

DHUR DHENRUPLING COMMUNITY FOREST MANAGEMENT PLAN



1st Revision

**Dhur Chewog, Chokortoe Gewog
Bumthang Dzongkhag**

Plan period – 2023 to 2033



དཔལ་ལྷན་འབྲུག་གཞུང་།
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ROYAL GOVERNMENT OF BHUTAN
MINISTRY OF ENERGY & NATURAL RESOURCES
DEPARTMENT OF FORESTS & PARK SERVICES
FOREST RESOURCES PLANNING AND MANAGEMENT DIVISION



No. DoFPS/FRPMD/FRPIS/CF_1(b)/2022-2023/ 300

September 29, 2023

NOTE SHEET

Sub: Approval of Revised Community Forest Management Plans (CFMPs)

Following the completion of their 10-year management plan periods, the community forests listed in *Table 1* undertook revisions and submitted their plans for review and approval by the department. These Community Forest Management Plans (CFMPs) were developed by the respective Forest Division in collaboration with Community Forest Management Groups (CFMGs).


The development of these CFMPs has been guided by the Forest and Nature Conservation Code of Best Management Practices of Bhutan, Volume III: Sustainable Forest Management, ensuring strict adherence to its guidelines and requirements. This collaborative effort reflects the priorities and needs of the CFMGs, taking into consideration both environmental and social safeguards. The process has placed a high priority on stakeholder engagement, emphasizing transparency, accountability, and long-term success.

The revised CFMPs include objectives, prescribed management strategies, and by-laws to regulate the functioning of the CFMGs. Additionally, they contain detailed information on forest inventories, biodiversity conservation measures, resource utilization plans, benefit-sharing mechanisms, and community capacity-building strategies.

The technical assessment and review of these CFMPs were meticulously conducted by the Forest Resources Planning and Implementation Section (FRPMS). It is worth noting that the revised CFMPs strongly emphasize community participation, with a focus on promoting conservation, sustainable resource utilization, community development, and the integration of traditional knowledge with modern scientific practices.

In accordance with Section 9(4) of the Forest and Nature Conservation Act 2023, the approval for the implementation of these revised CFMPs is hereby granted, based on the recommendation of the CFO, FRPMD.

Recommended by:


(Sonam Tobgay)
Chief Forestry Officer

Approved By:


(Director)
Department of Forest and Park Services



APPROVAL SHEET

Name of Community Forest	Dhur Dhendrupling Community Forest
Village	Dhur
Gewog	Chokortoe
Dzongkhag/Dungkhag	Bumthang
Production area (Hectare/Acre)	235.16 hectares
Protection area (Hectare/Acre)	9.38 hectares
Total Community Forest Area	244.54 hectares
Total CFMG Member (No. of HH)	59
Plan period	2023 - 2033

Prepared and Submitted for Approval

	Chairman of Community Forest	Gup/Mangmi of the Gewog	Head, Social Forestry Section/Division/Park	Chief Forestry Officer of the Division/Park
Signature				
Name	Jamyang Chafel	Gup	Kerang Lang	Iskhening Dhen Dup
Date	23/6/2023	Choeckhor Gewog Bumthang	24/6/2023	24/6/2023

REVIEWED and RECOMMENDED FOR APPROVAL

Signature		
Name	Mr. Tsheltrim Dorji	Mr. Sonam Tobgay
Title	Forestry Officer (Focal)	Chief Forestry Officer
Division	Forest Resource Planning and Implementation Section	Forest Resource Planning Implementation Section

APPROVED BY

Director
(Department of Forest and Park Services)

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ACRONYMS

AAC	Annual Allowable Cut
AWP	Annual Work Plan
CF	Community Forest
CFMG	Community Forest Management Group
CFMP	Community Forest Management Plan
CFMC	Community Forest Management Committee
Cft	Cubic foot
DoFPS	Department of Forests and Park Services
FNCRR	Forest and Nature Conservation Rules and Regulations
GIS	Geographical Information System
GT	Geog Tshogde
Ha	Hectare
M ³	Meter Cube
NWFP	Non-Wood Forest Product
WCNP	Wangchuk Centennial National Park

EXECUTIVE SUMMARY

The Dhur Dhendrupling Community Forest, located in Dhur village, Chokor Geog, Bumthang Dzongkhag, has been in operation since 2012. After successfully managing the forest for 10 years, the Community Forest Management Group (CFMG) decided to review the management plan for another 10 years. This revision was made possible with financial support from the Bhutan for Life project and the Royal Government of Bhutan, along with technical assistance from the Chokor Park Range Office.

The total area of the Community Forest (CF) is approximately 244.54 hectares. The CF falls under the category of mixed conifer forest, with dominant species being Blue pine, Hemlock, and Quercus spp. The forest resource inventory conducted in 196 sample plots revealed that the community forest has a good quality wood stock, sufficient to meet the needs of the community members without relying on external sources for house building timber and other forestry resources.

The CF Management Goals and Objectives for the next ten years are as follows:

- Protecting the CF from fire and illegal extraction by outsiders.
- Generating income through the sale of timber and firewood.
- Enhancing and ensuring sustainable utilization of forest produce from the CF.

The CFMG's main responsibilities include promoting sustainable utilization of forest produce. The annual harvesting limit for different forest products in the entire CF was determined based on data from forest resource assessments. The total demand and supply of forest products for CFMG members were compared, and the CF has the potential to generate cash income through the sale of surplus timber.

To achieve the objectives, the CFMG will implement a work plan and carry out silvicultural activities such as cleaning, thinning, debranching, pruning, and removal of dead and deformed trees. These activities aim to stimulate growth, regenerate the forest, and improve its overall health. The resource assessment indicates that the CF has promising timber species and the potential to harvest timber resources. Additionally, the CF plans to supply excess fuelwood to nearby communities, schools, and institutions to generate income for the group.

The management plan covers a ten-year period and will undergo revision at its expiration, following the submission of a final monitoring and evaluation report. Minor amendments may be required during implementation to align with changing policies, guidelines, and field circumstances. The plan is divided into two parts: the first part focuses on management activities, while the latter part covers the CFMG bylaws.

PART 1: MANAGEMENT PLAN

1. INTRODUCTION

The management plan for the Dhur Dhendrupling Community Forest (CF) in Chokor geog of Bumthang Dzongkhag was prepared by the CF Management Group (CFMG) with the support of various agencies. The CF covers an area of 244.54 hectares (604.01 acres) and is located approximately 30 to 40 minutes north of Dhur village. The village is accessible by a motorable road and is situated 15 km away from Chamkhar town.

The Dhur community relies on various sources of livelihood, including livestock rearing, agriculture, forestry, off-farm work, and income from the sale of cordyceps. Due to the temperate climatic conditions, the community primarily engages in subsistence farming of crops such as buckwheat, wheat, and potatoes on a small scale.

Out of the 87 households in the village, only 59 have chosen to join as CF members for the protection and utilization of forest produce from the CF. These CF members are likely driven by individual interest and other factors that influence their decision.

The CF consists of a mixed conifer forest, with Bluepine being the dominant timber species, followed by Spruce and Hemlock. Additionally, the CF is home to high-altitude broadleaf tree species such as Oak (*Quercus semicarpifolia*).

During the process of preparing the management plan, the CFMG received active support from various agencies. Staff from the Wangchuck Centennial National Park head office, Nashiphel and as well as staff from the Chokor Park Range Office in Thangbi, played significant roles in conducting site surveys, demarcating boundaries, and collaborating with the beneficiaries to develop the CF plan.

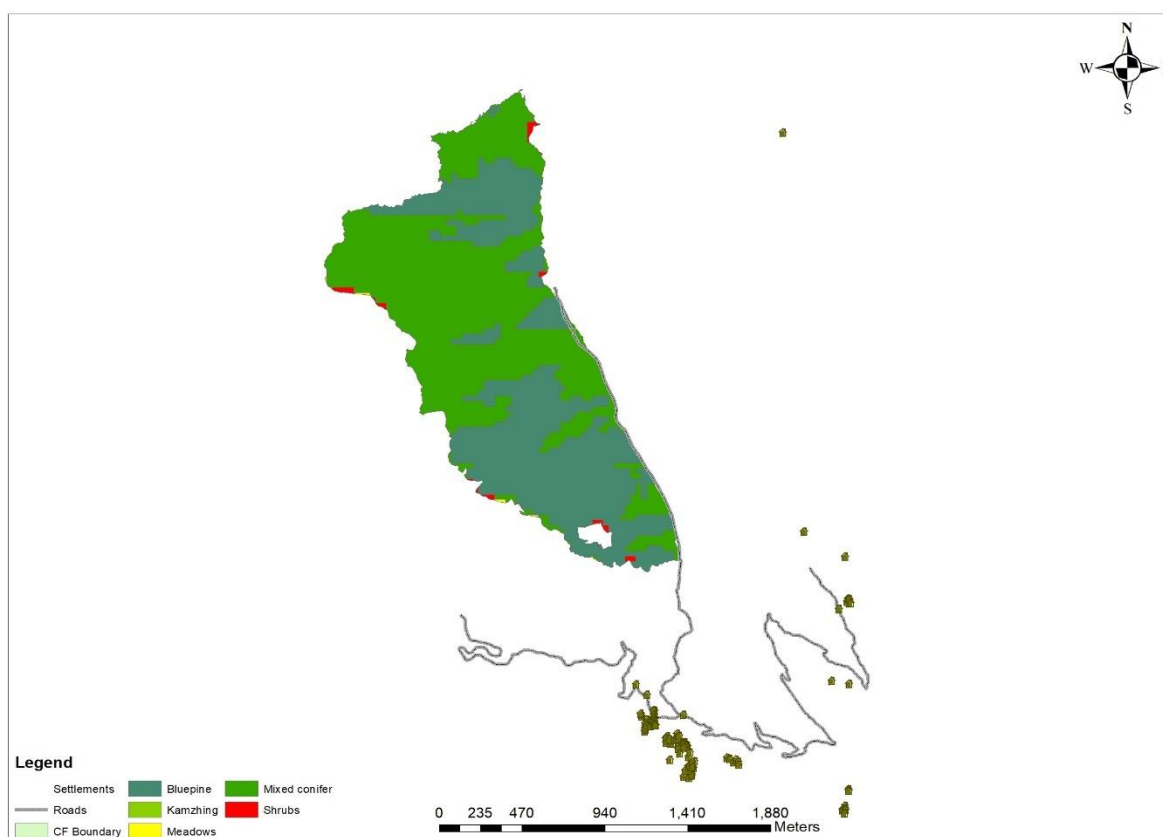
Total community forestry area: 244.54 hectares/ 604.01 acres.

2. COMMUNITY FOREST MAP

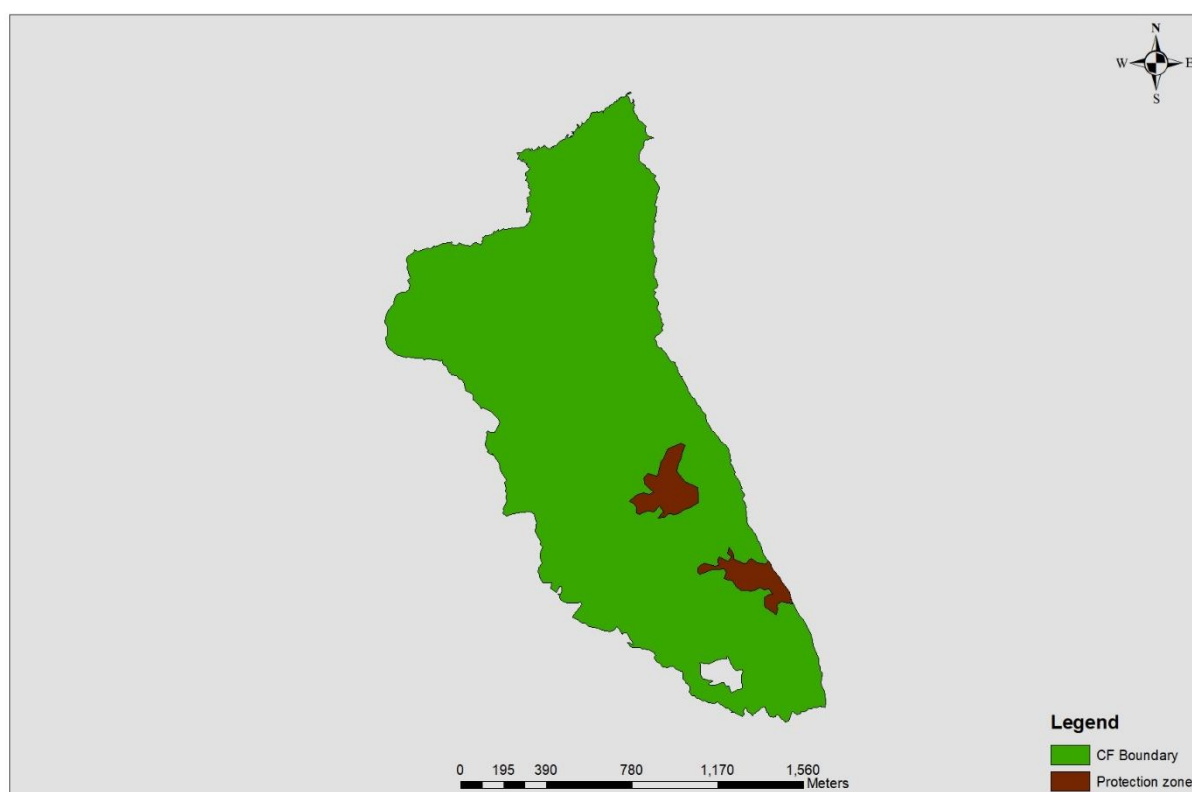
2.1 Google map showing the boundary of CF



2.2 GIS Land use land cover map of Dhur Dhendrupling CF.



2.3 Map of Dhur Dhendrupling CF with Protection zone



3. COMMUNITY FOREST BOUNDARIES

Boundaries	Permanent features
West	Tsachuphu trail (way to Dhur tsachu)
East	Kharsamdongchu
South	Dhur Village
North	Bordered by Khamghi pasture land

4. SOCIAL INFORMATION

	Description
Name of the village	Dhur
Ethics groups with CFMG	Dhurpa or Bjop
Basic amenities	Primary school, BHU, shops, NFE centre, and connected with electricity, mobile network (B-mobile & T-cell), feeder road, RWSS
Total Household (HH) number of CFMG	59
Population of CFMGg	335
% male and % female	49% male and 51% female
Cattle population of CFMG	1199

Main crops	Potato, wheat and Buck wheat
Cropping pattern	Seasonal
Any other information	
No. HH (wealthy)	58
No. of HH (medium wealthy, if so)	2
Average annual income:	Nu./year: 150000.00

5. FOREST INFORMATION

This community forest falls under mixed conifer forest dominated by blue pine and Hemlock spp., it has potential to generate good income for group since it has good stock of matured timber.

It has evenly distributed timber species and non-wood forest produce especially bamboo within the community forest area. This is found during the rapid and community forest resource assessment program.

5.1 Forest information of Dhur Dhendrupling block.

Format 1. Forest Resource Assessment Format (<i>Complete this format for each block</i>)	
Name of Community Forest	CF
Name of block	Dhur Dhendrupling
Block area	244.54 Ha
Name of recorder	Yeshey Nedup, Kezang Dawa (CPR), Chandra, Pema Dorji, Choki Gyeltshen, Dechen Norbu and Kezang Dawa (HQ)

Forest & Habitat Type (<i>tick all those present, Refer definition below</i>)				
Forest <input checked="" type="checkbox"/>	Thicket/pole stage <input type="checkbox"/>	Shrubland <input type="checkbox"/>		
Grassland <input type="checkbox"/>	Plantation <input type="checkbox"/>	Other <input type="checkbox"/>		
Vegetation type				
Subtropical <input type="checkbox"/> forest	Chirpine forest <input type="checkbox"/>	Warm broadleaved forest <input type="checkbox"/>	Blue pine forest	<input type="checkbox"/>
Cool broadleaved forest <input type="checkbox"/>	Mixed conifer forest <input checked="" type="checkbox"/>	Fir forest <input type="checkbox"/>	Other	<input type="checkbox"/>

Forest Condition (<i>complete if the block is mainly forest</i>)	
Write the names of main tree species	
Local name	Scientific name
Dogseng	<i>Pinus wallichiana</i>
Nagseng	<i>Picea spinulosa</i>
Peseng	<i>Tsuga dumosa</i>
Kaseng	<i>Quercus semicarpifolia</i>
Aeto seng	<i>Rhododendron spp</i>

Plantation	
Is there any plantation?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Approximate height of planted trees (m)	
Year planted	Is the plantation? Under <input type="checkbox"/> stocked Stocked <input type="checkbox"/> Overstocked <input type="checkbox"/>

Forest Condition -Age			
Mature <input checked="" type="checkbox"/> Main canopy of mature trees	Pole stage <input type="checkbox"/> Main canopy of pole stage trees	Shrubland <input type="checkbox"/> Main canopy of shrubs, young trees or regeneration	Any <input type="checkbox"/> No continuous canopy. Isolated trees only

Forest Condition - Canopy density (<i>tick main canopy</i>)		
Dense <input type="checkbox"/> Canopy density > 70%	Open <input checked="" type="checkbox"/> Canopy density < 70%	Very open <input type="checkbox"/> No real canopy. Isolated trees only

Forest Condition – Regeneration (<i>including coppice regrowth</i>)		
Abundant <input type="checkbox"/> Regeneration easy to find in most places	Scattered/few <input checked="" type="checkbox"/> Regeneration only in some places and hard to find	None <input type="checkbox"/> No regeneration
Write the names of the 3 main tree species in the regeneration		
1) Blue pine	2) Hemlock	3) Oak
Regeneration: Seedlings > 30cm and < 1.3m height		

Forest Condition – Approximate density of seed trees		
High <input type="checkbox"/> > 50 seed trees per ha	Moderate <input checked="" type="checkbox"/> 10 – 50 seed trees per ha	Low <input type="checkbox"/> < 10 seed trees per ha

Block Condition – Summary (Use the forest condition class box below to get an average condition for the block)		
Poor <input type="checkbox"/>	Average <input type="checkbox"/>	Good <input type="checkbox"/>
Does the main forest canopy consist of large, mature trees?		Very Good <input checked="" type="checkbox"/>
Yes <input checked="" type="checkbox"/>		No <input type="checkbox"/>

Open spaces (complete if there are significant open spaces in the block)	
Approximate total open space area (ha)	4.2 ha
Dominant vegetation type in the open space	Artemisia
Cause of open space e.g., grazing, fire, harvesting, etc.	Harvesting

Grazing and fodder (complete if the forest block is used for grazing or fodder)			
Grassland type			
Natural <input checked="" type="checkbox"/>	Man-made <input type="checkbox"/>	Mixture <input type="checkbox"/>	Predominantly forest <input type="checkbox"/>

Main fodder species being used (<i>list 3 only</i>)	
Local name	Scientific name
NA	

Pasture quality (list the 3 dominant species in the grassland)		
Local name	Scientific name	Palatable/unpalatable
Small bamboo	<i>Chimuno Callosa</i> <i>Bambusa</i>	Palatable

Use pattern	Seasonal <input checked="" type="checkbox"/>	All year <input type="checkbox"/>
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Type of user	Migratory <input type="checkbox"/>	Local <input checked="" type="checkbox"/>	Both <input type="checkbox"/>
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Catchment Condition (<i>use catchment condition class box below</i>)	
(i) Catchment condition – soil cover	
Soil cover	Soil cover class
> 50% of the soils are covered by vegetation	high <input checked="" type="checkbox"/>
25 - 50% of the soils are covered by vegetation	moderate <input type="checkbox"/>
< 25% of the soils are covered by vegetation	low <input type="checkbox"/>
(ii) Catchment Condition - Soil type and erosivity	

Soil type (color, texture, and type)	
Erosive <input type="checkbox"/> disperses and/or breaks up in water easily	Non-erosive <input checked="" type="checkbox"/> stable to water flow
(iii) Catchment Condition - Slope	
Slope (degrees)	Slope steepness class
<10°	Gentle <input type="checkbox"/>
10° – 30°	Moderate <input checked="" type="checkbox"/>

> 30°	Steep	<input type="checkbox"/>
Catchment Condition – Summary (Use the catchment condition class box below to get the average condition for the block)		
Less critical	<input checked="" type="checkbox"/>	Moderately critical <input type="checkbox"/> Highly critical <input type="checkbox"/>

Fauna (<i>List any animal or bird species seen or which are known from the block</i>)	
Local Name	Scientific name
Shaw (Sambar)	<i>Cervus unicolor</i>
Riphag (Wild pig)	<i>Sus scrofa</i>
Wam (Himalayan black Bear)	<i>Ursus thibetanus laniger</i>
Kasha (Barking deer)	<i>Muntiacus mutjak</i>

Biotic Pressures (<i>tick those present</i>)			
Fire	Common <input type="checkbox"/>	Occasional <input type="checkbox"/>	Absent <input checked="" type="checkbox"/>
Grazing	Heavy <input type="checkbox"/>	Limited <input checked="" type="checkbox"/>	Absent <input type="checkbox"/>
Fodder collection	Common <input type="checkbox"/>	Limited <input checked="" type="checkbox"/>	Absent <input type="checkbox"/>
NWFP collection (Mushroom & small bamboo)	Common <input type="checkbox"/>	Limited <input checked="" type="checkbox"/>	Absent <input type="checkbox"/>
Leaf litter collection	Common <input type="checkbox"/>	Limited <input checked="" type="checkbox"/>	Absent <input type="checkbox"/>
Encroachment	Common <input type="checkbox"/>	Occasional <input type="checkbox"/>	Absent <input checked="" type="checkbox"/>
Pole harvesting	Common <input checked="" type="checkbox"/>	Occasional <input type="checkbox"/>	Absent <input type="checkbox"/>
Fuelwood harvesting	Common <input type="checkbox"/>	Occasional <input checked="" type="checkbox"/>	Absent <input type="checkbox"/>
Timber harvesting	Common <input checked="" type="checkbox"/>	Occasional <input type="checkbox"/>	Absent <input type="checkbox"/>
Hunting	Common <input type="checkbox"/>	Occasional <input type="checkbox"/>	Absent <input checked="" type="checkbox"/>
Others (describe)	Illegal		

Potential Management Options (<i>list any potential management options for the CF/block</i>)	
1	Regular patrolling
2	Thinning and cleaning
3	Plantation

6. FOREST MANAGEMENT

6.1 Forest management procedures

Sl. No	Produce	Timber	Firewood	NWFPs
1	Main species	Blue pine and Spruce	Quercus spp	Bamboo
2	Problems	Extraction problem due to quite far from Road	Extraction problem due to quite far from Road	Only small bamboo available
3	Opportunities	The timber species listed above shall be main income generation for CFMG and there will be high timber demand from outside CFMG. CFMG can also able to regulate the forest resources sustainably and can create conducive income generation through sale of excess timber and firewood.		
4	Management objectives (<i>reflecting problems and/or opportunities</i>)	The overall management objectives to improve the livelihood of communities. Initiate to sale excess timber to outsider as per the management plan would allow CFMG to generate income. In the first year they will do sanitation work by removing all the dead and fallen trees and sale. In the absent of regeneration, plantation shall be initiated to continue desired timber species.		
5	Activities to achieve the objective (mark as H, M or L)	The required objectives shall be delivered upon the implementation of action-oriented plan or as per the work plan. it is only possible through implementation of following activities. 1. Sale of excess timber 2. Initiation of plantation 3. Regular and timely patrolling 4. Adoption of mother tree for desired and selected tree species.		
6	Procedures	The implementation of activities requires diligent and farsighted proposal to take decision as per the management plan. The ideas and knowledge to increase the scope for community forest development shall come from CFMG. Each of ideas and knowledge which you feel shall be put up for review by next level of community group		
7	Responsibilities	To achieve end results of managerial objectives, the lead role or decision shall be from; 1. CFMG 2. CF executive members 3. Chiwog tshogpa and gewog administration 4. Forestry officials and Other relevant institutions.		

7. ANNUAL DEMAND ASSESSMENT.

Produce type	Dashing		Cham		Tsim		Fencing Poles		Firewood	
Units	M ³	Nos.	M ³	Nos.	M ³	Nos.	M ³	Nos.	M ³	Nos.
Annual demand	73.66	33	299.19	400	187.06	600	90.80	300	349.66	120
Demand in 10 years	736.58	330	2991.92	4000	1870.62	6000	907.96	3000	3496.63	1200
Total	810.24	363	3291.12	4400	2057.68	6600	998.75	3300	3846.29	1320

8. OVERALL AAC OF THE CF

AAC of Dhur Dhendrupling Community Forest							
Produce Types	Dangchung	Tsim	Cham	Drashing	Pole/Post	Firewood	Total
Volume (m3)	9.29	21.32	79.81	324.89	49.34	105.61	590.26
Volume (Cft))	327.96	753.12	2819.02	11475.05	1742.56	3730.14	20847.84
No.of Trees	89	68	107	146	163.01	36.24	608.68
10 Years AAC							
Produce Types	Dangchung	Tsim	Cham	Drashing	Pole/Post	Firewood	Total
Volume (m3)	92.85	213.23	798.14	3248.88	493.36	1056.10	5902.56
Volume (Cft))	3279.59	7531.23	28190.20	114750.46	17425.56	37301.40	208478.44
No.of Trees	887.71	683.93	1067.06	1455.55	1630.13	362.44	6086.81

9. SUPPLY AND DEMAND COMPARISON IN 10 YEARS (M³).

Products	Drashing	Cham	Tsim	Dangchung/Pole/Post	Firewood
AAC from CF	324.89	79.81	21.32	58.62	105.61
Annual Demand	73.66	299.19	187.06	90.8	349.66
Annual Difference	251.23	-219.38	-165.74	-32.18	-244.05
Difference for 10years	2512.28	-2193.76	-1657.37	-321.78	-2440.50
Remarks	Excess	Excess drashing may be allot to meet this demand		Lops & tops, dead, dying and diseased trees can be allotted to meet this demand	

10. PARTICIPATORY ENVIRONMENTAL ASSESSMENT INCLUDING PROCEDURES TO ADDRESS NEGATIVE ENVIRONMENTAL EFFECTS

Activity proposed in CFMP	Potential Environmental Effects				Potential Socio-Economic Effects			
	Soil	Water	Wild animals	Plants	Traditional forest issues	Cultural and religious values	Local employment	Local benefits from forest produce
Cleaning and improvement felling	+++	++	0	+++	-	0	+++	+++
Thinning	+++	+	-	+++	--	0	++	+++
Timber harvesting	--	--	--	+	--	-	++	+++
Boundary clearing and demarcation	-	-	-	-	++	0	+	+
Conduct patrol	0	+	++	++	+	0	0	++
Plantation	+++	+++	++	++	0	0	0	++
Cordoning of catchment and water sources	+++	+++	++	+++	0	0	0	++

+++ indicates Positive effect - - - indicates Negative effect 0 indicates No effect

10.1 Address potential Negative effects

Activity	Procedure
Timber harvesting	Felling directions should be considered so that regenerations are not damaged and disturbed Silviculture considerations will be well taken of especially while marking. Avoid felling within the buffer and water sources and other catchment.
Construction of forest road	Avoid felling of trees in marshy land (wet land and if the proposal to construct forest road for better market and extraction, the survey to be ensured in the least trees.
Clearing of CF boundary	Avoid felling of bigger sized timber and on steep slopes. Blazing of trees should be avoided as far as possible.
Cleaning and improvement felling	Avoid felling trees in religious significant area and maintain buffer along the farm roads.

11. CLIMATE HAZARD ASSESSMENT

	Landslide	Forest fire	Drought	Animal disease	Reduce crop yields	Flood
Landslide	X	Forest fire	Landslide	Animal disease	Reduce crop yields	Flood
Forest fire		X	Forest fire	Animal disease	Reduce crop yields	Flood
Drought			X	Animal disease	Reduce crop yields	Flood
Animal disease				X	Animal disease	Animal disease
Reduce crop yields					X	Reduce crop yields
Flood						X

Result: Animal disease – 5 (1st), Reduce crop yields - 4 (2nd), Flood – 3 (3rd), Forest fire - 2 (4th), Landslide - 1 (5th) and Drought – 0 (6th).

12. FOREST PRODUCE PREFERENCE RANKING

Species Local name ↓	Uses →	Drashing	Cham	Fencing post	Firewood	Flag poles
Dog seng (<i>Pinus wallichiana</i>)	Preference	xxxxx	xxxxx	xxx	xxx	xxxxx
	Availability	ooooo	ooooo	ooooo	ooooo	ooo
Nag seng (<i>Picea spinulosa</i>)	Preference	-	-	xxx	xxx	-
	Availability	ooo	ooo	ooo	ooo	ooo
Ka seng (<i>Quercus semicarpifolia</i>)	Preference	-	-	-	x	-
	Availability	oo	oo	oo	oo	-
Pey seng (<i>Tsuga dumosa</i>)	Preference	xxxxx	xxxxx	-	xxxx	-
	Availability	ooooo	ooooo	oo	oooo	-

xxxxx = Highly preferred xxx = Moderately preferred xx = Little preferred - = Not preferred
 ooooo = Abundantly available ooo = Moderately available oo = Little available - = Not available

13. MONITORING PLANS (FOREST RESOURCE MONITORING PLAN, SOCIAL AND INSTITUTIONAL MONITORING PLAN)

Objective	Indicator	How it will be monitored	Responsibility	Comments
Protect the CF from fire and illegal extraction by outsiders.	<ul style="list-style-type: none"> Area of CF cleaned through sanitation works and thinning Incidences of illegal activities Numbers of trees marked/felled 	<ul style="list-style-type: none"> Annual monitoring formats supervise during cleaning Regular patrolling Annual monitoring format and maintain 	Forestry Officials and CFMG executive members	Forestry Officials will do regular monitoring and overall data will be collected during annual

	<ul style="list-style-type: none"> Basal area and forest stock 	data while marking and final evaluation.		monitoring conducted at the end of Calendar year.
Promote income generating activities and sustainable use of forestry resources	<ul style="list-style-type: none"> Income earned from selling excess timber Sale of excess firewood and those taken out through cleaning activities 	<ul style="list-style-type: none"> Volume of timber sold from 2nd year and annual monitoring format. 	CFMG representative and Forestry Officials and In-charge of Range Office	CFO should sanction approval before selling surplus timber.
Ensure good governance and improve social cohesion and cooperation	<ul style="list-style-type: none"> Quality of records maintained. Trainings provided. Conflicts 	<ul style="list-style-type: none"> Crosscheck records books and accounts. Annual monitoring Mid-term reviews 	CFMG representative and Forestry Officials and In-charge of Range Office	Invite CFO & GT Chairperson during 1th year and 9th year.

14. ANNUAL WORK PLAN (AWP)

The annual work plan (AWP) for 10 years for community forestry will determine the success and development of community forestry (CF). The annual work plan will streamline the community forestry members in conducting the work for the landscaping and physical development and scenic development of the area. The annual work plan will ensure the continuity and progress of the community for next 10 years. It is also expected to operate according to the work plan.

Location	Activity	Year										Responsibility
		1	2	3	4	5	6	7	8	9	10	
Dhur Dhendrupling CF	Sanitation works (clean all the offcuts and logs left inside CF to prevent bark beetle attack)											CFMG members and forest officer
	Cleaning around periphery of CF											CFMG and Forest Officer
	Monitoring											Firewood and timber, applicants, CF executive & Forest Officer
	Sale of surplus timber											CFMG & Ranger
	Forest produce allotment for CF members											Chairperson, CFMG members
	Timber extraction through thinning											8 persons a month

PART II: CFMG BY-LAW

Name of community forest: **Dhur Dendrupling Community Forest**

1. MEMBERSHIP ARRANGEMENTS

Dhur Dhendrupling community forest management group (CFMG) comprises of 60 household of Dhur Chiwog. All the activities in CF including contribution of labor and funds and its distribution of benefits from CF will be equally shared between the user groups. The forest produce allotted to the CFMG members shall be for the personal dwelling of the applicant and his family.

New membership

New member holding Thram and Gung from Dhur village under Chokortoe gewog will be eligible as new member and should fulfill the following conditions:

1. He or she must submit complete set of application to chairperson of the CF
2. Chairperson of CF will then discuss with other executive members or CFMG members to verify application(s). The endorsement or rejection of his or her membership will then be decided by the strength of application reviewed by chairperson.
3. Once notified he or she must submit HoH, Thram holder and CID copy (ies) to secretary for record.
4. On the date of declaring, as new member of CF he or she is bound to follow CF management plan and By Laws.

He/she shall bear the cost of labors contributed by the existing members @ Nu. 500/- per day along with membership fees.

Resignation

Any person wishing/willing to withdraw from the CFMG shall be permitted with the following conditions;

1. If they haven't availed the timber while resigning, he/she will be accepted without paying any fines and compensations.
2. But if the member is resigning after availing timber, he/she will be liable for fines/compensation of Nu.5000.00.
3. He/she shall withdraw from CFMG after paying the liable compensation.
4. He/she who is withdrawing under unavoidable circumstances should put up withdrawal application (Annex 13) to the chairman and should endorse by the CF Management Committee and then only should pay his/her fund share.

5. The endorsed letter by the CF Management Committee should be attached with his/her withdrawal letter (Annex 13) for future reference.
6. Any member wishing to withdraw shall fill up the withdrawal form (Annex 13) of the community forest manual 2018 (3rd edition) to the chairperson and should endorse by the CF Management Committee before leaving the group.

2. CF MANAGEMENT COMMITTEE FORMATION

The Dhur Dhendrupling CFMG unanimously nominated three committee members through voting. They will coordinate and mobilize the 10-year management plan activities.

- Mr. Jamyang Chofel (Chairman)
- Mr. Pema Thinley (Secretary)
- Mrs. Tshering Pema (Treasurer)

All three committee members are nominated for 5 years term. Extension and termination of the committee members shall depend on their performance. It is also decided that if any committee member mislead each other's or misuse CFMG fund or properties, the defaulter shall be terminated from the membership without any benefits and he/she should pay back the misused property/funds and if he/she refused to pay back, he/she shall be forwarded to the court.

If required to re-nominate the committee member the group will follow the same procedure through voting and ensure formal handing/taking between the new and old post holder following Annex 15.

3. TERMS OF REFERENCE FOR CF MANAGEMENT COMMITTEE

The roles and responsibilities of CF Management Committee is projected and drawn to enhance the working system and development of Community Forestry. This is also as per FNCRR 2017 describe the responsibilities for the CFMG to implement the CFMP and By-laws. These include both administrative and forest management tasks.

The main implementation responsibilities of CFMGs are

1. Marking of forest produce
2. Issuing permits
3. Harvesting
4. Collection of royalties
5. Sale of forest produce
6. Transportation of forest produce

7. Formation of CF Networks and Associations.

The tenure for management committee will be as follows:

Chairperson	5 years
Secretary	5 years
Treasurer	5 years
Resoup	3 years
Messenger	1 year

The following are the CF Executive member nominated by the CFMG members on unanimous decisions and agreement:

Name	Designation	Village
Jamyang Chofel	Chairperson	Dhur
Pema Thinley	Secretary	Dhur
Tshering Pema	Treasurer	Dhur
Dorji	Resoup	Dhur
Tshering wangdi		
Gem Sangay		
Yangzom	Messenger	Dhur
Tsundu Dorji		
Mani Dema		

3.1 Terms of Reference for chairperson

- Coordinate CF activities
- Attend meeting/workshop/training
- Sanction CF produce following Annexures of community forest manual edition 2018
- Joint signatory for transaction of CF fund.
- Organize and chair CFMG meeting
- Explore market for sale of CF produce
- Resolve conflicts and offences
- Join CF Networks and Associations
- Present annual progress report to CFMG during annual CFMG meeting
- Prepare and submit reports and corresponding as and when required.
- Monitor the proper record keeping for accountability and transparency.
- Open joint bank account (probably BDBL account as it is established in the Gewog Centre).

3.2 Terms of reference for Secretary

- Officiate Chairperson during his absence
- Jointly prepare work plan and budgeting with Chairperson and Treasurer
- Maintain minutes of the meeting
- Assist treasurer during the annual fee collection and other financial transactions.
- Maintain all records except financial matters
- Maintain proper stock register.

3.3 Terms of reference of for Treasurer

- Collect fees, royalties, donations, and compensations and keep proper records.
- Responsible for accountability and transparency of financial transactions
- Should prepare and present financial transactions annually to CFMG.
- Should be accountable and transparency during auditing by any relevant agency.
- Deposit fund in time
- All the records should be kept in the record formats attached in the annexures of community forest manual edition 2018.

3.4 Terms of reference of for Resoops (Patrolling group)

- Patrol once a month.
- Submit report to Chairperson by next day of the patrol day

3.5 Roles and Responsibilities of CFMG

- Attend CF related works and meetings as per the CF annual work plan and Ad-hoc
- Protect CF from illegal activities and forest fire
- Inform to nearest forest office regarding wild life issues
- Inform any illegals and issues to CFMC for resolving.
- Have right to audit, seek accountability and transparency in any regards following proper channel.
- Have right to terminate and reappoint CFMC members if they fail their duty.
- Responsible for sustainable management of CF.
- Should obtain permit before harvesting of any forest produce from the CF.
- Tree should be marked before felling and should follow silviculture system advised by the concern forestry officials.

3.6 Roles and responsibilities of Forestry Staff

- Technical assistance for implementing the CF management plan
- Tree marking
- Encourage the committee to meet as and when required and facilitate meetings.
- Helping to get good participation including gender during meeting and trainings.
- Communications between CFMG and CFO
- Conduct training and develop new skills amongst CFMG members
- Resolve conflicts
- Provide information to the CFMG about the FNCRR and other legal matters.
- Help committee members to keep records and accounts properly.
- Monitoring CFMG activities and helping with self-monitoring.

4. FEES

4.1 Membership Fees

The membership fee will be collected by treasurer within first week of every succeeding year and failure to pay in time will be considered as unpaid and shall be liable for penalty mentioned in fines and penalties table. The CFMG decided and came up fee as prescribed in tabulated below;

Sl. No.	Descriptions	Amount in Nu.	Units	Remarks
1	Membership fee	100/-	Year	Annual membership fee
3	Timber (Drashing)	40/-	Tree	
4	Fencing post	12/-	6 ft length	
5	Flag pole	12/-	Nos	For death case upto 30 nos will be given free and from 30 to 108 will be given at 50%.
6	Fuelwood	40/-	Tractor	
7	Bamboo	1.25	Nos.	

4.2 Fines and penalties

The fines and penalties for both CFMG members and outsiders are kept same.

Sl. No.	Descriptions	Units	Amount in Nu.	Remarks
1	Timber	Cft	NRPC rate	

2	Fencing post	6 ft length	NRPC rate	
3	Flag pole	Nos.	NRPC rate	
4	Firewood	Tractor	NRPC rate	
8	Forest fire	Per Acre		As per FNCRR 2023 & FNCA, 2023
9	Poaching			As per FNCRR 2023 & FNCA, 2023
10	Bamboo	Nos.	NRPC rate	
11	Absence from meeting	Violation	Nu. 500/-	
12	Absence from work	Violation	Nu. 1000/-	Person above 65 years of age and children below 18 years will be exempted from work. If there is no one from the house except for aged couple they will be exempted from CF related works. However, if their grandchildren or relatives comes to live with old couple then they should contribute the labour.
13	Late comer during meeting/work	Violation	Nu. 20/-	If late by 10 minutes from reporting time, they have to pay fine and attend meeting/work but if one doesn't attend, he/she must pay local daily wage
13	Misuse of sanctioned timber		As prevailing market rate with fine and compensation	
14	Damage made to other nearby trees while felling	Nos of trees	One has to get permit for the damaged trees and damaged tree will be sold on auction	

Note: For all the illegal activities and violation of activities, pertaining to activities not in the community forest shall be deal as per the respective chapter of Forest Nature Conservation Rules and Regulation 2023 (FNCRR 2023).

5. MANAGING CFMG FUND AND CREDIT

5.1 Benefit Sharing Mechanism

The benefit sharing mechanism is considered as positive incentives and motivational move for Community Forestry Management Group. Since both executive members and CFMG

will grant a support and help especially during big loss caused by natural calamities and disaster. However, during such times executive members upon their field inspections and recommendation will decide the need and quantity. For such cases the CFMG will help the applicant in the form forest produce free of cost upon inspection.

1. The priority for sanctioning of timber for new house construction or repair shall be decided in the annual meeting. The timber sanctioning to the members shall be based on minutes of the meeting and Annual Allowable Cut (ACC) from the CF. For new construction, the member should process for new house construction approval before the annual timber allotment. The timeline for allotment and extraction of timber shall be as per schedule in

Table below for general.

Sl. No.	Activity	Time frame	Responsibility Agency
1.	Permit issuance	November to December	Chairperson
2.	Marking	November to December	Forestry Staff and applicants.
3.	Felling, Extraction, and transportation to construction site	January to January	Applicant (Obtain ITMO)
4.	Monitoring and reporting	April to May	Committee members & concern forestry officials
5.	Submission of construction/renovation completion report to CFO	Renovation within one year and new construction within two years	Committee members & concern forestry officials

However, if the quantity allotted for above construction is not sufficient, the applicant must write application to Chairperson and endorse by committee members and allot sufficient timber for construction before sale.

During natural calamities and disaster, the CF products shall be allotted based on the inspection report and recommendations from the committee members and forestry officials upon reviewing the AAC, but if there is deficit the committee member shall write detail report to the concern CFOs for sanctioning from the SRF. The timeline for allotment and extraction of timber for said matter shall look upon seriousness of needs.

5.2 Sources of Fund

The group focused and steers to generate group fund through different strategies and mechanism and following are the main sources of area to generate fund. The group fund shall be generated through following means:

- Membership fees
- Forest produce fees.
- Fines and penalties paid by CFMG members and outsiders.
- Contributions from CFMG members and outsiders.
- Sale of forest products (timber, NWFPs, Boulders)
- Interest returns.
- Donations.

5.3 Managing CFMG fund and utilizations

The CFMG unanimously agreed and decided that the treasurer along with other two committee members will manage the fund with consensus and approval from the CFMG if required to spend more than Nu. 5000/- for CF management and development purposes. The treasurer shall maintain all transactions records. New treasurer should be backstopped by the CFMC mainly by former Treasurer and or the concern forestry officials in order to transfer the knowledge. The fund will be preferably used for CF development activities such as plantation, thinning, cleaning, fire line creation, CFMG enhancement (Loan, capacity building, study visits, meeting, workshops, networking, and visitors in CF, income generations and enterprise development) and others.

If there is surplus fund, it will be used for community development purpose, which need to be endorsed in the general meetings. The fund generated from above sources shall be deposited in the CFMG account. The treasurer needs to keep CFMG members informed about status during CFMG and committee meetings.

5.4 Procedures in CF fund management

- The account shall be operated under the joint signatory of the CF Chairperson and the treasurer.
- Money receipts should be issued for all payments received.
- Contingency fund of Nu. 5000/- (Five thousand) only will be kept with treasurer.
- The leftover amount excluding contingency fund should be deposited in the bank within 15 days.

- All the money received should be recorded in the cash book by the treasurer.
- The Treasurer shall present the schedule of collections to the CFMG at least annually.
- There should not be any over-writing, use of correction fluids, tearing of pages, in the record keeping books and money receipts including permit books.
- All financial records should be made available to authorized auditing team/inspection team any time.

5.5 DSA and TA for committee and CFMG members

1. If he/she goes out of village for CF related works they will be entitled for simple lunch and taxi fare from the Group fund. However, they will have to inform the CFMG on the purpose of their movement.
2. For resoop the CFMG will compensate labour equal to no of days he/she goes for patrol in the CF area.
3. While marking, the owner of the tree will have to pay 250 per day/resoop

5.6 CFMG Fund for loans and its procedures

Every CFMG members are entitle to avail loan from the CFMG following the procedures mentioned below.

5.6.1 Eligibility Criteria

- Loan from CFMG fund shall not be given to non CFMG members.
- The borrowers must be of 18 years and above.
- Only one member from the household is eligible for loan at a time.
- For surety the applicants will have to mortgage equivalent to loan amount.
- Should not have any outstanding loan in the CFMG while availing new loan.
- The borrower should have his/her census in a household who is member of the CF.
- The loan shall not be given to CFMG till income generation up to Nu 50000/-
- The borrower shall dually fill Annexure 9 &10 of the community forestry Manual third edition 2018 and submit to the Chair person for verification and recommendations.
- The borrower and lender shall sign loan agreement before the loan disbursement. Loan agreement copy each should be kept with Treasurer and borrower. The management committee shall withdraw and disburse to the borrower.

5.6.2 Interest Rates

The CFMG has agreed to bear interest rate of 10% per annum. The loan term is kept for one year. The borrower shall pay the principal amount including the interest rate upon completion of the loan term fixed by the treasurer in the loan form (Annex 9 & 10). The borrower shall be liable for 10% penalty per month for non-repayment of the loan in time and not entertained for new loan until he/she clears the outstanding loan. It will be reflected in the loan agreement (Annex 10), which will affect in availing loan thereafter.

The following are the possible source of income;

- Membership fee
- Fines and penalties
- Sale of Timber
- Sale of NWFPs

The joint account shall be opened with Bhutan Development Bank Limited (BDBL) established in Dzongkhag administration Bumthang. Any financial transactions should be authenticated by joint signatory with minutes of meeting endorsed by CF management committee. Cash balance of more than Nu. 1000/- (One Thousand) should be deposited in the bank. The treasurer will request for a cheque book from BDBL to ensure convenient payments.

The CFMG will incur expenses for the following activities:

- Refreshment during meeting and developmental works.
- Semso during disaster.
- Road maintenances.
- Incur on procurement of office equipment such as seal, files, and other stationaries.
- Disburse loan by maintaining bank balance of not less than Nu. 30,000/- for the members.
- Contributions during grand national celebrations to Gewog Administration.

CF FUND UTILIZATION AREAS

Areas where CFMG funds can be utilized;

<i>Areas of fund use</i>	<i>Limit (%)</i>
<i>CF development activities (CF review, nursery creation, plantation, thinning, cleaning, salvage operation, boundary demarcation, fire line creation, etc.</i>	<i>Not less than 25%</i>
<i>CFMG enhancement (loan, capacity building, study visits, meeting, workshops, net-working, visitors in CF, income generation, enterprise development, etc.).</i>	<i>Not more than 50%</i>
<i>Reserved fund in the bank (security deposit)</i>	<i>Not less than 5 %</i>

5.7 Benefit Sharing Mechanism

- The forest resources shall be allotted on an equitable basis.
- The timber shall be retained if annual requirement is null.
- When the accumulated amount is high, sharing cash and materials will be shared among them.
- Loaning at the rate 4% per annum.
- Contributions for Chha festival will be done.
- Due consideration of timber resources shall be given to the poor and dis-advantaged individuals.

6. MEETINGS

General Committee meeting shall be convened on half yearly basis and Executive members will meet four times a year but will attend ad-hoc meeting if deemed necessary.

During the meeting, following agenda will be discussed and endorsed;

- Verification, approval and endorsement of timber allotment.
- Review CF management progress.
- Annual work planning.
- Finalise time frame for membership fee collection.
- The minutes of meeting shall be maintained accordingly for informing the CFMG members during the general meeting.
- Any agenda not endorsed during the committee meeting shall be discussed during the general meeting.

5. CONFLICT MANAGEMENT

Any conflicts arising within and outside CFMG will be reported to the Chairperson for the facilitation and decision making. If the conflicts could not be resolved by the Chairperson the case shall be reported to Chiwog Tshogpa for the case settlement. Further, if the conflict escalates, the case shall be forwarded to Gup, CFO and District court accordingly.

6. AMENDMENT OF CFMP AND BY-LAWS

The Dhur Dhendrupling CF is prepared for 10 years as per the revised FNCRR 2017 and Community Forestry Manual (Third Edition, 2018). The CFMGs can amend their CFMG By-laws with prior approval from the DoFPS. CFMP shall be reviewed in the 9th year and the 3rd CFMP will be prepared upon recommendations of the CF evaluation report of the first Management Plan.

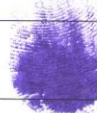
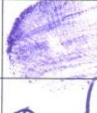




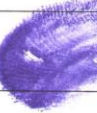

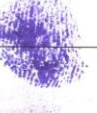
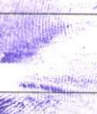
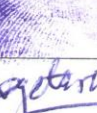



7. POWER OF DEPARTMENT

Department is fully empowered to take action with regard to both forestry and other developmental activities in part or whole of the Community Forests. In addition, the Department is specifically empowered to:




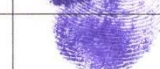
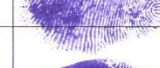

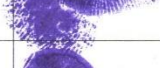


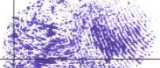
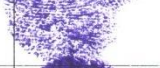


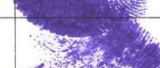
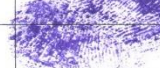
1. Take action against violators of the Act, Rules or Management Plan, regardless of whether requested by the CFMG or not.
2. Inspect, monitor, review the records and otherwise supervise the activities of the CFMG, and take action (including cancellation/suspension of the CFMG's certificate, where warranted under these Rules) against the CFMG or any of its members who may be acting in violation of the provisions of the Management Plan or any provisions of the FNCRR, 2023.
3. Establish record-keeping and financial reporting obligations.

Annexure I: CFMG List

གྲོང་ཁྱེ་མཁའ་མཆོད་འཛིན་གྲོང་ཁྱེ་ཆོས་ཀྱི་འཁུམ་མི

ཨང	གྲུང་པའི་ཆོས་ཀྱི་མིང	མི་ཁྲུང་མང་ཆོས་ཀྱི་ལྟག་ ཆིང་ཨང	གྲུང་ཨང	ཁྲུང་ཨང་གྲུང་པ་ ཅིན།	ས་ཡིག
1	Pema Tshering	10101001387	Ka-1-716	1576	
2	Lemo	10101001007	173	378	Rul.
3	Kuenzangmo	10101001057	Ka-1-183	1283	
4	Jamyang	10101001052	182	1282	put.
5	Soram Tshomo	10101001457	Ka-1-131	302	
6	Neten Tshering	10101001031	Ka-1-180	295	
7	Nidrup Dorji	10101000913	Ka-1-166	328	DDfms
8	Pema Tshomo	10101001248	705	130 1483	
9	Lobzang Choden	10101001569	144	315	
10	Karma Choden	10101001648	Ka-1-167	333	
11	Kuenzang Pelden	10101001371	877	1969	
12	Tandin Penjor	10101001042	181	-	
13	Karma Rinzin	10101001071	184 570	2403	
14	Tashi Pema	10101001408	125	299	
15	Rinchen Peldon	10101001169	194	301	
16	Ugyen Tshomo	10101001396	122	293	
17	Karma	10101000969	176	311	

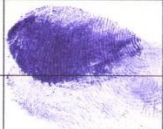
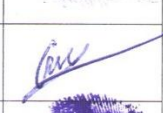
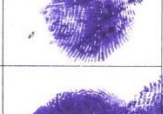





གྲོང་ཁྱེར་གྲས་ཚལ་ འཛིན་སྲོང་ཁྱེ་ཚན་གྱི་འབྲས་མེ

ཨང	གྲུང་པའི་རྩོམ་གྱི་མིང	མི་ཁྱུང་པའི་རྩོམ་ལྟ་ ཁྱེང་ཨང	གྲུང་ཨང	ཁྱུང་ཨང་གྲྭ་ཚོད་པ་ ཅིན་ཀྱི	མ་ཡིག
18	lop Namgay	10101001219	246	2639	
19	Tandin Wangmo	10101000980	856	2400	
20	Tigme Ugyen Wangmo	10101001698	811	2174	
21	Ugyen Phuntsho	10101001690	590	-	
22	Tawla	10101001189	196	-	
23	Karma Choden	10101001531	138	294	
24	Norbu (Yak)	10101001086	185	2713	
25	Petden Sonam Choden	10101005751	133	332	
26	Pema Choden	10101000936	171	344	
27	Pramo	10101000973	176	1137	
28	Tsundu Dorji	10101001721	875	1495	
29	Soram Yangchen	10101001280	Ka-1-910	1460	
30	Tashi	10101001470	Ka-1-132	287	
31	Yeshi Wangmo	10101008055	142 142	1922	
32	Dorji Samphel	10101000903	151	1026	
33	Karma Thinley	10101001401	123 123	291	
34	Tshering Wangmo	10101001257	703	1179	

གོང་ཁྱེ་ནགས་ཆལ་ འཛིན་སྐྱོང་ཁྱེ་ཆ་ན་གྱི་འབྲས་མི

ཨང	གྲང་པའི་འཛིན་སྐྱོང་ཁྱེ་ཆ་ན་གྱི་འབྲས་མི	མི་ཁྱེད་པའི་འཛིན་སྐྱོང་ཁྱེ་ཆ་ན་གྱི་འབྲས་མི	གྲང་ཨང	ཁྱེད་པའི་འཛིན་སྐྱོང་ཁྱེ་ཆ་ན་གྱི་འབྲས་མི	མི་ཁྱེད་པའི་འཛིན་སྐྱོང་ཁྱེ་ཆ་ན་གྱི་འབྲས་མི
35	Sengay Chozom	10101001567	319	174	
36	Tshewang Wangmo	10101001108	188	2004	(Puff)
37	Tashi Wangmo	10101001415	872	1789	
38	Tshewang Pema	10101001296	204	3753	
39	Ugyen Norbu	10101001018	662	1440	
40	Tsheltrim Zangmo	10101000939	172	313	
41	Pema Kunzang	10101001218	200	1138	
42	Kelzang Phuntsho	10101001180	195	1139	
43	Tshering Choden	10101001435	128	1522	
44	Tshering Yangzom	10101001501	173	1788	
45	Pema Tshewang	10101001508	134	286	
46	Phuntsho	10101001557	142	308	
47	Sonam Dorji	10101001539	Ken-1-140	289	
48	Tshewang Pelden	10101001442	707	1964	
49	Pema Namgyal	10101001176	190	288	
50	Dorji Uramo	10101001496	134	288	
51	Namgyal	10101001088	186	-	

གོང་མེན་གསལ་ཚལ་ འཛིན་སྐྱོང་མེ་ཚན་གྱི་འབྲས་མི

ཨང	གྲང་པའི་ངོ་རྒྱུ་གྱི་མིང	མི་ཁྱུང་མངོན་སྲོལ་གྱི་ ཁྱེད་ཨང	གྲང་ཨང	ཁྱེད་ཨང་གྲུ་ལ་ ཅིན།	ས་ཡིག
52	Thinley Wangchuk	10101001197	198	322	
53	Rinchen Dember	10101001519	710	1488	
54	Dorji Wangmo	10101001525	137	297	
55	Phurba	10101001158	191	1967	
56	Lemola	10101001549	144	-	
57	Yeshi Pema	10101001613	147	1419	
58	Tashi Dember	10101001440	129	329	
59	Sangay Dember	10101001417	127	292	

Annexure 2: Stand and Stock Tables with AAC

STAND & STOCK TABLE SHEET 1 - NUMBER OF TREES														
1. Name of CF		Dhur Dhendrupling CF					Production Area			235.16 Ha				
2. Block Name														
3. No of sample Plots							Net Production Area			152.85 Ha		(65% of Production Area)		
4. estimated parameter : Average Number of trees Per Ha. (report all values to 2 decimals)														
Dbh class (cm)														
Species group	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120+	total	%
Bluepine	37.78	18.65	54.55	13.64	3.64	7.45	3.82	2.00					66.09	
AcerSpp	7.91	2.91		0.18	0.18		4.64	2.18	4.18				141.52	
Spruce	11.59	16.00	14.32	13.45	5.82	3.45	0.36	0.73	0.36				22.18	4.64%
Fir		0.18	0.18				2.59		1.23				66.09	13.83%
Hemlock	10.77	14.86	13.45	11.82	9.82	8.73	6.91	4.55	1.82	0.55			4.18	0.88%
Taxus	1.64	1.09	1.27	0.18									83.27	17.43%
													4.18	0.88%
													321.43	67.26%
Totl Timber tree	69.69	53.69	83.77	39.27	19.45	19.64	18.32	9.45	7.59	0.55			321.43	0.6726418
AAC (Nos.of Trees)	88.77	68.39	106.71	50.02	24.78	25.01	23.33	12.04	9.67	0.69			409.42	21.59%
Quercusspp	35.86	25.23	14.91	14.18	5.09	0.91	6.82	0.18					103.18	11.14%
Rhodosp	19.64	24.16	8.18	0.91	0.36								53.25	
														32.74%
total Non Timber	55.50	49.39	23.09	15.09	5.45	0.91	6.82	0.18					156.43	
AAC (Nos.of Trees)	70.69	62.91	29.41	19.22	6.95	1.16	8.68	0.23					199.26	
														100.00%
total all species	55.50	49.39	23.09	15.09	5.45	0.91	6.82	0.18					477.87	
%	0.12	0.10	0.05	0.03	0.01	0.00	0.01	0.00					32.74%	

STAND & STOCK TABLE SHEET 2 - BASAL AREA														
1. Name of CF		Dhendup CF				Production Area				235.16 Ha				
2. Block Name														
3. No of sample Plots						Net Production Area				152.854 Ha		(65% of Production Area)		
4. estimated parameter		Average Basal area per Ha												(report all values to 2 decimals)
Dbh class (cm)														
Species group	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120+	total	%
Bluepine	0.64	0.88	5.07	2.84	0.85	1.83	1.66	1.12					14.89	
AcerSpp	0.13	0.14		0.03	0.04		1.66	2.35	1.53	0.78			6.66	
Spruce	0.20	0.56	1.78	2.10	1.36	1.13	0.16	0.41	0.25				7.94	
Fir		0.01	0.02				1.13		0.86				2.02	
Hemlock	0.24	0.93	1.25	1.38	1.72	2.85	3.01	2.55	1.27	0.47	0.13	0.31	16.12	
Taxus	0.12	0.03											0.15	
total Timber	1.34	2.55	8.12	6.35	3.96	5.81	7.63	6.43	3.92	1.25	0.13		47.78	
Quercusspp	0.61	1.58	1.39	2.21	1.19	0.30	8.30	0.26					15.83	
Rhodospp	0.33	1.51	0.76	0.14	0.08								2.84	
total N-Timber	0.94	3.09	2.15	2.35	1.27	0.30	8.30	0.26					18.66	
total all species	2.28	5.64	10.26	8.70	5.23	6.11	15.93	6.68	3.92	1.25	0.13		66.44	
%	0.03	0.08	0.15	0.13	0.08	0.09	0.24	0.10	0.06	0.02	0.00		99.53%	

STAND & STOCK TABLE SHEET 3 - VOLUME

Production Area 235.16 Ha

Net Production Area 152.854 Ha (65% of Production Area)

Dbh class (cm)

(report all values to 2 decimals)

70-79	80-89	90-99	100-109	110-119	120+	total	%
17.01	12.33					132.16	
						2.35	
2.21	6.07	4.03				74.23	
11.44		9.72				21.41	
22.43	14.95	7.80	3.98			110.15	
						1.45	
53.09	33.35	21.55	3.98			341.75	
67.62	42.48	27.45	5.06			435.31	

42.00	1.38					104.83	
						16.82	
42.00	1.38					121.65	
53.50	1.76					154.95	

95.09	34.73	21.55	3.98			463.40	
0.21	0.07	0.05	0.01			100.00%	