying inaccessible areas such as slopes of hills, fragile watersheds, swamps, etc. and keeping them as PFs. It aims to ensure the multiple use of forests, water and fish of the Sundarbans through sustained management, keeping the ecosystems of the area intact. To fulfil the aforesaid targets the Policy suggests to amend laws, rules and regulations on the forestry sector and/or to promulgate new laws and rules if necessary. It calls for simplification and updating of rules and procedures regarding transportation of forest produce in the country.

As a result of this provision for promulgation of new laws and rules, specific rules for Social Forestry and Protected Area Co-management have been instigated.

The salient features of this policy are outlined in the Box at the end of this Annex.

Specific policies, laws and regulations related to the CHT

In 1860, when the British took control of the Hill Tracts, they recognized it as an indigenous area distinct from the rest of the country, and as a matter of policy its administration, including that pertaining to land matters, has always been distinct from the plains districts. However, as the indigenous system of land tenure in the CHT differed considerably from British concepts of land administration, the colonial administrators proceeded to restructure the land revenue system and to bring it into greater conformity with their systems of land tenure. In keeping with this approach, a series of administrative and legislative measures were passed culminating in Regulation 1 of 1900. This Regulation remains the principal instrument regulating the transmission of land rights in the Hill Tracts today (Roy, 2000).

Chittagong Hill Tracts Manual, 1900

One of the principal changes enforced by the Regulation was the formal demarcation of the Hill Tracts into three separate "Circles", and the designation of the three traditional leaders as "Chiefs", according to the Chittagong Hill Tracts Manual. Further, these leaders, who had enjoyed the status of heads of state within their territories for centuries, now required the national authorities to recognize their right to rule and were merely "charged" with the administration of the Hill Tracts. The British formally divided the CHT into territorially defined administrative units known as *mauzas* to replace the earlier system of *taluks*. A headman was appointed as the responsible authority for each *mauza*, his responsibilities included the collection of revenue. Each *mauza* comprised a number of villages, each of which was generally headed by a *Karbari*. The land use structure of the indigenous people provided the basis for the revenue administration, with specific taxes levied on each category of land. These Regulations still form the basis for the civil, revenue and judicial administration of the CHT, although there have been several amendments to the rules and several new laws have been made applicable to the CHT between 1900 and up to the present.

The government does not formally recognize the rights of the indigenous people to the common lands as a collective right. It regards these lands as state-owned. They are also known as *khas* lands, i.e. state lands, while the Forest Department categorises these lands as USFs. The lands not demarcated as Reserved and Protected Forests, which are not settled or leased out in the name of any private individual or corporate body, are regarded as USF by the national administration for purposes of forest extraction and export.

Forest area in the CHT which is not designated as Reserved Forests falls under the category of USF. In this area, the local people are allowed to practice *jhum* or shifting cultivation and to extract any forest produce (fuelwood, bamboo and house construction poles and timber) to meet their domestic requirements. Initially, under British rule, USF land was divided into units (*mauzas*) by district administrations, in consultation with the Chiefs and headmen. Over time, more USF land was allocated to individuals for agriculture or horticulture, and for all practical purposes these now fall within the juridical regime of private property rights (Roy, 2000).

Chittagong Hill Tracts Peace Accord, 1997

The Chittagong Hill Tracts Peace Accord, 1997 is also important to deal with CHT land issues. The agreement recognized the distinct ethnicity and special status of the tribes of the Chittagong Hill Tracts. Under this Accord a Regional Council was established consisting of the local government councils of the three districts of the Hill Tracts. The council was to be composed of men and women from all hill tribes, and representatives of Bengali communities; and the delegates would be elected by the HDCs. The central government would therefore be required to consult the regional councils over all issues concerning the Hill Tracts.

The Hill District Council Acts¹³ (1998): These Acts devolve responsibilities for 33 subjects to the Hill District Council, including forest (except reserved and protected forest), agriculture, livestock, fisheries, environment, rivers and water bodies (except Kaptai lake), shifting (*jhum*) cultivation etc.

All the laws on local government namely the City Corporation Laws, the Paurashava Law, the Union Parishad Laws and the Laws on Hill Districts have favourable provisions with regard to Street Plantation and Afforestation. The Acquisition of Waste Land Act (1950) provides for the afforestation of such land. The Bangladesh Agricultural Development Corporation Ordinance, 1961 empowers the Corporation for the conservation of catchments and exploitation of potential areas. In addition the Corporation may direct the afforestation of any area or part thereof.

The Act was adopted with the view of decentralising the local governance and transferring different subjects to three hill district councils. A number of 33 subjects are listed to transfer to Hill District Councils. The Council is formed with the 33 elected councillors and one Chairman with tenure of 5 years.

The CHT Regional Council Act 1998 provides scope of coordinating and supervising all development activities in the Chittagong Hill Tracts. It is also notable that regarding any new law concerning the Council or the Chittagong Hill Tracts, according to the Regional Council Act, the government shall take necessary measures for making the law in consultation with the Council and the concerned Hill District Council and after by considering the advice of the Council.

CHT Land Dispute Settlement Commission Act, 2001

The GoB adopted the Local Government Councils Bills 1989¹⁴ to establish local councils in the three Hill districts of Rangamati, Khagrachari and Bandarban. The provisions of these Bills were superseded by the HDC Acts of 1998. However, the Chittagong Hill Tracts Land Dispute Settlement Commission Act, 2001¹⁵ was adopted with a view to settle some of the land disputes of Chittagong Hill Tracts which remained unresolved after the HDC Acts. In implementing this Act, a Commission was formed in order to settle land disputes particularly for settlers and it provided that, all these disputes would be settled in accordance with the laws applicable to Chittagong Hill Tracts and customs¹⁶. However, this section is not the subject to State land acquisition, reserved forest, Kaptai Hydro power project, government own industries and recoded land in favor of national government or local governments. The decision of the Commission would be deemed as the Decree of a Civil Court and there is no appellate jurisdiction against the decision passed by the Commission¹⁷.

Land tenure

Land Tenure Act

The Constitution of the People's Republic of Bangladesh, 1972 (amended 2004), provides that all citizens shall have the right to hold, acquire, transfer and dispose of property.

¹³ Following the CHT Peace Accord The Hill District Council Acts of Bandarban, Khagrachari and Rangamati were enacted in 1998.

¹⁴ Acts 19, 20 and 21 of 1989

¹⁵ Act No, 53 of 2001

¹⁶ Section 3, Chittagong Hill Tracts Land Dispute Settlement Commission Act, 2001

¹⁷ Ibid, Section 16

Key land-related legislation includes: Transfer of Property Act of 1882; Registration Act 1908; Non Agricultural Tenancy Act of 1947; State Acquisition and Tenancy Act of 1950; Acquisition of Waste Land Act of 1950; Bangladesh Land Holding Limitation Order of 1972; Land Reforms Ordinance of 1984; Land Reform Board Act of 1989; and the Chittagong Hill Tract Regulation Act of 1990 (ADB 2004; Shafi and Payne 2007).

The State Acquisition and Tenancy Act of 1950 established a 33-acre land ceiling on private landowners, with the excess transferred to the government upon payment of compensation. Local government was charged with transferring the surplus land to the landless. The Land Reforms Ordinance of 1984 placed a 21-acre (8 ha) ceiling on acquisition or holding of agricultural land and invalidated benamitransactions, in which a person purchases land in the name of another so as to evade the land ceiling. Neither land ceiling law has been widely implemented (ANGOC 2001; Uddin and Haque 2009).

The 1984 Ordinance also provided greater tenure security to sharecroppers (bargadars) in sharecropping contracts with landowners, and prohibited the eviction of agricultural tenants from homestead land (Uddin and Haque 2009).

Customary rights and practices are, to a limited extent, recognized throughout Bangladesh with respect to personal laws and simple civil matters. The Chittagong Hill Tracts (CHT) region, which is the principal home of the country's indigenous people, has a separate legal regime that blends customary and formal law. Principles of land administration codified in formal law are inapplicable in the CHT region. Instead, customary law enforced by traditional institutions governs areas of personal law and natural resource use, including land. Official government institutions maintain but rarely exercise concurrent jurisdiction (Roy, 2004).

The right to be recognised and rewarded for REDD+ performance is essential to the efficiency of the National REDD+ Programme. As most activities under the Programme will inherently involve changes in land cover, land use or land use plans, it is imperative that land tenure and rights pertaining to land use are clarified.

Customary rights

Recognition of customary land rights and rights through prescription had been one of the undertones of the development of tenancy laws in Bangladesh. Under the Bengal Tenancy Act, 1885, the Courts had to take into account local custom while determining whether a tenant is a tenure holder or *raiyat* (right to hold land for the purposes of cultivation). Every person who for a period of twelve years had continuously held land as a *raiyat* situated in any village, whether under lease or otherwise, was deemed to have become a settled *raiyat* with a right of occupancy.

The legal provisions clearly demonstrate the fact that in Bengal, customs and customary rights were active in regulating land tenure issues and the law recognized them with some qualifications. As a matter of fact, the origin of many of the rights of present title-holders of land were initially based on or developed from customary rights or prescriptions that were variably endorsed in numerous modalities by the *zamindars*. The SAT of 1950 did not repeal the 1885 Act but "so much as has not been repealed," rather further divested the tenurial rights from the landlords to the occupants.

An important provision in the SAT recognizing especial tenurial status of lands falling within traditional domain of aborigines is section 97. The section empowered the government to declare by notification any aboriginal castes or tribes as 'aboriginal' for the purpose of the section, but it did not define 'aboriginal' that are certain to create confusion in Bangladesh.

However, the explicit mention in the provision that an aboriginal can only transfer his land in favour of another aboriginal 'domiciled and permanently residing in Bangladesh' projects the reality of the nature of frequent movements of some tribals to and from their ancestor's land in India. The law, in this case, recognized the individual land holding rights of aboriginal and not in the form of 'common property rights'. But the law does not restrict the transfer of land to another tribe or caste coming from other part of Bangladesh as long as the transferee permanently resides or domiciled in the country. The application of the SAT has been restrained to the Chittagong Hill Tracts where a large number of tribal peoples live under a customary system headed by tribal chiefs.

Customs and the Forest Law

During the period that preceded the codification of forest laws in 1865, it was practically difficult to identify State forests where various private or community rights were not being exercised. The existence of customary rights in State forests is, indirectly but well recognized in the subsequent Forest Acts. The best examples are the penal provisions such as theft and mischief. Many of forest offences would fall under these categories of crimes, which are already heavily dealt with by Penal Code, 1860 providing imprisonment up to 7 years. But the same offences have been traditionally dealt with very leniently in the forest law, until recently, providing a maximum sentence of actual practice of communities which have been the 'custom from time immemorial' to do certain acts in forest not as crime but as tradition.

To enquire and judiciously decide upon the legal merits of every claim made under the Forest Act, 1927, it has been made mandatory to appoint a Forest Settlement Officer (FSO) for that purpose. These claims may be of various natures including claims to land or to forest produce. The 1927 Act never lost sight of these rights in forest whether originating from customary rights or from other operations of law. In law, traditional rights and rights emerging from prescription or adverse possession had been legally recognized. Long-term possession creates rights by prescription. According to the Limitation Act, 1908, rights exercised or enjoyed uninterrupted for twenty years, on any private property, or sixty years in case of government property create a legal right.

In light of the provisions of the Limitation Act, 1908 one may rightfully assert that before the vesting of any forest in the government, if the same was a part of a private estate of a landlord, then a proof of uninterrupted possession or enjoyment for twenty years would be required by law. In cases where forests have been the *khas* property of the State, sixty years would be the period for acquiring titles.

In some parts of rural Bangladesh, for example, there are people living in forest areas, but with no clear title as yet. Some of these 'forest villagers', particularly in Reserved Forest areas in the CHT, are officially encroachers but have been resident in these forests for decades. Many such villagers are indigenous peoples who retain some aspects of their traditional hunter-gatherer lifestyle. Such indigenous peoples' groups, and other forest-dependent communities, may still wish to claim customary rights to ecosystem services or to use or gather certain forest products to maintain their traditional lifestyle. They may also claim specific territorial rights to areas of particular significance, for cultural or other reasons. All of these rights are protected under international conventions and declarations such as the UN Declaration on the Rights of Indigenous Peoples (UNDRIP), to which Bangladesh is a signatory.

The blurred line between formal and informal tenure and rights, and between statutory and customary rights, is a serious impediment to REDD+. Activities under REDD+ strategies may potentially constrain or limit the customary rights of local and indigenous communities. Currently, however, there is no reliable information on what constitutes customary rights, or how to resolve conflicts between formal and informal systems.

Legislative measures related to environmental protection

National Environment Policy (NEP) (1992): The National Environmental Policy was formulated with the intent of enhancing protection and sustainable management of the environment. The objectives of the Policy include maintaining the ecological balance while simultaneously supporting national development and actively engaging in international environmental initiatives.

National Environment Management Action Plan (1992): The Action Plan aims to promote better management of scarce resources and reverse trends of environmental degradation by building upon the general principles stated in the 1992 National Environment Policy and proposing concrete actions and interventions in a number of priority areas.

The Bangladesh Environment Conservation Act (1995): Legislates the conservation of environmental systems, improvement of environmental standards and control and mitigation and provides a framework for its implementation. It also calls for the protection of 'Ecologically Critical Areas'.

The Environment Conservation Rules (1997): The Environment Conservation Rules provide guidelines on declaring an area as ecologically critical, on vehicles emitting smoke injurious to health and otherwise harmful pollution or degradation of the environment.

The Bangladesh Water and Power Development Boards Order, (1972): empowers the Water Board to frame schemes for watershed management. It can direct the owner of any private land to undertake anti-erosion operations including conservation of forests and re-afforestation.

The emerging legislative framework related to community management, social forestry and co-management

Social Forestry Rules (2004, updated 2010 and 2011)

Despite there being provision within the 1927 Forest Act, SPF was not formally recognized as a strategy in Bangladesh until the early 1980s, when Social Forestry (SF) was first introduced. SF projects aimed for the creation and sustainable management of plantation forests by local communities. Farmers also received a share of the revenue from the sale of final products and could use any intermediate products from thinning or other forest operations for fuelwood and other subsistence uses. Many NGOs became involved in SF projects as intermediaries between the FD and local people.

The first SF project in Bangladesh, in the north-west of the country, was completed in 1987 with the support of the Asian Development Bank (ADB) and UNDP. More than 23,000 households have since benefited financially from the sale of timber from social forestry plantations (Muhammed et al, 2005), which cover more than 40,000 ha. Social forestry has now become an integral part of official forest management in Bangladesh (Khan and Begum 1997), and the government codified the rules and regulations regarding social forestry under the Social Forestry Rules (SFR), 2004 (Rasul and Karki, 2007).

The SFR define the roles of stakeholders involved in SF. The Local Community is defined as the interested local peoples who are competent to be selected as beneficiaries under the criteria of Rule 6 of the SFR. The Social Forestry Wing of the FD was established under the SFR as the main implementing agency of the programme at national level, with Divisional Forest Officers (DFOs) being responsible at the district level. Local participants are encouraged to elect 9-member Social Forestry Management Committees (SFMCs) to manage and protect the plantations. However, SFMCs have no decision-making authority. The FD and DFO

identify beneficiaries and appropriate locations for plantation and the SFMC assists in implementing these decisions. An advisory committee has been formed in each participating district, comprising the local DFO, an NGO representative, and a representative from the local SFMCs. Through these advisory committees, SFMCs can request support and contribute ideas and suggestions for plantation management and benefit distribution.

Protected Area Co-management Rules (2013)

In response to the provision of the 1993 Forestry Sector Master Plan (FSMP) for developing new legislation and management strategies related to SPF, the USAID-funded Integrated Protected Area Co-management (IPAC) project was initiated to develop and pilot approaches to co-management of forests and wetlands of national and international significance, including the Sundarbans and the Chonati Wildlife Sanctuary.

Legal Basis for Community Participation and Benefit Sharing

Social/Participatory Forestry (SPF) will be a key tool in REDD+ strategies to address the drivers of deforestation and forest degradation, as well as afforestation and reforestation efforts across the country. The legal basis for SPF and SF is summarised above. Clarification of this legislative framework, and necessary improvements to facilitate mechanisms such as VCF in the CHT and expansion of co-management approaches, will be a central part of the REDD+ Readiness process.

Social Forestry: It is increasingly clear that centralized Forest Management has failed to stop encroachment and settlement of forest land in Bangladesh (see Box 5). The SFR therefore encourages forestry officials to co-opt people living in and around the forest by promoting people's participation and livelihood improvement through reforestation in rural areas. Under the SF programme, the government has established a new legal framework and rules to ensure sharing of forest benefits with local communities on government-owned forest land. The SF programme and related projects are generating a growing body of knowledge and experiences on community participation and benefit sharing and provides a valid model for informing resource distribution under a REDD+ programme.

There is an increasing recognition in Bangladesh that traditional centralized Forest Management has failed to stop deforestation and encroachment of forest land by the human settlers. The role of the people living in and around the forest in addressing deforestation and recovering forest land is now appreciated as an important aspect of forest management. In this regard, GoB's Social Forestry programme has become the medium for reforestation of rural areas, through people's participation and in parallel with livelihood improvement objectives. Under this programme the government has established a new legal framework and rules to ensure local community participation and sharing of the benefits of the forest with the local communities on government-owned forest land.

Social Forestry activities are largely concentrated in plains districts and hill districts outside the CHT (such as Sylhet). Extension of the programme to the CHT is dependent on cooperation with the CHT Hill Councils, which has not yet been negotiated. Projects under the Social Forestry programme are generating a growing body of knowledge and experiences which will be relevant to REDD+ implementation, particularly with regard to local community participation and benefit sharing. Under the Readiness phase, activities related to enhancement of forest carbon stock could be modelled on the success of the Social Forestry programme.

Box 1: Social Forestry in Bangladesh

Community-Based Adaptation (CBA): UNDP's Community-based Adaptation to Climate Change through Coastal Aforestation (CBACC-CF) project is piloting another model of benefit sharing through natural resource management. This project works on CBA in coastal areas with tree plantation, fisheries and

livestock rearing by expanding livelihood options for climate-vulnerable communities. CBACC-CF is supported by the Strategic Priority to Adaptation (SPA) Fund of the Global Environment Facility (GEF).

Co-management: The Integrated Protected Area Co-management (IPAC) project engages local stakeholders through a participatory process, empowering them with decision-making rights and positive incentives, thus promoting their interest and commitment to protection of biodiversity resources. A formal two-tiered institutional arrangement is being developed for co-management of each of the PAs; a Co-management Council of 55 members and a 19-member Co-management Committee (CMC). The effectiveness and sustainability of the system is yet to be independently verified but it has led to legal provisions from the government for sharing revenue earnings from the PA visitor's fee with local community members.

Community-based Forest Management and Co-management

Community based management and co-management are acknowledged globally as approaches for improving the management of common pool natural resources (Thompson). Community Based Organizations [CBOs] are important new actors in natural resource governance and, at the local level, are often empowered to influence the decision making process to reflect their interests and priorities, particularly through CMOs in PAs and VCFs in the CHT districts. It is therefore important to establish to what extent this bottom-up approach to CBFM is reflected in the legislative framework of Bangladesh.

The Forest Act of 1927 explicitly recognizes the possibility of co-management of public and private forest. Section 28 specifically endorses the Village Forest model and the Social Forestry approach. The Social Forestry Rules, 2004 finally recognised this provision and elaborated rules and procedures accordingly. However, the SFR did not explicitly endorse a co-management approach in forest PAs. The Wildlife (Preservation and safety) Act 2012 introduced the concept of co-management of Protected Areas. Trials of participatory approaches and co-management has proceeded faster in other sectors, particularly community based fisheries management, and the concepts developed for the fisheries sector have been applied in water management, disaster preparedness and community-based adaptation (CBA) programmes, as well as the forest sector (Khan, ???). However, The Fish Act, 1950 does not contain any provision on community management or co-management of fisheries resources.

The Forest Policy, 2004 recognized the importance of co-ordination between the Government, NGOs and local communities in order to achieve 'self-reliance in forest products and maintenance of ecological balance.' To realize these objectives, the Policy further stressed:

- involvement of disadvantaged groups, i.e. women, landless and poor communities;
- local government authorities, including municipalities; local federations of private sector bodies;
- self-formed groups, carrying out activities for common benefit;

The 2004 Policy also noted the importance of encouraging afforestation programmes in the denuded hilly areas of the CHT, particularly in the USF areas under the control of the HDCs. It stipulated that both government and private sector afforestation initiatives in the CHT should ensure the participation and rehabilitation of local *jhum* cultivators in cooperation with the Ministry of Land and the Hill Councils, with the aim of securing local land tenure and use rights. Under the Policy, tribal people in the CHT should be granted ownership of a certain amount of forest land through a negotiated settlement process. The rest of the forest land would be brought under permanent protection. However, this settlement process has not yet proceeded according to this provision.

Other policies supporting co-management approaches to natural resource management in Bangladesh include the FD's Nishorgo Vision 2010 (the basis of the draft PA Co-management Rules currently under the approval process), which focuses on co-management and community partnerships as strategies for strengthening the management of PAs. The National Biodiversity Strategy Action Plan for Bangladesh, 2004 (MoEF, 2004) described co-management as, *'the sharing of authority, responsibility and benefits between government and local communities in the management of natural resources'*. This Plan also calls for enhanced PA management, including co-management, and urges the adoption of participatory mechanisms to promote biodiversity conservation, use, and benefit sharing with local communities and other partners. The Poverty Reduction Strategy Paper 2005 and the BCCSAP both explicitly emphasised the importance of participatory natural resource management.

The Social Forestry Rules Amendment 2010 is currently the key legal instrument that ensures local community participation in afforestation activities in the Government Forest land. The SFR are formulated to ensure participation of local community in planning and management of social forestry programmes with clear allocated share of the beneficiaries in the final production. The Rules provide a transparent system of beneficiary selection for the social forestry activities. They also provided institutional arrangements involving FD representatives, beneficiaries, local council representative, ethnic minorities, NGOs and CSOs at national level for policy formulation and consultation.

Carbon Rights

The concept of 'Carbon rights' is completely new to Bangladesh, as it is to all REDD+ participant countries. It is commonly understood as a novel type of property right, but the idea that the carbon in forest ecosystems can be isolated, 'owned', and traded separately from other physical products and ecosystem services creates many philosophical, moral, practical and legal difficulties.

If, however, the owners, managers and users of forest resources will be rewarded, under REDD+, directly on the basis of carbon stocks in their respective forest areas, then Bangladesh must develop a clear system for defining which stakeholders have the right to make decisions which affect forest carbon stocks, and which have the right to benefit from any financial rewards that accrue as a result.

These are complex legal questions, and they are intimately linked to the system of resource distribution (or 'benefit sharing') that Bangladesh will adopt for REDD+ implementation (see later in this Section). During REDD+ Readiness, a thorough study on the meaning of 'carbon rights' in the Bangladesh context will be conducted and, if necessary, transparent rules on the allocation of carbon rights will be developed. This will have implications beyond the Readiness phase, by enabling state or non-state actors to engage in REDD+ with confidence. This will be carried out under the Safeguards WG.

Box: Salient features of the Forest Policy 1994

1. The government shall take all endeavours to bring 20% of land under forest by the year 2015 to maintain the ecological balance and attain self-sufficiency in forest products. To achieve this objective the government shall work jointly with NGOs and ensure people's participation.
2. Since the area under government-managed forest is very limited, afforestation activities shall be extended to village areas; newly reclaimed mud-flat areas and in the denuded areas of USFs in the CHT.
3. People will be encouraged to plant trees on their own fallow and margin all land, on homesteads and on the banks of village ponds. Technical advice and assistance will be provided for agroforestry, as required. While introducing agroforestry on state owned or private land, priority will be given to producing fodder and to maintain

ningherbandshrub cover.

4. GoB will encourage people to plant up in the premises of public institutions like union council offices, schools, idgah, mosques, maktabas, temples, orphanages, madrassas and their surrounding areas. Technical and logistical assistance will be provided.

5. In the state owned margin all lands like the roadsides, railway tracks sides and both the sides of the embankments, the government will undertake afforestation with peoples' participation and with assistance from the NGOs.

6. To ensure pollution control in the cities, the government shall take up special afforestation activities in all the municipal areas of the country. To achieve this goal, the municipalities, town development authorities and other related autonomous bodies shall help the government in the implementation of the programs by way of zoning and allotting land for tree plantation. The town planning authorities must keep provision for tree planting in their development plans by setting aside specific sites for the purpose.

7. In the hill districts of Banderban, Rangamati and Khagrachar massive afforestation programs will be undertaken in the USF (Unclassed State Forest) by public and private agencies. The local government bodies holding the land rights retained by the MoL will execute the program.

8. In order to preserve the soil, water and biodiversity, the natural forests of the hilly areas and the catchments of the rivers within the country shall be declared as Protected Areas, Game Sanctuaries, and National Parks. It will be the endeavour of the government to keep 10% of the national forests as "Protected Area" by the year 2015.

9. An integrated management plan will be prepared for Sundarbans incorporating the management of forest, water and wildlife.

10. State owned hill lands forests will be managed as production forest except those declared as "Protected Areas" for preserving soil, water and biodiversity. The production forests will be managed on commercial basis with due consideration to environment.

11. The critical areas like steep hillslopes, vulnerable watersheds, wetlands will be designated as „forests" and will be managed as Protected Areas.

12. Denuded and encroached government forest lands will be identified and brought under afforestation program with people's participation on benefit sharing approach preferably under agroforestry wherein NGOs may be associated.

13. Modern and appropriate technologies will be introduced as attempt to minimize the loss at all steps of collection and processing of forest products.

14. Emphasis will be laid on the modernization of forest-based industries to maximize the utilization of forestry raw materials.

15. Steps will be taken to bring in competitive and profit-oriented management to the state owned forest based industries under the purview of open market economy.

16. Labor intensive small and cottage industries based on forest products will be encouraged in the rural areas.

17. Forest transit rules will be made simple to meet the present day needs.

18. Since wood deficit exists, the ban on export of logs will continue. Processed wood products can however be exported. Import of wood and wood products will be liberalized, but reasonable import duties will be levied on forest products that are abundant in the country.

19. Due to shortage of forest area in the country, no forest land will be allowed to be used for any purpose other than afforestation, without the permission of the head of the government.

20. In absence of clearly defined land ownership, the tribal people inhibiting adjoining forest lands in some parts of the country, cultivate anywhere in the forest land. Clearly delineated forest land will be set aside for them through forest settlement operation and

the rest will be brought under permanent forest management.

21. Training, technical assistance and financial support will be enhanced towards private afforestation and tree based rural development programs, from the funds received as international grants and from donors.

22. Women folk will be encouraged more in programs such as homestead afforestation, rural tree farming and participatory forestry.

23. Eco-tourism will be encouraged keeping in mind the carrying capacity of the forest and the nature.

24. To create massive awareness about afforestation, protection and utilization of forests and forest products, mass media campaigns shall be taken up both in Government and in Non Government channels.

25. Under forestry programs, fruit tree plantings shall be encouraged in addition to timber, fodder, fuel wood trees and other non wood products, in the habitations.

26. Steps will be taken to modernize the methodology of extraction of forest produce to minimize loss and increase efficiency.

27. Forest Department will be strengthened to achieve the objectives and goals of the policy and a new social forestry department will be established.

28. The research institutions, education and training institutions related to forest will be strengthened to achieve the policy target and their roles will be enhanced and integrated.

29. In the light of the aims, objectives and targets set up in the policy statement the acts and rules related to forestry shall be modified, amended and if necessary new Acts and Rules will be promulgated.

Annex 3: Assessment of forest land area changes in Bangladesh

National experiences

Wall-to-wall Landsat TM satellite imagery was used to identify the land use classes during National Forest Assessment (NFA). With the technical assistance of SPARRSO, RIMS Unit of the FD was engaged to generate the land uses of Bangladesh. The land use maps of Bangladesh for 1996 and 2004 are developed by SRDI using the aerial photo. Base map of 1989 of Survey of Bangladesh; landsat imageries of 1990 and base map of 2001 of Survey of Bangladesh; landsat imageries of 2004 was used to derive the base information, river courses and islands for the land use map of 1996 and 2004 respectively. Table 1 shows the land use maps developed by the organisations of the country.

Table 1: Land use and land cover maps developed for Bangladesh

Title	organization	Scale
Land use map of Bangladesh (NFA 2007)	FD	1:1000,000
		1: 100,000
Land use Bangladesh 1996	SRDI	1: 1,000,000
Land use Bangladesh 2004	SRDI	1: 1,000,000

Sub-national experiences

Preparation of forest maps using aerial photos started in early 1960s in the FD. FD has the experience in forest assessments since mid-1900s. These are mostly focused on forest inventories for determining extent of forest cover, type, and growing stocks, regulations and to feed forest resources information to prepare the forest management plans. **Error! Reference source not found.** shows the different forest areas that were assessed in different time by the FD. There are other government, autonomous and private or trustee organisations such as SPARRSO, BWDB, CEGIS, BCAS etc. are engaged in mapping the land uses by the application of remote sensing. Table represents a list of land use and land cover maps prepared by different organisations in the country.

Table i: List of the land use and land cover maps developed for different areas of Bangladesh

Title	Organisation	Scale
Cox's Bazar Forest Division	FD	1: 650,000
Map of Bhawal National Park	FD	1: 80,000
Map of DudpukuriaDhupachari Wildlife Sanctuary	FD	1:75,000
Map of Himchari National Park	FD	1:50,000

Map of Inani National Park	FD	1: 95,000
Map of Khadimnagar National Park	FD	1: 45,000
Map of Medhakachhapia National Park	FD	1: 25,000
Map of Madhupur National Park	FD	1: 75,000
Map of Remakalenga Wildlife Sanctuary	FD	1: 70,000
Chittagong Hill Tracts	FD	1: 800,000
Digital Elevation Model	IWM	1 cm = 2 km
Map of Sundarban Reserved Forest	FD	1: 200,000
Landuse pattern of Lawachara landscape	BCAS	1 cm = 500 m
Landuse of Teknaf	BCAS	1 cm = 1 km
Proposed sustainable landscape management recommendations of Lawachara	BCAS	1 cm = 500 m
Proposed sustainable landscape management recommendations of Teknaf	BCAS	1 cm = 1 km
Digital elevation model of Hail Haor	BCAS	1 cm = 500 m
Sylhet Forest Division	FD	1: 1,000,000
Mangrove Plantation of Bangladesh	SPARRSO	1 cm = 50 km
Landuse/cover map of Madhupur National Park, 2003	FD	1: 50,000
Landuse/ cover map of Madhupur National Park, 1967	FD	1: 50,000
Landuse map of Dudpukuria Wildlife Sanctuary	FD	1 cm = 2.5 km
Landuse map of Fashiakhali Wildlife Sanctuary	FD	1 cm = 1 km
Landuse map of Rema-Kalenga Wildlife Sanctuary	FD	1 cm = 1 km
Landuse map of Teknaf Wildlife Sanctuary	FD	1 cm = 2 km
Land use maps of Sundarban Forest regions 2010	SPARRSO	1 cm = 20 km
Shore changes in the Sundarban Mangrove Forest (Bangladesh Part, 1973-2010)	SPARRSO	1 cm = 20 km
Land cover map of all existing forest divisions and forest reserves, 2013	FD	At different scale

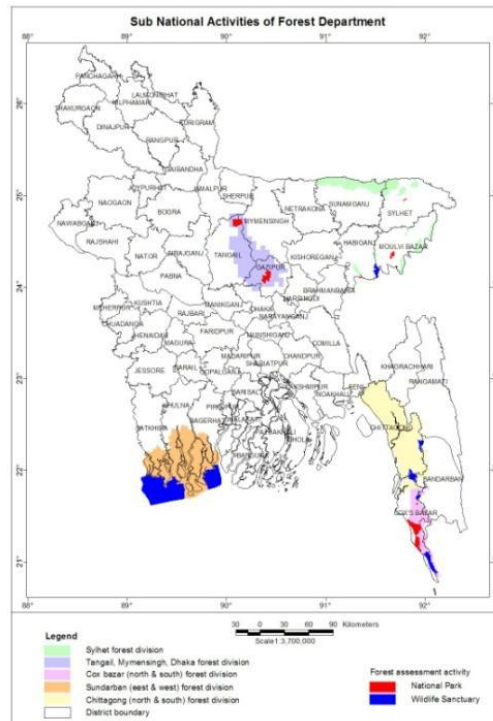


Figure i: Sub national activity of Forest Department using remote sensing

Further progress in developing land use and land cover maps

The forest of Bangladesh is distributed widely and fragmented throughout the country. FD is raising plantations in the hill forest areas. These plantations appear as scattered patches along with the natural forests. Sal forest spread over the Central and Northern districts of Bangladesh. This forest is scattered and intricately mixed with habitations & agriculture fields. Lot of small to large patches of plantations is distributed throughout the coastal areas. Single largest forest patch can only be found in the PAs. Land cover larger scale maps prepared by the FD this year using the high resolution imagery could be used in preparing the management plans for the forest areas. Previously prepared smaller scale maps for the scattered small forest patches could not be used in planning purpose for the areas but larger scale maps of SRF are being frequently used by tour operators, district administration, police, coast guard, Mongla port authority, Navy and other organizations to plan their related issues.

SOB - the national mapping agency, initiated Improvement of Digital Mapping System (IDMS) project (2009-2016) aimed to produce detailed digital topographic maps and geospatial data for the users and stakeholders using very high resolution aerial photography for whole of Bangladesh.

Annex 4a: Experiences in assessing emission factors for the forest sector

Experience from different inventory shows that, inventories are designed mainly based on project requirements and conducted to develop long-term (5-10 years) management plans. Field inventory designs are varied in different interventions. For example, circular cluster plots at 1 minute interval were applied in FRMP inventory (1996-97) throughout the forest areas, whereby NFA (2007) applied 1sq.km sample tracts with 250mX20m rectangle plots at 10 minute and 15 minute interval. A unique inventory design throughout the forest landscapes and over time is crucial.

Permanent Sample Plots

Regarding Permanent Sample Plots (PSPs), hill forest PSPs, set in early 1980s, are no longer available due to heavy biotic interference while 120 PSPs in the Sundarban mangrove are still being maintained with sporadic re-visits based on availability of finance. Largely, there is no regular data collection mechanism available in any of the forest tracts in the country.

At this stage, comprehensive review of existing inventory designs is required while site specific PSPs need to be laid which would provide necessary information for forest management plans development as well as other requirements like assessments of carbon pool. Inventory interval, required funding sources and overall design including satellite as well as ground assessment designs need to be accepted by GoB and other concerned stakeholders.

The national Forest and Tree Resources Assessment of Bangladesh

Country level NFA was undertaken for the first time during 2005-07 with the technical assistance of FAO. The NFA was designed under “Strengthening capacity to generate quality information on forest resources” project of FD.

Topographical sheets of 1: 50,000 scale maps produced by the Survey of Bangladesh were used to delineate the tracts. 299 tracts were identified and they were systematically distributed throughout the country at an interval of 15 degrees latitude and 10 degrees longitude. A globally harmonised classification system was developed and five major land use classes were identified for the inventory. Finally, 29 land use classes were identified for field data collection. Field data collection comprises multiple functions of forests and trees, covering their socio-economic, environmental as well as productive functions, associated with a wide range of variables and collected using different methods. A group of trained field crews collected the data. Wall-to-wall Landsat TM satellite imagery was used to identify the land use classes. Ground truth data was collected to classify the imagery. The country was divided into four parts and the images were accordingly mosaicked. These mosaics were used for visual interpretation of the land use types and on screen digitization was carried out to separate the classes. Accuracy was not checked for the classified images.

The forest Carbon inventory for the natural mangrove

FD has an experience on carbon inventory on SRF under the USAID-funded IPAC project during 2010. For this carbon inventory, a Tier 3 approach (IPCC guideline) was considered. The carbon inventory methodology

followed a similar sampling design and data collection methodology that was used in forest inventory of 1995 for the forest. Systematic sample grids and a clustered plot composed of five circular subplots were employed for data collection. 150 plots were measured to calculate the carbon. Trees, non-tree vegetation, dead wood, and soil were measured for the forest. Several trained inventory team collected the data from the forest. Strict precautionary measures were taken in the process of data collection and data entry to minimize errors. Aboveground and root Carbon pools were computed using both locally derived allometries (via destructive harvests of various shrub species outside the plots) and international standard common mangrove tree allometries combined with local tables of wood density by tree species. Soil C storage was calculated as the product of soil Carbon concentration, soil bulk density, and soil depth range. FD staffs and other team members were trained on field data collection, data recording, standardized measurement procedure/techniques, field plot layout, soil sample collection by the project prior to starting the inventory.

Chunoti Wild Life Sanctuary Carbon Inventory

Chunoti carbon inventory was conducted during 2008 by Inventory Division of BFRI. Soil organic carbon, above-ground biomass, below-ground biomass, and on-ground biomass were measured for the WS. Trained crews were collected the data. FD and Co-management Committee (CMCs) staffs were included in the inventory team for data collection. Growing stocks were estimated for each of seven identified land-use categories by using the field data and growing stock models as developed by the Forest Inventory Division of BFRI. Carbon sequestration rates were then estimated by following the methods as developed under CDM/IPCC procedures. Soil carbon analyses were done in the laboratory of the Soil Sciences Division of BFRI.

The forest inventory data was analyzed for estimating growing stock in terms of volume, biomass and carbon stock changes in baseline and mitigation scenario for different reforestation technologies. The use of volume equations for different tree species as developed by BFRI was examined for their application.

Forest carbon inventory for protected areas

USAID funded IPAC project of FD conducted Carbon inventory for other six PAs. Tier 3 approach (IPCC guideline) was adopted for field inventory and carbon assessments. Clustered plot composed of five circular subplots was employed to collect tree, non-tree vegetation, leaf litter, dead wood data and forest soil by trained field crews. Total number of plots was estimated for different PAs as: 41 plots for Medakchapia NP, 72 plots for Fasiakhali WS, 62 plots for Dudpukuria-Dhopachari WS, 56 plots for Inani forest reserve, 35 plots for Sitakunda hill reserve and 54 plots for Teknaf WS. Variable square grids with appropriate minute intervals were laid out on the maps by RIMS Unit depicting these plots. Plot locations were set systematically.

Aboveground and root carbon pools were computed using both published documents mainly of the BFRI and FD and locally derived allometries (via destructive harvests of various shrub species outside the plots). Local tables of wood density by tree species as published by the BFRI were used in estimation of biomass whereas internally accepted conversion factors were used for the estimation of carbon. Soil carbon analyses were conducted in the laboratory of the soil sciences division of the BFRI.

Regional activities on forest inventories

Meanwhile FD strengthens its capacity towards to conduct carbon inventory for the forest areas. The South Asian Association for Regional Cooperation (SAARC) arranged a five day international training workshop that conducted by the FD's trained staff to disseminate the carbon inventory methodology to the international community.

Assessment of volume and biomass using allometric equations

The accurate measurement of above-ground forest biomass and carbon stocks requires destructive sampling, which is an expensive and time-consuming process. Tree felling and measurements are sometimes difficult and need administrative approval due to the prohibition of felling. Allometric equations are often used in the estimation forest volume or biomass. Bangladesh Forest Research Institute (BFRI) has developed allometric equations for commercially important tree species in Bangladesh. Khulna University has developed two allometric equations for the mangrove species. The accuracy of such estimation relies on the accuracy of those relationships. Moreover, the respective equations are not available for all the species found in the natural forests in Bangladesh, because the forests located in the tropical regions are very rich in biodiversity. So, generic equations developed for mixed species needs to be utilized, which will incur a certain degree of errors.

The second problem of using allometric equations in Bangladesh is that many allometric equations are developed forest volume estimation rather than biomass estimation. So, it needs to estimate forest volume first and then converted to biomass using wood density ratio, whenever available. These ratios vary with species, the portion of wood, either sapwood or heartwood, from stem or branches, or even with the geographical position. The ratios are not available for all the species available in the forests of Bangladesh. In this situation, it needs to use a generic constant ratio, which will incur errors as well.

Annex 4b: Experiences in developing the GHG inventory

Bangladesh as a Non-Annex-1 country party to the UNFCCC has to prepare a national Communications to the Conference of the Parties in accordance with article-4, paragraph-3 of the convention. The Department of Environment under the Ministry of Environment and Forests prepared its Initial National Communication and Second National Communication and submitted to the UNFCCC in October 2002 and November 2012 respectively. Preparation of Third National Communication is under process under the DoE with the GEF funding. At present DoE prepares the national communication with the support of different research organization and experts.

Initial National Communication

Bangladesh has prepared its Initial National Communication (INC) and this includes the National Circumstances; Greenhouse Gas Inventory (for 1994), Vulnerability and Adaptation, Mitigation and Climate Change Response Strategies. According to this communication report, the main areas of GHG generation are energy, industrial process, agriculture, land-use change and forestry and waste sectors. The national GHG inventory was carried out for a base year 1994 following “Sectoral Approach” of revised IPCC guideline 1996. The Initial communication report exhibits that in Bangladesh, CO₂ emission has been the largest from the energy sector (62.74%) followed by land-use changes and forestry sector (32.26%) respectively(MoEF 2002).

According to the INC report, total carbon uptake was 6155.73 Gg and carbon released was 8293.36 Gg in 1994. That means that there is a net Carbon emission of 2137.62 Gg, which is equivalent to 7837.97 Gg of CO₂ emissions from Land Use Change and Forestry sector (MoEF 2002).

Second National Communication

Bangladesh prepared Second National Communication (SNC) through a project funded by the Global Environment Facility (GEF) through the UNDP Bangladesh. The SNC has made an inventory of Green House Gas emission for the year 2001 and 2005. Five major activities were covered under the inventory, which include: (i) Energy (including biomass burning, transport sector, etc.); (ii) Industry (cement manufacturing, fertilizer, pulp and paper, etc.); (iii) Agriculture (ruminant livestock, livestock and manure management, wet rice cultivation, etc.); (iv) Waste and refuse management (municipal waste, waste water treatment/ management, etc.); (v) Land Use Change and Forestry (change in forest cover and woody biomass, change in forest land use, etc.). The report contains National Circumstances, Greenhouse Gas (GHG) Inventory, Programmes containing measures to mitigate climate change, Vulnerability and Adaptation and the lines of research, education and systematic observation specific to the topic.

According to the report of SNC, for change in forest and otherwoody biomass stocks, the base data on forest products of Bangladesh reported from 2003-2004 to 2007-2008 were collected from the website

and headquarter of Bangladesh Forest Department. ForSNC, the estimation of emissions from Land Use Change and Forestry (LUCF) focused on four sub-sectors which are sources or sinks of carbon dioxide. These sectors are: (a) change in forest and other woody biomass stocks; (b) Forest and grassland conversion; (c) Abandonment of managed lands; (d) Change in soil carbon(MoEF 2012).

According to the report of SNC, there is a decreasing trend in the carbon dioxide emission in the LUCF sector during 2000/01 – 2004/05 years. Total carbon emission due to LUCF was 28418.97 Gg in 2000/01 and 18205.52Gg in 2004/05. This decreasing trend may be attributed to the increase in the social forestry(MoEF 2012). The energy sector faced a rise of emission from 30,233 Gg in 2001 to 37,950 Gg in 2005.