



Guideline for Development of Divisional Forest Office Management Plan

(August 2021)



**Department of Forests & Park Services
Ministry of Agriculture & Forests
Royal Government of Bhutan**

Department of Forests
& Park Services is
working together with
partners to secure
High Conservation
Values in
south-western Bhutan





Foreword



Forests have always played a key role in the livelihood of Bhutanese and is intrinsically intertwined with the social, culture and traditions of our country. In view of its pivotal role not only on socio economic development but also on climate regulatory functions and vital ecosystem services, sustainable forest management has always played a key role in sustaining our natural forest resources. Bhutan is one of the few countries in the world that enshrines forest and environmental conservation aspects in its Constitution. Article 5 of the Constitution of the Kingdom of Bhutan reflects commitment to ensure that, in order to conserve the country's natural resources and to prevent degradation of

the ecosystem, a minimum of sixty percent of Bhutan's total land shall be maintained under forest cover for all time. Bhutan also committed to remain carbon neutral at the 15th Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC) in 2009 in Copenhagen, Denmark. In addition, the Intended Nationally Determined Contribution (INDC) submitted in September 2015 towards finalization of Paris Agreement further re-iterated Bhutan's pledge to remain carbon neutral.

Divisional Forest Office as the custodian of our forest resources in the Dzongkhags, play an integral role in conserving and protecting our natural forest resources besides catering forestry services to our citizen. It is a key main player in implementing our sound environmental conservation policies and ensuring our commitment to remain carbon neutral and maintain 60% forest cover for all times to come. Though management of forest resources within the divisional jurisdiction is guided by the principles of sustainability, it is even more important to be scientific along with long term divisional goals and objectives. It is also equally important to review and evaluate such goals and objectives on a periodic basis. Therefore, in order to do so a comprehensive and holistic Divisional Forest Management Plan with time bound vision, mission, objectives and goals is imperative.

Therefore, this guideline shall guide our field colleagues in preparing Divisional Forest Management Plan of their respective division which shall not only ensure sustainable management of forest resources within the divisional jurisdiction but also in realizing our national goals for the forestry sector. Further, the guideline is intended to reinforce the Departments recognition of floral and faunal diversity that exist outside the Protected Area Network and in efforts to mainstream conservation on these landscapes through application of the concept of High Conservation Value (HCV) to benefit both the present and future generations.

Tashi Delek!

Lobzang Dorji
Director

'This project is part of the International Climate Initiative (IKI). The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) supports this initiative on the basis of a decision adopted by the German Bundestag.'

Supported by:



based on a decision of the German Bundestag

Abbreviation and Acronyms

AAC	Annual allowable cut
BC	Biological Corridor
CF	Community Forest/Community Forestry
CFMG	Community Forest Management Group
CFMG	Community Forest Management Group
CFMP	Community Forest Management Plan
CFO	Chief Forestry Officer
cft	Cubic foot/feet
DFO	Divisional Forest Offices
DoFPS	Department of Forests and Park Services
FIRMS	Forest Information Reporting and Management System
FMCB	Forest Management Code of Bhutan
FMP	Forest Management Plan
FMU	Forest Management Unit
FNCA	Forest and Nature Conservation Act, 1995
FNCRR	Forest and Nature Conservation Rules & Regulations, 2017
FPED	Forest Protection and Enforcement Division
FRMD	Forest Resources Management Division
GIS	Geographic Information System
GPS	Global Positioning System
Ha	Hectare
HCVA	High Conservation Value Area
HWC	Human Wildlife Conflict
KBA	Key Biodiversity Areas
LFMA	Local Forest Management Area
LFMP	Local Forest Management Plan
LG	Local Government
LULC	Land Use and Land Cover
M3	Cubic meter
MAB	Man and Biosphere
METT	Management Effectiveness Tracking Tool
MoAF	Ministry of Agriculture and Forests
NCHM	National Center for Hydrology and Meterology
NFI	National Forestry Inventory
NRDCL	Natural Resources Development Corporation Limited
Nu	Ngultrum
NWFP	Non-Wood Forest Produce
OP	Operational Plan
PA	Protected Areas
PRA	Participatory Rural Appraisal
RBM	River Bed Materials
RGoB	Royal Government of Bhutan
RNR	Renewable Natural Resources
RRA	Rapid Rural Appraisal
SMART	Spatial Monitoring and Reporting Tool
SRF	State Reserve Forest
TAC	Technical Advisory Committee

Table of Contents

Foreword	3
Abbreviation and Acronyms	3
Approval sheet	7
Foreword	8
Abbreviation and Acronyms	8
Rationale	8
Executive Summary	8
Chapter 1: Background	9
1.1 History and Significance	9
1.1.1 Importance of Forests (common for all)	
1.1.2 Overview of the sustainable forest management (respective divisions)	
1.2 Policies and legislations	9
1.2.1 National Forest Policy 2011	
1.2.2 Forest and Nature Conservation Act of Bhutan (1969, 1995)	
1.2.3 Forest and Nature Conservation Rules (FNCR 2000, 2003, 2006, 2017, 2020)	
1.2.4 Land Lease Rules and Regulations of Bhutan 2018	10
1.2.5 Biodiversity Act of Bhutan 2003	
1.2.6 Land Act of Bhutan 2007	
1.2.7 National Environment Protection Act 2007	
1.2.8 Waste Prevention and Management Act of Bhutan 2009	
1.3 Purpose and Objectives	11
Chapter 2: Current Status	12
2.1 Boundary and Area	
2.2 Administration	
2.3 Biodiversity Conservation	13
2.4 Existing Management Regimes	14
2.5 Forest Resources and Utilization	16
2.6 Local People and Livelihood	18
2.7 Human Wildlife Conflict	
2.8 Climate Change and its impacts	
2.9 High Conservation Value Areas	
Chapter 3: Review of the Past Management Plan	19
Chapter 4: Threat and challenges	
Chapter 5: Management Prescription	
Chapter 6: Implementation Plan and Financial Outlay	20
Chapter 7: Monitoring and Evaluation	21
Chapter 8: Stakeholder consultation and endorsement	22
Annexure I: Annual Operational Plan	23
Reference	25

Approval sheet

The approval sheet shall be common for all and shall be as follows:

Period of the Plan

This Plan is valid for the period of 10 years from..... to.....

Submitted for approval:

Chief Forestry Officer

.....Forest Division

Date.....

Technically reviewed & Recommended for approval:

Recommended for approval:

Chief Forestry Officer

Forest Protection and Enforcement Division

Date.....

Director

Department of Forests & Park Services

Date.....

APPROVED

Secretary
Ministry of Agriculture & Forests
Date:.....

Foreword

This section shall include a foreword highlighting the significance of the DFO management Plan and its implementation. The foreword will be signed by the Head of the Department.

Abbreviation and Acronyms

This section shall include the abbreviations of all the important terms used in the DFO Management Plan.

Rationale

Bhutan though a small country is widely recognized across the world for its environmental conservation initiatives and as a carbon negative country in 21st century. The intact natural resources that we have today is a testimony to the farsighted conservative visions of our successive monarchs and the sound environment conservation policies of the country. However, over the years the forest management policies has undergone significant changes from that of more conservation focused to sustainable utilization of forest resources. Though scientific management of our forest resources based on the principles of sustainability had long been practiced, it has become even more imperative than ever before in light of the changing climate and its impacts. Today climate change and its impacts has widely affected many countries. Bhutan by virtue of being located in a most fragile mountainous ecosystem is even more poised to the impacts of climate change. Thus, Bhutan is one of the few countries in the world that enshrines forest and environmental conservation aspects in its Constitution. Article 5 of the Constitution of the Kingdom of Bhutan reflects commitment to ensure that, in order to conserve the country’s natural resources and to prevent degradation of the ecosystem, a minimum of sixty percent of Bhutan’s total land shall be maintained under forest cover for all time.

Divisional Forest Office as the custodian of our forest resources in the Dzongkhags, plays an integral role in conserving and protecting our natural forest resources besides catering forestry services to the people of the country. It is the one of the main players in implementing our sound environmental conservation policies and ensuring our commitment to remain carbon neutral and maintain 60% forest cover for all times to come. Though management of forest resources within the divisional jurisdiction is guided by the noble principles of sustainability, it is even more important to be scientific along with long term divisional goals and objectives. It is also equally important to review and evaluate such goals and objectives on a periodic basis. Therefore, in order to do so a comprehensive and holistic Divisional Forest Management Plan with time bound vision, mission, objectives and goals is imperative. It shall serve as an over arching scientific Forest Management Plan in scientifically managing the forest resources within the jurisdiction of Paro Forest Division.

Executive Summary

This section shall have a highly concise summary of the contents of the DFO Management Plan.

Chapter 1: Background

1.1 History and Significance

1.1.1 Importance of Forests (common for all)

The Article 5 of the Constitution of the kingdom of Bhutan states that: “Every Bhutanese is a trustee of the kingdom’s natural resources and environment”. The Royal Government is enjoined in the Constitution to conserve and improve the environment and safeguard the country’s biodiversity. It is further directed to secure sustainable development while promoting economic and social development. The Constitution has enshrined the Government to ensure that a minimum of 60% of the country’s land should be maintained under forest cover for all times to come. Bhutan is the only carbon neutral country in the world, absorbing carbon more than it emits. The RGOB has made an international commitment to remain carbon neutral for all times to come.

1.1.2 Overview of the sustainable forest management (respective divisions)

While this section will provide all the available information of the forest division since its establishment, the writeup must begin by providing an overview of the Sustainable Forest Management scenario at the national level then zooming down to the individual divisional level. The importance of forest management and biodiversity conservation must be highlighted duly supported by relevant provisions of important national acts and policies. It shall include a brief history of the division highlighting how the division evolved both in terms of administrative and technical endeavors over the years and what are the major achievements. It should also highlight the significance of the division in terms of resource management, service delivery and other significant importance of the division if any within the divisional jurisdiction. It can also cover other wide topics such as traditional management system.

1.2 Policies and legislations

1.2.1 National Forest Policy 2011

The National Forest Policy 2011 was formulated to keep up with changing times and the evolution of forest management concept of the SRF. Since 1957, Forest governance has transitioned from providing “free access” to “almost no access” to “managed access”.

The Forest Policy 2011 broadly stipulates to apply scientific management approaches to all of Bhutan’s forest and biodiversity resources for the benefit of people without compromising the conservation values and the constitutional mandate of maintaining a minimum of 60 % forest cover for all time.

The Policy while stating about different management regimes also has provisions on the forest-based industries and need of proper utilization and marketing in developing private sector and rural communities. Some of the main features of the Policy include a science-based participatory approach to forest governance and sustainable forest management with emphasis on efficient and environment friendly technologies for value-addition and waste minimization.

1.2.2 Forest and Nature Conservation Act of Bhutan (1969, 1995)

The Bhutan Forest Act 1969 is one of the first Acts passed by the RGoB. The Act nationalized “all land under which no person has acquired a permanent heritable and transferable right of use and occupancy” as forests. It further identified and provided directives regarding the forest rights, uses, royalties and penalties. The Act stipulated that at least 60% of the country should remain forested at all times.

The Bhutan Forest Act 1969 was repealed and ratified in 1995. The Forest and Nature Conservation Act of Bhutan 1995 identified and outlined the requirement of management plan for production and protection of forest and wildlife. Emphasis was given to community and social forestry and, encouraged the participation of community and private individuals. The Act also provided the legal basis for defining management restrictions in the process of forest planning and function mapping.

1.2.3 Forest and Nature Conservation Rules (FNCR 2000, 2003, 2006, 2017, 2020)

The Forest and Nature Conservation Rules (FNCR) 2000 was revised in 2003 and again in 2006 to mainly accommodate a broader scope of the power and duties vested by the FNCA 1995 which were not covered by earlier FNCR. The FNCA 1995 mandated the Department to manage SRF including Community Forests (CF), protect and conserve wildlife, soil & water and related natural resources of Bhutan. The FNCR 2006 issued authority and

provisions for the preparation of management plans for Protected Area (PA), Forest Management Units (FMU), CF, NWFP (Non-Wood Forest Produce Management Area), Soil & Water conservation. Various amendments to the FNCR 2006 have been done over the year due to changing times but keeping in line with the provisions of the NFP 2011. Further, a separate amendment to the FNCR 2006 was carried out due to the adoption of the revised rule for the rural timber allotment as part of the implementation of the Government to citizen services programme. The FNCR 2006 was again revised in 2017 which was an amalgam of all the different amendments made to the FNCR 2006 and the provision on the Rules on Biological Corridors (BC) 2007, which defined the protection status and prescription of the BC plan.

1.2.4 Land Lease Rules and Regulations of Bhutan 2018

The Land Lease Rules and Regulations of Bhutan 2018 implements the provision of the Land Act of Bhutan 2007 and necessitates the requirement of forestry clearance for issuance of lease of SRF Land. Further, it strongly discourages and forbids lease of land registered under Government institutions and areas which are under different management namely designated Parks, Nature Reserve, PA, BC, Buffer Zones, CF, Critical Watershed, Wetland, High Risk Zones, Nyes, religious sites & important monuments and Restricted Zones. However, the Secretariat can make exemptions for only those critical infrastructures of national importance and public need under only special circumstances as deemed relevant by it.

1.2.5 Biodiversity Act of Bhutan 2003

The Biodiversity Act of Bhutan 2003 provides for the conservation and sustainable utilization of biological resources & associated traditional knowledge and ensures Sui Generis protection of plant varieties. It also authorizes the implementation of the Access and Benefit-sharing regime to derive additional benefits in a fair and equitable manner.

1.2.6 Land Act of Bhutan 2007

The Land Act of Bhutan 2007 provides for the leasing of state land for economic and various other activities. All Tsamdro (grazing) and Sokshing (forest land for collection of leaf litter) rights shall revert back to the State and convert to leasehold uses with management plans giving preference to previous rights holders.

1.2.7 National Environment Protection Act 2007

The National Environment Protection Act 2007 provides for the establishment of an effective system to conserve and protect the environment through the National Environment Commission or its successors, designation of competent authorities and constitution of other advisory committees, so as to independently regulate and promote sustainable development in an equitable manner. The Act also calls for conservation and protection of wetlands, alpine regions, watersheds, and other vulnerable ecosystems in addition to the existing protected areas.

1.2.8 Waste Prevention and Management Act of Bhutan 2009

The Waste Prevention and Management Act of Bhutan 2009 promotes minimization and sound management of waste in the country through the 3 Rs (Reduce, Reuse and Recycle). The Act further identifies different agencies for regulation of waste in the country wherein it empowers the MoAF to ensure prevention and management of waste with respect to the agricultural sector, including live-stock and forestry.

1.3 Purpose and Objectives

1.3.1 Vision

Sustaining Bhutan’s forest resources & biodiversity for the happiness of present and future generations.

1.3.2 Mission

To conserve and manage Bhutan’s forest resources & biodiversity to ensure social, economic and environmental well-being, and to maintain a minimum of 60% of the land under forest cover for all times to come.

1.3.3 Purpose

The DFOs should define how their divisions will contribute to achieving and fulfilling the Visions & Missions of the DoFPS

1.3.4 Objectives

Respective divisions to coin the objectives which shall be aligned with all existing national policies and contribute towards the vision and mission of the DoFPS. Further, the objectives must be formulated based on the analysis of threats and challenges under Chapter 4.

Chapter 2: Current Status

2.1 Boundary and Area

Sl.No	Information required	Remarks	Source
1	Location of the division with geo-coordinates	Information on divisional boundary on four cardinal directions is recommended	
2	Area statement and the total geographical area	Detailed area statement of different land use categories summing up to the total geographical area of the division	
3	Land Use Map	Land use map showing all the major land use categories	Latest LULC maps.
4	Location Map	Location map showing the location of the division within the national boundary of the country	

Table 1: Information to be included under Boundary and Area

This section should focus on the general spatial information about the Division. This should include but not limited to detailed area statements, total geographical area of the divisional jurisdiction, and geographic location (Latitudes and Longitudes) substantiated with Location and Land use map. The characteristic description of the landscape in terms of slope characteristics should be provided. Some of the important information to be included in this section is given in Table 1.

Primary data like LULC 2016 and hydrological data from National Centre for Hydrology and Metrology (NCHM) are recommended for obtaining information.

2.2 Administration

2.2.1 Administrative Set up

This section should include the administrative jurisdiction of the Division (Number of Dzongkhags and Gewogs) along with different institutions set up within the Division like number of Range and Beat offices. The Division organogram should be developed with core mandates of the Division. Organogram can be referred to the Organization Development Report for the Ministry of Agriculture and Forests, March 10 2020, Section III; 3.5 DoFPS, page 94, figure 17.

2.2.2 Mandates

This section should include a summary of various kinds of service delivery catered by the division to the general public. Further, it must also highlight the conservation mandates and initiatives of the division as well.

2.2.3 Human Resource

This section must highlight the staffing patterns of the division based on current staff strength and how well the jurisdiction is manned in achieving different divisional mandates. The writeup may also include existing challenges, gaps as well as opportunities.

2.2.4 Infrastructure

This section should include information on how well established the Division Forest is in terms of basic infrastructures and mobility facilities to achieve the divisional mandates of service delivery, resource allocation, biodiversity conservation and adoption of Climate Change Mitigation and adaptation measures.

2.2.5 Budget and Revenue

This section should include detailed information on the budget and revenue of the Division. Details of the past five years revenue generated as well as projection for the next five year.

2.3 Biodiversity Conservation

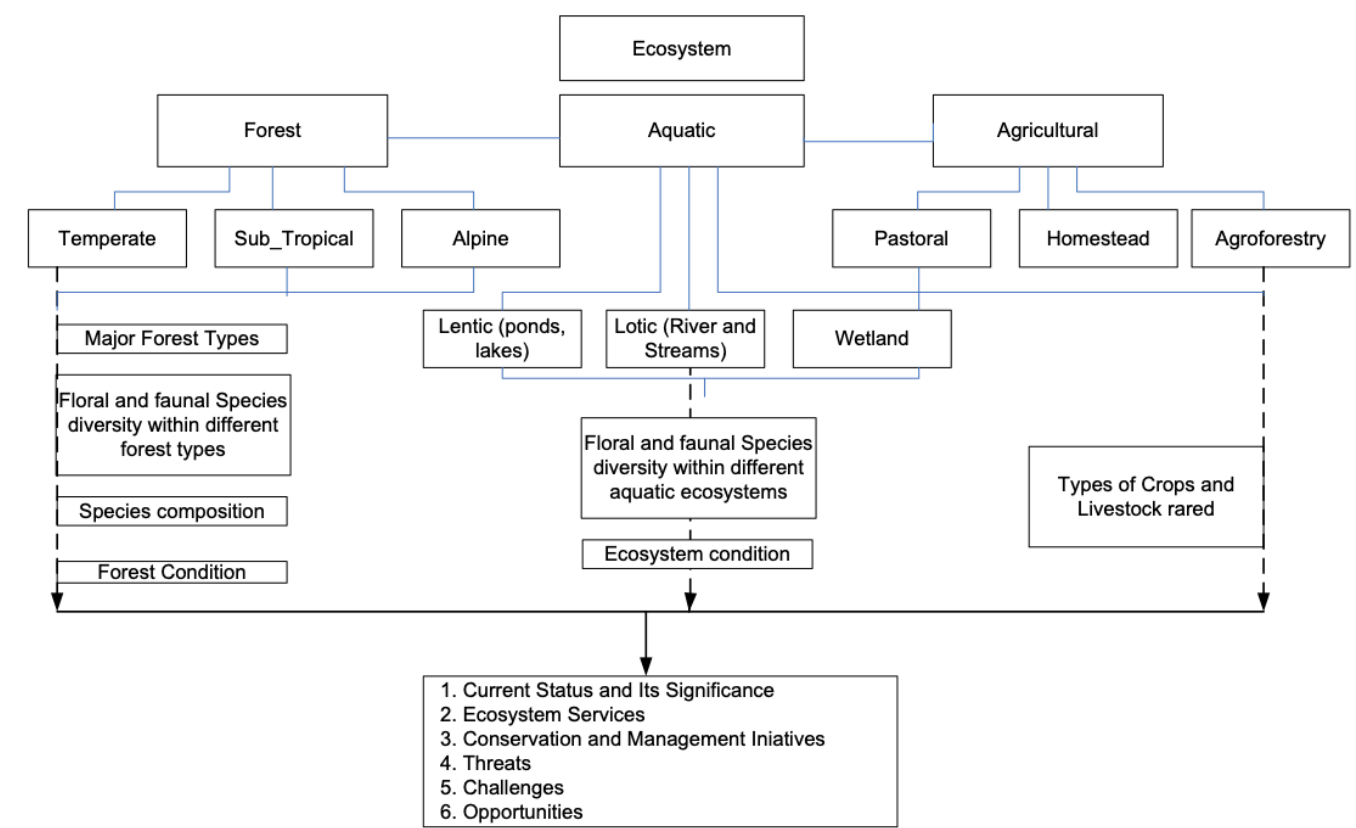


Figure 1: Thematic representation of major ecosystems

This section provides an overview of different ecosystems (forest, aquatic and agriculture) that exist within the divisional jurisdictions. The thematic representation could be adopted based on the different ecosystems that are present within the divisional jurisdiction. Details of major Forest Ecosystems along with different forest types and vegetation found should be elaborated. Information on other important ecosystems like wetlands, riverine ecosystems may also be included. The write up must also cover the current status and significance of these different ecosystems. The species diversity of floral and faunal, species composition, forest conditions should be included. A thematic representation on which the writeup of this section may be based in given in Figure 1.

Preferably primary data collected through Biodiversity Monitoring Exercises, National Forest Inventories, Wetland Inventories, Wildlife Surveys, LULC 2016..etc is recommended for use in deriving the information. However, secondary data and information collected in reference to other relevant management plans and reports, area and species specific wildlife survey reports, RNR statistics, Biodiversity portals, NFI reports..etc may also be included. Due citations and acknowledgements of the reports, plans and other such data sources is highly recommended.

Detailed technical guidelines to carry out Biodiversity Monitoring Exercise can be referred to Volume 1: Guiding Provisions, Chapter IV (4.3) or Volume IV: Protected Area Management of the Forest and Nature Conservation Code of Best Management Practices of Bhutan (hereinafter referred to as Code). Similarly refer Volume II: Natural Resources Assessment of the Code for guidelines in carrying out forest inventories, wetland inventories, Wildlife surveys...etc

2.4 Existing Management Regimes

While the scientific management plans of each management regime provides detailed management objectives, prescriptions and implementation modalities, this section of the plan must include a comprehensive and holistic information on all the existing management regimes that are prevalent within the divisional jurisdictions. It may include but not limited to a brief summary highlighting the management objectives, area extent, key issues and challenges and modus operandi of each of these management regimes and how these management regimes contribute towards sustainable forest management objectives, service delivery, resource needs and conservation and protection of our natural resources. A thematic representation on which the writeup of this section may be based is given in Figure 2.

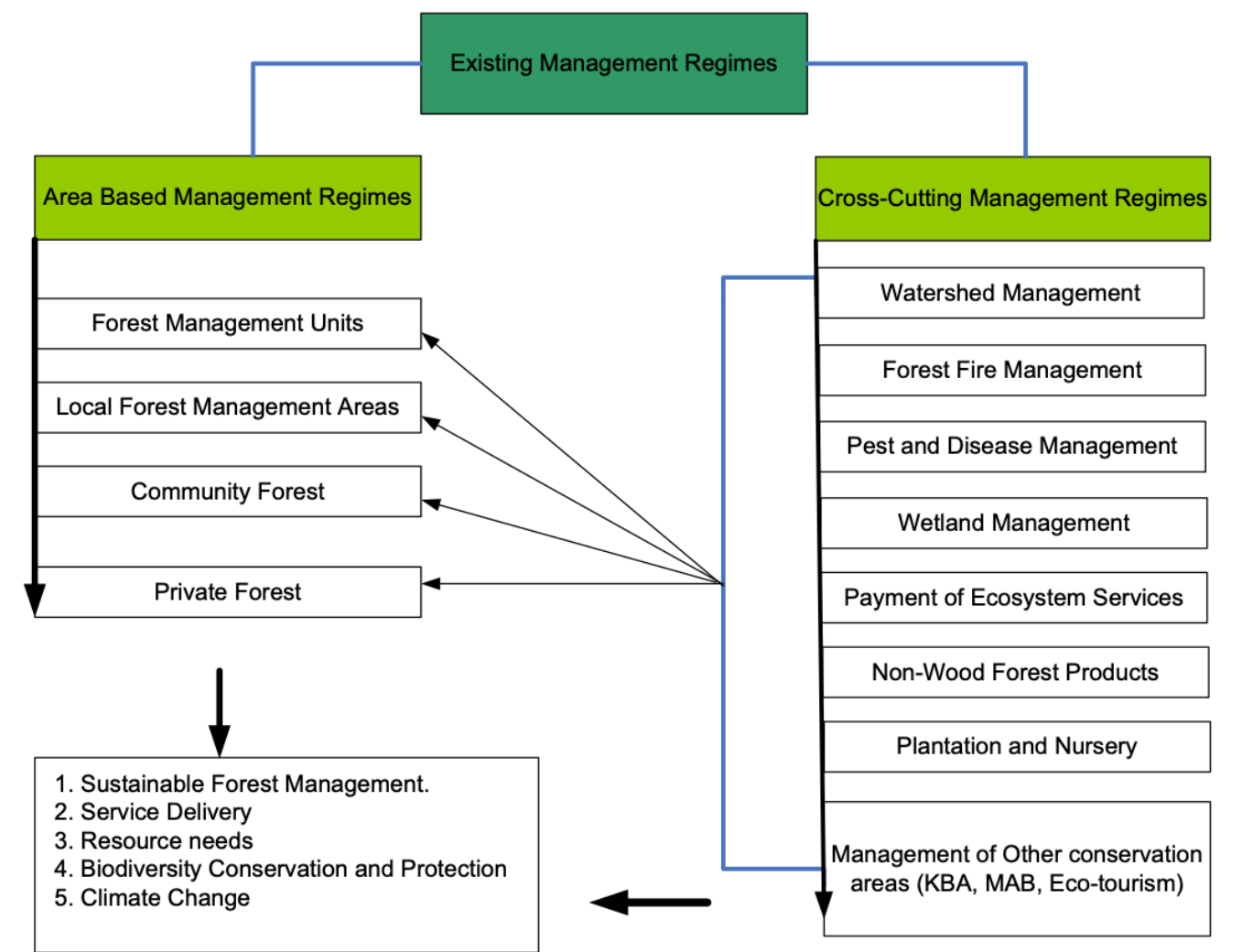


Figure 2: Thematic representation of existing management regimes

Detail write-up for individual management regimes may not be included in the plan. However, write-up for same management regimes could be clubbed under a common topic (eg. Forest Management Units) which shall cover for all the FMUs existing within the divisional jurisdiction.

Some of the important information to be incorporated under each of these management regime are as follows.

A. Area Based Management Regimes

1. Forest Management Unit

Forest Management Unit										
Name of units	Dzongkhag	Gewogs falling within the FMU	Year of establishment	Total area (ha)	Forested area (ha)	Annual Allowable Cut (AAC) - m3			Plan Period	Plan Cycle
						Commercial	Rural	Total		

List of all the FMUs with relevant information as indicated in the table must be included.

2. Local Forest Management Area

Local Forest Management Area								
Name of LFMA	Dzongkhag	Gewog	Year of establishment	Total Gewog area (ha)	Area covered by the plan (ha)	Annual Allowable Cut (AAC) - m3	Plan Period	Plan Cycle

List of all the LFMAs with relevant information as indicated in the table must be included

3. Community Forest

Community Forest										
Name of Community Forest	Year of establishment	Dzongkhag	Gewog	Members		Total Area	Area under Forest Cover(Ha)	Annual Allowable Cut (AAC) - m3	Plan Period	Plan Cycle
				Male	Female					

List of all the CFs with relevant information as indicated in the table must be included

4. Private Forest

Details of Owner				Details of Private Forest						
Name of the owner	CID No	Name of the Private Forest	Dzongkhag	Gewog	Tham No	Year of establishment	Total area (ha)	Area under Forest (ha)	Annual Allowable Cut (AAC) - m3	Plan Period

A. Area Based Management Regimes

Cross Cutting Management Regimes/Interventions									
Sl.No	Cross Cutting Management Regimes/Interventions	Name of the area based management regimes /Location *	Dzongkhag	Gewog	Year of operatianization of the cross cutting regime	Total area under management intervention (ha)	Area covered by the area based plan (ha)	Key Management Interventions **	Plan Period of the area based management plan
1	Watershed Management	eg Betekha FMU							
2	Wetland Management	eg Ngoba Community Forest							
3	Pest and Disease Management								
4	Payment for Ecosystem Services								
5	Non-wood Forest Products								
6	Forest Fire management								
7	Plantation and Nursery								
8	Key Biodiversity Area								
9	Eco-tourism and recreational area								
10	Man and Biosphere area								
	* Name of the area based management regimes/ Location	This is the name of the area based management regimes within which the cross cutting management intervention has been prescribed as a management prescription. For example watershed management intervention may have been prescribed within Betekha FMU. Therefore, the name of the area based management regime will be " Betekha FMU". However, sometimes the cross cutting management interventin may not fall under any area based management regimes. In such case name of the location where the intervention has been prescribed should be mentioned. eg. Shari							
	** Key Management Interventions	Highlight some of the key management interventions prescribed.							

List of all the cross cutting management regimes with relevant information as indicated in the table must be included.

The management regimes includes both area based management regimes like Local Forest Management Areas, Forest Management Units, Community Forests, Private Forests..etc and other cross cutting management regimes that are prevalent within these area based management regimes like Payment for Environmental Services, Non-Wood Forest Management, Watershed Management, Pest and Disease Management, Forest Fire Management, Agroforestry, Wetland management, Plantation and Nursery and Other Conservation areas (Key Biodiversity Areas, Man and Biosphere Reserve, Ecotourism sites and Recreational areas).

The management plans and documents of the respective management plans must be referred for appropriate information and data for this section.

2.5 Forest Resources and Utilization

2.5.1 Forest Resources

This section of the plan provides detailed information on forest resources pertaining to existing stock within the divisional jurisdiction. The forest resources include timber, carbon, biomass, NWFP, Sand and stones, River Bed Materials, Key flora and fauna of conservation and protection importance and any other potential forest resources that are available within the divisional jurisdictions.

2.5.2 Function Mapping

A detailed function mapping of the existing forest resources within the divisional jurisdiction is highly recommended. Function mapping must include mapping areas which are already managed under different management regimes, mapping potential timber production areas which could be explored during the next ten year plan period, and areas which need to be protected and conserved amongst others. A function map of the division must be included within the write-up of this section as per Figure 3 below. The details of function mapping pertaining to criteria, restrictions and management prescriptions can be referred to Volume III: Sustainable Forest Management, Chapter 1: Forest Management Units, Section 1.9: Forest Function Mapping of the Forest and Nature Conservation Code of Best Management Practices of Bhutan.

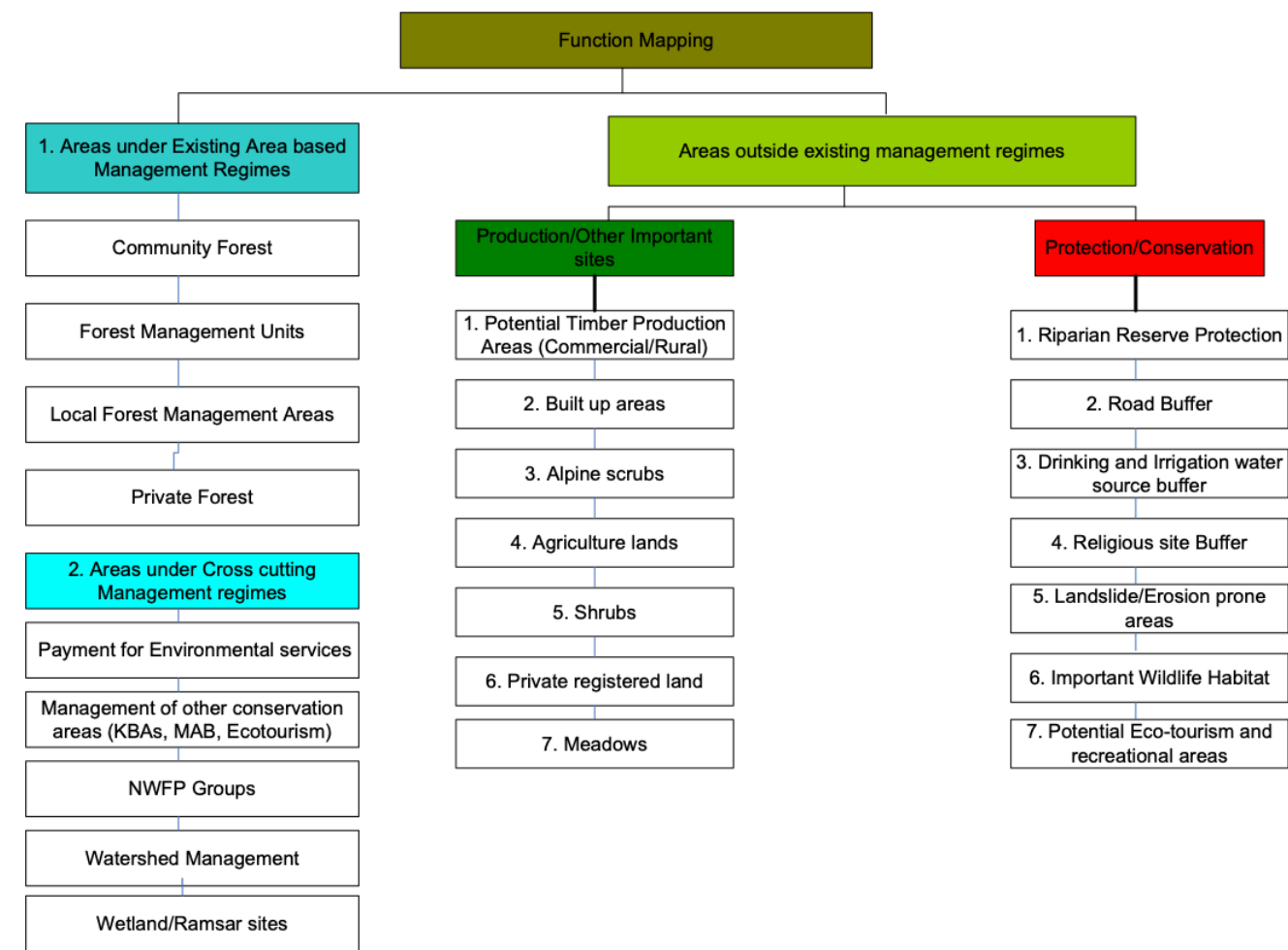


Figure 3: Thematic representation of function mapping

2.5.3 Forest Resource Utilization

This section must provide detailed information on demand and utilization trend of the forest resources within the divisional jurisdiction. It must provide details of forest resources allotted (commercial timber, rural timber, sand and stones, NWFPs..etc) by the division on an annual basis as indicated in Table 2.

Further, this section of the plan must also include information on existing Wood Based industries (both primary and secondary), NWFP management groups, CFMG management groups, rural timber applicants, nationally significant development projects..etc prevalent within the divisional jurisdictions.

Sl. No	Information required	Unit	Time span	Remarks
1	Volume of commercial timber allotted	Standing volume (m3)	Annual	Timber allotted on realizing commercial royalty. The information must be segregated based on purposes like Dzong and Lhakhang Constructions, nationally important projects, urban house construction..etc.
2	Volume of rural timber allotted	Standing volume (m3)	Annual	Timber allotted on realizing subsidized royalty. The information must be segregated based on purposes like New House Construction, Renovation, Cowshed construction, extension, firewood allotment, Dzongs and Lhakhang construction..etc
3	Quantity of NWFP allotted	Unit based on products	Annual	To be segregated species wise or product types
4	Quantity of Sand and stone allotted	m3 or metric tonnes	Annual	
5	Total SRF land allotted for developmental activities	Area (ha)	Annual	This includes SRF land allotted for farm road, approach roads, transmission lines, land substitute, land exchange, land lease, land allocated for project developments..etc
6	Total forest area lost from SRF land allotted for developmental activities	Area (ha)	Annual	This is the total forest area lost from SRF land allotment under sl.no 5
7	SRF land destroyed by Forest Fires	Area (ha)	Annual	SRF land destroyed by forest fire
8	SRF land affected by pest and diseases	Area (ha)	Annual	SRF land destroyed by pest and diseases

Table 2: Information to be included for Forest Resources Utilization

Primary data collected through National Forest Inventory can be used to estimate the timber, biomass and carbon stocks available within areas mapped under different forest functions. Further, the existing information on growing stocks assessed within the existing management regimes (FMUs, LFMA, CFs..etc) within the division can also be used to estimate the timber, biomass and carbon stock. Similarly, for Information on other forest resources like Sand and Stones, NWFPs, minerals, river bed materials, and any other potential forest resources, primary data collection through inventories and surveys of these resources is highly recommended. However, in the absence of primary data, the information derived from secondary sources like management plans of existing management regimes, assessment and survey reports, RNR statistics reports..etc can be used.

Information on demand and resource utilization trends can be derived from Forest Information Reporting and Monitoring Systems (FIRMS) database, past allotment records maintained within the divisions, Gewog registers, management plans of existing management regimes..etc.

2.6 Local People and Livelihood

This section gives information regarding the local communities and their livelihood residing in your Division. The demography and social structure information like households, populations, age, gender, education level, employment status, annual household income, and source of livelihood and income should be detailed out in this section. This section should also focus on livestock and agricultural status, land holdings and ethno-botanical practices and ecotourism product development as a means of livelihood for the local communities. Detailed technical guidelines to carry out Socio-economic Survey can be referred to Volume IV, sub-section 1.5.2.4 (Part A & B) of Protected Area Management of the Forest and Nature Conservation Code of Best Management Practices of Bhutan.

Primary data should be collected using Participatory Rural Appraisal/Rapid Rural Appraisal (PRA/RRA) tool, while secondary can be retrieved from the RNR statistics, Dzongkhag & Gewog profile, Population and Housing Census data can also be used for deriving information with due acknowledgement, wherever necessary.

2.7 Human Wildlife Conflict

Conflict with humans is a worldwide issue that often causes serious economic and social losses by preying on livestock, causing damage to property, human injury or death and crop depredation by wild animals resulting in people and animal conflicts over living space and food. In this section, describe the Human-wildlife Conflict scenario and conflict intensity in your Division through brief assessment (Socio-economic survey Volume IV, sub-section 1.5.2.4 (Part A & B), depredation case assessment report, SMART Patrol report, secondary data from livestock, agriculture, gewog administration, Dzongkhag Disaster...etc. With available HWC data, come up with a HWC hotspots map of your Division for the mitigation measures. Hotspots map should be prepared through GIS tools and MaxEnt. Based on conflict, a number of innovative strategies, ideas, measures and solutions should be reflected as interventions in the conflict areas. Refer Human-wildlife Conflict Strategy of Bhutan for the interventions. SMART data source to be used as one of the reliable data source.

2.8 Climate Change and its impacts

This section should encompasses the detail of Climate Change Aspect like pest and diseases, forest fire, erratic weather conditions, invasive species, floods, landslides, drying of water sources (CVA Report, any climate change research report, National Centre for Hydrology and Meteorology, SMART, FIRMS, Water sources mapping report). It must also include detail analysis of rainfall and weather patterns within the divisional jurisdiction. The section should describe the following:

1. Present climatic conditions in the area.
2. Farmers’ vulnerability to climate change and peoples’ perceptions.
3. Trend of climate parameters
4. Impact of climate on vegetation and wildlife
5. Adaptation/mitigation measures adopted.

The detail strategies and action to mitigate climate change should be reflected in management prescription and operational plan. The forest fire information could be used from the National Adaption Plan (NAP).

2.9 High Conservation Value Areas

This section should briefly describe the overview of the HCVA in the Divisions based on any of the six High Conservation Value categories in accordance with the National Interpretation (NI). The write up should include brief information on the process (Identification, Management and Monitoring of HCVA) adopted during the identification. The brief summary information on boundary, site description, and area should be included. The management prescription/intervention should be included under chapter 5: Management Prescription.

Chapter 3: Review of the Past Management Plan

This section will briefly cover the review of the past Divisional Forest Management Plan in terms of achievements of the outputs/objectives, lessons learnt, gaps and carry over actions from the previous plan, challenges and issues while implementing the program identified within the management plan. The review of the plan must also highlight observations and recommendations of the mid-term and final evaluation of the management plans. These observations and recommendations of the evaluation team must be adequately addressed and should be incorporated as part of adaptive management in the new plan.

Chapter 4: Threat and challenges

This chapter should have a process for identification of threats and challenges, and methods used for threat ranking for respective Forest Divisions. The threat and challenges should be identified through Socio-economic survey (Socio-economic Survey can be referred to Volume IV, sub-section 1.5.2.4 (Part A & B) of Protected Area Management of the Forest and Nature Conservation Code of Best Management Practices of Bhutan) and Biodiversity (Volume 1: Guiding Provisions, Chapter IV (4.3) or Volume IV: Protected Area Management of the Forest and Nature Conservation Code of Best Management Practices of Bhutan) with various stakeholders (Government agencies, NGOs, institutions, etc...) and Forest Divisions staff. The threat could be either direct threats or indirect threats and every threat should be described in detail. Threat ranking should be carried out using relevant software (eg. Miradi) uniformly across all the Field Divisions. The threats could be ranked based on the particular software used in relation to the objectives of the Forest Division as High, Medium or Low. Further, the DFO shall also list out the challenges encountered by the respective divisions during the daily operation of the division viz may include skills & human resources, infrastructures, mobility & communication and availability of equipments etc, The threats and challenges should be ranked according to the objectives of the Forest Division (From Chapter 1) and come up with strategies and action plans for the management prescriptions (Chapter 5).

Chapter 5: Management Prescription

The management prescriptions may be segregated but not limited to three broad areas as follows:

5.1 Services

This section should include prescriptions related to landlease, kidu land, land substitution, rural timber allotment.

5.2 Technical Prescriptions (Forest & Wildlife Management)

This section should include prescriptions related to sustainable forest management, biodiversity conservation and ecosystem services.

5.3 Institutions (Human Resources and Infrastructures).

This section should include prescriptions related to Human Resource Developments, inadequate infrastructures and equipment.

Each broad areas should outline the details of objectives, strategies, actions to address and mitigate the threats, issues and challenges identified. It should contain the following:

- 1. *Objectives:* These are the precise, measurable, achievable, realistic and time bound objectives that contribute in achieving Divisions goals. It should be linked to section 1.3 of chapter 1.
- 2. *Strategies:* These are the methods or plans designed to achieve the objectives. It should address the issues, threats and overcome challenges identified.
- 3. *Actions:* These are the activities planned and identified to achieve the strategies and contribute to fulfill the objectives.

The detailed information of this section will be supplemented by a separate annual operational plan (format annexure in chapter 6) or implementation framework with detailed budget and timeframe.

While developing the management prescription, the following important components must be taken into consideration.

Gender Mainstreaming: It is important to ensure that gender is mainstreamed in sustainable forest management and its planning process. The DFO management plan shall be gender-responsive in their design and implementation. All the planning will seek to identify and address the different needs, constraints, contributions and priorities of women, men and youths. Integrating a gender perspective means promoting equal opportunities, rights, voice, influence, leadership and benefits for different groups at all levels and areas of activities of the DFO management plan. Men and women will be provided with equitable opportunities to be included in stakeholders’ consultations and decision-making during management planning, implementation and evaluation.

Environmental and Social Safeguards (ESS): The ESS will allow screening potential actions that can cause negative environmental or social impacts and develop suitable measures to avoid, minimize, or compensate for these impacts. It also ensures that the implementation and effectiveness of mitigation measures are monitored and that any impacts arising during execution of the management prescriptions are addressed. The ESS components should be considered during the planning process and implementation of the management prescriptions. The ESS will be guided by the ESS framework prepared by WWF Bhutan.

Chapter 6: Implementation Plan and Financial Outlay

The management prescription of the plan should be detailed out in this chapter of the plan in the implementation framework (Table 1: Implementation Framework) for a period of 10 year. It should be prepared with a realistic year-wise budget indicated against each activity based on the management prescription for the entire plan period.

Based on the implementation framework, an Annual Operational Plan (Annexure I: Annual Operational Plan) which covers all the activities to be carried out in a year has to be developed by the division. The OP will guide the division to put the implementation plan into practice. It should be linked to annual budgets and provide an accurate projection of the work to be carried out in the division annually.

Objectives	Strategies	Action	Year along with budget outlay (Nu.in million)										Remarks Include detail information of the action such as where, what..etc
			I	II	III	IV	V	VI	VII	VIII	IX	X	
(These are the broad long term goals that the division wants to achieve)	(These are the methods and plans desgined to achieve the objective)	(These are lsit of activities to achieve the objectives)											

Table 3: Implementation Framework

Chapter 7: Monitoring and Evaluation

This chapter should outline how the implementation of the plan will be monitored and evaluated. The M&E plan (Table 2: Monitoring & Evaluation Framework) shall be prepared to ensure synergy with the Implementation Framework and will also include the indicators against which the performance of the Division will be measured. The output indicator will basically describe the achievement of the actions identified under Chapter 5. The gender mainstreaming actions should be clearly defined in the output indicators.

Additionally, the division shall also prepare an Annual Operational Plan (Annexure I) of the Division which shall be approved by the Department.

Objectives	Action	Output Indicator	Unit	Baseline	Yearly Target									
					I	II	III	IV	V	VI	VII	VIII	IX	X

Table 4: Monitoring and Evaluation Framework

Monitoring will be done annually by the concerned DFO’s based on the annual operational plan developed for the division. Evaluation of the plan will be done twice during the entire plan period. A midterm review (in last quarter of the 4th year) and final review (last quarter of the 9th year) will be carried out. Evaluation will be done by both internal (respective field division) and external committee to be constituted with members from the functional division).

Further, evaluation shall be carried out using the “Bhutan METT+ (Management Effectiveness Tracking Tool)” (Dudley et al., 2016) which has been tweaked to meet the requirement of the Division Forest Office. The objectives to use Bhutan METT+ is to evaluate the management effectiveness of Division Forest Office. Similar to the Protected Areas, Bhutan METT + evaluation shall be carried out once in every five years for the DFOs.

The Bhutan METT+ should be conducted at two levels (Mid term and Final Evaluation), Internal Assessment and External Assessment. The Internal Assessment is a self-assessment which should be carried out prior to the External Assessment by the respective field offices comprising the following members from their jurisdiction; 1. CFO, 2. Section Heads and 3. At least 2 officers from Range Offices.

The External Assessment should be coordinated by FPED and carried out in collaboration with relevant offices to ensure that the results from the internal assessment are unbiased. The team members for the external assessment shall include one Specialist, One representative from each functional division and, one representative each from the adjoining Division Forest Office.

Refer Volume IV, sub-section 1.5.11.2 (Part A & B) of Protected Area Management of the Forest and Nature Conservation Code of Best Management Practices of Bhutan the Bhutan METT+ (1.5.11.2. Evaluation of the Forest Management Code)

Chapter 8. Stakeholder consultation and endorsement

8.1 Stakeholder consultation

The DFOs shall identify all the relevant stakeholders and rights holders in their divisional jurisdiction. Consultation meetings on the proposed management interventions and also on the restrictions and prohibitions shall be carried out thoroughly to avoid future complications.

8.2 Finalization and Endorsement of the DFO Management Plan

The management plan shall be finalized by the concerned Divisional Forest Office. The draft plan shall be reviewed by FPED and subsequently endorsed by the Technical Advisory Committee (TAC) of the Department. The technically reviewed and endorsed Plan will then be recommended for approval to the Ministry by the head of the Department. The Head of the Ministry will approve the plan for implementation.

Annexure I: Annual Operational Plan

Framework for Annual Operational Plan for Division Forest Office						
" The Annual Operational plan for the Division Forest Office shall be prepared and submitted to latest by 31st July.						
Name of the office:						
Prepared by and date:					(Sign and sign)	
Verified by and date:						
Recommended by and date						
Approved by and date:						
I. REVIEW OF THE PREVIOUS YEARS PLAN						
I.a. SUMMARY OF THE PLAN						
No. of Planned activities	Status of the activities (in Nos.)					
	Achieved	On-going	Not Implemented			
I.b. DETAILED REVIEW OF THE PLANNED ACTIVITIES						
Activities	Target with unit	Budget utilization status	Brief report on the progress of the activities	Remarks (Justification/reasoning if not completed or not implemented)		
II. ANNUAL OPERATIONAL PLAN SCHEDULE (For the new FY)						
II.a. DETAILS OF THE PLANNED ACTIVITIES						
Output Indicator as per the management plan/APA	Activities	Target with Unit	Time line	Budget (in Nu.(m))	Fund Source	Specify location, if relevant
Program I: Nature Conservation ¹						
Program II: Forest Resources Management ²						
Program III: Social Forestry and Extension ³						
Program IV: Forest Protection and Enforcement ⁴						
Program IV: Adminsitration and Direction ⁵						
¹ Program I shall include but not limited to; Surveys, research, HWC management, habitat management, watershed&wetland protection, ecotourism&nature recreation, waste						
² Program II shall include but not limited to; LFMA plan preparation, timber allocation and monitoring.						
³ Program III shall include but not limited to; CF management, NWFP management, plantation, livelihood improvement initiatives.						
⁴ Program IV shall include but not limited to; patrolling, forest offence compounding/prosecution, forestry clearances, pest & diseases surveillance, forest fire management.						
⁵ Program V shall include but not limited to; P&F management plan preparation, work planning, coordination meetings, administrative and accounting activities, monitoring						
*Note: Activities such as Awareness, capacity building, etc to be tagged with respective program activities						

Annexure II: Bhutan METT+ form (refined for FD)

Reference

DoFPS. (2021). Forest and Nature Conservation Code of Best Management Practices of Bhutan. Ministry of Agriculture and Forests, Department of Forests and park Services.

Nature Conservation Division. (2020). Biodiversity Monitoring Protocol. Deparment of Forests and Park Services, RGoB.

Thomos, L., Middleton, J., and Phillips, A. (2003). *Guidelines for Management Planning of Protected Areas*. World Commission on Protected Areas. Best Practice Protected Area Guidelines Series No. 10. IUCN Gland, Switzerland and Cambrridge, UK. ix+79pp.

**Department of Forests & Park Services
Ministry of Agriculture & Forests
Royal Government of Bhutan**

