

COMMUNITY FOREST MANAGEMENT PLAN (CFMP)

JANGBI NYAMRUP COMMUNITY FOREST (1ST REVISION)

LANGTHEL GEWOG, TRONGSA DZONGKHAG



**JIGME SINGYE WANGCHUCK NATIONAL PARK
TSHANGKHA**

Plan Period: August 2023 – July 2033



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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/ 1211

June 19, 2023

NOTE SHEET

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

Following community forests (Annexure 1) upon completion of its 10-year management plan period have been revised and submitted for review and approval from the department. The community forest management plans (CFMPs) have been developed by respective field offices (detailed table 1) in collaboration with Community Forest Management Groups.

Sl.No	Name of CF	Gewog	Office	Area(ha)	CFMG	AAC (M3)	Plan-Period
1	Baysam CF	Langthel	JSWNP	22.15	11	24.53	2023-2033
2	Jangbi Nyamrup CF	Langthel	JSWNP	73.98	23	81.95	2023-2034

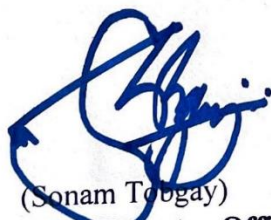
CFMPs adhere to guidelines and requirements set under Forest and Nature Conservation Code of Best Management Practices of Bhutan, Volume III Sustainable Forest Management and Forest and Nature Conservation Rules and Regulation, 2017 (FNCRR, 2017).

The revised CFMPs reflect the priorities and needs of the CFMG while also considering environmental and social safeguards. Stakeholder engagement ensured transparency and collaboration with a commitment to accountability, transparency, and long-term success.

The revised CFMPs include vision, objectives, strategies, proposed activities and framed by laws. It also includes detailed information on forest inventories, biodiversity conservation measures, resource utilization plans, benefit-sharing mechanisms, and community capacity building strategies.

Technical assessment and review conducted by Forest Resources Planning and Implementation Section, FRPMD, DoFPS. The revised CFMP's emphasize community participation, to promote conservation, sustainable resource utilization, community development, and the integration of traditional knowledge with modern scientific practices.

Therefore, the CFO and the Director jointly approved the revised Community Forest Management Plans (CFMP) after thorough review and discussion. They acknowledged its importance in fostering sustainable forest management practices, preserving biodiversity, and ensuring the well-being of the local community.


 (Sonam Tobgay)
 Chief Forestry Officer


 (Director)
 Department of Forest and Park Services

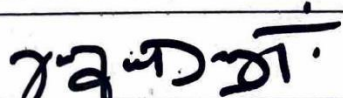

Approval Sheet:

Name of Community Forest	Jangbi Nyamrup Community Forest
Village	Jangbi
Chiwog	Jangbi
Gewog	Langthel
Dzongkhag	Trongsa
Production area	71.30 Ha (176.18)
Protection area	2.68 Ha (6.62 acres)
Total Community Forest Area	73.98 Ha (182.81 acres)
Total CFMG Member (No. of HH)	23 HH

Prepared and submitted for approval

	Community Forest Management Group	Forestry Representative (CFMP facilitator)	Gewog Administration	Social Forestry Section	JSW National Park
Signature					
Name	Tshencho	Choki Dorji	Rinzin Wangchuk	Pema Thinley	Tashi Tobgyel
Title	Chairperson	Park Ranger	Gup	Head	Chief Forestry Officer

REVIEWED AND RECOMMENDED FOR APPROVAL

Signature		
Name	Tsheltrim Dorji	Sonam Tobgay
Title	Focal Officer	Chief Forestry Officer
Division	Forest Resource Planning and Management Division	Forest Resource Planning and Management Division

APPROVED BY:


DIRECTOR

DEPARTMENT OF FORESTS AND PARK SERVICES

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Acronyms

AAC- Annual Allowable Cut

AHL- Annual Harvesting Limit

CF – Community Forest

CFMG – Community Forest Management Group

CFMP – Community Forest Management Plan

CFO- Chief Forestry Officer

Cft- Cubic feet

Col- Column

DoFPS- Department of Forests and Park Services

ECCD- Early Child Care Development

FNCR- Forest and Nature Conservation Rule

H- High

Ha-Hectare

HH- Household

JSWNP-Jigme Singye Wangchuck National Park

L- Low

LPRO- Langthel Park Range Office

M- Medium

M-Meter

M3-Cubic meter

Nos. – Number

NPRO- Nabji Park Range Office

NWFP-Non-Wood Forest Product

PRO- Park Range Office

Qty- Quantity

RGoB- Royal Government of Bhutan

RO- Range Officer

RWSS- Rural Water Supply Scheme

ToR- Terms of References

Executive Summary

Jangbi Nyamrup Community Forest Management Group consists of 23 households from Jangbi village under Langthel Gewog in Trongsa Dzongkhag and take two hours to walk from Gewog office to the Jangbi village. The Community Forest (CF) is located at an altitude range from 1033 to 1503 meters above the sea level facing east aspect and the total area of CF is 73.98 hectares (182.80 acres). It consists of good and moderate forest dominated by Chir pine forest and few other broadleaved forest species were grown along with it. The designated CF area falls within the jurisdiction of Jigme Singye Wangchuck National Park.

The CF has only single block based on natural features, forest type's similar topography of the entire CF area. It was demarcated by Jangbi Lhakhang to the west, lower Jangbi village to the east, Koktonglang to the south and Eco-camp/Cane and bamboo nursery to the north. The dominant tree species like *Pinus roxburghii*, *Quercus graffithii* and *Castronopsis hystrix*. As per the quantitative forest resource assessment the average mean basal area of the forest is **17.51m²/ha**. But, as per the annual harvesting limit and demand assessment, there is acute shortage of Cham, Tsim and Dhangchung sizes trees and fire wood in their CF although Drashing are sufficient at least for their domestic use.

The overall objectives for establishment of Community Forest are:

- *To improve existing forest condition through sustainable utilization of forest resources.*
- *To protect illegal activities and manage the right over available resources.*
- *To generate Income for the Community Forest Management Group.*

The main source of income for Jangbi community depends on agriculture and livestock activities. The staple crops to the community are paddy and maize cultivation and few depend on cash crop like oranges and cardamom orchard farming. The derivation of NWFPs benefits from the forest is only for domestic consumption. Thus, CFMG is very much interested to continue the CF group as to ensure equality and benefit sharing to all the members through sustainable management of the forest resources.

PART I: MANAGEMENT PLAN

1. Introduction

Jangbi Nyamrup Community Forest of Jangbi village under Langthel Gewog is first initiated in the year August 2013 with an objective to utilize forest resources sustainably and to improve of forest condition through proper management of forest resources. At the initial establishment Of Community Forest Management Group (CFMG) it consists of 21 households from Jangbi village.

Upon completion of the 10 years plan period, the Community Forest Management Plan is being revised based on CFMG's consensus or their willingness to manage it further for next 10 years and beyond. This revised plan has total of 23 households as Jangbi CFMG which means almost all the households have become member of this Community Forest. The community forest lies with an altitude range from 1033 to 1503 meters above the sea level. The land aspect of the CF is east facing and has a gentle slope. The CF has only single block based on natural features and forest types. The total area of the CF is 73.98 hectares (182.80 acres) with 71.3 ha as net production area and the condition of forest is moderate to good dominated by Chir pine forest. It falls under the jurisdiction of Jigme Singye Wangchuck National Park. The dominant tree species are *Pinus roxburghii*, *Quercus graffithii* and *Castronopsis hystrix*.

Different manangment zones were designated such as protection and production area or zones. The CF area which falls within rocky areas where the extraction of timbers is inaccessible, transmission line and along the farm road were buffered and decided as for protection area. The CF area that is accessible and feasible for timber extraction is designated as production area. The total protection area is 2.68 ha (6.62 acres) in the CF. There, the total production area under Jangbi Nyamrup CF is only **71.30 ha (176.18 acres)**.

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2. Review of past plan over 10 years

2.1. Timber supplied from CF area

Year	Type of timber	Quantity (numbers/cft)	Remarks
2015	Drashing	26 nos.	For rural use
	Flag pole	60 nos.	
	Fencing post	80 nos.	
	Firewood	1 no.	
2016	Drashing	27 nos.	
	Fencing post	29 nos.	
2017	Drashing	26 nos.	
	Flag pole	100 nos.	
	Firewood	1 no.	
2018	Drashing	14 nos.	
2019	Drashing	3 nos.	
	Surplus tree	50nos. (4480.27cft)	Sell of excess timber
2020	Drashing	4 nos.	For rural use
2021	Drashing	4 no	
2022	Drashing	35 nos.	

1.2.The activity carried out by the CFMG

Activity	Year	Quantity	Remarks
Thinning and clearing	July 2022	4 acres	
Plantation	2000	50 nos.	Persia spp. sapling
	2022	1100 nos.	Walnut sapling
Seed sowing	2022	4500 nos.	Walnut seed sowing
Annual general meeting	2017, 2019 & 2022	3 times	CFMG annual general meeting

1.3.Financial Status

Year	Detail of revenue	Amount	Remarks
2015	1. Royalty on timber	4290.00	
	2. Permit fee	80.00	
2016	1. Royalty on timber	1015.00	
	2. Permit fee	60.00	
	3. Membership fee	1150.00	
2017	Royalty on timber	1310.00	
	Permit fee	90.00	
	Membership fee	1150.00	

2018	Royalty on timber	420.00	
	Permit fee	40.00	
	Membership fee	1150.00	
2019	Royalty on timber	90.00	
	Permit fee	10	
	Surplus timber sale (4480.27 Cft)	40,000.00	
2020	Royalty on timber	120.00	
	Permit fee	20	
2021	Royalty on timber	-	
	Permit fee	-	
2022	Royalty	1050.00	
	Permit fee	90	
Total amount (Nu.)		52265.00	

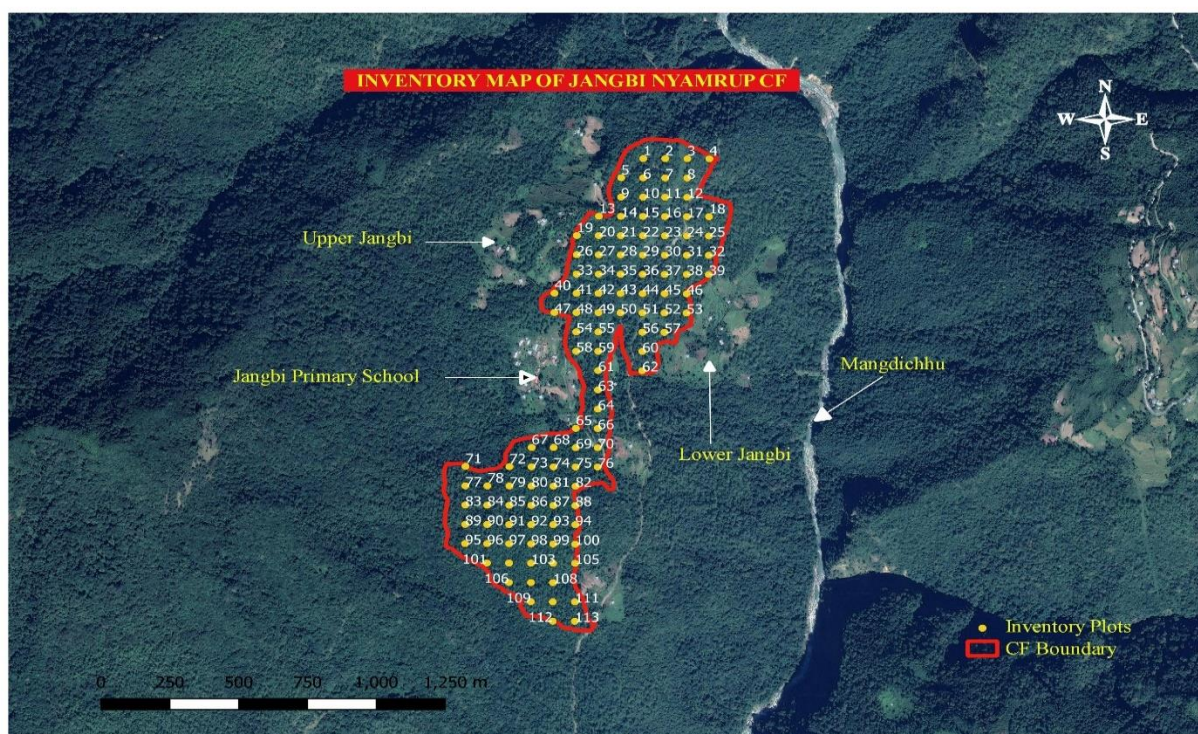
3. Traditional Rights and Responsibilities

Services Product	Rights	Responsibilities	Traditional Management system
Grazing	After establishment of CF no one allow to graze in the CF area.	The owner of the cattle has responsibility for grazing in the CF area	Before establishment of CF, Jangbi community have to grant the permission from Namther for grazing in the CF area
NWFPs (Amla and Wild Asparagus)	Freely access for domestic consumption for Jangbi community.	After the establishment of CF, protect collection from outsiders.	No traditional management system as such.

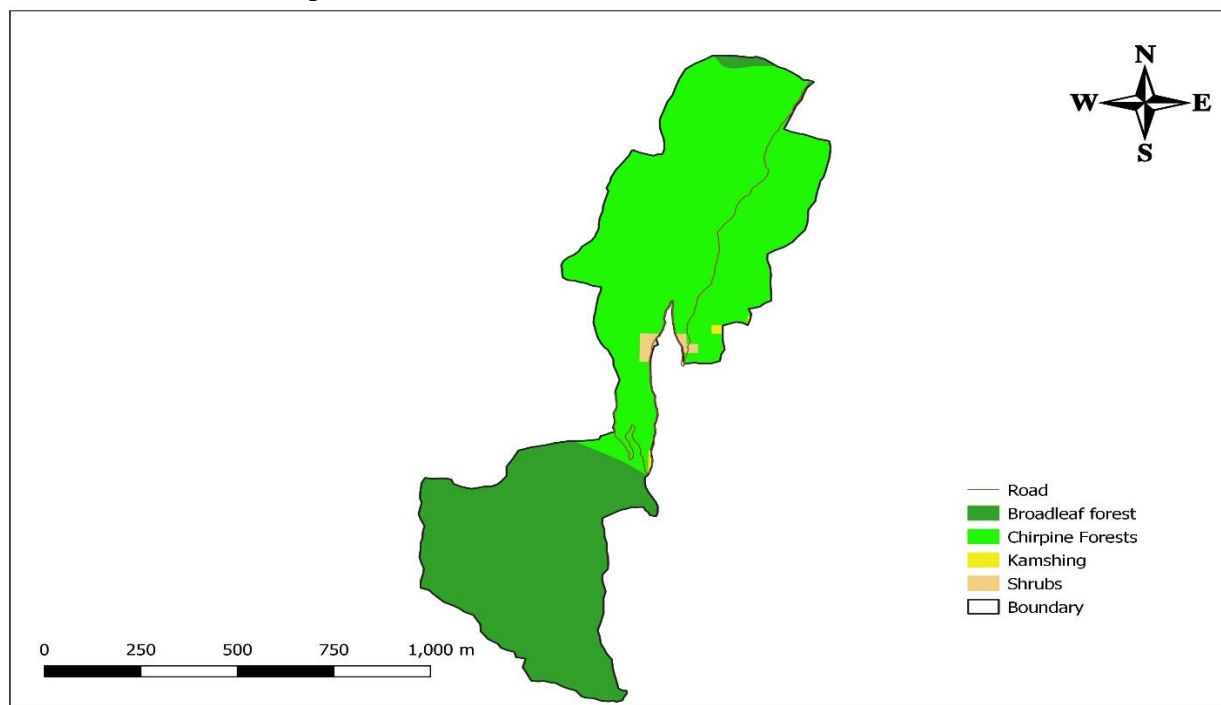
Timber, fencing post, fuel wood and flag pole	<p>Before establishment of CF, every individual has rights to harvest timber having a valid permit.</p> <p>Only after establishment of CF , only CFMG member from Jangbi community has right over forest produce</p>	<p>After establishment of CF, the CFMG will issue the permit to the individual members who are eligible for forest produce and Park Range will mark the tree for allotment.</p>	<p>No traditional management system as such outside the CF area, only permit issue through Park services upon approval from CFO</p>
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4. Community Forestry Map

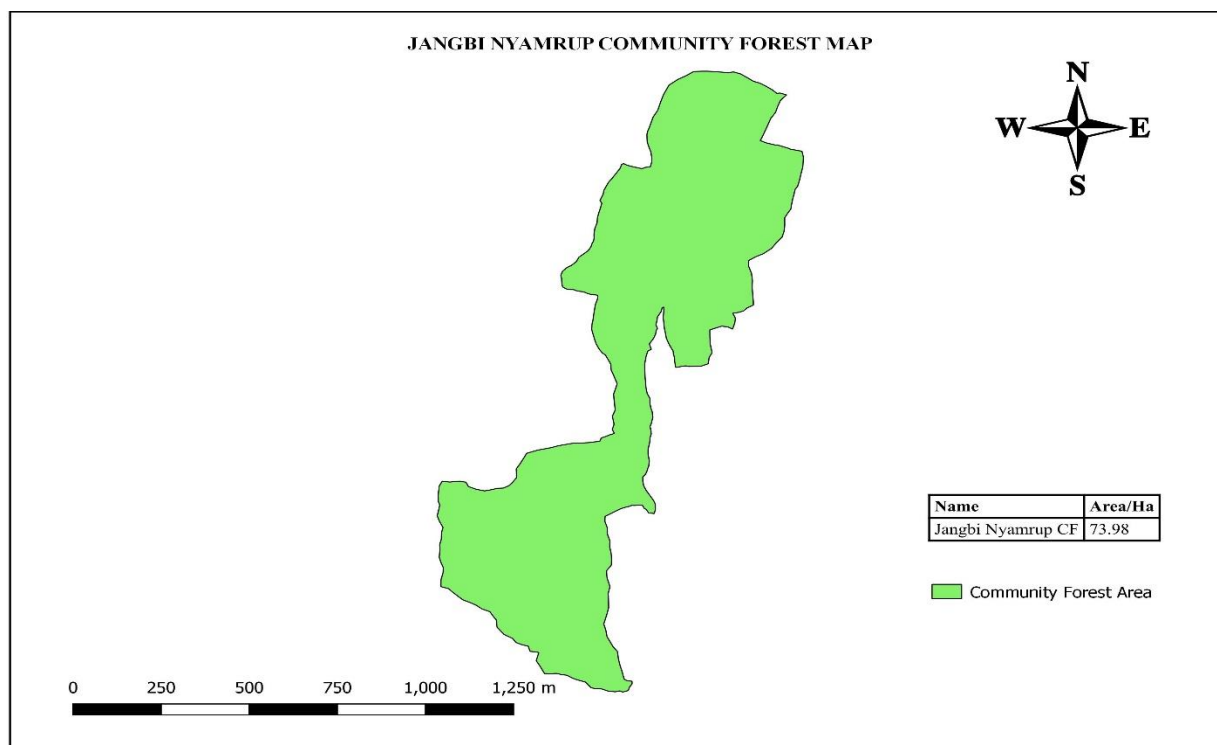
4.1. Inventory map



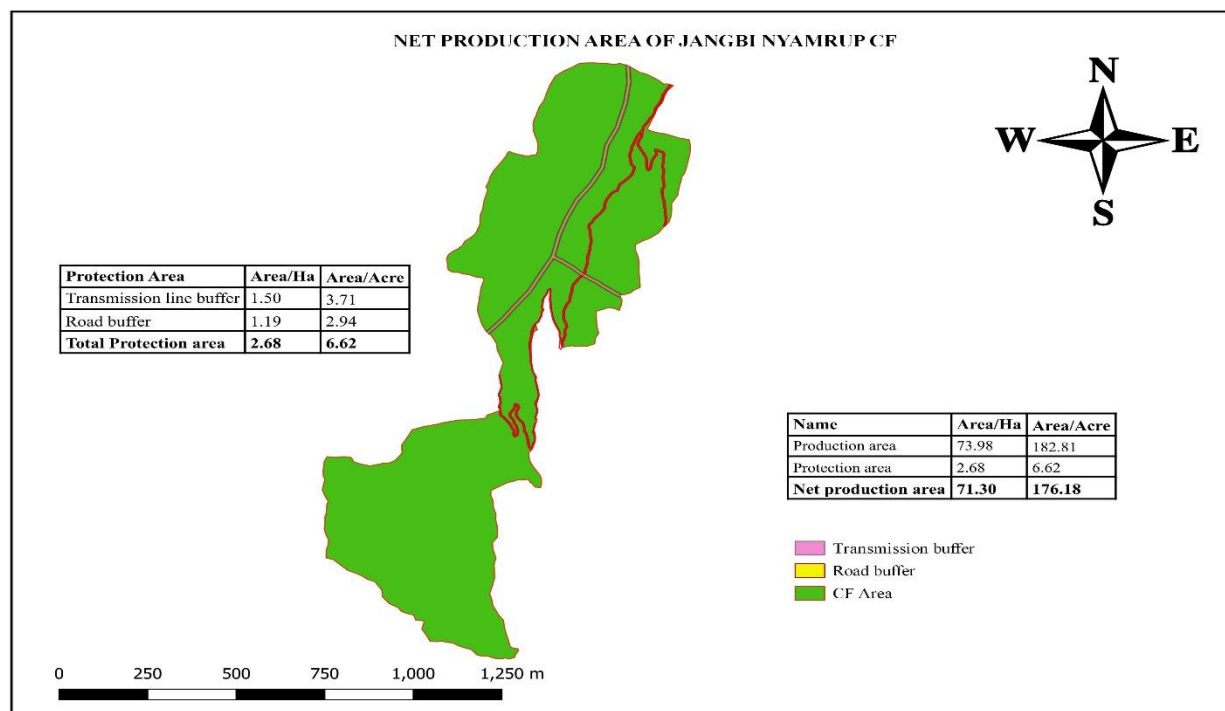
4.2. Forest Land use map



4.3. Jangbi Nyamrup Community Forest Map



4.4. CF Net production area map



5. Community Forest Boundaries

Boundaries	Permanent features
West	Jangbi Lhakhang
East	Lower Jangbi village
South	Koktonglang
North	Eco camp, Cane & bamboo Nursery

6. Community Forest Planning Process

The major steps involved during the planning process that had contributed to CF management plan are:

Sl. No.	Activities	Year & Date	Collaborators
1	Discussion with CFMG members regarding work plan for CF revision	10/10/2022	LPRO, NPRO & JSWNP
2	CF boundary survey	11-13/10/2022	do
3	CF Review & initiation training	14-16/10/2022	do
4	Preliminary resources inventory survey	17-20/10/2022	do
5	Quantitative resource Assessment survey	21-25/10/2022	do
6	Preparation of CFMG By-Laws	26-28/10/2022	do
7	Management plan write up and submission to the focal person.	December 2022 & January 2023	Sr. Forest Ranger II, NPRO
8	Final draft management plan submission for approval	February 2023	Langthel RO

7. Social Information

Particulars	Description
Name of the village:	Jangbi
Ethnic groups with CFMG:	Monpa
Basic amenities/ Infrastructures:	<ul style="list-style-type: none"> Established Jangbi Nyamrup Community Forest-2013 Supply of Orange seedling-2014

	<ul style="list-style-type: none"> • Solar fencing establishment-2015 • Electricity supply-2015 • Phumzor village Farm road-2015 • Bamboo plantation in the CF area-2016 • ECCD started-2017 • Supply of Cardamom seedling by Park Management-2017 • Supply of Rice cooker by Park Management-2017 • Supply of breeding bull-2017 • Supply of Green house-2018 • Granding milling machine supply-2018 • Improve breed supply-2019 • Chumpigang bridge construction-2019 • Jangbi Mead irrigation water supply-2020 • Jangbi Mead Farm road-2020 • Additional RWSS-2021 • Renovation of Jangbi school and Lhakhang-2021 • Revision of Jangbi Nyamrup CF-2022
Total Household (HH) number of CFMG:	23
Population of CFMG:	Total of 154 population at present are residing in the community.
% Male and % female:	Male=47.4% and Female=52.6% (Male=73 and Female=81)
Main source of income	Agriculture and Livestock
Cattle population of the CFMG:	The total cattle population in the CFMG is 105, of which Local breed ox 45 and local breed cow 60
Main crops:	Paddy and Maize
Cropping pattern:	Commonly practise mixed cropping by the community
Any other information	-

8. Forest Information for whole forest

8.1. History of the Forest

Jangbi Nyamrup Community Forest was located in chir pine forest under the conifer zone with very few other broadleaved tree species facing east aspect. During the last 10 years plan period of the CF, the CFMG has managed only 43.53 ha of the CF area which was very minimal as per requirement for number of households participated in CFMG user group. Outside CF area, the forest resources at present are quite exploited due to growing pressure from the developmental activities within and outside the village owing to increase in population. The construction of farm road toward Phumzor village has eased the collection of timbers which on the other hand will increase pressure in illegal activities in the SRF Land. Therefore, CF area was extended toward Koktonglang side which it could protect illegal activities from outsider. The management of the forest will be easy to the CFMG since it has only single block as per natural features and forest type.

In general, the forest condition is found to be moderate and majority of the area is covered with matured stand. As per the resources assessment the Community has potential for marketing the surplus timber of Drashing and all other classes trees are in deficit which ultimately has to depend on SRF land for availing the timber resource. Therefore, the surplus Drashing timber can be allotted in lieu of Cham, Tsim and Dangchung size trees. The entire CF has dominated by Chir pine (*Pinus roxburghii*) forest and few species like *Quercus griffithii* and *Castanopsis hystrix* are also there in the CF area. .

8.2. Forest Condition (Average for whole Block)

Use the forest condition class box below to get the average condition for the CF							
Poor	<input type="checkbox"/>	Moderate	<input type="checkbox"/>	Good	<input checked="" type="checkbox"/>	Very Good	<input type="checkbox"/>
Does the main forest canopy consist of large, mature trees?				Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Total Basal area of CF				17.51 m ² /ha			
Total community forest area				73.98 Ha (182.80 acres)			
NWFP use area (if relevant)				NA			
Numbers of Blocks in CF				1			

8.3. Fauna

Local Name	Common Name	Scientific/Zoological name
Zee	Leopard	<i>Panthera pardus</i>
Kasha	Barking Deer	<i>Muntiacus muntjak</i>
Pra	Monkey	<i>Assamenses maccacu</i>
Ragsha	Golden Langur	<i>Trachypithecus geei</i>
Phag	Wild boar	<i>Sus scrofa</i>
Wam	Bear	<i>Ursus thibetanus</i>
Shaw	Sambar deer	<i>Cervus unicolor</i>

8.4. List of Forest Product Collected from the Forest

List of products and services	Who collect from forest		Please mark (x) if used or collects by outsider (out of CFMG) and mention which village
	Male (M)	Female (F)	
Timber harvesting	M	-	
Firewood collection	M	F	-
Fencing post	M	-	-
Flag poles	M	-	-
Agriculture implements	M	-	

9. Forest Information

Forest & Habitat Type of the community forest area (tick all those present)		
Habitat type	Tick (✓)	Remarks, if any
Forest	✓	
Thicket/pole stage	✓	
Shrubland	✓	
Grassland		
Plantation	✓	Few acres of plantation was done in 2022 innside the CF area.
Other		

9.1. Forest type

Forest Types	Tick (✓)	Remarks, if any
Subtropical forest		
Chir pine forest	✓	
Warmbroad leaved forest		
Blue pine forest		
Coolbroadleaved forest		
Mixed conifer forest		
Fir forest		
Other		

9.2. Forest Condition (Main Species)

Local Name	Botanical name
Tsakseng (Chir pine)	<i>Pinus roxburghii</i>
Sisi shing	<i>Quercus graffithii</i>
Thomshing	<i>Castanopsis hystrix</i>

9.3. Plantation

Forest Types	
Is there any plantation	Yes (✓)
Approximate height of planted trees (m)	1 meter
Year planted	2022
Is the plantation?	Under stocked (✓)

9.4. Forest Condition

Forest Condition- Age					
Mature	✓	Pole stage	<input type="checkbox"/>	Shrub land	<input type="checkbox"/>
Any	<input type="checkbox"/>				
Main canopy of mature trees		Main canopy of pole-stage trees		Main canopy of shrubs, young trees or regeneration	No continuous canopy. Isolated trees only
Forest Condition- Canopy density (main canopy)					
Dense	<input type="checkbox"/>	Open	✓	Very open	<input type="checkbox"/>
Canopy density > 70%		Canopy density < 70%		No real canopy. Isolated trees only	
Forest Condition- Regeneration					
Abundant	<input type="checkbox"/>	Scattered/few	✓	None	<input type="checkbox"/>
Regeneration easy to find in most places		Regeneration only in some places and hard to find		No regeneration	
Write the names of the 3 main tree species in the regeneration					
1) Tsakseng (Chir pine) (<i>Pinus roxburghii</i>)		2) Chokashing (<i>Rhus chinensis</i>)		3) Amala (<i>Phyllanthus emblica</i>)	
Regeneration: Seedlings > 30cm and < 1.3m height					
Forest Condition – Approximate density of seed trees					
High	<input type="checkbox"/>	Moderate	✓	Low	<input type="checkbox"/>
> 50 seed trees per ha		10 - 50 seed trees per ha		< 10 seed trees per ha	

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

9.5. Catchment Condition

Catchment Condition (use catchment condition class box below)	
(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 (colour, 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"/>

9.6. Biotic Pressure indication

Biotic pressures (tick those present)			
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	Common <input type="checkbox"/>	Limited <input checked="" type="checkbox"/>	Absent <input type="checkbox"/>
Leaf litter collection	Common <input type="checkbox"/>	Limited <input type="checkbox"/>	Absent <input checked="" type="checkbox"/>
Encroachment	Common <input type="checkbox"/>	Occasional <input type="checkbox"/>	Absent <input checked="" type="checkbox"/>
Pole harvesting	Common <input type="checkbox"/>	Occasional <input checked="" type="checkbox"/>	Absent <input type="checkbox"/>
Fuel wood 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)			

10. Forest Management

10.1. Overall Management Objectives of Community Forest

- To improve existing forest condition through sustainable utilization of forest resources.
- To protect illegal activities and manage the right over available resources.
- To generate Income for the Community Forest Management Group

10.2. Annual Harvesting Limit

10.2.1. Annual Allowable Cut (AAC) for forest products Stand and Stock table result

Annual Allowable (Calculated from Stand and Stock Tables)							
Product types	Dangchung	Tsim	Cham	Drashing	Fencing Post	Falg pole	Firewood
Average Vol/Ha	2.39	12.29	37.5	74.72	5.62	7.95	20.72
AAC (Vol in m ³)	1.55	7.96	24.3	48.43	3.64	5.15	13.4303
Minus 20%	1.24	6.37	19.46	38.75	2.91	4.12	10.74
AAC (Vol in cft)	43.8	225.1	687.4	1368.5	102.9	145.6	379.5
No.of Trees	34	42	37	18	24	12	6

Note: AAC=Net production area (71.3 ha)*Total Average Vol/Ha (161.19m³)

Rotation age (110 Yrs)

AAC=81.98 m³; Minus 20% considering RA error and inaccessibility of Area

10.2.2. Species group Annual Allowable Cut (AAC) per year

Annual Allowable cut table								
Species Group	cut table (AAC)	Dangchung	Tsim	Cham	Drashing	Fencing post	Flag pole	Fire wood
Conifer	Volume in M3	1.38	7.3	22.3	44.04	0.18	0.29	0.75
	Volume in CFT	48.74	257.84	787.64	1555.49	6.36	10.24	26.49
	No. of standing tree	25	31	27	14	3	2	1
Broadleaved	Volume in M3	0.04	0	0	0.26	3.47	4.86	12.68
	Volume in CFT	1.41	0	0	9.19	122.56	171.66	447.86
	No. of standing tree	1	0	0	1	17	8	4

10.2.3. Stock available for 10 years

Annual Allowable in 10 yrs							
Annual Allowable Cut(AAC in m3)	Dangchung	Tsim	Cham	Drashing	Fencing Post	Falg pole	Firewood
	1.2	6.4	19.5	38.7	2.9	4.1	10.7
AAC in 10 yrs	12.4	63.7	194.6	387.5	29.1	41.2	107.4
No.of Trees	34	42	37	18	24	12	6
No.of Trees in 10 yrs	344	424	368	184	240	120	64

Note: $1 m^3 = 35.32 cft$

11. Forest Product Demand Assessment

The demand assessment and usage of products derived from the forest area are recorded in the tables as indicated below.

Products	Annual requirement (Estimated Qty.)	Nos. of HH. require product annually	Total annual requirement	Total requirement in 10 years	Purpose
Drashing	8 Nos.	1 HH	8 Nos.	80 Nos.	New Construction
Cham	60 Nos.	1 HH	60 Nos.	600 Nos.	
Tsim	40 Nos.	1 HH	40 Nos.	400 Nos.	
Dangchung	40 Nos.	1 HH	40 Nos.	400 Nos.	
Drashing	2 Nos.	2 HH	4 Nos.	40 Nos.	Renovation/

Cham	10 Nos.	2 HH	20 Nos.	200 Nos.	Repair/Extension
Tsim	20 Nos.	2 HH	40 Nos.	400 Nos.	
Dangchung	20 Nos.	2 HH	40 Nos.	400 Nos.	
Fire wood	2 Nos.	23 HH	46 Nos.	460 Nos.	Domestic Consumption
Flag Poles	30	23 HH	690 Nos.	6900 Nos.	
Fencing post	25 Nos.	23 HH	575 Nos.	5750 Nos.	
Amala	20kg	23 HH	460 kg	4600 kg	
Wild Asparagus	2 bundles	23 HH	46 bundles	460 bundles	

Index: HH- Household, Qty- Quantity, Kg- Kilogram and Nos. - Number

12. Total Annual Allowable Cut (AAC) and Annual Demand

The table below compress the AAC timber/forest produce supply from the CF and demand of the CFMG annually.

Produce	Total AAC		Total Annual Demand		Difference		Comments
	No. of trees	Volume in cft	No. of trees	Volume in cft	No. of trees	Volume in cft	
Drashing (Standing tree)	18	1368.5	12		(+) 6		The balance will be use as cham & Tsim
Cham (Nos.)	37	687.4	100 nos.	1412	(-) 63		The shortage timber will be availed from SRF or supplemented from Drashing size
Tsim (Nos.)	42	225.1	80 nos.	282.4	(-) 38		
Dangchung (Nos.)	34	43.8	80 nos.	140.8	(-) 46		The deficit quantity can avail/meet from SRF land.
Fencing post (Nos.)	24	102.9	575 nos.	1012	(-) 551		
Flag pole (Nos.)	12	145.6	690 nos.	2435.7	(-) 680		
Fire wood (Standing tree)	6	379.5	46		(-) 40		Can be meet from lops and tops of Drashing or

							avail from SRF land.
--	--	--	--	--	--	--	-------------------------

The graph shows comparison between Annual harvesting limit and Annual Demand

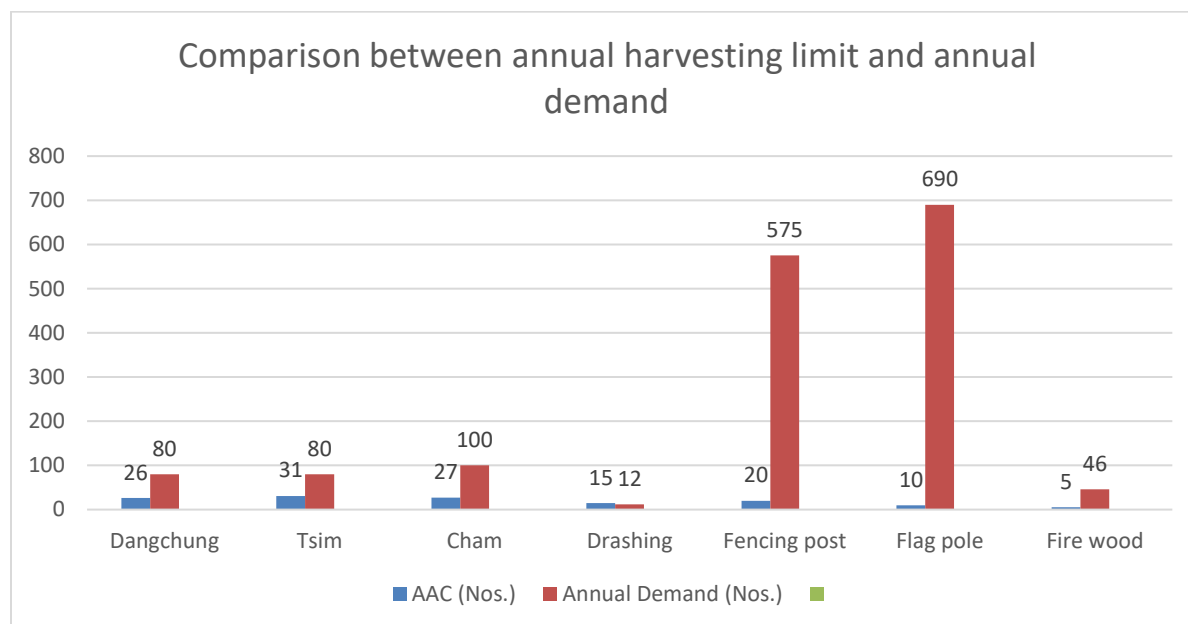


Figure 1- Comparison of Annual harvesting limit and Annual Demand

The graph shows comparison between Conifer and broadleaved group AAC per year in number of trees.

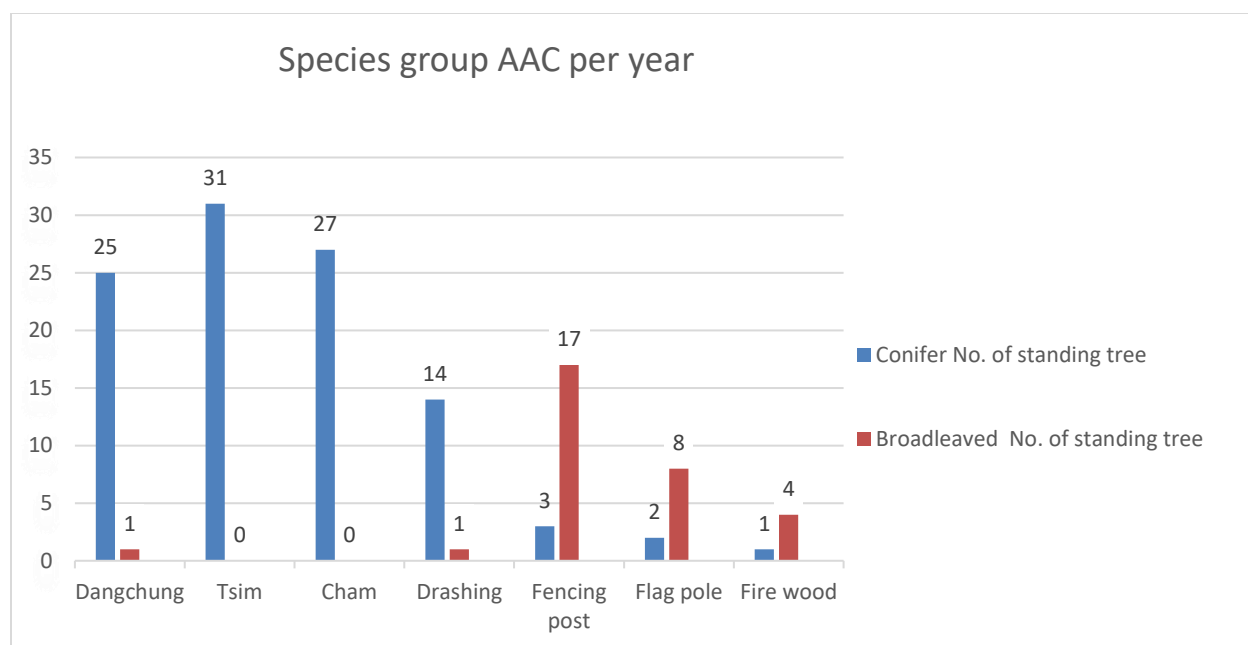


Figure. 2. Comparison between species group of (conifer and broadleaved) AAC in number of Trees

13. Forest Management Procedures

Objective	Activities	Priority (H, M, L)	Procedures	Responsibilities
To improve the existing forest condition	Carry out plantation in open/barren areas	H	Organized for plantation & sought technical assistance from PRO	Executive members, CFMG and PRO
	Cleaning & thinning improvement of regeneration.	M	Dead, diseased & malformed will be removed for use of fire wood	Executive members & CFMG
To protect from illegal activities and manage the right over available resources	Initiate regular patrolling as per scheduled & demarcation of boundary	H	Patrolling shall be done monthly on rotational basis & permanent feature in the boundary	Resoop & CFMG

To generate income & sustainable utilization of forest resources	Sell of surplus timber & other forest resources	M	Only surplus forest resources shall be sold	Executive members & CFMG
--	---	---	---	--------------------------

14. Silviculture Option and System

Utilization	Improvement	Protection	Silviculture system	Comments
Timber Harvesting	Only matured trees after retention of seed trees will be felled & felling direction should be identified for minimal damages to regeneration.	Protect the illegal felling & marking should be executed by technical person.	Single tree selection system will be applied	
Harvesting of Fire wood	Dead, diseased and malformed trees will be used	The quality trees species shall be retained for timber use.	Single tree selection system shall be applied	
Extraction of Fencing post and flag poles	Extracted from thinning & cleaning operation.	Felled on thinning basis & retain quality species for promotion to timbers	Cleaning & thinning operation	

15. Participatory Environment Assessment

<i>Participatory Environmental Assessment Chart</i>		
	Potential Environmental Effects	Potential Socio-Economic Effects

Activity proposed in CFMP	Soil	Water	Wild animals	Plants	Traditional forest use	Cultural and religious values	Local employment	Local benefits from forest produce
Plantation establishment	+++	+++	++	0	++	++	+++	+++
Fuel wood harvesting	---	---	---	---	--	++	++	++
Flag pole harvesting	---	---	--	--	--	+++	+	+++
Timber harvesting	---	---	---	--	--	-	++	+++
Grazing control	+++	++	+++	+++	++	+	--	++
Fire control	+++	+++	+++	+++	++	++	++	++
NWFP collection	--	-	--	--	0	0	+++	+++
Forest protection	+++	+++	+++	+++	++	++	+	+
Soil and water conservation	+++	+++	+++	+++	++	++	+	+

Index: +++ (Positive Effects; --- (Negative Effects); 0(Not Applicable)

16. Procedures to address potential negative environment effects

Activity	Procedure
Timber, fuel wood and	<ul style="list-style-type: none"> Prohibit marking of trees, where the slope gradient is high and near water source. Timber shall be extracted applying single tree selection system

flag poles harvesting	<ul style="list-style-type: none"> • Firewood shall be collected from lops and tops. • No clear-felling system will be applied for harvesting timber, fuel wood and flag poles. • Transportation of timber from the forest will be allowed only after conversion into required sizes. • Retained seed trees and should identified the felling direction.
Harvesting of NWFP	<ul style="list-style-type: none"> • Harvesting of NWFP shall be on sustainable basis as per their prescribed guidelines.
Control grazing	The free grazing shall be controlled in plantation areas




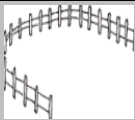

















17. Climate Hazard Matrix

	Landslide	Flood	Drought	Forest Fire	Animal Disease	Reduced Crop Yields	Score
Landslide	X						0
Flood	Flood	X					1
Drought	Drought	Drought	X				4
Forest Fire	Forest Fire	Forest Fire	Forest Fire	X			4
Animal Disease	Animal Disease	Animal Disease	Drought	Forest Fire	X		3
Reduced Crop Yields	Reduced Crop Yields	Reduced Crop Yields	Drought	Reduced Crop Yields	Animal Disease	X	3

Result: 1st = Drought & Forest Fire (4); 2nd = Animal Disease & Reduced Crop Yields (3); 3rd = Flood (1); 4th = Landslide (1)

Note: According to the analysis, the most climate hazard experiencing by Jangbi Nyamrup CFMG is Drought and Forest fire followed by animal disease and reduced crop yields. The land slide possesses no risk or very less risk to the community compared to other climate hazards.

18. Forest Product Prioritization Matrix



Product Types	Timber	Firewood	Flag poles	Fencing post	Water	NWFP	Score
							
Timber	X						4
Firewood		X					3
Flag poles			X				1
Fencing post				X			0
Water					X		5
NWFP						X	2

Results: 1st = Water (5); 2nd = Timber (4); 3rd = Firewood (3); 4th = NWFP (2);

5th = Flag poles (1); 6th = Fencing post (0)

Note: CFMG member prioritize water is the most important forest product followed by house building timber.

19. Species Preference and Availability Ranking

Species (Local name and Botanical name) 	Uses 	Drashing	Cham	Fencing post	Fire wood	Flag poles /Dangchung
Tshagseng/Chirpine (<i>Pinus roxburghii</i>)	Preference	xxx	xxx	xxx	xx	xxx
	Availability	***	***	***	**	**
Pee Seng (<i>Quercus griffithii</i>)	Preference	xx	xx	x	xxx	0
	Availability	*	*	*	***	0
Chungshing/Yai Seng (<i>Toona ciliate</i>)	Preference	xx	x	0	0	0
	Availability	**	*	0	0	0
Walnut (<i>Juglans regia</i>)	Preference	xx	xxx	xx	xx	xx
	Availability	**	***	*	*	0
Khar Shing (<i>Michelia doltsopa</i>)	Preference	xxx	xx	x	x	x
	Availability	**	**	**	**	**
Janseng (<i>Schima wallichii</i>)	Preference	x	x	xx	x	0
	Availability	*	**	**	**	*
Sokeyshing (<i>Castanopsis spp</i>)	Preference	xx	xx	xx	xx	xx
	Availability	**	**	**	**	**

Index: xxx- Highly preferred, xx-preferred, x-Least preferred, 0-not preferred

***-Abundant, **-Few, *- very little, 0-not available

20. Waste Management in Community Forest

The Waste Prevention and Management Regulation, 2012 is a comprehensive regulation for the waste minimization and management of the country. Therefore, CFMG should have great concern pertaining to the waste management in the CF area for healthy environment. All CFMG members should have sense of responsibility for not littering both degradable and non-degradable wastes within the CF area.

The following are responsibilities of CFMG members:

- Initiate and conduct education awareness on waste management by CFMG members to the community of Jangbi in consultation with PRO staff.
- Construction of proper waste pit/waste bin both for degradable and non-degradable along the farm road inside CF area by CFMG.
- Installation of waste management signage inside the CF area where it is necessary.
- Initiate and conduct a monthly cleaning campaign within the CF area and collected garbage should dispose at a designated site.
- Levy the fine and penalty regarding littering and disposal of garbage inside the CF area, prescribed in the By-laws under the section **fine and penalty**.

21. Monitoring Plan

21.1. Participatory Forest Resource Monitoring

Participatory Forest Resource Monitoring Plan				
Objective	Indicator	How it will be monitored	Responsibility	Comments
To improve the forest condition	- Observe the status of regeneration growth. - Observe the trend of wild animal's presence.	- Periodical counting and measuring diameters of few trees in specified area - Collect baseline data before the operation of CF and in the mid of plan period.	Executive members, CFMG & PRO	Social information will be collected for data analysis

To control and to protect illegal activity within CF	Observe frequency of illegal activities	The records of fine imposed. Regular patrolling will be conducted.	Executive members & CFMG	-
Sustainable utilization of timber	<ul style="list-style-type: none"> - Observe the trend of timbers harvesting & allotment - Field verifies timber harvesting physically. 	Frequently monitor and evaluate the quantity of timber allotted.	Executive Committee members, CFMG & PRO	-

21.2. Participatory Social and Institutional Monitoring

Participatory Social and Institutional Monitoring Plan				
Objective	Indicator	How it will be monitored	Responsibility	Comments
Equal benefit sharing	Proportion of income used for benefit of disadvantaged households.	<ul style="list-style-type: none"> - Participatory wealth ranking exercise. - Maintain resource allocation record. 	Executive Committee Members	-
Enhance CFMG Governance	<ul style="list-style-type: none"> - Nos. of women participated in decision making - Level of CFMG members' participation in meeting and works. 	<ul style="list-style-type: none"> - Proportion of female participation - Validate annual labor and meeting records maintained. 	Executive Committee Members	-

21.3. Participatory Environmental Impact Monitoring

Participatory Environmental Impact Monitoring Plan				
Possible negative impact	Indicator	How it will be monitored	Responsibility	Comments
Damage to natural regeneration & biodiversity loss	<ul style="list-style-type: none"> - Frequency and intensity of forest fire or drought. Or by the landslide -No. of seedlings damage. 	<ul style="list-style-type: none"> - Counting in a sampling plot - Verify the disaster incidences physically - Collect social data and validate in the field through sample survey. 	All CFMG members & PRO	Conduct PRA Exercises

21.4. Monitoring and Evaluation of CF

The CFMG shall be responsible for carrying out regular monitoring in the CF activities under the guidance of Park Range Office. The Park Range Office will also provide technical assistance regarding CF record keeping, exploration of market opportunities and implementation of CF By-Laws. The Park Range Office shall submit the annual report to Department. The monitoring and Evaluation of CF shall be carried out as per the prescription in the Management Plan and as per technical guidelines in the forest management code. The CF management plan period will be for 10 years from the approval of CF plan. However, at last quarter of the 5th year of the plan period it shall evaluated mid-term review collaboratively by the Executive Committee Members, Park Range Office, Geog Administration and the Park Management, JSWNP. The final evaluation will carried out at the last quarter of the 9th year of the plan period for preparation of next 10 year CFMP revision.

22. Annual Work Plan

22.1. Annual work plan for CF

Location	Activity	Bhutanese Months											
		1	2	3	4	5	6	7	8	9	10	11	12
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Whole CF areas	Demarcation of CF boundary												
	Thinning and Cleaning												
	Timber harvesting												
	Fire wood collection												
	Flag pole												
	Fencing post												
	Plantation in degraded/open areas												
	Fire line creation												

22.2. Seasonal Calendar for Agriculture work of gender wise

Activity		Bhutanese Months											
		1	2	3	4	5	6	7	8	9	10	11	12
		Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Paddy	Nursery preparation		M/F	M/F									
	Plantation				M/F	M/F	M/F						
	Harvesting									M/F	M/F		
Cardamom	Plantation		M/F	M/F									
	Weeding/Clearing					M/F	M/F		M/F	M/F			
	Harvesting									M/F	M/F		
Maize	Plantation			M/F	M/F								
	Harvesting							M/F	M/F				
Millet	Planation				M/F								
	Harvesting								M/F	M/F			
Wheat	Plantation									M/F	M/F		
	Harvesting		M/F	M/F									
Buck wheat	Plantation	M/F						M/F					M/F
	Harvesting				M/F					M/F			
Orange	Seedling				M/F	M/F							

	Plantation												
	Harvesting										M/F	M/F	M/F
Kitchen Garden		M/F	M/F					M/F	M/F				

Note: Labour force contributed by Male (M) and Female (F)

PART II.BY-LAWS

23. Membership Arrangement

The name of the Community Forest Management Group is called “**Jangbi Nyamrup Community Forest**”. It is located under Langthel Gewog of Trongsa Dzongkhag. The CFMG consist of 23 households of Monpa community from Jangbi village.

- Membership is defined by who owns definite Gung, Thram and native of the village.
- Only an individual of Jangbi community who duly registered their Gung and Thram and also who bear the expenditure for the development of CF activity shall be eligible to become the member of this CFMG after the formulation of these By-Laws.

23.1. Procedures for joining as new CFMG Member

Anybody can join as new CFMG member upon fulfilling the eligibility criteria for new membership as below:

- An applicant should have Census, definite Thram and Gung in the village.
- He/she should be the head of Household.
- If a new member happens to join the CFMG due to fragmentation of household from existing CFMG members who meets the above criteria shall have to pay only membership fees.
- Any new members wishing to join the CFMG either purchase of land or transfer of Census will be accepted as a new member only he/she wishes to bear the expenditure share contributed by the existing CFMG members till that time including memberships as prescribed in the By-laws under the section **Fees**.

23.2. Procedures for leaving CFMG Member

Any CFMG member who happens to leave CFMG due to some inconvenience such as resettlement (Zhesar) or discontinuation of the memberships due to extinction of hereditary lineage shall be allowed to withdraw from the member and shall be eligible for the benefits share of from the CF fund at that time period. However, if the CFMG members who wish to withdraw

from membership at his/her own interest without any inconveniency shall not be eligible for any benefit share from the CFMG's fund unless decided by the Executive Committee Members.

23.3. Withdrawal of Executive Committee Members

Any Executive Committee Members can leave the committee before completion of their tenure due to some unavoidable circumstances such as Sickness, Labour shortage in the household, Handicapped and if he/she is elected as the Local Government representative. The CFMG shall have right to terminate or re-elect the committee member if fails to perform their duties as per **ToR** (Terms of Reference). The resignation application should reach the chairperson before a month of his/her resignation from the post so that CFMG members can nominate for substitution.

24. Management Committee Formation

The Jangbi Nyamrup Community Forest Management Group consists of five executive committee members who were elected based on literacy, capability and commitment towards the CF activities regardless of gender bias. They are Chairperson, Secretary, Treasurer and Resoops. The committee members are nominated for the duration of ten years including two Resoops on rotational basis in every month from the certification of CF. The committee members were elected based on majority of voting by CFMG taking into consideration of personal attributes, experience, initiative and ability to read and write.

24.1. The present CF Executive Committee Members are:

- Chairperson: Tshencho
- Secretary: Chimi Rinzin
- Treasurer: Lhagyal
- Resoop: Sonam and Tshetenla

25. Terms of Reference for CF Management Committee

The CF Management Committee comprises of five Executive Committee Members shall have following rights and responsibilities with regards to the CF Management.

- Ensure equitable distribution of forest products from CF to all the CFMG members.
- Co-ordinate the CFMG general meeting and Executive Committee meetings.
- Lead role in planning, monitoring, implementing and evaluation of the CF.

- Issue permits for forest products and timely sanctioning after obtaining house construction approval from the Gewog Administration.
- Ensuring proper utilization of CF fund by depositing into the bank
- Resolving conflict and offence cases within CFMG.
- Carry out Ad-hoc forest patrolling
- Formulation of CF annual work plans.
- To seek technical support from the stakeholders when required.
- Maintenance of record for any kind of activities in the CF.
- Decision making body for enrolment of new membership and as well as for withdrawing of old member from the CFMG
- Submission of CF annual progress report.
- If any of the Executive Committee member want to participate in LG, he/she needs to resign from the post, and if not elected they can re-serve their post if CFMG members re-elect.

26. ToR for Chairperson

- Sanctioning and issuance of permit for harvesting of forest products to the members.
- Lead Plan activities in consultation with Park Range Office.
- Coordinate and preside the meetings of CFMG.
- Enforce CFMG law after consulting with CF committee members.
- Resolve CF related conflict within CFMG members where ever possible.
- Plan annual CF development works based on CF Plan.
- Co-ordinate with other stakeholders for support.
- Annual reporting (Monitor & review the plan activities).
- Accord approval for sale of excessive timber.
- Accompany any visitor visiting the Community Forest.
- Can be responsibilities of Treasurer in their absence
- Accompany Resups and PRO in marking the trees if felt necessary and genuine

27. ToR for Secretary

- Officiate Chairman in his/her absence
- Signatory to financial matters in absence of Chairman
- Responsible for all correspondence related to CF and issuance of permits.

- Keep all necessary records with regards to implementation of CF activities and allocation of forest produce to the CFMG.
- Responsible for preparing CF annual work plan, progress reports and submission to the Park Range Office.
- Maintain minutes of CF meeting.
- Officiate the role of Treasurer in his/her absence.

28. ToR for Treasurer

- Keep record on collection of membership fees, permit fees, royalties and fines.
- Maintain all the financial related records and present it to the members during general meetings as well as when demanded by the CFMG.
- Responsible for withdrawing and depositing accumulated fund in CFMG's Account.
- Co-sign with chairperson and secretary in any financial matter that is related to CF activities.
- Officiate Secretary in his/her absence.
- Assist Chairman in resolving CF related conflict amongst the CFMG
- Assist Chairman in enforcement of fines and penalties for illegal activities
- Issuance of money receipt.

29. ToR for Resups

- To patrol within CF area once in a month for illegal activities and submit the field reports to Executive committee.
- Marking of trees in consultation with Park Range Office.
- Disseminate information to the CFMG members for meeting and work.

30. Roles and Responsibilities of the CFMG

The CFMG shall exercise full control over the CF area in terms of protection and management of the Community Forest, and they will have following roles and responsibilities as below:

- Provide overall labour contribution for CF development as and when required.
- Protect CF from any kind of illegal activities through patrolling and reports to the Committee if any.
- Termination of any Executive members and appointment of new committee member base on their performance.
- Check or evaluate any CF related recording keeping books if felt genuine and necessary.
- Auditing on CFMG account/financial transactions of the CF fund if required.

- Gender wise equal labour contribution to the CF activities.
- Participation in CFMG meeting.

31. Fees

31.1. Membership Fees

The membership fee will be collected annually **Nu.100/-** per household from the CFMG after the certification of the CF. If a new member happens to join the CFMG due to fragmentation of household from existing CFMG members have to pay **Nu. 500/-** membership fee only. Any new member joining the CFMG upon purchasing of land or transferring of census shall pay equal to existing wage rate for labour contribution made by CFMG in the CF including **Nu.5000/-** for membership fees.

31.2. Royalty

Forest products and others	Within CFMG Members	Non- CFMG Members (Outsiders)
Timber	Nu. 50/- per tree	As per existing market value fixed by the NRDCL/NRPC
Cham	Nu.30/-tree	
Tsim	Nu. 20/tree	
Fire Wood	Nu. 30/- per	
Flag Poles/ Fencing Post	Nu.15/- per Number	
NWFP (Amala)	Free for self-consumption and Nu. 5/kg for commercial purposes	Nu. 40/- Kg
Wild Asparagus	Free for self-consumption and Nu. 50/bundle for commercial purposes.	Nu. 100/bundle
Pine needles and Machey	Free	500/TL

31.3. Offences and Penalties

Offences	Penalties	
	Within CFMG	Outsider (Non-CFMG)
Illegal extraction of timber	As per FNCRR 2020 and existing market value fixed by the NRDCL/NRPC	
Fire Wood and Flag Poles/ Fencing Post		
Damaging of plantation by cattle	Seedling cost will be borne by cattle owner and plantation will be done by the cattle owner itself.	100/seedling

Collection of NWFP (Amala)	Nu. 200/- per kg and product will handover to CFMG	
Machey	-	Nu.1000/- per headload and Nu.5000/- per bolero load.
Forest fire outbreak within CF area.	As per FNCRR/Forest Act	
Absentees for meeting/work	Nu. 500/- per day	-
Late for meetings and work.	Reporting late to any activities after the informing the time and by 10 minutes late will be liable to pay Nu.100/-. One day (500/-) if late after 10 minutes.	-
Non-contribution of labour for CF developmental activities	Nu.500/- per day	-
Misusing of CF fund, powers and not performing their duties as per the ToRs by the CF Management Committee members	Shall be liable to pay 50% interest of the total amount misused in addition to the principal to individual.	-
Illegal activities related to wildlife, birds and hunting/poaching within CF area	Shall be collected by the Langthel Park Range Office based on existing rules.	
Miss use of allotted timber by CFMG	As per FNCRR 2020 and existing market value fixed by the NRDCL/NRPC	
Littering and disposal/dumping of garbage (both degradable or non-degradable)	As per prevailing fine rate fixed by waste prevention and Management Regulation 2012.	

32. Managing CFMG Fund

32.1. Source of CFMG Fund

The possible sources of funds for the CFMG are:

- Collection of membership fees.
- Collection of Royalty fees for forest products.
- Sale of surplus forest products such as timbers and NWFP (Cane shoot)
- Collection of fines and penalties and other compensations from CFMG members and outsiders.
- Contribution from CFMG members and outsiders.
- Interest returns from CF saving deposit.
- Donations from visitors and other stakeholders.

- Services charges for ecotourism

32.2. Management of CFMG Fund

The CFMG fund that is generated from above the sources will continue the deposit in the Jangbi Nyamrup CF joint saving account only. The same account will be maintained under the joint signatory of chairman, Secretary and Treasurer. All cash shall be deposited within the time period of one month. The accumulated fund will be utilized for CF developmental activities based on resolutions of the CF general meeting. However, an amount not exceeding upto Nu.2000/- shall have to kept the cash with the treasurer for any emergency use. Any CFMG members shall have right to avail for loan from CF fund after accumulating Nu.300,000/- in the saving account. The each members shall have right to take only Nu.5,000/- at an interest of 5% per annum. The emergency loan up to Nu. 1,00,000/- shall be provided to all the members for death or either sickness which needs to be referred outside country or natural calamities such as house fire, flood or land slide without interest for 4 months but principle amount should be refunded in the set time period. If not refunded within stipulated time the interest of 5%. Per annum shall be added to the principle amount.

32.3. Benefit Sharing Mechanism

- Any kind of benefits (CF fund or Forest produce) shall have equal rights among the CFMG members.
- Preference of obtaining forest produce will be given to the members considering based on genuine case only.
- Any CFMG members leaving with genuine reason/no labour force shall be equally benefited that his/her contribution made till the time of leaving CFMG. If any member wants to leave the CFMG without unavoidable problems, the interest shall not be paid for any share of forest produce/ CF fund generated.
- If any members became disabled in course of implementing management plan, he/she shall be equally benefited to his/her contribution made till the time of leaving CFMG. The total amount Nu.10000/- shall be as semso on top of his/her benefit.
- All the forest produce from the CF shall require requisite application to the Chairperson, who will then deliberate on the matter with the CFMG Executive Committee Members and issue the permits based on the availability and need.
- The permits of timber for house construction and other purpose shall be issued as per the Annual Work Plan.
- In case of emergencies such as uncertain disaster and during the time of sickness/dead case the permit for timbers and others shall be issued without restricting to the time period.
- CFMG consensually agreed to issue free permit for firewood and flag poles for death cases as required, however this shall not apply if collection have to done from SRF.

- If the CFMG members need to avail timber for new house construction purpose, he/she will have to obtain a **Construction Approval** from the Gewog Administration before applying for timbers. The timbers for new house construction and renovation/extension will be allotted as per FNC (Amendment) RR of Bhutan, 2020
- The sale of only surplus timber after meeting all the demand of the CFMG shall decide by Executive Committee members in consultation with the CFMG. CFMG members are allowed to collect NWFPs at free of royalty for their own consumption.
- If any individual (CFMG members or outsider) reported on any illegal activities in CF area shall be entitled for 25% reward/benefit of the total fined imposed to an offender and 75% shall deposit into CF bank account.

33. Meetings

33.1. General Meeting

The general meeting will be conducted for proper functioning of the CFMG activities and it will be held twice in a year on 1st and 7th month of Bhutanese calendar. But the chairman can call for meeting when it felt necessary. The first meeting will discuss on implementation of management plan for development of CF activities simultaneously collecting the membership fees. The progress report on activities will be reported during the second meeting to the CFMG members. Any issues and problems during the implementation of CF activities will be discuss in this meeting. The majority of 60% of the total CFMG members attends the meeting shall be considered the decisions taken during the meeting.

33.2. Executive Committee Meeting

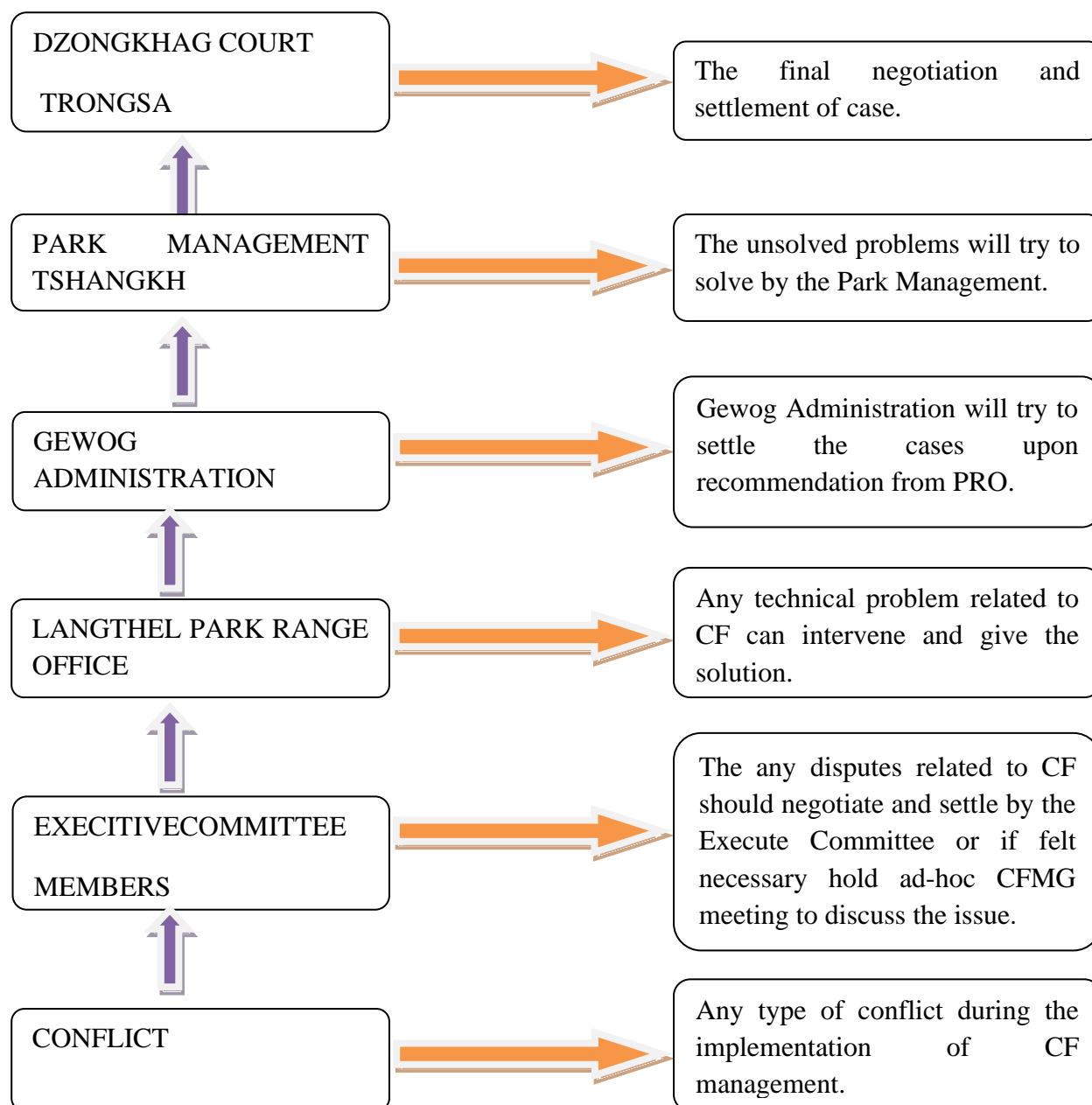
The committee meeting will be held quarterly to discuss the plan activities for discussion in the general meeting. They will also discuss about the problems and issues raised by the CFMG members during the general meetings. They will review the CF plan activities and reporting the CF development activities to the CFMG members during the general meeting. They can also maintain the minutes of meeting and report the resolution of the meeting to be CFMG members during the general meeting.

34. Conflict Management

The some of the potential conflicts/disputes that might arise in future with regards to CF management are:

- Equity and benefit sharing of resources.
- Non-attendance of meetings and no contribution of labour force.
- Boundary disputes with CF and private land owners.

34.1. Procedure to Resolve Conflicts



35. Amendments of CFM Plan/CFMG By-Laws

- Any amendments must be endorsed by the executive committee members during the CFMG general meeting through majority consensus decision and submit it to the Park Management for approval through the Park Range Officer.
- The problems and inconveniences of CF Management Plan during the implementation should be clearly identified.
- The Executive Committee should report the amended Section of the By-Laws or the clauses which need to be added based on the experiences gained during the implementation of CF management plan to the Park Management through Range Officer.
- The Park Management will review the amendment proposal and accord approval for implementation.

36. Power of the Department

Notwithstanding the power of the CFMG as prescribed in **FNCRR 2017, Chapter III, Section 75-101**, the Department is fully empowered to take action with regard to both forestry and other developmental activities in part or whole of the Community Forest as per the **FNCRR 2017, Section 102-104**. The Department shall also suspend and reinstate of CF certificate upon the recommendation of the CFO as per the **FNCRR 2017 under Section 105-107**.

PART III. NWFP MANAGEMENT

37. Brief description of NWFP

NWFP	Collection area	Parts harvested	Use purpose (traditional & others)	Expected price (Nu)	Estimated quantity per season	Remarks
<i>Phyllanthus emblica</i> (Amla)	Entire CF areas	Fruit	Medicinal	50-60/kg	200-250 kg	It can be used only for domestic purpose
Wild Asparagus	Entire CF area	Tender Shoot	Vegetable	100/- per bundle	100-150 bundles	

38. Harvesting Rules

NWFP	How to harvest (Traditional)	How to harvest (Scientific)	What to harvest	When to harvest
<i>Phyllanthus emblica</i> (Amla)	The fruit shall be collect without damage to the mother tree.	The fruit shall be collect only when it was mature and it has to be collect only 80% of it. The 20% of the fruit has to be retained as a seed in the tree itself.	Fruit	December to February
Wild Asparagus (Ngakhagchung)	Never cut entire parts while collecting the shoots and collect randomly for sustainable of the resources.	Avoid uprooting and cutting of roots while harvesting shoots. Avoid damaging the buds while cutting which shall turn into lateral shoots. Only collect 50% of the shoots from the same spot.	Tender shoot	January and February

Annexure:

Annex.1. Community Forest Management Group

Sl.No.	Name	Citizenship ID No.	House No.	Thram No.	Remarks
1	Sonam	11703001352	Tsa-3-325	130	
2	Tshetenla	11703001367	Tsa-3-436	298	
3	Nakari	11703001357	Tsa-3-135	13	
4	Phurpala	11703001379	Tsa-3-434	533	
5	Chimi Rinzin	11703001359	Tsa-3-326	529	
6	Lethro	11703001344	Tsa-3-297	537	
7	Napenmo	11703001368	Tsa-3-329	134	
8	Takpala	11703002661	Tsa-3-nil/34	296	
9	Mukumo (Mead)	11703002579	Tsa-3-287	135	
10	Sonam Zangmo	11703002581	Tsa-3-402	66	
11	Jambay	11703002545	Tsa-3-282	304	
12	Zomba Lhamo	11703002623	Tsa-3-324	128	
13	Karchung	11703001363	Tsa-3-328	133	
14	Nidup	11703001334	Tsa-3-323	127	
15	Kinga	11703001343	Tsa-3-397	701	
16	Karma	11703002584	Tsa-3-nil/42	735	
17	Sonam Tshering	11703001348	Tsa-3-396	867	
18	Pangzom	11703002524	Tsa-3-280	136	
19	Mukumo (Toed)	11703002565	Tsa-3-285	155	
20	Phuntsho	11703002631	Tsa-3-166	923	
21	Peldon	11703002614	Tsa-3-290	920	
22	Jigme	11703001372	Tsa-3-331	869	
23	Tashi Pelmo	11703001374	Tsa-3-331	Nil	

Annex.2. Forest Resource Assessment –Tally sheet

Species Trees - Scientific name	Suitability	10- 19 sum	20- 29 sum	30- 39 sum	40- 49 sum	50- 59 sum	60- 69 sum	70- 79 sum	80- 89 sum	90- 99 sum	100+ sum
<i>Pinus roxburghii</i> (Chir pine)	T	239.	298.	173.	85.	75.	37.	12.	5.	1.	.
	N	28.	11.	3.	2.	1.
<i>Quercus spp.</i>	T
	N	32.	23.	11.	11.	6.
<i>Schima wallichii</i>	T	2.
	N	3.	4.	.	1.
<i>Castonopsis spp.</i>	T
	N	23.	16.	2.
Unknown broadleaved sp.	T	2.	.	.	.	1.
	N	86.	29.	4.	2.
Total (T)		243.	298.	173.	85.	76.	37.	12.	5.	1.	
Total (N)		172.	83.	20.	16.	7.	
Total (T+N)		415	381	193	101	83	37	12	5	1	

Annex.3. Forest Seedling Assessment

Species Seedling - Scientific name	Seedling<10cm (Seedling)
<i>Pinus roxburghii</i> (Chir pine)	74.
<i>Quercus spp.</i>	13.
<i>Schima wallichii</i>	8
<i>Castonopsis spp.</i>	46
Unknown broadleaved sp.	254
Total	395

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Annex.5. CFMG Name list

Sl. No	Name	CID No.	Thram No.	Gung No.	Signature
1	Sonam	11703001352	130	Tsa-3-325	
2	Tshetenla	11703001367	298	Tsa-3-436	
3	Nakari	11703001357	13	Tsa-3-135	
4	Phurpala	11703001379	533	Tsa-3-434	
5	Chimi Rinzin	11703001359	529	Tsa-3-326	
6	Lethro	11703001344	537	Tsa-3-297	
7	Napemmo	11703001368	134	Tsa-3-329	
8	Tukpala	11703002661	296	Tsa-3-nil/34	
9	Mukumo (Mead)	11703002579	135	Tsa-3-287	
10	Sonam Zangmo	11703002581	66	Tsa-3-402	
11	Jambey	11703002545	304	Tsa-3-282	
12	Zomba Lhamo	11703002623	128	Tsa-3-324	
13	Karchung	11703001363	133	Tsa-3-328	
14	Nidup	11703001334	127	Tsa-3-323	
15	Kinga	11703001343	701	Tsa-3-397	
16	Karma	11703002584	735	Tsa-3-nil/42	
17	Sonam Tshering	11703001348	867	Tsa-3-396	

18	Pangzum	11703002524	136	Tsa-3-280	
19	Mukumo (Tred)	11703002565	155	Tsa-3-285	
20	Phuntsho	11703002631	923	Tsa-3-166	
21	Peldon	11703002614	920	Tsa-3-290	
22	Jigme	11703001372	869	Tsa-3-331	
23	Tashi Pelmo	11703001374	Nil	Tsa-3-331	

Annex.6. Forest Resource Assessment-compilation sheet for (T) timber tree for Chirpine

OPERATIONAL INVENTORY: COMPILATION SHEET FOR TIMBER (T) TREE (FIXED-SIZE PLOT)								
1. CF Name		Jangbi Nyamrup CF			4. Block Area		73.98 ha	
2. Block Name		Single Block			5. Compiling date		15/02/2023	
3. No of plots		113			6. Species group		Pinus roxburghii (Chirpine)	
col1	col2	col3	col4	col5	col6	col7	col8	col9
		(3 decimals)	(3 decimals)	(3 decimals)	(0 decimals)	(2 decimals)	(2 decimals)	(2 decimals)
dbh class (cm)	class basal area (m2)	class volume (m3)	plot size (ha)	expansion factor	tally	nrha (stems/ha)	basha (m2/ha)	volha (m3/ha)
10 --19	0.017	0.055	0.05	0.177	239	42.30	0.72	2.33
20-29	0.047	0.233	0.05	0.177	298	52.75	2.48	12.29
30-39	0.093	0.609	0.05	0.177	173	30.62	2.85	18.65
40-49	0.156	1.255	0.05	0.177	85	15.05	2.35	18.88
50-59	0.233	2.241	0.05	0.177	75	13.28	3.09	29.75
60-69	0.327	3.632	0.05	0.177	37	6.55	2.14	23.79
70-79	0.436	5.494	0.05	0.177	12	2.12	0.93	11.67
80-89	0.561	7.892	0.05	0.177	5	0.89	0.50	6.98
90-99	0.701	10.891	0.05	0.177	1	0.18	0.12	1.93
					Sum of all dbh classes		163.73	15.17
Explanation:								
col3	: look up in volume table, for given species group and dbh class			col6	: count, and fill in			
				col7	: col5 * col6			
col4	: plot size for given dbh class			col8	: col7 * col2			
col5	: (1 / col4) / (nr. of plots)			col9	: col7 * col3			
(when rounding: round to the nearest EVEN digit; e.g. 0.635 to 0.64 but 0.665 to 0.66)								

Annex.7. Forest Resource Assessment-compilation sheet for (T) timber tree for other broadleaved

OPERATIONAL INVENTORY: COMPILATION SHEET FOR TIMBER (T) TREE (FIXED-SIZE PLOT)								
1. CF Name		Jangbi Nyamrup CF			4. Block Area		73.98 ha	
2. Block Name		Single Block			5. Compiling date		15/02/2023	
3. No of plots		113			6. Species group		Other broadleaved spp.	
<i>col1</i>	<i>col2</i>	<i>col3</i>	<i>col4</i>	<i>col5</i>	<i>col6</i>	<i>col7</i>	<i>col8</i>	<i>col9</i>
		(3 decimals)	(3 decimals)	(3 decimals)	(0 decimals)	(2 decimals)	(2 decimals)	(2 decimals)
dbh class (cm)	class basal area (m2)	class volume (m3)	plot size (ha)	expansion factor	tally	nrha (stems/ha)	basha (m2/ha)	volha (m3/ha)
10 --19	0.017	0.078	0.05	0.177	2	0.35	0.01	0.03
20-29	0.047	0.287	0.05	0.177	0	0.00	0.00	0.00
30-39	0.093	0.686	0.05	0.177	0	0.00	0.00	0.00
40-49	0.156	1.323	0.05	0.177	0	0.00	0.00	0.00
50-59	0.233	2.235	0.05	0.177	1	0.18	0.04	0.40
60-69	0.327	3.462	0.05	0.177	0	0.00	0.00	0.00
70-79	0.436	5.037	0.05	0.177	0	0.00	0.00	0.00
80-89	0.561	6.993	0.05	0.177	0	0.00	0.00	0.00
90-99	0.701	9.361	0.05	0.177	0	0.00	0.00	0.00
					Sum of all dbh classes	0.53	0.05	0.42
Explanation:								
<i>col3</i>	: look up in volume table, for given species group and dbh class			<i>col6</i>	: count, and fill in			
				<i>col7</i>	: col5 * col6			
<i>col4</i>	: plot size for given dbh class			<i>col8</i>	: col7 * col2			
<i>col5</i>	: (1 / col4) / (nr. of plots)			<i>col9</i>	: col7 * col3			
(when rounding: round to the nearest EVEN digit; e.g. 0.635 to 0.64 but 0.665 to 0.66)								

Annex.8. Forest Resource Assessment-compilation sheet for (N) Non- timber tree for Chirpine

OPERATIONAL INVENTORY: COMPILATION SHEET FOR NON-TIMBER (N) TREE (FIXED-SIZE PLOT)								
1. CF Name		Jangbi Nyamrup CF			4. Block Area		73.98 ha	
2. Block Name		Single Block			5. Compiling date		15/02/2023	
3. No of plots		113			6. Species group		Pinus roxburghi (Chirpine)	
col1	col2	col3	col4	col5	col6	col7	col8	col9
		(3 decimals)	(3 decimals)	(3 decimals)	(0 decimals)	(2 decimals)	(2 decimals)	(2 decimals)
dbh class (cm)	class basal area (m2)	class volume (m3)	plot size (ha)	expansion factor	tally	nrha (stems/ha)	basha (m2/ha)	volha (m3/ha)
10--19	0.017	0.055	0.05	0.177	28	4.96	0.08	0.27
20-29	0.047	0.233	0.05	0.177	11	1.95	0.09	0.45
30-39	0.093	0.609	0.05	0.177	3	0.53	0.05	0.32
40-49	0.156	1.255	0.05	0.177	2	0.35	0.06	0.44
50-59	0.233	2.241	0.05	0.177	1	0.18	0.04	0.40
60-69	0.327	3.632	0.05	0.177	0	0.00	0.00	0.00
70-79	0.436	5.494	0.05	0.177	0	0.00	0.00	0.00
80-89	0.561	7.892	0.05	0.177	0	0.00	0.00	0.00
90-99	0.701	10.891	0.05	0.177	0	0.00	0.00	0.00
					Sum of all dbh classes		7.97	0.32
Explanation:								
col3	: look up in volume table, for given species group and dbh class			col6	: count, and fill in			
				col7	: col5 * col6			
col4	: plot size for given dbh class			col8	: col7 * col2			
col5	: (1 / col4) / (nr. of plots)			col9	: col7 * col3			
(when rounding: round to the nearest EVEN digit; e.g. 0.635 to 0.64 but 0.665 to 0.66)								

Annex.9. Forest Resource Assessment-compilation sheet for (N) Non- timber tree for other broadleaved

OPERATIONAL INVENTORY: COMPILATION SHEET FOR NON-TIMBER (N) TREE (FIXED-SIZE PLOT)								
1. CF Name		Jangbi Nyamrup CF			4. Block Area		73.98 ha	
2. Block Name		Single Block			5. Compiling date		15/02/2023	
3. No of plots		113			6. Species group		Other broadleaved spp.	
col1	col2	col3	col4	col5	col6	col7	col8	col9
		(3 decimals)	(3 decimals)	(3 decimals)	(0 decimals)	(2 decimals)	(2 decimals)	(2 decimals)
dbh class (cm)	class basal area (m ²)	class volume (m ³)	plot size (ha)	expansion factor	tally	nrha (stems/ha)	basha (m ² /ha)	volha (m ³ /ha)
10 --19	0.017	0.078	0.05	0.177	109	19.29	0.33	1.50
20-29	0.047	0.287	0.05	0.177	45	7.96	0.37	2.29
30-39	0.093	0.686	0.05	0.177	6	1.06	0.10	0.73
40-49	0.156	1.323	0.05	0.177	2	0.35	0.06	0.47
50-59	0.233	2.235	0.05	0.177	0	0.00	0.00	0.00
60-69	0.327	3.462	0.05	0.177	0	0.00	0.00	0.00
70-79	0.436	5.037	0.05	0.177	0	0.00	0.00	0.00
80-89	0.561	6.993	0.05	0.177	0	0.00	0.00	0.00
90-99	0.701	9.361	0.05	0.177	0	0.00	0.00	0.00
					Sum of all dbh classes		28.67	0.86
Explanation:								
col3	: look up in volume table, for given species group and dbh class			col6	: count, and fill in			
				col7	: col5 * col6			
col4	: plot size for given dbh class			col8	: col7 * col2			
col5	: (1 / col4) / (nr. of plots)			col9	: col7 * col3			
(when rounding: round to the nearest EVEN digit; e.g. 0.635 to 0.64 but 0.665 to 0.66)								

Annex.10. Stand and Stock of (T) timber tree=Number of Trees

STAND & STOCK TABLE - NUMBER OF TREES												
1. Name of CF	Jangbi Nyamrup											
2. Species Group	Combine conifer for T Tree											
3. No of Plots	113											
4. Block Name	Single block											
5. 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	total	%
Chirpine	42.3	52.75	30.62	15.05	13.28	6.55	2.12	0.89	0.18		163.74	99.47%
total conifer	42.30	52.75	30.62	15.05	13.28	6.55	2.12	0.89	0.18		163.74	99.47%
Quercus spp												
Schima spp	0.35										0.35	0.21%
Other B/L	0.35				0.18						0.53	0.32%
total broadleaf	0.70										0.88	0.53%
total all species	43.00	52.75	30.62	15.05	13.28	6.55	2.12	0.89	0.18		164.62	100.00%
%	0.26	0.32	0.19	0.09	0.08	0.04	0.01	0.01	0.00		100.00%	

Annex.11. Stand and Stock of (T) timber tree=Basal Area

STAND & STOCK TABLE - BASAL AREA												
1. Name of CF		Jangbi Nyamrup										
2. Species Group		Combine conifer for T Trees										
3. No of plots		113										
3. Name of Block		Single block										
4. estimated parameter		Average Basal Area per Ha (m2/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	total	%
chirpine	0.72	2.48	2.85	2.35	3.09	2.14	0.93	0.50	0.12		15.18	99.61%
total conifer	0.72	2.48	2.85	2.35	3.09	2.14	0.93	0.50	0.12		15.18	99.61%
Quercus spp												
schima spp	0.010										0.01	0.07%
Other B/L	0.010				0.040						0.05	0.33%
total broadleaf	0.02				0.04						0.06	0.39%
total all species	0.74	2.48	2.85	2.35	3.13	2.14	0.93	0.50	0.12		15.24	100.00%
%	0.05	0.16	0.19	0.15	0.21	0.14	0.06	0.03	0.01		100.00%	

Annex.12. Stand and Stock of (T) timber tree=Volume

STAND & STOCK TABLE - VOLUME												
1. Name of CF	Jangbi Nyamrup											
2. Species Group	Combine conifer for T Tree											
3. No of plots	113											
3. Name of Block	Single block											
4. estimated parameter	Average volume per Ha (m3/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	total	%
chirpine	2.33	12.29	18.65	18.88	29.75	23.79	11.67	6.98	1.93		126.27	99.64%
total conifer	2.33	12.29	18.65	18.88	29.75	23.79	11.67	6.98	1.93		126.27	99.64%
Quercus spp												
Schima spp	0.030										0.03	0.02%
Other B/L	0.030				0.400						0.43	0.34%
total broadleaf	0.06				0.40						0.46	0.36%
total all species	2.39	12.29	18.65	18.88	30.15	23.79	11.67	6.98	1.93		126.73	100.00%
%	0.02	0.10	0.15	0.15	0.24	0.19	0.09	0.06	0.02		100.00%	

Annex.13. Stand and Stock of (N) Non- timber tree=Number of Trees

STAND & STOCK TABLE - NUMBER OF TREES												
1. Name of CF	Jangbi Nyamrup											
2. Species Group	Combine conifer for N Tree											
3. No of Plots	113											
4. Block Name	Single block											
5. 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	total	%
Chirpine	4.96	1.95	0.53	0.35	0.18						7.97	15.11%
total conifer	4.96	1.95	0.53	0.35	0.18						7.97	15.11%
Quercus spp	5.664	4.07	1.95	1.95	1.062						14.70	27.86%
Schima spp	0.53	0.71		0.18							1.42	2.69%
Other B/L	19.29	7.96	1.06	0.35							28.66	54.34%
total broadleaf	25.48	12.74	3.01	2.48	1.06						44.78	84.89%
total all species	30.44	14.69	3.54	2.83	1.24						52.75	100.00%
%	0.58	0.28	0.07	0.05	0.02						100.00%	

Annex.14. Stand and Stock of (N) Non- timber tree=Basal Area

STAND & STOCK TABLE - BASAL AREA												
1. Name of CF	Jangbi Nyamrup											
2. Species Group	Combined conifer											
3. No of plots	113											
3. Name of Block	Single block											
4. estimated parameter	Average Basal Area per Ha (m2/ha)" <div>(report all values to 2 decimals)</div>											
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	total	%
Chirpine	0.08	0.09	0.05	0.06	0.04						0.32	14.10%
total conifer	0.08	0.09	0.05	0.06	0.04						0.32	14.10%
Quercus spp.	0.100	0.190	0.180	0.300	0.250						1.02	44.93%
Schima spp.	0.010	0.030		0.030							0.07	3.08%
Other B/L	0.330	0.370	0.100	0.060							0.86	37.89%
total broadleaf	0.44	0.59	0.28	0.39	0.25						1.95	85.90%
total all species	0.52	0.68	0.33	0.45	0.29						2.27	100.00%
%	0.23	0.30	0.15	0.20	0.13						100.00%	

Annex.14. Stand and Stock of (N) Non- timber tree=Volume

STAND & STOCK TABLE - VOLUME												
1. Name of CF	Jangbi Nyamrup											
2. Species Group	Combine conifer for N Tree											
3. No of plots	113											
3. Name of Block	Single block											
4. estimated parameter	Average volume per Ha (m3/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	total	%
Chirpine	0.27	0.45	0.32	0.44	0.4						1.88	5.48%
total conifer	0.27	0.45	0.32	0.44	0.40						1.88	5.48%
Quercus spp	0.540	1.390	1.550	2.930	2.660						9.07	26.45%
Schima spp	0.05	0.23		0.25							0.53	1.55%
Other B/L	4.755	5.883	5.742	4.121	2.310						22.81	66.52%
total broadleaf	5.35	7.50	7.29	7.30	4.97						32.41	94.52%
total all species	5.62	7.95	7.61	7.74	5.37						34.29	100.00%
%	0.16	0.23	0.22	0.23	0.16						100.00%	