



Royal Government of Bhutan

Forest Carbon Partnership Facility Grant

Mid-Term Review and Request for Additional Funding

Final Report

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Thimphu, Bhutan

Preface

The Royal Government of Bhutan is pleased to submit the Mid-Term Review (MTR) report as required under the Forest Carbon Partnership Facility (FCPF) REDD+ Readiness Grant Agreement. The Royal Government of Bhutan is also requesting additional funding to support key components for the country's REDD+ Readiness process.

This document is being submitted as per Section 6.3(b) of the FCPF Charter and Resolution PC/7/2010/3, that requires a REDD Country Participant to submit a midterm progress report to the FCPF Participants' Committee.

The MTR was prepared by an independent international consultant (Nelson Gapare) based on the Terms of Reference attached as an annex to this report. The approach and methodology used to carry out the MTR closely follows the FCPF assessment guidelines and are in line with Bhutan's R-PP submission. The MTR is based on interviews, project reports, technical documents, media products and material made available to the Consultant. The Bhutan REDD+ Secretariat would like to extend its appreciation of the Consultant's work, insights and the diligence in the preparation of this report.

The progress made by Bhutan in its REDD+ Readiness process would not have been possible without the support of the FCPF grant and the significant contribution and support of the Facility Management Team.

The Royal Government of Bhutan would be delighted with a positive decision of the FCPF Participants' Committee for Additional Funding to enable Bhutan REDD+ to continue its momentum to complete readiness and to transition to implementation, including completion of its implementation framework to access results based finance for emission reductions.

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Acronyms

BPC	Bhutan Power Corporation
CF	Community Forest
CFMG	Community Forest Management Group
CO ₂ e	Carbon dioxide equivalent
DoFPS	Department of Forests and Park Services
ESMF	Environmental and Social Management Framework
FAO	Food and Agricultural Organization
FCPF	World Bank's Forest Carbon Partnership Facility
FGRM	Feedback and Grievance Redress Mechanism
FMU	Forest Management Unit
FPED	Forest Protection & Enforcement Division
FREL/REL	Forest Reference Emission Level/Reference Emission Level
FRMD	Forest Resource Management Division
GAO	Geog Administration Officer
GEAO	Geog Extension Agriculture Officer
GEFO	Geog Extension Forest Officer
GHG	Greenhouse Gas
GNHC	Gross National Happiness Commission
INDC	Intended Nationally Determined Commitment
IPCC	Inter-Governmental Panel on Climate Change
MoAF	Ministry of Agriculture and Forests
MRV	Monitoring, Reporting and Verification
MTR	Mid-Term Review
NEC	National Environment Commission
NFI	National Forest Inventory
NFMS	National Forest Monitoring System
NLC	National Land Commission
NGO	Non-Governmental Organizations
NRDCL	Natural Resources Development Corporation Ltd
NRED	Nature Recreation & ecotourism Division
PES	Payment for Ecosystem Services
PPD	Policy and Planning Division
REDD+	Reducing emissions from deforestation and forest degradation in developing countries, and the role of conservation, sustainable management of forest and enhancement of forest carbon stocks
RGoB	Royal Government of Bhutan
RNR	Renewable Natural Resources
R-PP	REDD+ Readiness Preparation Proposal
SESA	Strategic Environmental and Social Assessment
SRF	State Reserve Forests
TFD	Territorial Forest Division
TWG	Technical Working Group
DzFS	Dzongkhag Forestry Sector
UNFCCC	United Nations Framework Convention on Climate Change
WMD	Watershed Management Division

Executive Summary

The Royal Government of Bhutan (RGoB) is a signatory to the United Nations Framework Convention on Climate Change (UNFCCC) and is a REDD+ partner country. The objective of REDD+ is to reduce emissions from deforestation and forest degradation and the conservation, sustainable management of forests and enhancement of forest carbon stocks. REDD+ participant countries shall be eligible for results based payments for verifiable emission reductions and/or enhanced carbon stocks.

Prior to seeking such results based payments, the Bhutan REDD+ Programme has to establish a national framework. The key elements of such a national framework include institutional and implementation arrangements, a national REDD+ strategy, national forest reference emission level, national forest monitoring system, and a safeguards information system.

This mid-term review (MTR) of Bhutan's Readiness Preparation Proposal (R-PP) provides an overview of the progress made in the implementation of the R-PP. The focus is on the level of progress made in achieving the four main components of the R-PP and their respective sub-components. The MTR also assesses and analyses progress achieved in those activities that are financed by the FCPF grant of US \$3.8 million and requests for Additional Funding of **US\$ 4,800,000**. To date, Bhutan has committed **US\$ 2,169,319** (57.08 %) of the FCPF grant.

Among REDD+ countries, Bhutan is a unique case because of several factors. Bhutan is a small landlocked country located in the Eastern Himalayas. It has a geographical area of 38,394 square km and a population of 0.734 million. The country is characterized by fragile mountainous ecosystems with elevations ranging from about 130 meters in the foothills to over 7,500 meters along the main ridge of the Himalayas, within just 170 km. The most dominant land cover is forest, making up 70% of the land area.

Bhutan's economy is highly reliant on its natural resources particularly renewable hydropower energy therefore the motivation for sustainable natural resources management is not driven just by REDD+, but a much stronger socio-economic imperative. The Constitution of Bhutan enshrines protection and conservation of the environment and mandates the maintenance of 60% forest cover in perpetuity. Over the years, a set of strong laws and policies have evolved to ensure the protection, management and sustainable use of forests.

Progress with the R-PP is substantial - The main goals and objectives of the Bhutan REDD+ Readiness Programme are to prepare the country to engage in, and benefit from results based payments; strengthen existing forest policy and management systems, information, data, participation, methods, and other human and institutional capacity for management and development of forests in Bhutan.

The country's rich forest cover provides opportunities to build technical capacity for sustainable resource management and for potential benefits from REDD+ post-2020 that will support conservation efforts. The Intended Nationally Determined Contributions (INDC 2015) of Bhutan place special emphasis on forests for climate change mitigation and emphasize sustainable forest management as a cornerstone for maintaining the country's carbon neutral commitment. The sequestration capacity of the large area of forest makes the country a net sink for greenhouse gases.

There are multiple legislative and policy instruments essentially geared towards the development philosophy of Gross National Happiness (GNH), maximizing human well-being instead of economic profit. The policies are translated and implemented through Five Year Plans (FYP). The 11th FYP began implementation in August 2013 after being endorsed by the National Assembly. The vision that guides this plan emphasizes self-reliance and inclusive green socio-economic development.

The Department of Forests & Park Services (DoFPS) is implementing three programs in the 11th Five Year Plan (sustainable Management of State Reserve Forests (SRF), sustainable management of forest landscapes and conservation of biodiversity, and integrated watershed management to ensure

sustainable environmental service delivery), and REDD+ activities cut across all three programs. DoFPS expects to be ready for implementing REDD+ activities by the end of the 11th FYP in 2018.

The R-PP in Bhutan started in July 2014 and is scheduled for completion by December 2018 focusing on three major components:

- REDD+ Leadership Development
- REDD+ Information Infrastructure
- REDD+ Management

Each of the components is broken down into sub-components under the R-PP framework. In the event of receiving additional funding, the schedule for completing by the end of 2018 may need to be reviewed once a work plan is in place.

With regards to progress on the R-PP, this MTR comes roughly fifteen months after the commencement of the first activities. The R-PP is set against a backdrop of strong significant national constitutional and legislative focus on sustainable management of the country's natural capital. The interim results of the analysis of land use and land change over the last twenty years indicates that Bhutan is somewhat unique for REDD+ in that there is a marginal increase in forest cover but with an increasing degradation trend due to a range of drivers. The progress with the R-PP is therefore substantial. The existing strong foundation for environmental conservation and management constitute effective building blocks that would enable accelerated progression and completion of the REDD+ Readiness Phase over the next few years subject to additional financial support.

With regards to RPP progress, under **Component 1** – the Institutional arrangement for REDD+ is already in place with well-defined roles and responsibilities. The Gross National Happiness Commission, (GNHC) is the central government body for coordinating and spearheading planning and policy formulation. The National Environment Commission (NEC) is a high-level policy decision making body on matters related to environmentally sustainable development and the development of measures to integrate environmental management into the overall development process. DoFPS is the main agency responsible for developing and implementing strategies and policies for conservation and sustainable management of State Reserve Forests (SRFs). DoFPS implements its various SRF-related programs through its functional divisions in Thimphu and field division offices located across the country.

The NEC is also the focal agency for the UNFCCC. As part of its responsibility to produce Bhutan's National Communications (NCs) and Biennial Update Reports (BURs), the NEC also reports on Bhutan's REDD+ actions to the UNFCCC. The NEC is the overall National GHG Coordinator and each sector provides the required data to the NEC for national and international reporting.

Local governance is structured around 20 Dzongkhags containing 205 Geogs. The DoFPS field divisions and offices spread across all 20 Dzongkhags implement forestry plans and programs including service delivery such as rural timber and other forest products. Dzongkhag administrations will be collaborators in the preparation and implementation of the REDD+ programme.

The Tarayana Foundation (a CSO which works primarily with remote and distinctive communities) is represented in the REDD+ Task Force and has been an active participant in the REDD+ Readiness process. The REDD Secretariat is currently finalizing an analysis of Drivers of Deforestation and Forest Degradation and the Foundation is organizing consultations on Drivers of Deforestation and Forest Degradation with their constituent communities as a contribution to the process. This will enable the voice of remote communities to be heard in the national process. Other NGOs including the Royal Society for Protection of Nature (RSPN) and Bhutan Trust Fund for Environmental Conservation are also represented in the Technical Working Group (TWG) and contribute to the REDD+ readiness process.

Under Component 2, the RGoB has already started the process of preparing the National REDD+ Strategy. However, the building blocks necessary for preparing a national REDD+ Strategy are well-advanced building on the work done to date. The analysis of land use and land use change is complete while the study on drivers and agents of deforestation and forest degradation is in the finalization stage leading to national validation. Existing regulations, policies and measures are well set to enable successful REDD+ and general climate change mainstreaming. However, some additional policy enhancement is necessary to ensure that these building blocks result in a robust national strategy to complement and contribute to the underpinning philosophy of Gross National Happiness (GNH).

Opportunities exist to leverage the strategic works undertaken thus far on watershed analysis to identify degraded and critical watersheds and develop watershed management plans “in the context of climate change”. These and other management plans such as FMUs, CF, Parks and local area management plans will facilitate implementation of activities to enhance resilience of social and biophysical systems to withstand shocks, including those associated with climate change. This approach could be used as a platform for sub-national REDD+ Actions Plans.

There is limited data and information to provide robust analysis of land use issues because the current monitoring framework has many gaps including ineffective data collection and reporting. With better data collection and integration, there is an opportunity for more informed and evidence-based land use planning and allocation which is likely to reduce the observed forest degradation. There are competing sectoral development goals exerting pressure on the land, but there are also weaknesses in cross-sectoral planning and coordination. National guidance on master planning and how to evaluate sectoral trade-offs is currently missing due to the lack of a national land policy. There is an opportunity to facilitate the development of a national land policy, including land use planning and zoning, to address and respond to the interlocking aspects between different laws and statutes and across all relevant sectors. Such an instrument could provide the necessary balance for socio-economic development and conservation imperatives enshrined in the National Constitution. The National Land Commission (NLC) is already emphasizing the importance of such policy/planning guidance because of the emerging trends in land use, increased urbanization and climate change. The REDD+ Readiness process is the ideal opportunity to kick start this concept following the interest and need expressed by the NLC to have the draft land policy approved and to initiate spatial land use planning and zoning.

Under Component 3, Designing of FREL/REL has commenced with completion of the first National Forest Inventory (NFI) and the data is available for analysis. There is additional historical data to support the preparation of FREL/REL noting that the RGoB has already submitted two National Communication Reports to the UNFCCC. According to the second national GHG inventory, Bhutan is a net sink for greenhouse gases. The estimated sequestration capacity of forest is 6.3 million tons of CO₂ while the emissions for year 2000 were only 1.6 million tons of CO₂ equivalent. This is largely due to the large area of forest, low levels of industrial activity and almost 100% electricity generation through hydropower. However, the Drivers study highlights that there has been an increasing trend of degradation over the last fifteen years and as such, REDD+ is crucial to improving the carbon mitigation potential of the forestry sector.

Although the highest emissions are from the agriculture sector, they have more or less remained constant, but emissions from sectors such as industrial processes and transport are showing a rapidly increasing trend. During the period 2000-2013, emissions from the energy sector increased by 191.6% from 0.27 million tons of CO₂e in 2000 to 0.79 million tons of CO₂e in 2013. During the same period, emissions from industrial processes increased by 154.3% from 0.24 million tons of CO₂e to 0.6 million tons of CO₂e. Emission from waste management also increased by 247.54% from 0.047 million tons of CO₂e to 0.16 million tons CO₂e.

Under Component 4 - Work under this component is progressing well. Bhutan developed a National Forest Monitoring System Action Plan (NFMS-AP) using targeted funding support from the UN-REDD

Programme and this was completed and validated in January 2015. The Action Plan conceptualizes institutional arrangements for MRV with two main objectives as follows;

- To monitor the health and state of Bhutan’s forests for enabling long-term conservation and sustainable forest management, and uphold the Constitutional requirement of maintaining 60% forest cover in perpetuity;
- To generate accurate and holistic data on forest area and carbon stock changes in a transparent and consistent manner using globally accepted methodologies for national and international reporting.

Bhutan has received support from FAO as part of the BMU-ICI FAO-INPE REDD+ Project and the UNREDD Programme to work with Collect Earth¹ - a tool that enables data collection through Google Earth. This has enabled Bhutan to assess IPCC LULUCF and REDD+ reporting while supporting the development of the NFI in carrying out field measurements. To date, a total of 9677 one hectare plots have been laid out across the country on a 2km x 2km grid including 2424 NFI plots on a 4 x 4km grid. The first NFI started in 2012 and has now been completed with the results published and will enable the setting of FREL/REL. Likewise all necessary documentation including standard operating procedures (SOP) for field measurements have been prepared.

Overall R-PP Progress - Table 1-1 outlines the overall progress which this MTR describes as substantial (considering the short time period of actual activity implementation). The significant presence of essential building blocks would accelerate REDD+ Readiness within a short space of time if additional financial resources are made available. This assessment is based on feedback from assessment of work plans, outputs and stakeholder interviews.

Table 1-1: Summary Overview of Progress

Progress Indicator Key (Traffic Light System)

	Significant progress		Progressing well, further development required
	Further development required		Not yet demonstrating progress

	R-PP Components, Sub-components, and Progress Indicators	Level of Progress			
		Red	Orange	Yellow	Green
1	Readiness Organization and Consultation				
1a	National REDD+ Management Arrangements				
	1. Accountability and transparency				
	2. Operating mandate and budget				
	3. Multi-sector coordination mechanisms and cross-sector collaboration				
	4. Technical supervision capacity				
	5. Funds management capacity				
	6. Feedback and grievance redress mechanism				
1b	Consultation, Participation, and Outreach				
	7. Participation and engagement of key stakeholders				
	8. Consultation processes				
	9. Information sharing and accessibility of information				
	10. Implementation and public disclosure of consultation outcomes				
2	REDD+ Strategy Preparation				
2a	Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance				

¹ <http://www.openforis.org/tools/collect-earth.html>

	11.	Assessment and analysis						Green
	12.	Prioritization of direct and indirect drivers/barriers to forest carbon stock enhancement						Green
	13.	Links between drivers/barriers and REDD+ activities						Green
	14.	Action plans to address natural resource rights, land tenure, governance					Yellow	
	15.	Implications for forest law and policy					Yellow	
2b	REDD+ Strategy Options							
	16.	Selection and prioritization of REDD+ strategy options				Orange		
	17.	Feasibility assessment	Red					
	18.	Implications of strategy options on existing sectoral policies	Red					
2c	Implementation Framework							
	19.	Adoption and implementation of legislation/regulations				Orange		
	20.	Guidelines for implementation					Yellow	
	21.	Benefit sharing mechanism				Orange		
	22.	National REDD+ registry and system monitoring REDD+ activities	Red					
2d	Social and Environmental Impacts							
	23.	Analysis of social and environmental safeguards issues					Yellow	
	24.	REDD+ strategy design with respect to impacts	Red					
	25.	Environmental and Social Management framework				Orange		
3	Reference Emissions Level/Reference Level							
3a	Improved subnational capacity for REDD+ implementation							
	26.	Demonstration of methodology				Orange		
	27.	Use of historical data, and adjusted for national circumstances					Yellow	
	28.	Technical feasibility of the methodological approach, and consistency with UNFCCC/IPPC guidance and guideline	Red					
4	Monitoring Systems for Forests and Safeguards							
4a	National Forest Monitoring System							
	29.	Documentation of monitoring approach				Orange		
	30.	Demonstration of early system implementation				Orange		
	31.	Institutional arrangements and capacities						Green
4b	Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards							
	32.	Identification of relevant non-carbon aspects, and social and environmental issues					Yellow	
	33.	Monitoring, reporting and information sharing				Orange		
	34.	Institutional arrangements and capacities					Yellow	

Background

As a participating country, the Royal Government of Bhutan (RGoB) has received an amount of US\$3.8 million from the FCPF for implementing its REDD+ Readiness as stipulated in the FCPF Readiness Preparation Proposal (RPP). Bhutan envisages that participation in the REDD+ mechanism has the potential to generate carbon revenues as well as non-carbon co-benefits. REDD+ implementation can contribute to Bhutan's sustainable development through improved management of forest resources, forest law enforcement and governance. Being "ready" for REDD+ will entail increased capacity to coordinate and harmonize sector policies with the view of mitigating future impacts on forest cover, while ensuring that benefits from forests flow to forest dependent communities and stakeholders that invested in actions to address deforestation and forest degradation.

Bhutan is a small landlocked country located in the Eastern Himalayas. It has a geographical area of 38,394 square km and a population of 0.734 million. The country is characterized by fragile mountainous ecosystems with elevations ranging from about 130 meters in the foothills to over 7,500 meters along the main ridge of the Himalayas, within just 170 km. The most dominant land cover is forest, making up 70% of the land area.

With a per capita income of US\$ 2,611 as of 2014, Bhutan falls in the low middle income group. Bhutan's economic development policy continues to be guided by the overarching philosophy of Gross National Happiness based on the four pillars of sustainable economic development; preservation and promotion of culture and tradition; conservation of environment; and good governance.

The Constitution of Bhutan enshrines protection and conservation of the environment and mandates the maintenance of 60% forest cover in perpetuity. Over the years, a set of strong laws and policies have evolved to ensure the protection, management and sustainable use of forests. This regulatory framework is essentially geared towards the development philosophy of Gross National Happiness (GNH), maximizing human well-being instead of economic profit. The policies are translated and implemented by the Royal Government of Bhutan (RGoB) through Five Year Plans (FYP). The 11th FYP started in 2013 following endorsement by the National Assembly. The vision that guides this plan emphasizes self-reliance and inclusive green socio-economic development. The Department of Forests & Park Services (DoFPS) is implementing three programs in the 11th FYP as follows:

1. Sustainable Management of State Reserve Forests (SRF)
2. Sustainable management of forest landscapes and conservation of biodiversity
3. Integrated watershed management to ensure sustainable environmental service delivery

The R-PP in Bhutan started in July 2014 and is scheduled for completion by December 2018 focusing on three major components in line with the R-PP thematic components as follows:

- REDD+ Leadership Development
- REDD+ Information Infrastructure
- REDD+ Management

The specific project objective is to establish necessary mechanisms, as per the CANCUN agreements, to enable Bhutan to participate and benefit from long term financing under REDD+ and climate change mechanism. This involves: setting up national institutional arrangements; carrying out local stakeholder consultations; capacity building; designing monitoring, reporting and verification (MRV) and national carbon accounting systems; developing reference emission levels and benefit sharing, safeguard and grievance mechanisms.

REDD+ is expected to contribute to achieving Bhutan's obligations to contribute to global low carbon emission development and sustainable development agenda while responding to commitments under the (Intended) Nationally Determined Contributions (I)NDCs.

Bhutan is currently preparing to start developing its National REDD+ Strategy and associated Action Plans. In addition to the REDD+ NS-AP which will include the Policies, Measures and Actions (PAMs) to be implemented for REDD+, the readiness process will include the development of a National Forest Monitoring System, Forest Reference Emission Level and safeguard measures, measures for equitable sharing of REDD+ benefits, fund mobilization and grievance redress mechanism for the identified REDD+ policies and measures. The next sections outline progress against the R-PP components and FCPF grant.

The Midterm Review

The focus of this MTR is on the progress made in achieving the four main components of the R-PP and their respective subcomponents. The MTR also analyses progress achieved in those activities financed by the FCPF grant.

Prior to seeking such results based payments, the RGoB must establish a REDD+ implementation framework. The key elements of the framework include a national REDD+ strategy, national forest reference emission level (FREL), NFMS, and a safeguards information system. The readiness phase must engage meaningfully with all relevant stakeholders in a transparent, inclusive, and participatory manner.

The RGoB commissioned an external MTR to provide an overview of the progress made in the implementation of the R-PP. The submission of the MTR, includes a request for Additional Funding to support a set of important activities that will accelerate Bhutan's REDD+ readiness. The preparation of this MTR involved extensive documentation review, stakeholder interviews and regional stakeholder consultations. The MTR consultant attended two regional REDD+ awareness and consultation workshops and one national workshop.

Two regional workshops were held in Gelephu and attended by participants from the Eastern and South Central Regions of Bhutan. These workshops were attended by a range of stakeholders representing sectors including forestry, agriculture, tourism, hydropower, energy, transport, national parks civil society, NGOs. In addition to the departmental and divisional meetings and interviews, high level meetings were held with the National Environment Commission and the Gross National Happiness Commission.

R-PP Progress

The Bhutan R-PP builds on solid foundations in environmental, forestry and land use policies and institutional arrangements that are pre-existing and substantially contribute to REDD+ readiness. This MTR comes roughly fifteen months after the commencement of the first FCPF grant activities and the RGoB has spent 57.08 % of the grant as outline in Table 8-1.

The MTR finds REDD+ implementation in Bhutan to be substantial and progressing well, with significant evidence of government commitment and ownership. REDD+ falls within the broader context of the RGoB's plans and programmes, including its climate change commitments. The RGoB prepared an Operations Manual (OM), which summarizes the intended arrangements agreed with the World Bank for the implementation of REDD+ Readiness Program. It is intended to be a reference document for project partners, documenting the key steps and requirements such as procurement, financial management, disbursement and monitoring arrangements.

The overall goal of the Bhutan R-PP is to complement RGoB's vision of an inclusive green economy and climate change commitments. It will do this by preparing Bhutan to engage in and benefit from the potentially emerging performance-based system from REDD+ within the context of the international climate negotiations of the UN Framework Convention on Climate Change (UNFCCC). Such a performance-based payment system (reduction of emissions) is based on environmentally and socially sound policies and programs to reduce deforestation and forest degradation, a credible and marketable reference level (forest carbon emission "baseline" scenario) and technically robust systems of forest monitoring and emissions reporting. The R-PP will also strengthen institutional capacity and existing forest policies to improve management of forests in Bhutan.

Progress towards readiness activities is indicated through the following indicators:

- a. Institutional set up needed to make REDD+ fully operational.
- b. Thorough assessment of drivers of deforestation and forest degradation at national level completed and the report publicly available
- c. A National REDD+ Strategy developed and publicly available
- d. National Forest Monitoring System developed for both carbon and non-carbon benefits integrating GIS/RS and ground based forest inventory data
- e. National level Reference Emission Level/Reference Level established to serve as baseline to measure all future emission reductions
- f. Strategic Environmental and Social Assessment (SESA) of REDD+ conducted, and Environmental and Social Management Framework (ESMF) developed.
- g. Grievance Redress Mechanism for REDD+ established
- h. Knowledge and awareness of relevant stakeholders on REDD+ Readiness enhanced.

Progress with Institutional Arrangements – significant progress has been made as the necessary institutional arrangements for REDD+ implementation are in place with national level institutional roles and responsibilities well defined. The WMD and FRMD under the DoFPS within the Ministry of Agriculture and Forests are the lead implementing agencies working in close collaboration with other functional Divisions under the Department and field offices. A National REDD+ Task Force and three Technical Working Groups as well as a REDD+ Secretariat are in place to support the implementation of the R-PP.

The National Environment Commission (NEC) is responsible for the development of measures to integrate environmental management into the overall development process as well as being the UNFCCC Focal Point. The NEC is the overall National GHG Coordinator and each sector will feed the required data to NECS for national and international reporting (National Communications (NCs) and Biennial Update Reports (BURS)). DoFPS is the main agency responsible for developing and implementing strategies and policies for conservation and sustainable management of SRFs. DoFPS implements its various SRF-related programs through its functional divisions in Thimpu and field division offices located across the country.

Preparation of National REDD+ Strategy and Options - The preparation of the National REDD+ Strategy is progressing well with key building blocks already at an advanced stage. The analysis of land use and land use change is complete while the study on drivers and agents of deforestation and forest degradation is in the final stages of stakeholder consultation and national validation. The results of the deforestation and forest degradation analysis indicates that there has been net gain of about 12% in forest cover over the last 15-years at annual rate of 0.8%. The identified main drivers of deforestation are SRF allotment for various purpose, hydropower projects development, agriculture and others. However, there seems to be more degradation over the same period driven largely by timber harvesting, firewood, forest fires and livestock. It is reported that there is no distinguishable pattern in degradation between 2000 and 2010 but between 2010 and 2015 some patterns emerged with forest degradation followed by forest loss located along the southern border of Bhutan as well as along valley bottoms while the major areas of forest gain can be clearly observed in high altitudes in the north.

The prioritization of the direct and indirect drivers of deforestation and forest degradation is almost complete while the links between these drivers and REDD+ activities have also been articulated in the draft analysis. There is already a clear understanding of the links between the drivers, barriers and REDD+ activities which have been articulated in various reports. Discussions are already underway to identify gaps in existing regulations, policies and measures, which, are in a way already well set to enable successful REDD+ and general climate change mainstreaming.

Reference Emissions/Reference level - Significant progress has already been made towards developing data and necessary background analysis to establish baselines. The first NFI field data collection was completed in December 2015 and with help of FCPF grant, experts from FAO were engaged to help the NFI team in data migration, cleansing and harmonization amongst others. Further, a roadmap was prepared for completion of analysis of the NFI data. The FRMD has finalized the first report of NFI with information on forest cover and growing stock amongst others. The report will be launched any time soon and is one of the major milestones of the Department and the Ministry

The work on development of FREL and MRV has already been contracted out. This will help in further analysis and generation of reports from NFI data and also help in capacity building of the NFI team in FRMD. NFI database management system will also be established simultaneously.

The RGoB has already submitted two National Communication Reports to the UNFCCC and as per the second national GHG inventory, Bhutan is a net sink for greenhouse gases. The estimated sequestration capacity of forest is 6.3 million tons of CO² while the emissions for year 2000 are only 1.6 million tons of CO² equivalent. This is largely due to the huge areas of forest cover, low levels of industrial activity and almost 100% electricity generation through hydropower.

Monitoring Systems for Forests and Safeguards - Bhutan developed a National Forest Monitoring System Action Plan (NFMS-AP) using funding support from the UN-REDD Programme. The Action Plan forms the basis for the design of the NFMS.

Establishing an NFMS is a prerequisite for REDD+ countries. For Bhutan institutionalizing and strengthening its existing forest monitoring system to a robust and dynamic national forest monitoring system is very crucial. Therefore, with an objective of fulfilling both national and international requirements, establishment of a national forest monitoring system in Bhutan was initiated under the UN-REDD Readiness support. The NFMS is divided into two components, national forest inventory and satellite land monitoring system. Satellite land monitoring system involves use of satellite imageries using remote sensing technologies to produce land use and land cover (LULC) map. This would enable Bhutan to monitor the forest cover with minimum cost in periodic interval. Satellite land monitoring system also cover the historical land use change analysis which is very crucial in producing activity data to generate reference emission levels.

In line to this, Bhutan updated its land use and land cover map using Landsat imageries of 2015. The land use land cover map was produced using object based analysis in eCognition followed by manual editing. This methodology is usually called a hybrid method. This produced LULC map which would form the baseline for maintaining the consistency in the dataset for carrying out land use change analysis. Maintaining consistency in the dataset for land use change analysis is a requirement under IPCC guidelines therefore if Bhutan could not maintain the necessary level of consistency in the dataset while producing land use and land cover, land use change analysis would be complicated.

Under this NFMS, Bhutan will be carrying out periodic generation of LULC maps to monitor forest cover to ensure that 60 % of forest cover is maintained as enshrined in the Constitution. Further historical image analysis would be carried out to generate activity data for analyzing the trend of historical emission to formulate reference emission levels.

GIS and remote sensing experts in the Ministry of Forests and Agriculture are scattered in various departments and division. Since the establishment of the NFMS and monitoring the forest cover is the responsibility of DoFPS, the need for building knowledge on GIS and remote sensing was recognized as essential. To date, seven GIS and Remote sensing experts within the Ministry have undergone training in object-oriented image analysis training outside Bhutan resulting in enhanced use of eCognition to produce LULC maps.

FCPF Grant Progress

Table 1-2: Components supported by the FCPF Grant

Please indicate which of your country R-PP components and subcomponents have received support from FCPF through the Readiness Preparation Grant (>3.8 million USD)		
Components	Subcomponents	Support from FCPF to date (Yes/No)
1. Readiness Organization and Consultation	1a. National REDD+ Management Arrangements	Yes
	1b. Consultation, Participation, and Outreach	Yes
2. REDD+ Strategy Preparation	2a. Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance	Yes
	2b. REDD+ Strategy Options	Yes
	2c. Implementation Framework	Yes
	2d. Social and Environmental Impacts	Yes
3. Reference Emissions Level/Reference Levels		Yes
4. Monitoring Systems for Forests and Safeguards	4a. National Forest Monitoring	Yes
	4b. Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards	Yes
	4a. National Forest Monitoring System	Yes

Table 1-3: Detailed FCPF Grant Activities

REDD+ Readiness Project components	
Component 1: REDD+ Leadership Development (R-PP components 1b, 1c, 2a, 2b, 2c & 2d)	
REDD+ Knowledge generation	
	Workshop at National Level (Strategy options, Drivers of forest degradation, Risks & Benefits, Safeguards & Grievances)
	Consultation workshop at the District and geog level including information sharing and dialogue
	Institutional visit to REDD+ Pilot Countries for Task Force, TWG, REDD+ Secretariat, Field Offices
	Training on REDD+ structure including REDD+ safeguard information system, MRV and REDD+ governance
	Attending international meetings and seminars (COPs)
	Training on forest management, forest law enforcement & governance to field offices (Dzongkhag Forestry Sectors, National parks and Wildlife Sanctuaries, Territorial Forest Divisions, other stakeholders like armed forces, police personnel, Judiciary people, etc.)
REDD+ Strategy Preparation	
	Analysis of land policy, study on drivers of forest degradation, economic analysis of strategy options
	Social Environmental impact assessment of REDD+ activities and develop environment & strategic management framework, safeguard information system
	Prepare and finalize the REDD+ Strategy
Piloting a REDD+ PES scheme	
	Selection of Pilot site (Consultation meeting with communities and other stakeholders, Site situation analysis)
	Designing the scheme (setting up institutions to manage the scheme, Identification of commonly agreed activities by both beneficiaries and providers of ES, pricing g, agreement, benefit sharing mechanism, PES awards
	Valuation of Environmental services in the pilot site
	Training (water accounting, carbon inventory, models to calculate discharge from the watershed (pilot site), book & record keeping, pasture/fodder development, use of alternate (green)energy technology, ES valuation, cost benefit analysis of conservation of ES, etc.)

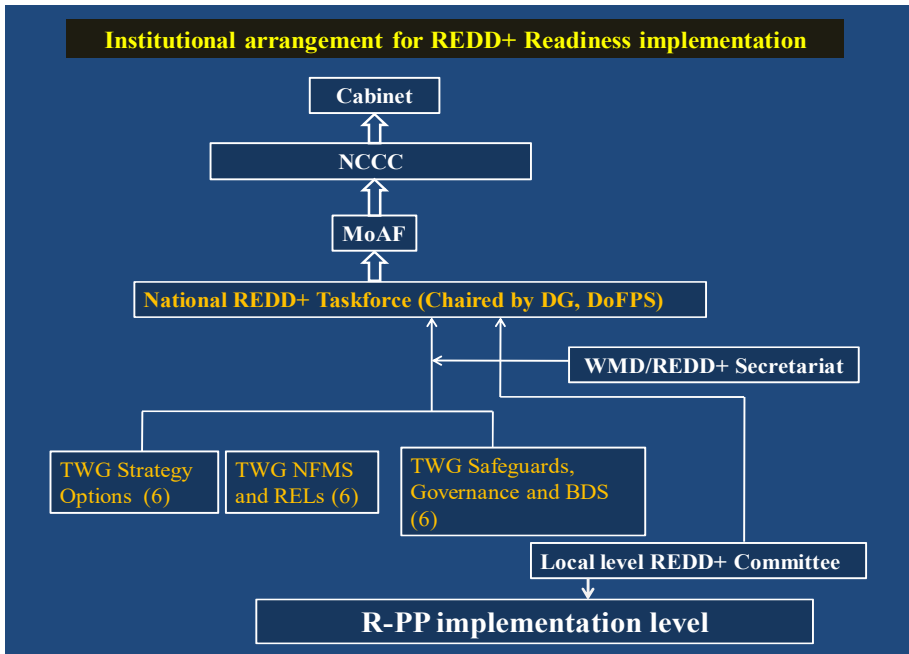
	Livelihood improvement programme in pilot site (plantation, human wildlife conflict management strategies and measures)
	Strengthen Information Management System in field divisions (Parks and Territorial Forest Divisions)
Component 2: REDD+ Information Infrastructure (R-PP Component 3 and 4a)	
Capacity building on development for (reference level), operational forest monitoring, and GHG accounting	
	Establish a harmonized classification system for land representation
	Approaches to reference level design, including consideration of national circumstances
	Training on GHG accounting for land use and land use change
Development of a Satellite Land Monitoring System	
	Internet connection established for downloading and archiving satellite imageries
	Satellite image analysis software (eCognition) procured
	GIS and Remote sensing office equipped with high specification computers
	Capacity built on remote sensing and GIS personnel from various agencies on remote sensing (eCognition)
	Land use and land cover mapping carried out using Landsat at National level
	Development of geo-portal initiated with the technical support from UNREDD, this would be further supported from R-PP
Multipurpose NFI and forest data management	
	Support NFI implementation (5 of 20 dzongkhags)
	Training of field crews and data analysts
	Implementation of data management and QA/QC protocols
	Development of participatory tools for community participation
Development of an integrated web-based forest information system	
Support of research related to NFMS and information dissemination	
Component 3: REDD+ Management (R-PP component 1a & 6)	
	REDD+ Task Force and TWG meetings
	Capacity building of project procurement and accounts officer on World Bank procedures
	Development of M&E framework

1 COMPONENT 1: READINESS ORGANIZATION AND CONSULTATION

1.1 Sub-component 1a: National REDD+ Management Arrangements

The RGoB has made significant progress in setting up the institutional arrangements for implementation of REDD+ Readiness Program with distinct operating mandates as outlined in (Figure 1-1).

Figure 1-1: Institutional arrangement for REDD+ Readiness implementation



The Watershed Management Division (WMD) and Forest Resource Management Division (FRMD) under the Department of Forests and Park Services (DoFPS) within the Ministry of Agriculture and Forests are the lead implementing agencies working in close collaboration with other functional Divisions under the Department and the field offices.

A National REDD+ Task Force (NRTF) and three Technical Working Groups (TWG) supported by a Secretariat are in place to support the WMD in implementing the REDD+ Readiness Program. The REDD+ Task Force is the official national forum for discussion and coordination of matters related to REDD+ programs with the TWGs providing technical guidance for implementation in each thematic area. **All the relevant agencies including those related to drivers of deforestation and forest degradation are represented in the Task Force and TWG.**

In terms of implementation of the FCPF Grant activities, the WMD is the overall coordinator but responsibility for implementation of activities is shared with the FRMD which is also within DoFPS. WMD is also responsible for the day-to-day operations and financial and progress reporting. The main observation however, is that the REDD+ Secretariat is under-resourced having only two technical staff who seem to be regularly overloaded with both administrative and technical work. The REDD+ task Force, TWG and when necessary, special multi-sectoral review advisory groups are convened to review project related packages to ensure timely delivery of project activities. However, there is still need to address the resource requirements of the Secretariat to ensure effective and efficient programme implementation.

At the central government level, the key agencies, ministries and departments involved in developing policies and legislation as well as implementation of plans and programs which can influence natural resource management include:

- Gross National Happiness Commission (GNHC)
- Ministry of Agriculture and Forests, (MoAF)
- National Environment Commission, (NEC)
- National Land Commission, (NLC)
- Ministry of Finance (MoF)
- Ministry of Home & Cultural Affairs (MoHCA)
- Ministry of Economic Affairs, (MEA)
- Ministry of Works and Human Settlements (MoWHS).

The progress with the institutional setup in Bhutan has benefited immensely from the RGoB’s own drive and vision to ensure the environmental sustainability pillar is broadly understood and effectively mainstreamed across both public and private sector. Hence, the necessary institutional setup for REDD+ has not necessarily needed a separate focus except at the project implementation level.

1.1.1 *REDD+ Task Force and Technical Working Groups*

The REDD+ Task Force chaired by Head of the DoFPS including representatives from key relevant stakeholders provides policy support and guides implementation of R-PP. The three TWGs are (1) National Forest Monitoring System & Reference Emission Level; (2) Safeguards, Governance and Benefit Distribution, and (3) Strategy Options. TWGs are designed to focus on the operational level and provide technical inputs for implementation of each thematic area. Each group has clear terms of reference.

The REDD+ Secretariat resides in the WMD with the overall role of ensuring smooth coordination between the Task Force and TWGs and among the TWGs. There is a wide range of agencies participating in REDD+ and their roles and potential responsibilities have already been articulated in various documents. Table 1-1 summarizes the key agencies and their role in REDD+ implementation.

Table 1-1: Agencies involved in the REDD+ process

Agencies	Potential Role in REDD+ Readiness
Gross National Happiness Commission	Ensure REDD+ programs are in line with government plans and policies
National Land Commission	Cadastral data, advice and guidance on land use change and land tenure
National Environment Commission	GHG reporting, National Communication, UNFCCC Focal Point and functions as secretariat to the National Climate Change Committee and chair of the Multi-sectoral Task Force for Climate Change
Ministry of Agriculture and Forests	Coordinate and implement REDD+ program
Ministry of Economic Affairs (Department of Renewable Energy, Hydropower and Power Systems)	Oversee land clearance system pertaining to economic development activities, represent in the Technical working group, ensure harmonization of their policies with that of REDD+ vision
Ministry of Foreign Affairs	Represent Bhutan at government level in all international negotiations

Agencies	Potential Role in REDD+ Readiness
Ministry of Finance	Representation in REDD+ Task Force, facilitate for budget availability for REDD+ readiness activities
Ministry of Home and Cultural Affairs Department of Local Government, Dzongkhag Administration, Geog Administration	Represent in REDD+ TWG, REDD+ committee at local level, facilitates disseminating information to local communities
Non-Governmental Organization - Royal Society for Protection of Nature - Bhutan Trust Fund for Environmental Conservation	Represent in REDD+ Task Force, Technical Working Groups and provide recommendations on relevant issues and assist the Government in REDD+ Readiness implementation
Civil Society Organization - Tarayana Foundation	Represent in REDD+ Task Force and provide recommendations on relevant social and environmental issues that concerns and vulnerable and rural forest dependent communities and assist the Government in REDD+ Readiness implementation
Natural Resources Development Corporation Ltd.	Represent in the Technical Working Groups and recommendations on relevant issues that relates to sustainable forest management and assist the Government in REDD+ Readiness implementation
Royal University of Bhutan	Represent in Technical Working Groups and contribute in research and studies

1.1.2 Accountability and transparency

Bhutan has established a highly integrated and transparent planning framework for economic development under the guidance of the GNHC. Having declared to remain carbon neutral at the 15th Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 2009, the country has established an institutional framework and planning processes that promote a high degree of transparency and cross-sector planning. The flagship national economic implementation strategies are the Five-Year Development Plans underpinned by National Economic Development Plan to which every government department is accountable. The country is now in the 11th Five Year Development Plan of which the Department of Forests & Park Services (DoFPS) is implementing three programs:

1. Sustainable management of State Reserve Forests (SRF)
2. Sustainable management of forest landscapes and conservation of biodiversity
3. Integrated watershed management to ensure sustainable environmental service delivery

Understandably, REDD+ activities cut across all three programs of DoFPS and are explicitly mentioned in Program 3 under Output 1 with the expectation to complete REDD+ Readiness by 2018. With guidance from the GNHC, the Ministry of Agriculture and Forests (MoAF) developed its 11th plan (2013-2018) presenting Strategic Key Result Areas (SKRAs), Key Performance Indicators (KPIs), strategies, Departmental and Agency outcomes, planning and resource allocation framework. This Plan is prepared through a participatory and transparent manner by all divisions.

As part of the R-PP implementation, a corruption risk assessment commissioned by the Government of Bhutan in 2013 shows that Bhutan experiences low levels of corruption. The corruption risk assessment, which was undertaken through a participative methodology, strongly suggests corruption is not a major threat to forests and forest-dependent people in Bhutan. For many countries considering their strategic policies and measures, options for implementing REDD+, understanding forest governance weaknesses

including corruption as well as governance strengths is important. Increasing transparency, accountability and integrity may be needed to successfully and sustainably implement REDD+ policies and measures.

1.1.3 Operating mandate and budget

The main counterpart for the project is the DoFPS under MoAF. The Watershed Management Division serves as the REDD+ Secretariat and houses the Project Coordination Unit (PCU). The Chief, WMD, is the Project Director (PD).

The RGoB has taken a very strong position in greening the economy. The Constitution of Bhutan enshrines protection and conservation of the environment and mandates the maintenance of 60% forest cover in perpetuity as outlined in the R-PP. Over the years, a set of strong laws and policies have evolved to ensure that the protection, management and sustainable use of forests are mainstreamed across all government departments.

In Bhutan, investment into conservation and NRM activities is almost exclusively financed by way of the central budgetary system. The integration of PES as a conservation and potential poverty alleviation and community development financing tool can ease this near-exclusive dependency on government revenue to conduct related activities. Three trial PES schemes are currently operational. In aggregate, the scaling up of PES across the country can serve as one way for the RGoB to address resource constraints, while achieving targeted investment in conservation and NRM at various scales. Moreover, when PES is integrated into the RGoB's related activities, the process should also address institutional capacity constraints in terms of the ability of WMD to facilitate the development of PES schemes across the country.

The Ministry of Finance is the national agency responsible for managing and allocating budgets for all other ministries. The guiding principles for the financial management arrangements for the project are to use the current RGoB financial management systems, to the extent feasible. The budget for implementing the activities is routed through the Ministry of Finance as per the RGoB rules and both financial and procurement management is done by Administrative and Finance Division (AFD) in MoAF.

1.1.4 Feedback and grievance redress mechanism

To ensure effective REDD+ implementation, mechanisms need to be in place to address any potential grievance issues that may be associated with implementation such as shift in existing trends of forest resource uses, limitations to land and forest resource access, pressure on agriculture crop production, human wildlife conflict challenges, and limitations to traditional rights. A feedback and grievance redress mechanism (FGRM) will help identify and address potential problems in advance, preventing recurring or escalating grievances and thereby ensuring timely achievement of REDD+ objectives through promotion of user accountability of the REDD+ stakeholders and building trust and confidence.

There is generally an efficient and accessible judiciary system in Bhutan. Additionally, informal traditional dispute mechanisms, based primarily on negotiations between aggrieved parties and through community meetings to address grievances are practiced in Bhutan. The implementation of REDD+ can potentially make use of these existing systems for addressing grievances.

There is already work underway to assess the efficacy of the existing grievance redress mechanisms in the country in the event of full scale implementation of REDD+ post 2020. The contract for developing the Feedback and Grievance Redress Mechanism has been awarded with specific objectives to:

- Assess existing formal and informal feedback and grievance redress mechanisms at local, district and national level
- Identify potential grievances and conflicts that may emerge as a result of REDD+, and characterize current grievance patterns and trends in forestry and REDD+

- Identify current institutional strengths and capacity gaps for grievance resolution
- Develop a framework for the feedback and grievance redress mechanism, including a plan for building on strengths and closing the gaps to strengthen grievance redressing capacity
- Propose a plan to continuously improve and strengthen FGRM and communicate FGRM mechanism to stakeholders.

The study will be undertaken in integrated and systematic approach in two distinct phases of inquiry and analysis and design and development of FGRM with a premise that an effective FGRM can respond and address the positive and negative feedback from different stakeholders affected by REDD+ implementation.

The first phase will consist of exploratory desk analysis and field research. The desk work will dwell on reviews of social, legal and conflict baseline information on grievances and redress mechanisms in forest management, including the historical trends, current practices and potential future grievances of local communities and other stakeholders to utilize such grievance mechanisms.

Besides desk research, a nation-wide consultation process is planned to gather the views of stakeholders – at national, district, and local levels and forest dependent communities, academia, civil society and decision-makers in Government – in a participatory process. The field research is proposed to be conducted in different regions representing the whole country.

The second phase of the study will focus on the design of the FGRM. The design process includes strategic choices based on purpose and functionality of the FGRM, as well as integrating the mechanism into the Government's REDD+ strategic options. Also a communication plan will be developed to inform the stakeholders about the existence of the FGRM and instructions of operation.

1.1.5 Multi-sector coordination mechanisms and cross-sector collaboration

Bhutan's economic development policy continues to be guided by the overarching philosophy of Gross National Happiness based on the four pillars of sustainable economic development; preservation and promotion of culture and tradition; conservation of environment; and good governance. This enshrines the need for effective intersectoral coordination. The institutional arrangements of the RGoB are well suited to promoting institutional collaboration and coordination. There is a clear and visible common vision across all institutions guided by the GHNC through the 5 Year Development Plans.

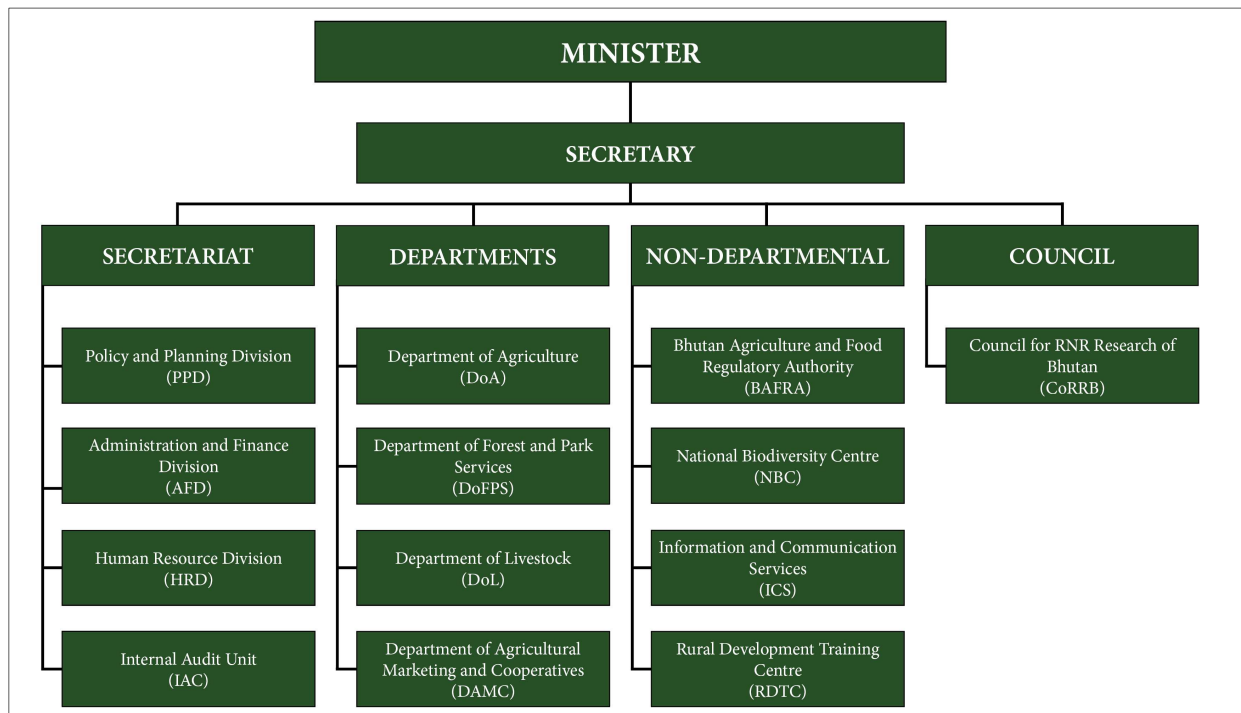
With regards to REDD+, the Ministry of Agriculture and Forests is the focal institution therefore there is a close interface between agriculture and forestry sectors (Figure 1-2). Bhutan has signed several international treaties and agreements that have implications for the forestry sector. The key ones are; the Convention on Biological Diversity (CBD), the United Nations Convention to Combat Desertification (UNCCD), the United Nations Framework Convention on Climate Change (UNFCCC), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), UNESCO World Heritage Convention, International Plant Protection Convention (IPPC), the Millennium Development Goals (MDG) and the SAARC Development Goals (SDG).

There is a need for effective coordination mechanisms between the implementation agencies in the forest sector and other agencies to ensure that the requirements conform to the various international treaties and agreements are reflected in business plans, forest management plans and implementation procedures. Many of the workshops and consultations involved stakeholders from many sectors and this contributed greatly to improving cross-sectoral coordination.

Progress is also being made to build the necessary capacity and there is also substantial effort being put to create awareness and sharing of information across a wide range of stakeholders. During the early part of 2016, training was conducted on Forest and Nature Conservation Acts, Rules and Regulations and silviculture management for foresters and rangers of territorial forest divisions. Effort to engage youth has also been

made with conduct of sensitization workshops in six academic colleges reaching around 2000 participants comprising of students and college faculty members. The workshops focused on climate change and REDD+ program, watershed, soil and land management awareness. Summary of consultations and capacity building are in Table 1-3 and details are presented in Annex 3.

Figure 1-2: Ministry of Agriculture and Forests



In addition, the Intended Nationally Determined Contribution (INDC) submitted in September 2015 towards finalization of the Paris Agreement further re-iterated Bhutan’s pledge to remain carbon neutral (Royal Government of Bhutan, 2016). Bhutan’s INDC emphasizes the importance of sustainable forest management to ensure that the country remains a net carbon sink and for adaptation, given future climate change impacts to its mountain ecosystems. The INDC places value on the need for cross sectoral coordination to ensure coherence in policy implementation. However, as observed during the analysis of drivers of deforestation and forest degradation, there is a need for cross sector coordination due to the emerging perverse nature of the underlying causes of forest degradation.

There is also the Natural Resources Development Corporation Ltd (NRDCL) which came into existence in 1984 and was restructured in 2007. It has a mandate to extract and market timber, sand and stones at affordable prices to make these resources ‘affordable, accessible and available for judicious use in the best interest of the nation and people’. NRDCL implements the Forest Management Plans (that are developed by the DoFPS) in approved Forest Management Units (FMU) and Working Schemes (WS) and works towards sustainable forest management for the benefit of both the present and future generations of Bhutan. Forestry operations outside the FMUs are also carried out to maintain the health and hygiene of forests, i.e. sanitation/salvage operations to remove over-matured trees, and diseased, insect attacked dead and dying trees to prevent epidemics. The effectiveness of this institution is important to the success of the overall forest and natural resource policy. At present, it has limited capacity in areas such as use of geospatial technology to improve implementation of management plans

This MTR observes some important challenges that many institutions within the government have been facing. Limited availability of high quality and accurate or verifiable data and information for quantifying forest product demand and consumption has been highlighted as an important gap.

1.1.6 Information sharing and accessibility of information

Every government department in Bhutan has a website for ensuring general information accessibility and making important announcements. The DoFPS website has been revamped and was launched recently to include a dedicated section on REDD+. All relevant documents are currently being uploaded on the website (<http://dofps.gov.bt/>). This will enhance information availability and accessibility.

1.1.7 Implementation and public disclosure of consultation outcomes

There are no concerns regarding disclosure of consultation outcomes except making them readily and publicly available. However, this has now been addressed as outlined in Section 1.1.6. The RGoB makes public disclosure of information mandatory across the public sector to ensure transparency and citizen participation.

1.2 Consultation, Participation, and Outreach

1.2.1 Participation and engagement of key stakeholders

The RGoB is taking a proactive and very deliberate approach to ensure broad stakeholder engagement. A Stakeholder Engagement Guideline to enable an open, inclusive and transparent consultation and participation process for REDD+ is in place. This guideline is underpinned by four key principles as outlined in Table 1-2.

Table 1-2: Stakeholder engagement guiding principles

Principle	Description
Participatory and inclusive	Relevant stakeholders and experts, including men and women from marginalized and disadvantaged indigenous and non-indigenous forest dependent communities, are included in the decision making on the design, implementation and evaluation of relevant REDD+ activities. They also participate in the implementation of relevant REDD+ activities, when appropriate
Transparency and accountability	Ensure a transparent feedback mechanism that is easily accessible to men and women from indigenous and non-indigenous local communities in order to inform and improve current and future stakeholder engagement processes for REDD+.
Mutual understanding over shared responsibilities	Stakeholders understand how relevant REDD+ activities impact them and agree what their roles and responsibilities are, in order to ensure sustainability of the REDD+ program
Human rights-based approach	identifies and differentiates rights holders and their entitlements from duty bearer and their obligations. Efforts are made to strengthen the capacities of rights holders to make their claims and duty bearers to meet their obligations

Stakeholder engagement on the national REDD+ process started with the preparation of the R-PP considering the national administrative structures. At the local level, governance is structured round 20 Dzongkhags (districts) containing 205 Geogs (sub-districts). The DoFPS field divisions and offices spread across all 20 Dzongkhags implement forestry plans and programs. Dzongkhag administrations are collaborators in the preparation of the REDD+ readiness programme and will be implementation collaborators. Consultation has involved engagement with all relevant stakeholders from local to national.

The Tarayana Foundation (a CSO which works primarily with remote and distinctive communities) is represented in the REDD+ Task Force and has been an active participant in the REDD+ Readiness process. The REDD Secretariat is currently finalizing an analysis of Drivers of Deforestation and Forest Degradation and the Foundation is organizing consultations on Drivers of Deforestation and Forest Degradation with their constituent communities as a contribution to the process. This will enable the engagement of local vulnerable and forest dependent communities in the REDD+ readiness process. Other NGOs including the Royal Society for Protection of Nature (RSPN) and Bhutan Trust Fund for Environmental Conservation are also represented in the Technical Working Group (TWG) and contribute to the REDD+ readiness process.

Recognizing that the stakeholders to be involved in the REDD+ process are from a range of diverse backgrounds including literate as well as illiterate and from different linguistic and cultural backgrounds, various appropriate consultation methods and materials are being used to meet the specific needs of the stakeholders. Local languages are always used during consultations with local communities and local government leaders. A large volume of material has been prepared and distributed to relevant stakeholders. However, most of the material is primarily in English. It may be necessary to translate some of these into local languages where appropriate, although most local languages are not written.

The national regulatory framework (legislation and policies) provides substantial general support for engaging stakeholders in management and utilization of forest and other natural resources in the country. Table 1-3 provides a sample of early REDD+ consultation and engagement with key national stakeholders. During the MTR in-country mission, four consultation meetings were held to discuss the progress and interim findings of the analysis of drivers and agents of deforestation and forest degradation. This is in addition to individual interviews and meetings held with some of the key stakeholders such as the NEC, GNHC and the NLC.

Table 1-3: Summary of REDD+ consultations and capacity building

Year	Capacity building	Management	Sensitization	Governance	Stakeholder engagement	Total events	Participants	
2015	5	0	01	0	06	12	Total: 389	
							F 28	M 361
2016	12	2	11	04	10	38	Total: 2636	
							F 685	M 1961
Total	12	2	12	04	16	50	Total: 3035	

1.2.2 Consultation processes

The DoFPS through the REDD+ Secretariat is currently undertaking extensive consultations with a wide range of relevant stakeholders on the various components of REDD+ by building on the early information and social mobilization campaign and dialogue conducted during the R-PP formulation phase.

There are four major ethnic groups in Bhutan: Ngalong in the west, Shar chop in the east, Khengpas in the central and Lhotshampa in the South. There are also a few indigenous groups with distinct religion, language

and culture. Brokpas from Sakten-Merak in the Sakten Wildlife Sanctuary; Moenpas in Jigme Singye Wangchuk National Park and Doyaps in the western part of the country.

The government structure is such that the lowest or smallest unit of government, village, appoints a representative to serve on the next unit of government, Chiwog – 2 to 3 villages, and they then are represented within the Geog and finally at the Dzongkhag level. All planning and decision making follows this path to ensure representative and transparent decision making on behalf of all ethnic/cultural groups. The same inclusive structure is being followed as the basis for REDD+ engagement and decision making.

This MTR has determined that local-level community representatives in Dzongkhags and Geogs exchange information and conduct dialogue with RGoB and NGOs to formulate REDD+ activities following the Free Prior Informed Consent Guidelines (UN-REDD Programme Secretariat, 2013), and Stakeholder Engagement in REDD+ Readiness (FCPF, 2012). This is in line with what the RGoB outlined in the R-PP. As of necessity, more consultations on the social and environmental impacts and risks associated with different options will be held going forward during the preparation of the Environmental and Social Management Framework (ESMF; see Component 2). During this MTR, six consultation workshops were held with a particular focus on the interim results of the analysis of drivers and agents of deforestation and forest degradation. These consultation workshops were highly beneficial for the MTR with respect to observing the level of participation and understanding the stakeholder engagement process. The consultation process involves a range of methods from presentation of REDD+ concepts in local language to group discussions and participation through group work and feedback sessions.

In general, there is fair understanding among the stakeholders including the local communities on the importance of sustainable management and utilization of natural resources. The awareness programs in the REDD+ Readiness process are further enhancing stakeholder understanding of environment and related issues including climate change and its impacts on the environment and livelihoods. For this, Tarayana Foundation, field based Geog level extension agents and executive committee members of farmers' groups, cooperatives and CFMGs are earmarked to be facilitators for consultations.

Further national and sub-national consultations are planned under each of the sub-components as the development of the National REDD+ Strategy (NRS) progresses.

Component 1 Key recommendations and way forward

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- i) The REDD+ Secretariat is undermanned and would benefit from further strengthening to ensure effective and efficient programme coordination and implementation especially as the National REDD+ Strategy development process begins. The Secretariat should be strengthened by employing or designating a REDD+ national Technical Advisor and one project procurement staff to provide necessary support.
 - ii) Since information sharing and accessibility is still limited, modes of communication should be strengthened, and where practical, REDD+ material should be translated into local languages and all relevant REDD+ information should be uploading on the DoFPS website
 - iii) Multi-sector coordination was highlighted as needing strengthening. Targeted additional capacity building for each relevant sector specifically on REDD+ should be carried out to increase understanding of roles and responsibilities including the need for better data sharing.
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2 COMPONENT 2: REDD+ STRATEGY PREPARATION

2.1 Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance

2.1.1 *Assessment and analysis*

Bhutan has made significant progress in assessing agents and drivers of deforestation. At the time of preparing this MTR report, an advanced draft report on the analysis of drivers and agents of deforestation and forest degradation was being presented in a series of consultation workshop nationwide. The analysis of deforestation and degradation is underpinned by land use and land cover data from the years 2000, 2010, and 2015 (Figure 2-1, Figure 2-2, Figure 2-3).

Figure 2-1: Land Use Map 2000

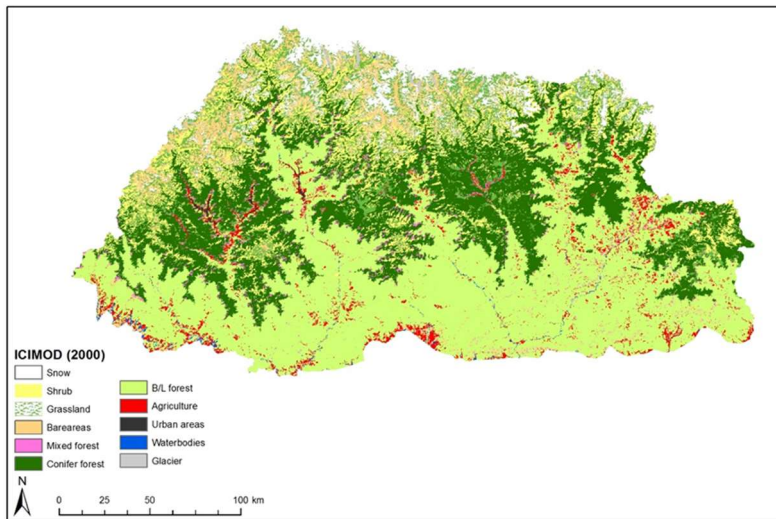


Figure 2-2: Land Use Map 2010

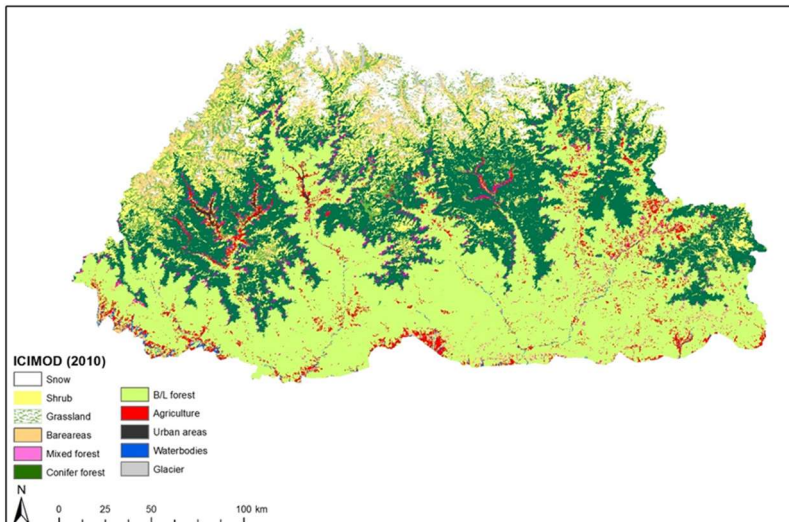
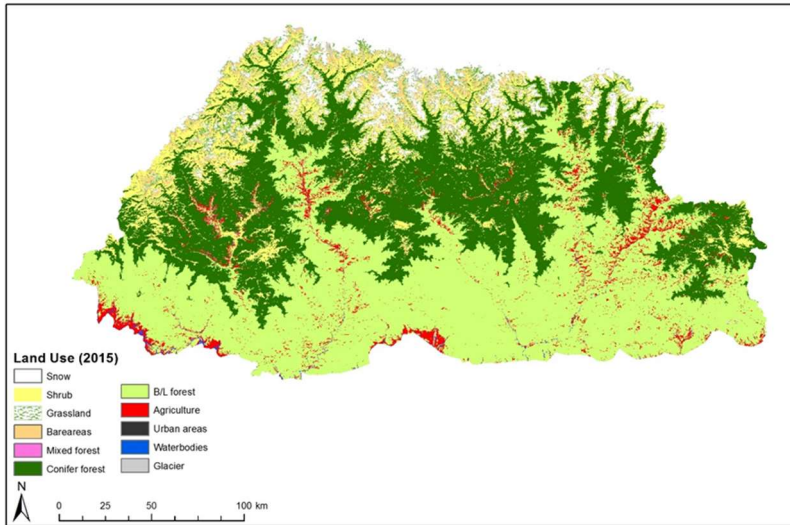


Figure 2-3: Land Use Map 2015



The Constitution of Bhutan enshrines protection and conservation of the environment and mandates the maintenance of 60% forest cover in perpetuity. Over the years, a set of strong laws and policies have evolved to ensure the protection, management and sustainable use of forests. This regulatory framework is essentially geared towards the development philosophy of Gross National Happiness (GNH), maximizing human well-being instead of economic profit.

The results of the deforestation and forest degradation analysis indicates that 392,683 hectares of forests were gained in a 15-year period, while around 74,445 hectares were lost resulting in a net change or increase of 12% at an annual rate of 0.8%. However, there seems to be more degradation - 667,680 hectares of forests experienced degradation. There is no distinguishable pattern in degradation between 2000 and 2010 but between 2010 and 2015 some patterns emerged with forest degradation followed by forest loss located along the southern border of Bhutan as well as along valley bottoms while the major areas of forest gain can be clearly observed in high altitudes in the north.

Both direct and indirect drivers of deforestation and forest degradation have been identified. In Bhutan, there are a number of human activities or immediate actions that directly impact forest cover and loss of forest carbon. They result in forest loss in particular locations, but their overall impact on forest cover on a national basis is muted due to increases in forest cover elsewhere in the country. Hence, from a land use/land cover change analysis, deforestation is not a discernible land use trend in Bhutan. National statistics indicate that it is SRFs that are lost due to conversion to other planned land uses/activities. Hence, the deforestation in the country can be classified as primarily planned deforestation.

2.1.2 Prioritization of direct and indirect drivers/barriers to carbon stock enhancement

Prioritization of the drivers and agents of deforestation and forest degradation is progressing well with the final validation workshop planned for early 2017. In the meantime, some early work on the ranking of drivers of deforestation forest degradation is complete. Table 2-1 lists the identified key drivers of deforestation and projects the area likely to be affected up to 2030. Table 2-2 on the other hand lists the drivers of forest degradation.

Table 2-1: List of drivers of deforestation and ranking

Driver	Area affected annually (ha)	Annual GHG emissions as a result of forest area loss (tCO ₂ e)	Ranking in extent of deforestation
SRF land allotment for various purposes	1,923	604,852	1 st
Hydropower projects	1,880	591,327	2 nd
Agriculture	916	288,114	3 rd
Roads	820	257,919	4 th
Mines and quarries	633	199,101	5 th
Electricity transmission lines	542	170,478	6 th

Table 2-2: Drivers of forest degradation and ranking

Driver	Annual degradation in corresponding (m ³ /ha)	Annual GHG emissions as a result of forest degradation (tCO ₂ e/ ha)	Ranking in extent of deforestation
Timber harvesting	163,009	117,394	1 st
Firewood	84,936	61,168	2 nd
Forest fires	111,969	88,560	3 rd
Livestock	9,694	6,981	4 th

Source: Drivers of deforestation and forest degradation in Bhutan (Draft Report – December 2016)

2.1.3 Links between drivers/barriers and REDD+ activities

This analysis of the drivers of deforestation and forest degradation in Bhutan including barriers to sustainable management, conservation and enhancement of forests, can frame historical patterns as well as estimate future pressures on forests, based on projections for growth and development. In this way, driver analysis, when completed should provide the basis for understanding what policies and measures can affect driver pressures into the future, at various scales, in order to guide growth and development that is compatible with Bhutan's forest heritage. This work is currently being completed. However, the interim findings of the study on drivers and underlying causes of deforestation has identified a wide range of actors, their motivations and influence on land use. While the analysis is still in progress, there are key emerging issue relating to

- Sectoral conflicts which appear to come from the Land Act defining the mode of decision making on land use, allowing for subdivision and leasing, without robust sector guidance
- Government agencies are pursuing development in sectoral approaches, placing competing pressure on the land, but without the most effective means to identify how the plans and programs of one sector will affect that of others.
- The lack of guidance and planning from affected line ministries to the ministry or agency proposing a land use appears to be systematically lacking.

The links between drivers, barriers and REDD+ activities requires further analysis. The emerging themes in the analysis are pointing to some major economic issues such as the need to diversify funding sources for development activities. This MTR identifies some opportunities but further work is needed to link the prioritization of drivers, capacity constraints and REDD+ strategy options to be selected.

2.1.4 Action plans to address natural resource rights, land tenure, governance

REDD+ specific action plans to address natural resource rights, land tenure and governance in Bhutan may not necessarily require a separate process. Natural resources rights and land tenure are quite clear, making the country relatively unique in the context of REDD+. Under the Land Act 2007, no family or entity can own more than 25 acres and all forests are declared SRF. In SRF areas, the resources are the property of the state. In community forests areas, the timber rights rest with CFMGs according to an agreed management plan. While there is no definition for carbon rights within Bhutan's law, those rights may follow a similar path as timber rights. The Water Act of Bhutan, 2011 states that water resources are also the property of the state.

The Forest and Nature Conservation Act 1995 provides a broad framework to guide sustainable forest management and biodiversity conservation. It is operationalized through the Forest and Nature Conservation Rules which are revised from time to time to reflect contemporary conditions. The most recent revision is currently nearing completion and was carried out through support of the R-PP grant.

The National Environmental Strategy, referred to as "the Middle Path," emphasizes economic development with fundamental recognition of the need to maintain the country's cultural heritage, traditional values, and natural resource base through expanding hydropower, increasing agricultural self-sufficiency and expanding the industrial base. The Ministry of Economic Affairs Department of Renewable Energy is very clear on the value of sustainable watershed management because it forms the backbone of hydropower generation by maintaining sufficient water flows. The rising demand for electricity, climate change and Bhutan's increasing reliance on hydropower generation is pushing the Department to broaden the energy supply mix by exploring other forms of clean and renewable energy sources that will supplement, in particular, hydropower generation shortage faced during the dry season.

Forest sector governance is generally strong. The 2013 corruption risk assessment shows that Bhutan experiences low levels of corruption. The corruption risk assessment, which was undertaken through a participative methodology, strongly suggests corruption is not a major threat to forests and forest-dependent people in Bhutan. For many countries considering their strategic policies and measures, options for implementing REDD+, understanding forest governance weaknesses including corruption as well as governance strengths is important. Increasing transparency, accountability and integrity may be needed to successfully and sustainably implement REDD+ policies and measures.

For Bhutan, stakeholders have highlighted some relatively soft challenges relating to forest sector governance but more related to inadequate measures in implementation arrangements. The DD report, as well as stakeholders interviewed during this MTR, reinforces the findings of the corruption risk assessment. The main issue is that existing implementing arrangements are leading to some level of unsustainable forest use. The major relevant policy relates to providing all rural citizens access to highly subsidized timber for residential purposes (known as subsidized rural timber). There are two main areas of concern and these relate to (a) access to timber and forests for rural communities, and (b) forests offences, including illegal logging.

There is an opportunity to strengthen monitoring, oversight and enforcement, through a combination of increased verification of timber usage by households, more regular audits of saw mills and increased monitoring of transit permits for transporting timber. The major weakness is that there is limited reliable information or a historical digitized database of requests and approvals of rural timber at the Geog level

that would be used by both the Gup and relevant forest officials at the field offices. This is critical in that it is not possible to readily identify overuse.

In relation to forest offences and illegal logging, most of the forest offences in Bhutan seem to be small-scale and opportunistic, primarily meeting the subsistence needs of rural people, as opposed to involvement by authorities, or systematic bribery. However, there are isolated situations in places such as Paro and Sarpang where there is some illegal logging, and cross-border smuggling. These can be addressed by strengthening existing data on forest offences, combined with other sources of information.

In relation to governance challenges, community forestry has emerged as a dynamic feature of forest governance in Bhutan, and is recognized as an important institution and possible pilot for REDD+. While community forestry is well supported within Bhutan, it is still in a formative stage and is undergoing consolidation. The DoFPS is focusing its efforts on strengthening management quality, including equity in benefit sharing. While there are inevitably some isolated problems of corruption and abuse of resources, overall the problems are limited in scale and frequency. The corruption risk assessment further highlights that some governance weaknesses could become more problematic over time, such as those related to democratic representation that opens prospects of “elite capture” and conflicts of interest if adequate safeguards are not put in place from the planning phase.

This MTR observes the RGoB already has systems in place for auditing, monitoring and evaluation of the community forestry programme, but their effectiveness is yet to be tested. There is an opportunity to improve the effectiveness through the REDD+ window to address governance challenges in community management of forests by paying specific attention to the issues of equity and gender imbalance, reviewing the guidelines in the Community Forestry Manual and focusing on capacity building for CFMG.

The corruption risk assessment has already provided some important recommendations and this MTR endorses them. For instance, it would be beneficial to examine current forest governance weaknesses by considering the potential roles of community forestry in managing and distributing REDD+ incentives. Early reform could help prevent a worsening or scaling up of existing issues. Second, such forest governance information can help promote and support governance safeguards under the 2010 UNFCCC Cancun Agreements, safeguard 2b on “Transparent and effective national forest governance structures” and possibly safeguard 2d on “the full and effective participation of relevant stakeholders, in particular indigenous peoples and local communities.” Some of the data and recommendations could be easily turned into useful indicators when the country develops its safeguards information system.

2.1.5 Implications for forest law and policy

The identified drivers and agents of deforestation and forest degradation suggest the need to look closely at the effectiveness of existing policies. The RGoB recognizes the current and future impacts of climate change on its somewhat vulnerable economy which is highly dependent on hydropower, forestry, and tourism. The vulnerability of forests, water systems, glacial flows, and agricultural production are well recognized in Bhutan’s National Adaptation Plan of Action (NAPA) in 2006. A National Adaptation Plan (NAP) is being prepared to help prioritize medium- to long-term climate risks and appropriate response measures. However, there is general agreement across government institutions that policy and institutional arrangements to address climate aspects need further refinement.

With the absence of a substantive national land policy and supporting instruments such as land zoning and land use capability analysis, spatial planning becomes challenging. Presently, the Land Act 2007 is the guiding law for land use, allowing for both leasing and allotment of SRF land, and states the procedural steps to process filings for changes and how to record the changes.

The Land Act provided for the creation of the NLC. The need for a National Land Policy has since been recognized and efforts have already been made to prepare one with a draft submitted to the National

Assembly in the last few years. Noting that all forest land is owned and managed by the State, some stakeholders believe that there are conditions in the Land Act that place a considerable burden on the DoFPS to facilitate the development of management plans, often in conjunction with other Departments, over very large areas of land that were previously managed as tsamdro or sokshing under customary rights. Many stakeholders see the preparation of a national policy as essential to create an enabling environment to support evidence-based land allocation with credible spatial planning because of the somewhat perverse implications such as degradation arising from allotment of SRF for various purposes. The annual average area affected by this is close to 2000 ha with an estimated 28,000 ha projected to be affected by 2030.

The NLC indicated that they want to finalize the draft Land Policy and initiate land use planning and zoning. It will be a major undertaking likely to last beyond the life of the REDD+ Readiness phase and potentially cost well beyond the financial resources that can be provided by the REDD+ Readiness grants. There are opportunities that could provide levers at this stage. The INDC submitted to the UNFCCC notes that since the intended actions in the INDC apply to the post 2020 period, the priority mitigation and adaptation actions within the INDC will be considered and integrated in the preparation of the 12th Five Year Development Plan (2018-2023) and subsequent five-year plan periods (RGoB, 2015c). Thus the 12th Five Year Plan preparation process provides a significant opportunity to undertake some of the necessary analytics for post-2020 climate change mainstreaming and strengthening key policies and measures for climate-proofing the economy.

2.2 REDD+ Strategy Options

2.2.1 Selection and prioritization of strategy options

The RGoB is currently initiating the development of the National REDD+ strategy hence at this mid-point the RGoB is making considerations based on the opportunities identified from recent studies. Some of the opportunities that could contribute to formulating REDD+ strategy options are outlined in Section 6 of this report. The RGoB is currently going through the process of analyzing implications of identified agents and drivers of deforestation and forest degradation therefore no strategic options have yet been articulated but the likely underlying priorities for action are clear. However, noting the ranking of drivers of deforestation and forest degradation in Section 2.1.2, it will be imperative to select a suite of strategy options balancing economic development and addressing the drivers and underlying causes.

Strategy options may focus at national level or sub-national level priorities and interventions. The RGoB is signaling the need for both national and sub-national strategies due to the highly variable drivers of deforestation and forest degradation as well as economic conditions. Lessons could be drawn from other countries such as Vietnam, Cambodia, Laos and Costa Rica on developing effective strategies. Vietnam has embarked in developing sub-national strategies (Provincial REDD Action Plans) enabling some form of landscape or jurisdictional REDD+ approach. The approach for sub-national strategies could vary depending on country circumstances. For Bhutan, the analysis of drivers of deforestation and forest degradation suggests the need for strategies that focus on strengthening forest management including those outside the formal management regimes of CFs, FMUs, SRF and PAs.

Considerations can also be given to strengthen watershed management so that it can become a vehicle to contribute to climate change adaptation. The WMD has begun a country-wide assessment of watersheds to identify those that are degraded or critical for the development of watershed management plans. Underpinning the planning is an attempt to build resilience in both biophysical and social components of the watersheds so that they can withstand future shocks including those associated with climate change. This provides a strategic opportunity to test and refine this novel approach so that it can be mainstreamed in future watershed management planning and implementation.

At present, there are many sector developmental plans and livelihood improvement strategies in place. Likewise, there are competing sectoral development goals resulting in competing pressure on the land. On the other hand, there are evident weaknesses in cross-sectoral planning and coordination to reduce policy conflicts. Many stakeholders reiterate that a national perspective and guidance on master planning and how to evaluate sectoral trade-offs is currently missing due to the lack of a national land policy. This is also highlighted by the current draft report on drivers of deforestation. A major talking point is that a land policy could provide the necessary balance for socio-economic development and conservation. The NLC is already emphasizing the importance of such policy/planning guidance because of the emerging trends in land use such as increased urbanization and climate change. The REDD+ Readiness process is the ideal opportunity to kick start this concept.

It is also noted that the RoGB intends to develop market based incentive mechanisms for promoting efficient and inclusive forest ecosystems management, and carbon sequestration that is sustainable and attractive to a range of beneficiaries that depend on forests – a mechanism that suggests a PES-type scheme. The government is also considering carrying out a National Green Capital Accounting that would encompass Forest Accounting aimed at establishing a baseline and determining the contribution of the forest sector to the national economy and people’s livelihoods. As such, there are multiple REDD+ options that the RoGB may choose to prioritize and the FCPF financial support could enable a much broader perspective.

2.2.2 Implications of strategy options

Since no strategy options have yet been prepared, implications of future strategies will need to be analyzed in greater detail during the preparation of the National REDD+ Strategy. However, looking forward, there are several possibilities for strategic directions. First, there is potential for carbon stocks to be enhanced in all categories of SRF. Second, forest governance needs to be enhanced in particular, implementation of rules and regulations, strengthened monitoring and enforcement. Third, information management systems need strengthening.

2.3 Implementation Framework

2.3.1 Adoption and implementation of legislation/regulations

The foundation for a REDD+ implementation framework in Bhutan has been laid through the enshrinement of environmental sustainability in the country’s constitution. Since this MTR is highlighting and proposing the development of a national land policy, this may have significant implications for the actual implementation framework. The process of preparing a national land policy may also have implications on other existing regulations, policies, and measures specifically the following;

- The Economic Development Policy of Kingdom of Bhutan 2016
- The National Forest Policy 2011
- The Land Act of 2007
- The Local Government Act of 2009
- The Middle Path-The National Environmental Strategy for Bhutan 1998
- Bhutan Vision 2020
- National Environmental Protection Act of Bhutan 2007
- The Environmental Assessment Act of Bhutan 2000
- Forest and Nature Conservation Act 1995

The process of preparing a national land policy is anticipated to require significant financial resources, for necessary broad based assessment of intersectoral linkages, and regulations inter-dependences. This will no doubt take a long time but the RGoB is giving this issue major attention and requesting both technical and financial support for this process to commence.

2.3.2 Guidelines for implementation

No specific implementation guidelines have been prepared yet but this work is expected to be implemented in line with the development of the REDD+ Action Plans. However, section 1.2.2 outlines the Stakeholder Engagement Guideline which is designed to enable an open, inclusive and transparent consultation and participation process for REDD+. This guideline is underpinned by four key principles as outlined in Table 2 also in Section 1.2.2.

2.3.3 Benefit sharing mechanism (BSM)

In conceptualizing a REDD+ BSM, there are key parameters that need to be considered. These come from field lessons in countries such as Vietnam, Ghana, Peru and Mexico. The entry point is that stakeholders need to be incentivized to effectively participate in reducing deforestation and contribute to emissions reduction. Therefore, it is critical to *identify the bundle of benefits that can be used to incentivize stakeholders*. Currently, the 2011 National Forest Policy defines the overarching goal of sustainable management of forest resources and biodiversity to produce a wide range of social, economic and environmental goods and services for the equitable benefit of all citizens and the natural environment while still maintaining a minimum of 60% forest cover. This is to be achieved by

- empowering rural communities to manage forests sustainably for socio-economic benefits, poverty reduction and to *contribute to overall sustainable forest management at national level*;
- *Facilitating* raising forestry crops on registered land of individuals or institutions and accrue ecological, social and economic benefits;
- Enabling an economically viable and efficient forest based industry aimed at adding value to forest products and build capacity of private sector and rural communities to utilize, process and market forest products;
- Maintaining species persistence and ensure long term sustainability of Bhutan's biodiversity, ecosystem services, natural habitats and cultural heritage through a network of Protected Areas, biological corridors and management of other parts of the forest landscape for positive environmental outcomes; and
- Providing for effective and integrated watershed management, maintain and improve water and watershed conditions and contribute to sustainable livelihoods through provision of watershed services

These objectives place emphasis on both cash and non-cash benefits. Cash benefits alone will not always be effective. It is worth leveraging multiple benefits and emphasizing both cash and non-cash benefits. Before the introduction of modern forestry legislation in the 1960, the people had customary rights to forest resources. Communities could conserve and use forests on a sustainable basis, first, because of the subsistence nature of forest use for family or household needs, and second, because the concept of commercial exploitation did not exist in the culture itself.

The adoption of improved technologies by wood based industries to enhance value addition is a key output in the 11th Five Year Plan. This could be catalyzed by the DoFPS developing an enabling regulatory framework to support the timber industry to adopt appropriate technologies. An enabling regulatory framework would encourage the timber industry to invest in developing business plans to chart the future

directions in taking the industry to a new level. This might involve preparation of operating guidelines and promotion of value addition within the wood-based industry value chain. The result would be an increase in product diversification and enhance both sustainable forest management and revenue generation. This will contribute to improving the efficiency of timber utilization and thereby reduce the pressure on forests.

Furthermore, through a project called “Integrating PES and REDD+ in Bhutan”, a Payment for Environmental Services (PES) Framework for Bhutan was produced with support from the Bhutan Trust Fund for Environmental Conservation (BTFEC) and Blue Moon Fund (BMF), USA. In line with Bhutan’s strong support for conservation and natural resource management, the general PES provisions in Bhutan’s current enabling policies and legislation provide a foundation for utilizing this conservation finance tool to preserve and manage the environmental services of the country. However, the existing schemes are presently operating at a basic level because no attempt has been made to systematically value the services provided by forests in Bhutan. The National Biodiversity Strategy and Action Plan (draft July 2014) highlights that, “even the critical watersheds supplying clean and abundant water for the generation of hydropower, a major driver of economic growth and a revenue generator in the country has been overlooked”.

This is an additional reason the government has taken recent initiatives to establish Gross National Happiness Accounts, covering ecological capital, cultural capital, human capital, social capital and economic capital (RGOB 11th FYP). However, these efforts are still at a very nascent stage given the limited capacities in terms of technical, financial and human resources in the country and the lack of an institutional mechanism to coordinate and lead programs for valuation of biodiversity and ecosystem services.

2.3.4 National REDD+ registry and system for monitoring activities

No national REDD+ registry and system for monitoring REDD+ activities is in place yet. This MTR includes a request for additional funding to establish the necessary registry system in line with the emerging consolidated national MRV system under Component 4.

2.4 Social and Environmental Impacts

2.4.1 Analysis of social and environmental safeguard issues

In early 2016 the RGoB prepared a Roadmap for national REDD+ safeguards which is underpinned by the principle of “country approach to safeguards” (CAS). A review of this Roadmap concludes that the country is ready and understands the fundamental premise for implementing a national safeguards framework especially meeting the fundamental safeguard-related requirements to be eligible for results-based finance i.e.

- a. Cancun Safeguards – countries should promote and support the Cancun safeguards throughout REDD+ implementation;
- b. Safeguards information System (SIS) – countries should develop a system for providing information on how the Cancun safeguards are being addressed and respected; and
- c. Summary of information – countries should provide a summary of information on how all the Cancun safeguards are being addressed and respected throughout the implementation of REDD+ actions. identify actions and who should implement the actions to inform Country Approach to Safeguards for Bhutan.

A five-day ‘National Workshop on REDD+ Safeguards’ was held between 5 and 9 October 2015 as part of Bhutan’s REDD+ Readiness Process. The workshop was organized by the WMD in collaboration with the UN-REDD Programme, as part of UNEP’s targeted support to Bhutan on REDD+ safeguards. The workshop

was attended by 27 participants, including 5 women, and involved the participation of the Technical Working Group on Safeguards, Governance and Benefit Distribution.

2.4.2 REDD+ Strategy with respect to impacts

As no REDD+ strategy and actions plans have been developed, the analysis of impacts has not been undertaken. However, significant work has already been carried out with an initial analysis of Policies, Legislations and Regulations (PLRs) and the development of the aforementioned Roadmap on Bhutan's approach to REDD+ safeguards. The initial PLR analyses indicated that generally, the existing PLRs addresses the seven Cancun safeguards, but there is a need to strengthen implementation to ensure that the PLRs are aligned to the REDD+ strategy actions to be prepared.

2.4.3 Environmental and social management framework

At present Bhutan is in the final stages of procurement to engage national and international consultants to undertake Strategic Environmental and Social Assessment (SESA), prepare the Environmental and Social Management Framework (ESMF) and establish Safeguard Information Systems (SIS) and develop Feedback and Grievance Redress Mechanisms (FGRM). This will lead to detailed description of the relevant social and environmental operational policies as well as an analysis of the actions of the NRS that have the potential to impact those operational policies or the UNFCCC safeguards. The ESMF will also include a description of the procedures to be followed for purposes of monitoring the enforcement of safeguard frameworks, the existing national legal provisions as well as a set of guidelines, rules and principles to be followed if there are legislation gaps, which is consistent with the World Bank requirements.

The SESA/ESMF work is expected to commence in the first quarter of 2017 and will also form the entry points for developing the SIS. However, in developing the SIS, the RGoB is conscious of the need to undertake further analysis of existing information and sources. While this was already highlighted in the roadmap, this MTR concludes that much of the information is currently sporadic and inconsistent with limited cross-sector coordination. This may be the most challenging aspect and will require significant effort. Prior to implementing a CAS and developing the SIS, the RGoB will need to determine which REDD+ activities and actions it intends to implement in order to determine the scope of the SIS.

Component 2 Key recommendations and way forward

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- iv) Use the REDD+ Readiness process as the entry point to initiate development of a National Land Use Policy including land use planning and zoning. The NLC has already indicated this to be a priority and is seeking financial support to undertake the necessary analytical work across sectors and assess options.
 - v) Integrate REDD+ activities into area based and other management plans (e.g. FMU, PA, CF, watershed, etc.) supported by necessary capacity building.
- Carry out an inventory of significant wetlands across the country.
- vi) DoFPS to encourage the timber industry to develop down-stream processing to achieve greater levels of value addition to enhance the efficiency of timber utilization (aiming at zero waste).
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3 COMPONENT 3: REFERENCE EMISSIONS LEVEL/REFERENCE LEVEL

3.1.1 Demonstration of methodology

The RGoB is yet to prepare its FREL/REL but has sought the assistance of FAO in designing the national MRV system and planning is already underway. A REDD+ Forest Reference Emission Level/Forest Reference Level (FREL/REL) is a benchmark for assessing a country's performance in implementing REDD+ activities expressed in tons of CO₂ equivalents per year in a pre-determined timeframe. Bhutan has not yet developed FREL/REL hence this section is about background and context and outlining options that the country could follow. A FREL/REL is either established at the national level or is elaborated at the sub-national scale representing less than the country's entire national territory of forest area, in an interim period. It may reflect one or more of the five REDD+ activities if the activities that are significant are included. Although REDD+ is part of the suite of options presented in the INDC submission to the UNFCCC, national discussions are still at the starting point.

The distinction between the terms FREL/ REL is not defined under the UNFCCC and not applied consistently in literature. FREL commonly refers to emissions from gross deforestation and forest degradation (REDD) in a given time period while REL refers to net emissions and removals, in the case that the other REDD+ activities (comprising the "+") have also been included in the scope. This is likely to apply to Bhutan noting that there is a net increase in forest cover.

3.1.2 Use of historical data, adjusted for national circumstances

There is historical data to support the preparation of FREL/REL noting that the RGoB has already submitted two National Communication Reports to the UNFCCC. According to the second national GHG inventory, Bhutan is a net sink for greenhouse gases. The estimated sequestration capacity of forest is 6.3 million tons of CO₂ while the emissions for the year 2000 is only 1.6 million tons of CO₂ equivalent. This is largely due to the large area of forest, low levels of industrial activity and almost 100% electricity generation through hydropower.

Although the highest emissions are from the agriculture sector they have more or less remained constant, but emissions from sectors such as industrial processes and transport are showing a rapidly increasing trend. During the period 2000-2013, emissions from the energy sector increased by 191.6% from 0.27 million tons of CO₂e in 2000 to 0.79 million tons of CO₂e in 2013. During the same period, emissions from industrial processes increased by 154.3% from 0.24 million tons of CO₂e to 0.6 million tons of CO₂e. Emission from waste management also increased by 247.54% from 0.047 million tons of CO₂e to 0.16 million tons CO₂e.

While there is all this data, stakeholders and government institutions indicate that the quality and accuracy of climate change data in Bhutan needs verification and validation. Three methodological levels to estimate and report carbon emissions and removals can be considered based on IPCC guidance. In order of complexity, the reporting options are:

- Tier 1: Based on IPCC basic method and default emission factors. These methods use spatially coarse activity data, agricultural statistics and global land cover maps;
- Tier 2: Based on the same methods as Tier 1, but uses country specific emission factors and activity data; and,
- Tier 3: Based on higher order methods with country specific models or inventory systems, driven by high resolution activity data. These methods provide greater certainty compared with the lower tiers and have a closer link between biomass and soil dynamics.

Further guidance is provided for representation of land area in the form of Approach 1, 2 or 3. Approach 1 is the most basic and predominantly utilizes pre-existing data sets. Approach 2 provides a

national or regional scale assessment of losses or gains in the area of specific land categories as well as changes between categories. Approach 3 requires spatially explicit observations of land use and land cover change and the data may be obtained by either sampling of geographically located points, wall-to-wall mapping, or a combination of the two. It is comprehensive and relatively simple conceptually but data intensive to implement.

According to the REDD+ FREL/REL guidance agreed in Durban in 2011, the definition of forest used in the construction of the FREL/REL will need to be provided in the reference level submission. If there is any difference between that definition and the one applied by the country in its national greenhouse gas inventory or in reporting to other international organizations (i.e., FAO FRA), then an explanation of why and how the definitions used are different will need to be provided.

With regards to carbon pools, the RGoB has already indicated that it will include key pools (Above-ground, below-ground, deadwood and litter).

3.1.3 Technical feasibility of the methodological approach, and consistency with UNFCCC/IPPC guidance and guideline

Consistence with UNFCCC and IPCC guidelines will be maintained through soliciting necessary national and international technical expertise.

Component 3 - Key recommendations and way forward

vii) QAQC protocols are in place and currently accuracy assessments are being undertaken both for the data collected from NFI as well as for the Land Use and Land Cover 2016. Field validation is being undertaken and this needs to be strengthened further.

4 COMPONENT 4: MONITORING SYSTEMS FOR FORESTS AND SAFEGUARDS

Bhutan developed a National Forest Monitoring System Action Plan (NFMS-AP) with targeted funding support from the UN-REDD Programme and this was completed and validated in January 2015. The Action Plan conceptualizes institutional arrangements for MRV with two main objectives;

- To monitor the health and state of Bhutan's forests for enabling long-term conservation and sustainable forest management, and uphold the Constitutional requirements of maintaining 60% forest cover in perpetuity;
- To generate accurate and holistic data on forest area and carbon stock changes in a transparent and consistent manner using globally accepted methodologies for national and international reporting.

The next sections describe the institutional arrangements in more detail.

4.1 National Forest Monitoring System

As of necessity, the country needed support to build capacity to implement the action plan on various elements of REDD+ such as National Forest Monitoring System (NFMS) (which encompasses National Forest Inventory, Satellite Land Monitoring System and Greenhouse Gas Inventory for LULUCF) and Forest Reference Emission Levels/ Reference Levels (FRELs/RELS).

The RGoB has generated a series of LULC maps for the country dating back to 1970 using aerial photographs complemented by field surveys with support from the Indian Government. Further mapping was undertaken in 1995 with support from Danish Development Agency (DANIDA) using SPOT satellite imagery. The latest maps were produced in 2000, 2010, and 2015 using satellite imagery through Global Environment Facility (GEF) support.

4.1.1 *National Forest inventory*

Bhutan has received support from FAO as part of the BMU-ICI FAO-INPE REDD+ Project and the UNREDD Programme to work with Collect Earth² - a tool that enables data collection through Google Earth. This has enabled Bhutan to assess IPCC LULUCF and REDD+ reporting while supporting the development of the NFI in carrying field measurements. To date, a total of 9677 one hectare plots have been laid across the country on a 2 km x 2 km grid including 2424 NFI plots on a grid of 4 x 4 km. The first NFI started in 2012 and has now been completed with the results of the process being published and will enable the setting of FREL/REL. Likewise all necessary documentation including standard operating procedures (SOP) for field measurements have been prepared.

Allometric equations have been developed for up to 50 species in the country along with the relevant field manuals for randomized branch sampling and destructive sampling for biomass estimation. There is ongoing training of officials within FRMD and RDC.

4.1.2 *Institutional arrangements and capacities*

As indicated earlier in this report, the Bhutan forest sector administration is the responsibility of MoAF through the DoFPS with the WMD being the focal point for REDD+. The FRMD leads the coordination, development and implementation of the NFMS including carrying out periodic NFI measurements as reflected in the National Forest Policy. NFI implementation is guided by an advisory team comprised of staff from the Renewable Natural Resources Research Development Centre (RNR-RDC), The National Soil Service Centre (NSCC), National Biodiversity Centre (NBC), the NEC, and the Royal Society

² <http://www.openforis.org/tools/collect-earth.html>

for the Protection of Nature (RSPN). This arrangement enables a broad-based stakeholder participation in NFI design and implementation.

Institutional capacity for natural resources assessment and monitoring generally exists across many of the government departments but with varied capacities. Many government agencies use geospatial tools but it appears use of GIS or spatial technology is project-based and ad-hoc based on available financial support. Thus, institutional coordination and data sharing is sporadic with no formal mechanism. However, a Centre for GIS Coordination (CGISC) has since been established to enable streamlining of geospatial activities, data standardization and sharing through a common geoportal.

The RGoB has opted to work with FAO to customize open source tools like Open-Foris and Calc in developing its national NFI data management system. This substantially reduces the level of necessary investment. However, there is observable need for broader capacity building to ensure national staff develop the necessary skills for data management and analysis.

Discussions with the NEC Secretariat indicate that, while the availability of data has improved over the years for national GHG inventory reporting and National Communications, the quality of data still remains below required standard and inconsistent across sectors. The NEC supports the NFI through the Low Emission Capacity Building Project specifically for carbon data assessment. However, there are limited financial resources to maintain the necessary level of capacity building and the FCPF funding support presented an opportunity to increase capacity building efforts specially to ensure data standardization and reduce inconsistencies across sectors.

4.2 Information System for Multiple Benefits, Other Impacts, Governance, and Safeguards

Actions to strengthen REDD+ governance and safeguard mechanisms are being initiated. A Safeguard Roadmap has been prepared outlining the strategy that the RGoB will follow. Most safeguard requirements recommend building on existing systems. The recent review of policies, laws and regulations by the WMD indicates that Bhutan's existing PLR framework addresses REDD+ safeguards to a large extent. The development philosophy of GNH, which seeks to achieve balanced sustainable development to mutually reinforce social, economic, and environmental goals under a framework of good governance addresses environmental and social safeguards. However, while this is the case, the proposed development of a national land policy may require revisiting the existing frameworks to ensure they remain relevant under REDD+ strategy options and any new policies and measures.

4.2.1 Safeguards Information System

Bhutan does not have an SIS just yet but as referenced in Section 2.4, this process is already planned for implementation during the first quarter of 2017.

This MTR observes some weakness in both the sector-wide system and cross-sectoral data and information sharing. This suggests the need for targeted effort to improve data and information flow. The current budget allocated under the FCPF grant is insufficient to achieve a meaningful outcome.

4.2.2 Identification of relevant non-carbon aspects, and social and environmental issues

The Constitution of Bhutan enshrines protection and conservation of the environment and mandates the maintenance of 60% forest cover in perpetuity. The value of non-carbon benefits is inherently recognized and in fact is at the very core of this mandate. Over the years, a set of strong laws and policies has evolved to ensure the protection, management and sustainable use of forests. Non-carbon benefits are in fact well defined in many parts of the regulatory framework geared towards the development philosophy of GNH, maximizing human well-being instead of economic profit.

The policies are translated and implemented by the RGoB through FYP. The 11th FYP began implementation in August 2013 after being endorsed by the National Assembly. However, this MTR observes that the tools for monitoring and reporting non-carbon benefits are operationally limited. The objectives of the National Forest Policy re-enforce the RGoB's emphasis on non-cash benefits from the country's natural resources leading to long term social and environmental sustainability. Cash benefits are not always going to be holistically effective. It is worth leveraging multiple benefits and emphasizing non-cash benefits at sub-national levels.

Opportunities and options for strengthening monitoring and reporting are proposed in this report.

4.2.3 Documentation of monitoring approach

The RGoB has so far prepared a suite of roadmaps guided by a combination of UNFCCC and IPCC guidelines as well as drawing from existing legal framework, policies and measures. The documentation of the monitoring approach is evolving with the implementation of the REDD+ activities. The recent completion of the LULC and NFI shows that the FRMD is well-prepared to produce all relevant guidance and procedures in the form of SOPs.

The NFMS-AP also outlines the strategy that the RGoB will take in designing the national MRV. However, the monitoring system for safeguards does not exist yet. The lack of a national land policy limits the ability of government institutions to monitor the effectiveness and impacts of sectoral policy. For instance, the issue of spatial planning and land zonation was identified as important for evidence-based land allocation with better understanding of land use suitability and potential implications for vulnerable watersheds. There is limited data and information to provide robust analysis because there is no recognizable monitoring framework cutting across all sectors.

4.2.4 Demonstration of early system implementation

As of necessity, the demonstration of early MRV implementation emanates from the building blocks such as the LULC mapping and NFI. The LULC is underpinned by use of national staff to undertake GIS and remote sensing activities. However, as already highlighted, the intersectoral coordination and data sharing frameworks are still sporadic and will require significant strengthening.

Assessment of human resource capacities and infrastructure of RGoB in the context of reference levels and MRV development suggest the need for extensive and sustained capacity building. There is need to train a broad section of national stakeholders on generating activity data using remote sensing techniques, emission factor and developing historical emission/removal of greenhouse gas trend. Since the RGoB has elected to use FAO's Open FORIS package, it will necessitate extensive and frequent capacity building at both national and sub-national levels for analysis of NFI data for forest carbon estimates required for generating emission factors.

The use of geospatial technology seems to be gradually proliferating through government institutions and there is clear recognition and talk of an integrated geoportal (the equivalent of a Spatial Data Infrastructure) but this has not materialized yet due to lack of financial resources and necessary expertise. This is one of the key areas where the RGoB would benefit from further technical and financial support.

4.2.5 Institutional arrangements and capacities

The National Environment Commission Secretariat (NECS) is the focal agency for the UNFCCC. As part of its responsibility to produce Bhutan's National Communications (NCs) and Biennial Update Reports (BURs), NECS also reports on Bhutan's REDD+ actions to the UNFCCC. NECS is the overall National GHG Coordinator and each sector will feed the required data to NECS for national and international

reporting. However, the NEC and NECS are not data custodians neither do they have the capacity to collect data. Instead they rely on other institutions.

At the operational level, the DoFPS is the lead agency for NFI and for management of all forest areas. The institutional capacity of the DoFPS is variable. While there is technical capacity with well qualified staff, financial capacity to effectively implement guidelines and policies seems to be the main challenge. Some aspects of preparation of management plans, monitoring and information sharing could be decentralized to the Territorial Divisions, Dzongkhag and Geog level. Preparation of FMU management plans has already been devolved to the field divisions. However, NFI is still being coordinated centrally. During the NFI which was completed in December 2015, 60 field staffs were trained and involved in the field data collection process. There are opportunities to establish regional forestry offices to provide technical backstopping for field offices and enhance monitoring and information collection. This would help in ensuring a continuous flow of quality information from the field to monitor REDD+ actions on the ground.

When the preparatory phase for NFI started in 2009, there was a plan to establish regional offices and an implementation modality was put in place. However, due to lack of financial resources, the regional offices as planned could not be established. The establishment of regional forestry offices is viewed as an opportunity to carry out periodic inventory as part of their routine duties. This will help to reduce coordination burden at headquarters and enhance capacity of field offices. Currently, strong legislation is in place which guides and dictates forest management. The intention is to have more evidence-based science to support forest management in order to respond to current and emerging challenges. These proposed institutional reforms will contribute to this process.

Periodic inventory for plots falling within Protected Areas (PA) which accounts for 50% of the 2424 NFI plots have been budgeted for implementation under Bhutan For Life (Bhutan for Life is a strategic and long term innovative solution for sustainable financing of conservation and management of Protected Areas in Bhutan). It is proposed that periodic inventory of the remaining 50% is carried out through REDD+ readiness support.

The DD study points out that degradation and deforestation occurs mostly outside the managed forests (areas outside PAs, FMUs, CFs, etc.) and therefore detailed and regular inventory information is essential for enhancing management of these forests.

Capacity building has been ongoing at both national and sub-national level. In 2015, Bhutan REDD+ Academy Training was conducted for REDD+ Task Force, TWG members, Field staffs and other relevant stakeholders. Training was also conducted for front line foresters on GPS/GIS and Forest Rules and Regulations who work on the ground to provide public services like survey of forest areas for land clearance, timber marking and allotment of other forest products. Further trainings has been conducted on satellite monitoring system including the principles of remote sensing data analysis for land use and land change.

Component 4 - Key recommendations and way forward

viii) There is a need to strengthen sub-national capacity for monitoring. This could be achieved by facilitating the establishment of three regional forestry offices and training of relevant staff. These regional offices could serve as hubs of information and research for informed decision making on sustainable forest management. Such capacity will ensure effective NFMS, monitoring implementation of REDD+ safeguards capacity and REDD+ activities on the ground.

ix) Capacity building for periodic inventory of the 50% of the NFI plots (which fall outside Protected Areas) not already covered by Bhutan For Life should be carried out with REDD+ readiness support.

5 COMPLIANCE WITH THE COMMON APPROACH

The implementation of R-PP is following guidelines for fulfilling the World Bank safeguard policies, especially: (i) OP 4.01 on Environmental Evaluation; (ii) OP 4.04 on the Natural Habitats; (iii) OP 4.10 on Indigenous Populations (local forest-dependent communities in case of Bhutan); (iv) OP 4.11 relating to Physical Cultural Resources; (v) OP 4.12 on Involuntary Resettlement; and (vi) OP 4.36 on Forests.

The RGoB has expressed its full political commitment to address and respect all UNFCCC and World Bank safeguard requirements in implementing the national REDD+ framework. The implementation of safeguards in Bhutan is based on the full implementation of relevant regulations, ranging from general instruments such as the Safeguards agreed under the UNFCCC, the applicable World Bank Operational Policies, the national legal framework and its subsequent institutional framework. AS outlined in Section 2.4, the RGoB will undertake a full and develop a comprehensive ESMF as pre-empted in the Roadmap for national REDD+ safeguards which is underpinned by the principle of “country approach to safeguards” (CAS). The country has decided that the Safeguards Information System (SIS) will be part of the national monitoring system as it is an official system, and will be open, accessible, transparent and robust.

The REDD+ Secretariat (WMD) is responsible for day to day management and coordination of REDD+ Readiness program. The Watershed Management Division is the overall coordinator for REDD+ Readiness program and leads the implementation of component 1, 2, 4b and 6, while the FRMD is the implementing agency for components 3 and 4a. The REDD+ Secretariat in consultation with Technical Working Groups is responsible for developing Terms of Reference for different studies under REDD+ Readiness, hiring consultants, supervising their work and presenting the final report to the REDD+ Task Force.

6 SUMMARY OF ACHIEVEMENTS TO DATE AND FUTURE OPPORTUNITIES

Substantial progress has been made in implementing the key activities funded under the FCPF grant. The remaining activities are either under way or in an advanced stage of planning. Overall, there has been a major improvement in the capacity of a wide range of government agencies, CSOs, NGOs, corporations, private sector and rural communities to understand and internalize the actions needed to maintain and build on the carbon neutral commitment of the Government. The activities have also added substantially to Bhutan's existing regulatory framework that values conservation and sustainable management of natural resources, which forms the building block for a sustainable future and for REDD+. A summary of the key achievements made under the FCPF grant follows:

Completion of the National Forest Inventory (NFI).

Several donors have co-financed the first ever National Forest Inventory since 2009. The FCPF grant supported completion of field work in the three remaining districts. The information provided from the NFI lays the foundation for planning and decision making and particularly for fulfilling the long term vision of 60% forest coverage. It serves as an information baseline to monitor future activities and strengthen information management systems to address various issues related to forest management and conservation. The NFI was carried out entirely by Bhutanese officials, and the grant helped greatly with in-house capacity building that also led to a reduction in expenditure. The NFI was coordinated at the national level.

***Opportunities exist** to institutionalize periodic inventory into the mandates of field offices by building capacity and installing the necessary hardware and software.*

Sensitization workshops in academic colleges for REDD+ readiness

Workshops were held in six academic institutions across the country in April/May 2016 with the aim of (i) sensitizing students and staff on the importance of sustainable land management and the REDD+ readiness program, (ii) empowering youth through increased knowledge and understanding of climate change implications and (iii) building institutional linkages for future collaboration in related issues. About 2000 participants comprising students and college faculty staff were reached.

***Opportunities exist** to continue these activities and expand to sensitize subject specialists and educators to ensure wider coverage and institutionalization of the key messages into the curricula of educational institutions.*

Engagement of stakeholders across sectors

Particular effort was made to engage with a wide range of stakeholders (in addition to members of the TWG and TF) particularly sectors outside forestry such as Road Department, Bhutan Power Corporation, Local Government representatives, Community Forestry Management Group members, Geology and Mines, Hydropower, District Land record, etc. This was a continuous process starting at the preparatory phase. This resulted in the creation of a high level of awareness of issues and a shared vision of the country's green future and the role that each sector can play in climate change adaptation and mitigation.

***Opportunities exist** to continue these activities to ensure buy-in of key stakeholder groups and continued support for REDD+ activities.*

Recognition of data gaps

It became recognized during the course of implementation that a large amount of data was being generated, but little of it was being analyzed and utilized for policy or other purposes. In addition, there are substantial data gaps in the Forest Information Management System.

Opportunities exist to strengthen the information management system at the national level (with links to the local level) to minimize data gaps and enhance ability to analyze data for policy and other purposes.

Technical capacity building

A substantial effort has gone into capacity building through targeted technical training, workshops and seminars.

Opportunities exist to continue capacity building activities for a wide range of stakeholders to enhance their knowledge of climate change issues, in particular REDD+, and to increase their ability to engage meaningfully in designing a robust national REDD+ strategy and action plan and related components under REDD+.

Strengthening regulatory framework for sustainable forest management

The revision of the Forest and Nature Conservation Rules was carried out with support from the FCPF grant, specifically to address emerging issues associated with climate change and issues aimed at reducing forest degradation.

Procurement of items to improve ability of stakeholders to embrace REDD+

Numerous items were purchased and these have contributed to enhanced capacity of various organizations. The items included: a CHNS analyzer to be used by SPAL (which is used not only for analyzing carbon for REDD+, but also in delivering services to the public and other sectors); hardware and software for satellite image analysis; laptops, printers, GPSs and miscellaneous office furniture. Collectively, this has contributed to the ability of core staff to carry out their functions associated with REDD+.

Opportunities exist to procure additional equipment to continue the process of enhancing the ability of a wide range of stakeholders to carry out their expanded activities associated with addressing REDD+ issues.

Opportunities for implementing major additional activities

National land use planning and zoning

Government agencies are pursuing development in sectoral approaches, but there are evident weaknesses in cross-sectoral planning and coordination to reduce policy conflicts. A national approach to master planning and evaluating sectoral trade-offs is currently missing a broad national perspective due to the lack of a national land policy and land use plan.

Opportunities exist to initiate the development of a national land use policy, including land use planning and zoning, to address the interlocking aspects between different laws and statutes and across all relevant sectors.

Sub-national REDD+ action plans

The DD study identified the major causes of forest degradation that lead to loss of carbon (rural timber allotment, firewood collection, etc.). In particular, SRFs that are outside planned management regimes constitute the major source of timber supply but they are not as well-managed as FMUs.

Opportunities exist to reduce the inefficiencies in current forest management and improve management to increase forest quality and carbon storage. These could be realized by developing a range of sub-national action plans by incorporating “climate smart” activities into existing planning frameworks, such as FMU plans, watershed management plans, CF management plans, PA plans, etc.) as well as by developing management plans for those forests that are not currently covered by formal management plans.

7 REQUEST FOR ADDITIONAL FUNDING

It has become apparent during the 1.5-year implementation of the FCPF grant that there are many opportunities to enhance what has already been achieved to continue the momentum. Building on the recommendations of the MTR, existing activities can be up-scaled and expanded to increase their impact by institutionalization of activities into normal work plans and procedures, particularly at the local level. In addition, there are opportunities to expand the scope of the grant by adding new activities to increase the overall impact of REDD+ readiness. The proposed new activities emerged from experience during implementation. Of particular value were the findings from the study on Drivers of Deforestation and Forest Degradation. This combination of expanding existing activities and adding new activities will substantially increase the overall impact of the grant and ensure maximum take-up and institutionalization of activities. Collectively, these will make a major contribution to climate change mitigation and adaptation. The following paragraphs outline the proposed expanded and new activities and the budget needed to achieve this goal.

The RGoB is requesting an additional grant of **US\$ 4,800,000** on the basis of the significant progress made so far and the opportunities for consolidation and expansion of activities identified in this MTR. This MTR views the progress of the implementation of the FCPF Readiness Grant as significant with potential for rapid progress due to the general existence of all essential building blocks for REDD+ readiness. With the necessary financial resources, Bhutan could achieve Readiness in a relatively short timeframe largely because of a higher than usual level of government commitment and constitutional enshrinement of environmental sustainability. For detailed activities that will be undertaken with Additional Funding, please see Table 8-2, but a brief outline of each component is outlined in the section below.

7.1 Additional Funding Components

7.1.1 Component 1: Readiness Organization and Consultation

This MTR report has noted that the REDD+ Secretariat is undermanned and could benefit from further strengthening to ensure effective and efficient programme coordination and implementation especially as the National REDD+ Strategy development process begins. The Secretariat will be strengthened by employing or designating a REDD+ national Technical Advisor and one project procurement staff to provide necessary support for the increasing workload. These are external national consultant positions with a terminal tenure aligned with the term of the project.

Capacity building has been an important and integral part of activities to date. This needs to be continued to take on new and emerging aspects of REDD+ and additional funding is sought to build capacity of the REDD+ Secretariat in the WMD, the wider DoFPS and other relevant stakeholders.

Forest fire is an ongoing concern and has been identified as one of the drivers of forest degradation. Continued awareness raising is required for both prevention and also for getting support from public for suppression. Therefore, additional funding will support targeted awareness raising through various channels.

Further support will target increasing institutional information sharing and accessibility through improving the REDD+ web portal and strengthening modes of communication, where appropriate, translation of REDD+ material into local languages and by uploading all relevant REDD+ information on the REDD+ web portal.

Multi-sector coordination was highlighted as needing strengthening. Targeted additional capacity building for each relevant sector specifically on REDD+ would increase understanding of roles and responsibilities including the need for better data sharing.

7.1.2 Component 2: REDD+ Strategy Preparation

National Land Use planning and zoning

There are competing sectoral development goals resulting in competing pressure on the land, but there are evident weaknesses in cross-sectoral planning and coordination to reduce policy conflicts. A national approach to master planning and how to evaluate sectoral trade-offs is currently missing a broad national perspective due to the lack of a national land policy. There is an opportunity to develop a concept of a national land policy to address the interlocking aspects between different laws and statutes and across all relevant sectors. This could provide the necessary balance between socio-economic development and conservation. The National Land Commission is already emphasizing the importance of such policy/planning guidance because of the emerging trends in land use such as increased urbanization and climate change. The REDD+ Readiness process is the ideal opportunity to kick start this concept.

Land zoning and spatial planning - To support the land use policy concept, substantial analytical work is required to formulate a framework for improved land allocation based on robust spatial planning. Additional analytical work will include land use capability analysis.

Sub-national REDD+ Action Plans

Although the RGoB has started the process of preparing its National REDD+ Strategy and corresponding Action Plans, ample opportunities exist to integrate REDD+ activities into area based and other management plans (e.g. FMU, PA, CF, Watershed Management Plans). Further, the DD study indicated that a substantial amount of degradation is occurring in SRF areas without any management plans, and this is another area where local forest management plans could be prepared. This need is recognised by the DoFPS and some planning has been initiated by the field offices, but progress has been limited by lack of funds. This is a complex exercise which cannot be achieved under the current FCPF grant and will require substantial financial resources. The process will not only produce local action plans that will help reduce deforestation & forest degradation, but will strategically inform the proposed national land use planning.

Based on findings in the DD study there is an opportunity to reduce the inefficiencies in current forest management that leads to increased forest degradation and loss of carbon, and opportunities for improved management to increase forest quality and carbon storage. Bhutan has over 50% of its land area dedicated as protected areas, and other forest defined as Forest Management Units, Working Schemes, Local Forest Management areas, Community Forests, and there are also Watershed Management Plans and Wetland Management Plans.

But within all of these areas, more attention could be paid to defining protection for high carbon stock/high conservation value forest, areas suitable for sustainable management, areas suitable for forest conversion, and areas suitable for increasing forest cover and carbon enhancement. For example, steep, ecologically sensitive areas could be dedicated for protection to conserve carbon stocks, while afforestation, reforestation and enrichment planting could be promoted in degraded and barren areas. The intensification of sustainable management for timber and NWFPs would be suitable in forests with higher production potential.

SRFs outside planned management regimes constitute the major source of timber supply but they are not as well-managed as FMUs. These are opportunity areas for better management, and therefore increased carbon stocks. That said, even within FMUs, there is room for improvement. Evaluation reports of FMUs under operation reveal varying degrees of compliance failures during implementation, and regeneration of harvested forest areas in FMUs has only average survival status,

and the scientific principles applied in silvicultural operations of forests have been criticized as a 'one size fits all' approach.

There may be potential for Community Forests to participate in increasing carbon stocks, particularly in degraded areas, or where there could be good economic value for communities to invest in increasing forest carbon stock, such as teak production in the warm, humid broadleaf forests. Community Forests are a means to provide multiple benefits for local livelihoods, conservation and biodiversity, and help forge a management and stewardship link between people and the forests around them.

Wetlands conservation is an integral part of overall landscape management. A major need for protecting wetlands is an inventory of significant wetlands across the country. Currently there is no framework for a wetlands inventory and hence no spatial understanding of the extent and status of national wetlands. REDD+ presents an opportunity for undertaking a complete inventory of nationally significant wetlands as part of the non-carbon benefits framework. Therefore, an inventory of significant wetlands across the country will be undertaken with additional grant. This will contribute to their conservation by ensuring that they are recognised in land use planning and management and particularly enable the National Land Commission to avoid allocating wetlands to other uses.

Strategic planning for plantation programmes

An expanded plantation programme will increase carbon stocks and help address forest degradation. The REDD+ programme provides an opportunity to identify forest land that is of relatively low ecological value for plantation development and enrichment planting. The DoFPS has been carrying out plantation programs across the country but has not been able to focus them appropriately. The National Forest Policy 2011 has clearly stated that the plantation program will be out-sourced and accordingly DoFPS has also developed a guideline for out sourcing plantation and nursery activities. The Green Bhutan Corporation Limited (GBCL) was established recently with a mandate to take over plantation and nursery operations from DoFPS. Therefore, additional funding is proposed to support the strategic planning necessary for GCBL and the DoFPS to translate the National Plantation strategy into local level. Some of the key activities include i) Review of National Strategy on Plantation and Nursery of Bhutan, ii) Map and identify degraded areas for plantations, iii) Build capacity for plantation and nursery techniques, and iv) develop afforestation business plan.

Strategy to improve technologies for wood based industries

It would be advantageous for the DoFPS to encourage the timber industry to engage in down-stream processing to add value to harvested forest products. Funding is proposed to develop a strategy in consultation with wood based industries to explore options to enhance efficient utilization of timber and diversification of wood products. This strategy should aim to minimize waste.

Forest sector business master plan

At the present time there is no overarching strategy for enhancing government and private sector investment in forestry and forest based industries, including ecotourism, wood based industries, community based product development. There is an opportunity to develop a business sector master plan to guide investment in these areas to improve rural livelihoods and contribute to sustainable management of forests.

7.1.3 Component 3: Reference Emission Level and Reference Level

Although national land use maps have been developed, no accuracy assessment has been carried out to ensure data consistency across time. There is currently no budget for undertaking accuracy assessment.

The recently completed NFI was carried out as a centrally coordinated activity specifically aimed at establishing base line conditions. Future inventories should be carried out as part of the regular mandate of field offices in order to decentralize the activities and ensure regular and continuous flow of information. Establishment of regional offices and strengthening the capacity of field officers will support this process.

7.1.4 Component 4: Monitoring System for Forest and Safeguards

Support for proposed regional field offices

Three proposed regional field offices will need considerable support to become fully effective. This could be achieved by expanding existing divisional offices or by establishing new offices. Additional funding is proposed for support these offices by providing office equipment, furniture, capacity building, etc.

Capacity building for periodic inventory

Periodic inventory for plots falling within Protected Areas (PA), accounting for 50% of the 2424 NFI plots, has been budgeted for implementation under Bhutan For Life. (Bhutan For Life is a strategic and long term innovative solution for sustainable financing of conservation and management of Protected Areas in Bhutan.) There are opportunities to establish the necessary pre-conditions for periodic inventory of the remaining 50% to be regularized with support from REDD+ readiness funding. This could be operationalized through capacity building of staff at existing field offices at various levels and by supporting three proposed regional offices. This would help in ensuring a continuous flow of quality information from the field to monitor REDD+ actions on the ground.

Strengthening Forest Monitoring Information System

A 2015 evaluation of FMU implementation prescriptions for timber harvesting (e.g. Annual Allowable Cut (AAC), size and alignment of cable corridor) in approved plans found that the prescriptions are not always followed, leading to over-harvesting of trees. This is somewhat confirmed by the analysis of drivers of deforestation and forest degradation. The harvested areas were not replaced adequately by natural regeneration and plantations, putting the sustainability principle of FMUs in question. It appears that unclear responsibility and ownership, inadequate supervision, weak monitoring and systems for sharing information between DoFPS and NRDCL are contributing to this problem.

While a lot of data and information is collected for the various processes, the systems for data collection are basic spreadsheets that are disaggregated and offer minimal analytical intelligence to detect non-compliance. There is an opportunity to improve both data collection systems and integration at national and sub-national levels in line with emerging NFMS and the broader MRV system. Sub-national capacity for monitoring has been identified as a major weakness and likely to require even more support with the prospect of supportive REDD+ actions plans at local level. Some of the requested funds will go towards establishing three sub-national level offices thus contributing to the sustainability of the national MRV framework.

The DD study pointed out that there is a need to strengthen the existing forest information management system. In particular, the current system is not appropriate to satisfy emerging information needs. A system wide approach is needed to include data bases and information systems at all levels including range offices, divisional offices, parks, wildlife sanctuaries and at the central level (FIMS, FRMD). Additional funding is required to strengthen the information management systems at all levels (including forest fire mapping and assessment, land clearance and encroachment, monitoring illegal forestry activities) and build capacity to manage the systems. The establishment of regional

offices (as proposed earlier) can provide technical backstopping to the various field offices for data gathering and feeding information to the central level.

8 BUDGET PERFORMANCE AND FINANCIAL PLAN FOR ADDITIONAL FUNDING

Table 8-1: Grant Budget and Request for Additional Funding

R-PP Component	Total needed (A)	Total pledged (B)	Funds used		Funds Available (B-C)	Financing gap (=A-B)	Request to FCPF
			Fund Committed (C)	Funds Dispersed			
Component 1: Readiness Organization and Consultation							
1.1 National Readiness Management Arrangements	834,208	664,208	191,208	179,942	473,000	170,000	170,000
1.2 Information Sharing and Early Dialogue with Key Stakeholder Groups	282,992	90,000	50,000	50,000	40,000	192,992	192,992
1.3 Capacity building and training for REDD+ implementation	600,000	200,000	126,629	98167	73371	400,000	400,000
	1,717,200	954,208	367,837	328,109	586,371	762,992	762,992
Component 2: Preparation of REDD+ Strategy							
2.1 Assessment of Land Use, Land Use Change Drivers, Forest Law, Policy and Governance	936,000	100,000	150,000	70,000	-50000	836,000	836,000
2.2 REDD-plus Strategy Options	910,000	210,000	155,000	10,000	55000	700,000	700,000
2.3 REDD-plus Implementation Framework	930,000	0	160,000	40,000	-160000	930,000	930,000
2.4 Social and Environmental Impacts during Readiness Preparation and REDD-plus Implementation	550,000	130,000	300,000	0	-170000	420,000	420,000
	3,326,000	440,000	765,000	120,000	-325,000	2,886,000	2,886,000
Component 3: National forest Reference Emission Level and/or a forest Reference Level							
3.1 Develop a national forest Reference Emission Level and/or a forest Reference Level	1,785,000	1735000	696,513	390,413	1038487	50,000	50,000
	1,785,000	1735000	696,513	390,413	1038487	50,000	50,000
Component 4: Design Systems for National Forest Monitoring and Information on Safeguards							
4.1 National Forest Monitoring System	1,170,000	350,000	109969	97397	240,031	820,000	820,000
4.2 Designing an information system for multiple benefits, other impacts, governance and safeguards	321,008	40,000	230,000	0	-190,000	281,008	281,008
	1,491,008	390,000	339,969	97,397	50,031	1,101,008	1,101,008
	8,319,208	3,519,208	2,169,319	935,919	1,349,889	4,800,000	4,800,000

Table 8-2: Activities under Additional Funding

Components	Activity No.	Activities	2017	2018	2019	2020	Total
Component 1: Readiness Organization and Consultation							
National REDD+ readiness coordination and mechanism	1.1 a	Operation of the Task Force, Secretariat and Consultation group to enable effective coordination of REDD+ Readiness and implementation	10000	10000	10000	0	30,000
	1.1 b	Technical Support to Secretariat for REDD+ Management	50000	40000	10000	0	100,000
	1.1 c	Seminars and trainings	10000	10000	10000	10000	40,000
			70000	60000	30000	10000	170000
Stakeholder engagement and communication and dissemination	1.2 a	Consultation workshop at district and geog level	60000	40000	10000	7992	117,992
	1.2 b	Design and production of communication and media products for effective information sharing and awareness raising	30000	30000	10000	5000	75,000
			90000	70000	20000	12992	192992
Capacity building and training for REDD+ implementation	1.3 a	Capacity-building and training for Taskforce, Secretariat, TWGs and government agencies REDD+ Safeguard information systems, MRV and RED+ Governance	70000	100000	50000		220000
	1.3 b	Capacity building and training for local level on forest management, forest law enforcement, GIS, GPS and REDD+ implementation	0	100000	40000	0	140000
	1.3 c	REDD + Awareness to School teachers (Principals or focal teachers)	40000	0	0	0	40,000
			110000	200000	90000	0	400000
		Total Component 1	270000	330000	140000	22992	762992
Component 2: REDD + Strategy Preparation							
Assessment of Land Use, Land	2.1 a	Preparatory analysis for national land use policy (land use zoning and spatial planning options)	650000	0	0	0	650,000

Components	Activity No.	Activities	2017	2018	2019	2020	Total
Use Change Drivers, Forest Law, Policy and Governance	2.1 b	Development of Forest Business master plan for sustainable use and conservation of resources	0	186,000	0	0	186,000
			650000	186000	0	0	836000
REDD-plus Strategy Options	2.2 a	Economic analysis of strategy options	110,000	0	0	0	110,000
	2.2 b	Prepare REDD + Strategy and consultation workshops (Strategy, Benefit sharing, fund mobilization) at district and local level	200000	100000	0	0	300,000
	2.2 c	Refine and Finalize the REDD+ Strategy including consultations at National level	40000	70000	30000	0	140,000
	2.2 d	Translate national plantation strategy into local level action plans (mapping and identifying degraded areas for plantation, capacity building and develop afforestation business plan)	100000	50000	0	0	150,000
			450,000	220,000	30,000	0	700,000
REDD-plus Implementation Framework	2.3 a	Sub-national REDD+ Action plans (Management planning for areas outside FMUs, CF, NWFP, watershed) and national wetland inventory	200000	200000	200000	200000	800,000
	2.3 b	Strategy to improve technologies for wood based industries to increase value and reduce waste	40000	80000	10000	0	130,000
			240000	280000	210000	200000	930000
Social and Environmental Impacts during Readiness Preparation and REDD-plus Implementation	2.4 a	SESA for REDD+ Activities and development of ESMF, SIS (contract cost as well as consultation workshops at national and local level)	200000	70000	0	0	270,000
	2.4 b	Consultation workshops on Grievance Redress Mechanism at National and Local level	70000	50000	20000	10000	150,000
			270000	120000	20000	10000	420000

Components	Activity No.	Activities	2017	2018	2019	2020	Total
		Total Component 2	1,610,000	806,000	260,000	210,000	2,886,000
Component 3: National forest Reference Emission Level and/or a forest Reference Level							
Develop a national forest Reference Emission Level and/or a forest Reference Level	3.1 a	Carry out accuracy assessment spatial plans	50000	0	0	0	50,000
			50000	0	0	0	50,000
		Total Component 3	50000	0	0	0	50,000
Component 4: Design Systems for National Forest Monitoring and Information on Safeguards							
National Forest Monitoring System	4.1 a	Strengthening National Forest Inventory data collection	0	50000	50000	0	100,000
	4.1 b	Development of sub-national sectoral monitoring and capacity building (3 sub-national offices, office equipment and field offices)	200000	200000	200000	0	600,000
	4.1 c	Strengthening forest management information systems	50000	0	0	0	50,000
	4.1 d	Development of participatory tools for community participation	20000	30000	20000	0	70,000
			270000	280000	270000	0	820000
Designing an information system for multiple benefits, other impacts, governance and safeguards	4.2 a	Valuation Environmental Services (Contract)	90000	91,008	0	0	181,008
	4.2 b	Training workshops, consultation, discussion on the valuation of environmental services	50000	50000	0	0	100,000
			140000	141008	0	0	281008
		Total Component 4	410000	421008	270000	0	1101008
		GRAND TOTAL	2,340,000	1,557,008	670000	232992	4,800,000

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10 ANNEXES TO THE MTR

Annex 1: FCPF Readiness Grant Budget Allocation

REDD+ Readiness Project components					
	2015-2016	2016-2017	2017-2018	2018-2019	Total
Component 1: REDD+ Leadership Development (R-PP components 1b, 1c, 2a, 2b, 2c & 2d)					
a. REDD+ Knowledge generation					
Workshop at National Level (Strategy options, Drivers of forest degradation, Risks& Benefits, Safeguards & Grievances)	50	30	30	0	110
Consultation workshop at the District and geog level including information sharing and dialogue	0	40	40	0	90
Institutional visit to REDD+ Pilot Countries for Task Force, TWG, REDD+ Secretariat, Field Offices	50	30	30	0	110
Training on REDD+ structure including REDD+ safeguard information system, MRV and REDD+ governance	30	30	0	0	60
Attending international meetings and seminars (COPs)	20	20	20	20	80
Training on forest management, forest law enforcement & governance to field offices (Dzongkhag Forestry Sectors, National parks and Wildlife Sanctuaries, Territorial Forest Divisions, other stakeholders like armed forces, police personnel, Judiciary people, etc.)	80	20	20	20	140
b. REDD+ Strategy Preparation					590
Analysis of land policy, study on drivers of forest degradation, economic analysis of strategy options	30	40	30	0	100
Social Environmental impact assessment of REDD+ activities and develop environment & strategic management framework, safeguard information system	0	80	50	0	130
Prepare and finalize the REDD+ Strategy	0	50	50	0	100
c. Piloting a REDD+ PES scheme					330
Selection of Pilot site (Consultation meeting with communities and other stakeholders, Site situation analysis)	40	30	0	0	70
Designing the scheme (setting up institutions to manage the scheme, Identification of commonly agreed activities by both beneficiaries and providers of ES, pricing g, agreement, benefit sharing mechanism, PES awards)	20	50	56	0	126
Valuation of Environmental services in the pilot site	0	40	0	0	40
Training (water accounting, carbon inventory, models to calculate discharge from the watershed (pilot site), book & record keeping, pasture/fodder development, use of alternate (green)energy technology, ES valuation, cost benefit analysis of conservation of ES, etc.)	40	30	20	0	90
Livelihood improvement programme in pilot site (plantation, human wildlife conflict management strategies and measures)	50	50	340	0	140
Strengthen Information Management System in field divisions (Parks and Territorial Forest Divisions)	0	40	30	0	70
M&E (framework, monitoring, reporting)	2	2	5	5	14
Sub total					550

REDD+ Readiness Project components					
	2015-2016	2016-2017	2017-2018	2018-2019	Total
Component 2: REDD+ Information Infrastructure (R-PP Component 3 and 4a)					
a. Capacity building on development of forest baseline data (reference level), operational forest monitoring, and GHG accounting [MOSTLY WORKSHOPS AND TRAINING]					
Establish a harmonized classification system for land representation	0	40	0	0	40
Approaches to reference level design, including consideration of national circumstances	60	150	125	30	365
Training on GHG accounting for land use and land use change	15	15	15	15	60
b. Development of a Satellite Land Monitoring System					
Analysis for historical land use change and associated drivers	50	50	100	0	200
Training on geospatial data processing, analysis and management	40	40	40	0	120
c. Multipurpose NFI and forest data management					
Support NFI implementation (5 of 20 dzongkhags)	705	0	0	0	705
Training of field crews and data analysts	25	45	0	0	70
Implementation of data management and QA/QC protocols	132	0	0	0	132
Development of participatory tools for community participation	0	15	10	0	25
d. Development of an integrated web-based forest information system	30	85	85	75	275
e. Support of research related to NFMS and information dissemination	65	10	10	0	85
Sub-Total					2077
Component 3: REDD+ Management (R-PP component 1 a & 6)					
Procurement of mobility vehicle	80	0	0	0	80
Computers (laptop), printers, GPS, furniture, etc.	20	5	0	0	25
REDD+ Task Force and TWG meetings	20	20	20	20	80
Capacity building of project procurement and accounts officer on World Bank procedures	10	0	0	0	10
Development of M&E framework	5	0	0	0	5
Operation Cost	6	6	6	5	23
Mid Term Review	0	10	0	0	10
M&E	0	0	0	5	5
Audit	0	5	5	5	15
Sub Total					253
GRAND TOTAL					3800

Annex 2: Other R-PP Support Programmes

Project name	Year	Amount in \$	Funding agency	Output	Impact/next steps
REDD+ Strategy	2010	Not known	UNDP	REDD+ Awareness Seminar Workshop at the National level in June 2010	Identified the need to do a feasibility of REDD+ in Bhutan before actually participating/undertaking in REDD+ program
	2010	Technical assistance	SNV	Carried out a study and produced a report on Feasibility of REDD+ in Bhutan: A Scoping Study in December 2010	Recommended the need to develop REDD+ strategy and to have a REDD+ TWG, identified possible sources of funding for future projects as well Bhutan became observer country (member) of UN REDD Programme in 2012 making it eligible to receive funding support on REDD+ program through its annual Targeted Support Programme
REDD+ Strategy	2012	90000 (50000& 40000)	UNDP-RR & UNOPS (UN REDD)	National Workshop on REDD+ Strategy Development in Bhutan, April 2012 Ex-country training on Biomass regression modeling Awareness workshop to communities and DYT members in Trongsa REDD+ TWG meetings conducted ToR developed for national consultant for development of REDD+ Strategy Study tours Recruited the national consultant for REDD+ strategy development and made the first installment payment	Built awareness among the participants on REDD+ program at the international level, helped the REDD+ stakeholders understand the REDD+ frameworks and guidelines available from COP under UNFCCC. REDD+ Technical Working Group institutionalized Most importantly, the outputs from workshops in form of reports and recommendations/minutes helped the department and its stakeholders in formulation and development of Bhutan's REDD+ Readiness Preparation Proposal (R-PP)
	2012	21,000	UNEP/UN REDD	REDD+ Environmental Safeguard and Multiple Benefits workshop, October 2012	

Project name	Year	Amount in \$	Funding agency	Output	Impact/next steps
	2012	10,000	FAO/UN REDD	National Forest Monitoring System Workshop, December 2012	
REDD+ Strategy	2013	45449	UNDP-RR	<p>Made the 2nd and third installment payment to the National Consultant for development of REDD+</p> <p>Readiness preparation proposal. REDD+ TWG meetings conducted</p> <p>Participated in COP 18 and the 15th PC meeting of FCPF</p> <p>Carried out consultation workshop on draft FNCR 2014 at 3 regions (west, south & east) tied up with REDD+ awareness program</p> <p>Carried out awareness workshops on REDD+ and PES at 12 districts</p>	<p>Prepared Bhutan's R-PP starting from march 2013 till December 2013. The R-PP with a total fund requirement of USD 4.6 m was approved by FCPF in December 2013. USD 3.8 m was provided by FCPF and the balance fund was to be sourced from other donors.</p> <p>The draft Forest and Nature Conservation Rules 2014 was consulted with field staffs of 3 regions and improved further for final endorsement by the Ministry</p> <p>Field staff, local government leaders, Tshogpas, Mangmis and community representatives sensitized on REDD+ program and its relevance to environmental conservation in Bhutan</p>
REDD+ Readiness	2014	100,000 (USD 50,000 was released to Bhutan, USD 50,000 retained with FAO (USD 20,000 was for mission & consultant cost and USD 30,000 ex-country)	FAO/UN REDD	<p>Capacity building</p> <p>Procurement of three drying ovens to be used for analysis of field data for carbon estimation</p> <p>Developed the Action Plan for National Forest Monitoring System (NFMS)</p>	The Action Plan provides a roadmap of activities to be carried out that will help to establish the NFMS at end of Readiness phase (July 2014-June 2018)

Project name	Year	Amount in \$	Funding agency	Output	Impact/next steps
		training of forestry officials)			
	2014	100,000 (A total fund of USD 80,000 was released to Bhutan & USD 20,000 retained with UNDP for consultant & mission cost.	UNOPS (UN REDD)	<p>Capacity building</p> <p>Study on corruption risk assessment for REDD+ in Bhutan and produced a final draft of the document</p> <p>Development of Stakeholder Engagement Guideline for REDD+ in Bhutan which is in draft form</p> <p>Development of communication materials on REDD+ in form of brochures, pamphlets & videos (on-going)</p>	<p>Participated in COP 20 at Lima, Peru as part of RGoB delegation to the UNFCCC. Followed up on REDD+ issues at the meeting and made presentation on work that Bhutan is undertaking on REDD+ in Bhutan.</p> <p>The findings from study on corruption risk assessment for REDD+ in Bhutan will help in identifying possible areas of corruption and forest governance issues and help to focus on those areas while formulating the National REDD+ Strategy. Among many others, the study narrowed down to three main governance issues namely 1) Supply of rural timber, 2) Illegal forest activities and 3) decentralization & community forestry.</p> <p>The Stakeholder engagement guideline which details out steps for involving stakeholders will ensure effective participation of all stakeholders in REDD+ process</p>
	2014 (Fund released from July 2015)	45,000	UNEP/UN REDD)	Fund released	<p>Implementation started from July 2015</p> <p>A workshop on REDD+ Safeguards carried out in October 2015</p> <p>Roadmap document on Bhutan's approach to REDD+ Safeguards in final draft form</p> <p>Draft report on review and analysis of Policies, Legislations & Regulations relevant to REDD+ Safeguards</p>
REDD+ readiness	2015	100,000	FAO/UN REDD	Fund released	USD 50,000 will be released to Bhutan, USD 70,000 to be retained with FAO (USD 25,000 for mission cost & USD 25,000 for ex-country training to built capacity on using Satellite Land

Project name	Year	Amount in \$	Funding agency	Output	Impact/next steps
					Monitoring System to map drivers of forest degradation and deforestation). One national workshop held on Forest Reference Emission Level for REDD+ in June 11-12, 2015.
REDD+ readiness	2015	3.8 million	FCPF/World Bank	Fund released	Implementation started from July 2015. <ol style="list-style-type: none"> 1. Bhutan REDD+ Academy Training conducted in October 2015 2. Training on basic handling of GPS/GIS and Forest Rules and Regulations conducted for 120 foresters from the Territorial Division at UWICE 3. NFI Field works in 3 districts completed and Quality check works (QAQC) conducted by end of 2015 4. NFI Field Work Valediction workshop conducted 5. Training on NFI data analysis conducted in March 2016 6. Re-attempted 57 inaccessible plots and successfully accessed 39 plots in dec 2015-jan 2016 7. Training on satellite image analysis conducted in January 2016 8. REDD+ PES pilot site selected (Darla degraded watershed in Gedu). Stakeholder consultation at the site held and interventions identified for implementation 9. ToRs for different work packages developed and ready for floating 10. World Water and World Forestry Day celebrated on March 22, 2016 jointly with NEC

Annex 3: Details of workshops and capacity building program under FCPF REDD+ Readiness program (2015-16)

Workshops	Target Audience	Date	Number of Participants	
			M	F
Validation workshop on Action Plan for National Forest Monitoring System	National level stakeholders	January 2015	32	7
Write-shop on the draft document for Corruption Risks Assessment and Stakeholder Engagement	TWG members	February 2015	7	3
Launching of RPP and discuss its implementation	MoAF, NEC,SNV,UNDP, FAO,WB	May 27/2015	27	4
Regional workshop on Stakeholder engagement guideline and Corruption risk assessment in Trashigang (east) and Trongsa (central)	Forestry, Agriculture, Geog Administration, Environment,	June 2015 Trashigang andTrongsa	87	5
Workshop on Forest reference Emission level	National level stakeholders	June 2015	27	6
National Workshop on Stakeholder Engagement Guideline & Corruption risk assessment	National Stakeholders involved in natural resources management	August 2015	70	5
REDD+ academy training	REDD+ TWG & Task force members and other stakeholders	October 2015	38	3
Workshop on REDD+ Safeguards	National level stakeholders	October 2015	22	5
Participation in COP21	REDD+ focal and relevant agency staff	November 2015	1	1
Technical write-shop on drafting the Terms of References for various work packages under the REDD+ readiness program	REDD+ TWG and Task force members	December 2015	9	1
Training of Research Officers on R-statistics and regression modelling for	Research Development	December 2015	2	0

Workshops	Target Audience	Date	Number of Participants	
			M	F
allometric equation development at university of Geneva	Centre, Yusipang (now UWICE)			
Training on Tree Ring software application at University of Bern	Research Development Centre, Yusipang (now UWICE)	December 2015	1	0
Meeting with WB mission and Stakeholders to discuss work plan and implementation of R-PP & its progress	Department	January 2016	18	8
Training conducted on Forest and Nature Conservation Acts, Rules and Regulations & silviculture management/operations for foresters/rangers of territorial forest divisions	Front line foresters	January to March 2016	165	0
Valediction workshop on National Forest Inventory		January 2016	52	3
Training on Open Foris (Collect and Calc) for NFI data processing & preparation	NFI and RS/GS experts	January & February 2016	10	0
Stakeholder workshop on REDD+ PES site at Darla (proposed site)	Local level stakeholders	March 2016	17	6
Workshop on finalization of roadmap document on Safeguards	REDD+ technical Working group and Task force members	May 2016	5	2
Sensitization workshop to six academic institutes	Students and faculty members	May 2016	1500	500
Training on Forest Soil and Carbon modelling at Korean university	National Soil Service Centre, Simtokha	May-June 2016	1	0
Validation workshop on roadmap document on Safeguards	National level stakeholders	June 2016	9	4
Stakeholder workshop for central region on study on Drivers of	Local leaders, RNR, Territorial Division,	June 2016	25	5

Workshops	Target Audience	Date	Number of Participants	
			M	F
Deforestation and Forest Degradation (DD) Zhemgang	Hydropower, NRDC			
Consultation meeting on DD study	WMD, Consultants & key stakeholders in DD report	June 20, 21 1nd 23	25	12
Training of NRED staff in Japan(MAB) in Japan: Workshop on Asian Biosphere Reserves in Japan	NRED	August 2016	1	0
Regional UN-REDD Information Exchange Meeting on “REDD+ Communications and Knowledge Management”	REDD+ Secretariat and field offices under DoFPS	August 2016	3	0
FCPF meeting in Ghana	REDD+ focal and NRED	September 2016	1	1
Training on e-cognition	MoAF	September 2016	7	0
REDD+ international workshop and capacity building program at Korea Forest service , Republic of Korea	Bumthang Forest Division and FRMD	October 2016	2	0
Workshop on Man and Biosphere Reserve, Kazkhstan	REDD+ Secretariat and NRED	October 2016	2	0
Participation in COP 22	REDD+ focal and relevant agency	November 2016	0	2
Sensitization workshop to staff of Tarayana Foundation (CSO)	Field as well as head office staffs	December 2016	17	3
Consultation on DD study carried out by Tarayana Foundation with different remote rural communities in the constituents they work with	5 Districts till date -Sarpang (south) -Wangdue (central) -Trongsa (central) -Mongar (east) -Lhuntse (east)	December 2016	108	90

Workshops	Target Audience	Date	Number of Participants	
			M	F
Global Green-Economy Leadership Program, Seoul	FPED	December 2016	1	0
Regional Stakeholder consultation workshops for the report on Drivers study for East, south-central, North and western regions	Forestry, Agriculture, Livestock, environment, Land record, Hydropower, NRDCL, BPC, DoR, Wood based industries,	December 2016	81	18
Review write-shop on report DD study	REDD+ TWG and Task Force members	December 2016	11	7
Final writeshop on DD study with WMD	WMD	Jan 2016	3	15

Annex 4: MTR Schedule and List of Institutions Interviewed

NOVEMBER-DECEMBER 2016

Date	Activity	Time
24.11.16	Arrival of Mr. Nelson, consultant for MTR of R-PP project	
25.11.16	Arrival of Mr, Matthias, Consultant for Study on Drivers of deforestation & forest degradation & barriers to (+) activities	
	Processing of route permits for the international team	
26.11.16	Travel to G/Phug under Sarpang District (one of the two hotspot areas for degradation)	
27.11.16	Logistic arrangement for meetings and site visits	
28.11.16-02.12.16	Organize regional workshops on DD study as well as seek views for MTR	
03.12.16	Travel to Thimphu	
04.12.16	Work on DD report	
	Arrival of Ms. Gabrielle (DD consultant)	
05.12.16	Meeting at WMD	9.0-10.00 am
	Meeting with Director, DoFPS	10.00 to 11.00 am
	Meeting at FRMD	11.30 to 1.0 pm
	Meeting with NEC (national environment commission)	2.0 to 3.0 pm
	Meeting with GNHC (Gross National happiness commission)	12.0 am to 1.0 pm
06.12.2016	Meeting with Secretary, MoAF	9.0 am to 10.0 am
	Meeting with National Land Commission	10 am to 11 am
	Meeting with MoEA (Economic affairs)	12 pm to 1.0 pm
	Meeting with Tarayana Foundation	2.0 pm to 3.0 pm
07.12.2016	Meeting with FRMD	10.0 to 11.0 am
	Meeting with SFED	11.0 am to 12. Pm
	Meeting with NRED	12 pm to 1.0 pm
	Meeting with NRDCL	2.30 3.30 pm
	Meeting with RSPN (Royal Society for Protection of Nature)	3.30 to 4.0 pm
8.12.2016	Meet with PPD (Policy and Planning Division)	10. 0 to 11.0 am
	Meeting with BTFEC (Bhutan Trust Fund for Environmental Conservation)	11.30 to 12.30 pm
9.12.2016	Work with WMD	
10.12.2016	International TAs leave Bhutan	