





RIGBI JOINT FOREST MANAGEMENT COMMITTEE (JFMC)

Jonai Range, Dhemaji Forest Division

NORTHERN ASSAM CIRCLE



MICRO-PLAN (2016-17 to 2025-26)

Prepared by Rigbi Joint Forest Management Committee

assisted by
Assam Forest Department
&
COMPELO
(IIE & RGVN)

Approved

I/C Divisional Forest Officer
Dhemaji Division
Dhemaji

List of Acronyms

Acronym	Full Form			
AfD	Agence Française de Development			
APFBC	Assam Project on Forest & Biodiversity Conservation			
APL	Above Poverty Line			
BPL	Below Poverty Line			
CML	Centre for Microfinance and Livelihood			
COMPELO	Consortium On Micro Planning And Enhancement Of Livelihood Opportunities			
DFO	Divisional Forest Officer			
EDC	Eco-Development Committee			
EPA	Entry Point Activity			
FCA	Forest (conservation) Act, 1981			
FD	Forest Department			
FRA	Forest Rights' Act			
FV	Forest Village			
FYP	Five Year Plan			
GHG	Green House Gases			
GoI	Government of India			
GP	Gaon Panchayat			
На.	Hectare			
ПЕ	Indian Institute of Entrepreneurship			
JFMC	Joint Forest Management Committee			
NTFP	Non Timber Forest Produce			
OBC	Other Backward Classes			
РНС	Primary Health Center			
PMU	Project Monitoring Unit			
PRA	Participatory Rural Appraisal			
SC	Scheduled Caste			
SDG	Sustainable Development Goals			
ST	Scheduled Tribes			
WPC	Working Plan Circle			
CSS	Centrally Sponsored Scheme			

RIGBI JOINT FOREST MANAGEMENT COMMITTEE Jonai Range, Dhemaji Forest Division

Micro-Plan for 10 Years [Livelihood Development Plan & Forest Development Plan]

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1. Introduction

About the Project

The vision of the Assam Project on Forest and Biodiversity Conservation (APFBC) is 'to enable sustainable forest and biodiversity conservation and management in Assam through multi-scale integrative planning and involvement of forest dependent communities in target areas and giving fillip to their livelihood activities through sustainable use of forest and non-forest resources'. The project's objective has been stated as: 'In collaboration with the forest dependent communities, to restore forest eco-systems to enhance the forest dependent community's livelihoods and ensure conservation and sustainable use of biodiversity'.

The above project is being mainly funded by the *Agence France de Développement* (AFD) - i.e. the French Development Agency, with co-funding from the Government of Assam. The Assam Project on Forest and Biodiversity Conservation Society (APFBC Society) has the mandate for planning, implementation, monitoring, coordination and management of all the activities under the above mentioned project.

Micro-Planning Livelihood Development

In order to promote livelihood activities through market potential based value addition; the present project intends to take up activities like entrepreneurship promotion, product processing value addition and marketing under this project. This has become necessary on account of the pressures on existing forest resources due to the growth of population. There is a need to explore value addition to the existing forest and biodiversity products and services, based on the market potential. In addition, non-forest based livelihoods need to be explored and the capacities of the community members need to be built-up through skills development initiatives.

A consortium comprising of Indian Institute of Entrepreneurship (IIE) Guwahati and *Rashtriya Gramin Vikas Nidhi* (RGVN) has been formed to implement (*inter-alia*) the micro-planning and livelihood development under the above project. The above consortium has been titled as 'Consortium for Micro Planning and Enhancing Livelihood Opportunities' - COMPELO in short.

As per project guidelines, this micro-plan includes 'various operations of village and forest development ... livelihood support of forest dependent members and keeping sustainable forest management as the broad objective'. It includes both forest development and livelihood development.

Micro-Plan for the Rigbi JFMC

This document gives the Micro-Plan for the Rigbi JFMC, which is located in the Dhemaji district of Assam. The JFMC falls under the Poba Reserve Forest of the Northern Assam Forest Circle. The villagers belong to the Mising Tribes. The Poba comprised of a area with 10,221.75 Ha with a good patch of forest. The profile of the community is given in the next section.

The present micro-plan has been prepared by members of the community, including both male and female members. This document has emerged as an outcome of a Participatory Rural Appraisal (PRA) process undertaken by the community and personnel of Indian Institute of Entrepreneurship (IIE) Guwahati in March 2017. The micro-plan has been compiled by IIE based on the project guidelines. The document has been discussed and finalized for adoption in April 2017.

2. Village Socio-Economic Profile

Location	The Righi Joint Forest Manage	man	t Committee (IFMC) has been formed to	
Location	The Rigbi Joint Forest Management Committee (JFMC) has been formed to cover the existing community dwelling in Rigbi village located on the fringe of			
	the Poba Reserve Forest, Jonai Sub-Division. The area covered by the above			
	JFMC falls within Murkong selek Revenue Circle of Dhemaji District of			
	Assam.			
	Assam. Appendix-1 Gives the Village Map.			
Key Information	The key information of the JFM		furnished below	
Key information	The key information of the 31 W	10 13	rumshed below.	
	Table-A: Key Information of	the J	FMC	
	Name of the JFMC		Rigbi	
	Habitation		Rigbi	
	Name of Revenue Village		Rigbi	
	Name of the Gram		Sile	
	Panchayat / VCDC			
	Revenue Circle		Murkong-selek	
	District		Dhemaji	
	Forest Division		Dhemaji	
	Forest Range		Jonai	
	Forest Beat		Tinimile Beat	
	Year Formed		2003-2004	
	Description of Boundary of	As l	pelow	
	JFMC	Nor	th: Rigbi Village	
		Sou	th: Bahirsila Gaon	
	West: Mohmora Village			
	East: Poba RF			
	Source : JFMC Records & Discussions during PRA Exercise in March 2017 Additional details are given at Table-1 of Record-I (Given at Annexure)			
Brief Details of the			mittee & General Body of the JFMC are	
Executive	contained in the table, which is	_		
Committee &	Table-B: Brief Details of Exec	utive		
General Body	Name of President		Mr. Jogeswar Morang	
	Name of Member Secretary		Mr. Arun Bora	
	No. of Members in Execu	tive	Male: 6	
	Committee		Female: 3	
	No. of Members in the Gene	eral	237 (Represented by one adult member	
	Body		of each household)	
	Source: JFMC Records			
Households &	The village has 237 households	s. The	e number of female headed households is	
Population			which 729 are male and the 536 are female	
Structure	members. All the 237 HHs belo	_	-	
		Table-2 of Record-I may be referred for further details in the above regard.		
	From this, it is inferred that:			
	(1) The average number of persons in a household is 5 (237 HHs).			
	(2) The sex ratio is 735 females per 1000 males in the village.			

T. 1 0 0 11 11	0 000//0071111
Education & Skills	Over 98 % (237 HHs) of the population is reported as literate. Most of the
Development	community members have received school level education and a few
	households have college educated members.
	Livelihood skills are usually acquired under various settings – formal &
	informal. In the JFMC area, informal means for skills development is the
	traditional norm. People have skills in the following areas:
	(a) Weaving.
	(b) Masonry.
	(c) Livestock rearing.
	· ·
	(d) Farming.
	(e) Cane & Bamboo.
	(f) Sericulture.
	Skill development programs propagated by Govt. of India as well as State still
	not reached to the JFMC area and people are depending on rudimentary skills
	that acquired through tradition.
Soil	The soil type of the project area includes:
	Sandy soil in plain areas.
	This type of soil can support different kind of crops, as the soil is reported to
	be fertile on the whole.
	be lettile oil tile whole.
Water	The area is drained by the river Leku which flows from the adjoining hills of
water	,
	Arunachal Pradesh into the project area before joining the River Lali to the
	South. This is a perennial river. Jonai is the easternmost sub-division of
	Dhemaji District, about 554 km from the state capital, Guwahati. It is located
	at 27.83°N, 95.22°E. Covering a total Geographical area of 1111.81 km ² , it is
	bounded by Arunachal Pradesh in the north, Lali & Brahmaputra River in the
	south, Sipiya river & Sadiya Subdivision of Tinsukia district in the east and
	Simen River in the west.
Climate:	The maximum temperature during the summer is 35° C. The minimum
Temperature &	temperature during the winter is 7°-10° C. The annual rainfall is about 3600-
Rainfall	4300 mm. About three-fourth of the rainfall usually occurs during the rainy
Kamian	1 4500 Hill About infee-follin of the familian usually occurs during the family
Kaiman	
Kaman	season (June-September). The village has a moderate level of humidity (over
Kamran	
	season (June-September). The village has a moderate level of humidity (over 60%) during the rainy months and low levels in the winter (Below 20%).
Forest & Bio-	season (June-September). The village has a moderate level of humidity (over 60%) during the rainy months and low levels in the winter (Below 20%). The local forests have been broadly classified as a rain forest and densely
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Forest & Biodiversity	season (June-September). The village has a moderate level of humidity (over 60%) during the rainy months and low levels in the winter (Below 20%). The local forests have been broadly classified as a rain forest and densely vegetated. The types of the forest here are of Tropical wet Evergreen. These type of Forest have luxurious growth of Epiphytes and trees with Fissured bark support magnificent ornamental orchids of Assam. The undergrowth is dense with both low shrubs and herbs occupying the space. Canes, Palms and bamboos grow along edges of Forests. The main tree species are Neem, Amla, Hilikha, Arjuna, Fire wood Spp and many other medicinal plants Additional details in this regard are given at the 'Forest Development Plan'. Appendix-2 gives the land-use pattern of the village. From the same, it is seen that the land-use in the village is as follows: Embankment -0.48% Paddy Field -40.70% Firewood Plantation-8.19% Pond-0.20% RF Area-23.50% River-3.91% Mix Plantation-8.48% Road-1.18% Seasonal stream-0.59%

	• 90% of the households are landless (20 HU)					
	8% of the households are landless (20 HH) 20% of the households are marriagl formers (210 HH)					
	89% of the households are marginal farmers (210 HH) 2% of the households have to small Farmers (71HI)					
	• 3% of the households belong to small Farmer (7HH).					
Livestock	The total number of livestock in the village is 2470. The main types of					
	livestock possessed by the households include:					
	Cows: 75					
	Goats: 350					
	Poultry: 1310					
	Buffaloes: 200					
	Bulls: 375					
	Pigs :1010					
	Duck: 150					
	Buffaloes:200					
	Table-4 of Record-I may be referred to for the details in the above connection.					
X7211						
Village	In any community; the availability of basic infrastructure enables the					
Infrastructure &	development of sustainable livelihood options. The present condition of					
Communication	infrastructure in the village is not satisfactory. This is borne out by Table-5 of					
Facilities	Record-I , which gives the present status of the village infrastructure.					
	From the above table, the following have been noted with regard to village					
	infrastructure:					
	Physical Infrastructure: The habitation is Consist of basic physical					
	infrastructure like paved roads, electricity, water supply, mobile network etc.					
	Most of the Roads are Kuccha.					
	Education & Health Facilities: There are minimal educational institutions					
	and the health facilities are not sufficient. Public transport is not available, and					
	the community members have to use bicycles to move around.					
	Govt. Offices: The government offices (such as Police station, Gram					
	Panchayat office, Revenue office, Forest Beat office etc.) are located at a					
	considerable distance of 12Km, which gets amplified as the villagers do not					
	have access to regular public transport from either the habitation or from					
	nearby areas.					
	Financial Inclusion : Facilities for financial inclusion like bank and post office					
	are located at a considerable distance from the habitation. The community					
A ani anitanal Cuana	members have accounts in faraway places.					
Agricultural Crops	The details of the agricultural crops grown in the village is available at Table-					
	6 of Record-I.					
	The above shows that the following are the main crops grown in the village.					
	Kharif Crops: Paddy(Aijong, Pankaj, Bao, Joha, Bora)					
	Rabi Crops: Mustard, Pea, Potato.					
	Others: Mango, Jackfruit, Cabbage, Brinjal, Chilli, Cauliflower, Tomato,					
	Pumpkin, Gourd. Lemon etc.					
	All the crops are rain fed.					
Crop Production	Table-7 of Record-I may be referred to for the production and yield details of					
Profile	the crops grown in the village.					
	The maximum numbers of households are involved in growing crops like rice					
	and vegetables.					
	The production and yield of these crops is given as follows:					
	• • • • • • • • • • • • • • • • • • • •					
	(a) Paddy: Production 9480 Quintals Yield 43.68 q /ha					
	(b) Mustard: Production 20 Quintals Yield 0.80 q/ha					
	(c) Vegetable: Production 118.50 Quintals Yield 1.02 q/ha					
	(d) Fruit Orchard: Production 47.40 Quintals Yield 2.46 q/ha					
	(-,					

	The matter of fodder availability in the village is dealt with at Table-8 of				
	Record-I. The above shows that the main sources of fodder in the village are				
Fodder	as follows:				
Availability	(a) Crop residue				
	(b) Grazing in forest				
	(c) Trees fodder				
	(d) Green fodder				
	(e) Grasses				
Markets	Table-9 of Record-I shows the location of the different markets from the				
	village. The main markets used by the community are as follows:				
	(a) Grocery / PDS: Within the Village.				
	(b) Weekly / Bi-weekly Market: Jonai at 12 km away.				
	(c) Major Market: Jonai at 12 km away.				
Water Resources	The water resources are tabulated at Table-10 of Record-I. The main water				
	resources with the water availability is as follows:				
	(a) River (Water Availability: Perennial / Seasonal)				
	(b) Ring well (Water Availability: Perennial / Seasonal)				
	(c) Seasonal Stream (Water Availability: Perennial / Seasonal)				
Energy	Table-11 of Record-I shows the major sources of energy in the village. The				
Consumption	same have been listed below.				
_	(a) Fuel wood - Households Depending 237 Nos. Source: Forest				
	(b) Kerosene - Households Depending: 100 Nos. Source: Open Market				
	and PDS				
	(c) LPG- Households Depending 7Nos.				
Socio-economic	Social set-up: The village is inhabited by Mishing community and all the				
status	inhabitants are classified as Schedule Tribe Category. The society is not				
	marked by deep social divisions. The observed position of women is				
	satisfactory.				
	Economic Condition: The economic position is not satisfactory. The main				
	livelihoods are Handloom, Tailoring, Farming, Daily wages, Livestock				
	rearing, Selling Vegetables etc. Most households earn Rs. 60,000 to Rs. 80,000				
	per year.				
	There is no migration in this JFMC area.				
Maps	Appendix-1 gives the following maps, based on PRA exercise:				
	Village Map(with the names and particulars of members in PRA)				
	Village Social Map (with the names and particulars of members in PRA)				
	Village Resource Map(with the names and particulars of members in				
	PRA)				

3. Livelihood Opportunity Analysis

Framework of livelihood Opportunity Analysis has been done with the help of the following criteria:

- a) Livelihood assets
- b) Livelihood context
- c) Priority ranking on potential livelihood

The livelihood situation of Rigbi JFMC has been analyzed during the PRA exercise using sustainable livelihood framework of DFDI (Department of Funding for International Development). The existing livelihood situation of JFMC is outlined in terms of –

- a) Natural Capital
- b) Physical Capital
- c) Social Capital
- d) Human Capital
- e) Financial Capital

4. Natural Capital

In Rigbi JFMC under Jonai Range, Poba Reserve Forest, major natural capital are Bamboo, Teak, Sal and various species of Bamboo and there is only one river namely Rigbi.

Majority of the people are dependent on the forest for firewood, green fodder, timber etc. For farming purpose and for livestock rearing, the villagers use the river water.

(Refer table 10, 11, table 3 of FDP for further details)

5. Physical Capital

Majority of the households in the Rigbi JFMC are involved in farming activities and are marginal farmers with farming land of less than 2 ha. Detailed land holding pattern is described in the table 3/annexure 6.

The village has 7 numbers of semi-pucca houses, 2 numbers of Pucca houses and the remaining houses are thatch. Among the various sources of energy consumption such as Biomass, kerosene, electricity, LPG and solar Power, villagers depend on the firewood and kerosene for household and other uses. A fewer household have LPG connection but supply condition is very poor. (Refer to table 10, 11)

There are two LP schools and one ME School present within the JFMC area. No other education institution is present. (Refer to table 5)

In case of water sources, none of the HH has access to tube well.

6. Social Capital

The villagers are not fully involved in the JFMCs/EDCs functioning due to lack of awareness on their roles, functions, and specific benefits they are going to receive.

Women folk of the JFMC area formed SHGs for enhancing their income level as well as raise their social position in decision making process. To conduct social meetings the villagers use the existing Community Hall, two Anganwadi Centers and four temples premises.

98 per cent of total population of the JFMC are educated and 2 per cent are illiterate. (Refer to table 3.3)

7. Financial Capital

In the JFMC or its nearby area no commercial and Regional Rural Bank Branches have come up to cater financial services to the people of the vicinity. However, villagers avail credit, whenever need arises, from local money lending groups or relatives 896 numbers of people have bank account in commercial banks, which are distantly placed but due to their acute financial position they face problems in maintaining their accounts on a regular basis. The villagers also not aware of the benefits they would derive from Financial Inclusion initiatives.

Livelihood activities of the Rigbi JFMC are identified on the basis of following criteria:

- a) Contribution of particular livelihood activity in the total income of the JFMC
- b) Percentage involvement of income group in a particular livelihood activities
- c) Priority ranking of the potential livelihood activities

8. Priority Ranking Through PRA Exercise

PRA Exercise	Team from IIE Guwahati carried out PRA exercise in Rigbi village as follows:					
	Date : 1st March, 2017 Location: Village Community Hall, Rigbi					
	Numbers Present: 95					
	In Presence of: JFMC office bearers, Village Headman, community members,					
		epartment per				
Objective of	3		study the existing household con			
PRA	•		e community for developing the liv	velihood options and the		
		velopment pla				
Tools Used &			sed and outcomes obtained. These in	nclude:		
Outcomes of	Social M					
the PRA	Wealth F	•				
		ne review				
		lity of Liveliho	oods			
	Venn Di	•				
	•	Diagram				
			detailed information of the above.			
Ranking	_		been done for the following:			
		ry Point Activ				
			ills Development			
			s the above. From the same, it is sta	ited that:		
		•	er page no. 37)			
	Rank	Village	Details	Probable source of		
		EPA as	(Appendix-3 has additional	funding/deptt.		
		ranked	particulars)			
	1.	Bio- Gas	All the 237 HH of the JFMC	APFBC & Govt.		
			should be provide with Bio-Gas	Schemes		
	facility with a common setup of					
	2					
	2.	Drainage	The JFMC area should be	PMGSY/PWD		
			channelized with proper			
	2	Dain1-1	drainage system (~2 KM)	A DED C/NID DAVID		
	3.	Drinking	At least 10 ring wells should be	APFBC/NRDWP		
		water	set up in the JFMC area.			

			T		
	4.	Sanitation	Providing HHL (House Hold	Swach Bharart	
			Latrine) – Low cost, septic and	Mission/ PHED	
			sanitary type.		
	5.	Community	The community Hall Should be	APFBC	
		Hall	renovated for conducting		
		Renovation	Village and Social Meetings.		
	6.	Veterinary	A veterinary centre should be	MOVAH(Ministry of	
		Clinic	built within the JFMC	veterinary and animal	
				Husbandry)	
	7.	Health	A Medical Sub-Centre should be	NHM/H&FW	
		Centre	built within the JFMC		
	❖ An a	arrangement of	f working capital worth Rs.2 Lakh	should be arranged from	
			promoting livelihood activities.	C	
		_	nunity work shed cum JFMC offic	e to be setup within the	
	JFM		•	nmissioning of Tool	
	kits/	Equipment/Ma	9 1	C	
			ds & Skills Development		
	1. Hand		-		
	2. Lives	tock			
	3. Cane	& Bamboo			
	4. Wage	earning			
	5. Farmi	ing			
Livelihood	Liveliho	od Opportunit	ies were identified as follows:		
opportunities	Agricult	ure			
	Livestoc				
	Weaving				
		evelopment			
	Credit F				
			about the above has been given belo		
Agriculture &			d-2 may be seen in this connection	n for opportunities in the	
Horticulture		agriculture and			
		n constraints a			
		~ ~	of fertilizers and pesticides, insecti	cides.	
		of irrigation f			
			l infrastructure, modern tools and ed	quipment's viz, power	
		actors etc.	sialdina and ata		
	(a) Non	usages of nigh	yielding seeds etc.		
	The onn	ortunities eres			
		ortunities are:	per and controlled pesticides and ins	acticidas	
			v and advance technology	ecticides.	
			ning programme.		
	(c) wen	-structured trai	ming programme.		
	The vil	lagers are in	herited with the skill of cultiva	tion All they need is	
		sation of their		nom. The they heed is	
	P10 11				
	The sug	gested progran	nmes are:		
		actor operation			
		_	pment programme.		
	_			n etc.	
	Training on insecticides, pesticides, hybrid cultivation etc.				

Livestock **Table-13** Furnishes additional information about opportunities for livestock rearing. The main constraints are: (a) Unable to buy fodder from market due to poor financial condition. (b) Trees fodder and crop residue are available only for 3-6 months. Green fodder is also not available for the whole year. (c) No veterinary care clinic (d) Lack of knowledge about the proper rearing of live stock The opportunities are: (a) Market observed that Livestock selling fetch higher income, expanding the livestock rearing activity would bring change in living condition (b) JFMC can be transformed into a livestock or livestock produce selling hub as villagers from JFMC area mostly engaged in livestock rearing. The suggested Skill Development Programme are: (a) Weaving & Endi Silk Spinning. (b) Tailoring. (c) Electrician. NTFP The opportunities for NTFP are tabulated at **Table-14** under Record-2 The main constraints are: (a) Lack of proper utilisation of NTFP due to inadequate knowledge. (b) Lack of research on development of high yielding varieties, domestication (c) No technical know-how (d) No processing units (e) Lack of trained personnel and equipment (f) Lack of facilities to fabricate equipment locally The opportunities are: (a) Availability of fertile fallow land (b) A ready market for the finished products. The suggested programmes are: (a)Plantation of Food plants. (b) Medicinal Plant etc. **Specialized** For skills development, the opportunities are tabulated at **Table-15** under Record2 Skills The main constraints are: (a) Lack of product diversification (b) Lack of research on product quality (c) Lack of TQM techniques. The opportunities are: (a) Providing good communication facility (b) Enhancement of skill of the semi-skilled or traditionally skilled villagers introducing modern technology and methodology. (c) Financial assistance from Concerned sources. The suggested programme are: Training on Modern Tools and Equipment Providing modern technology to the villagers

- Skill Up gradation & Training on New Product Development and Product Diversification
- Setting up a raw material bank
- Providing a bulk buy arrangement of the finished product with institutional buyers.

Credit Facility	Table-16 under Record-2 discusses this aspect.					
	The main constraints with the reasons are:					
	(a) Exclusion from formal Financial Services System.					
	(b) Exorbitant rate of interest charged by the informal money lending groups					
	or money lenders.					
	The opportunities are:					
	(a) Introduction of SHG/JLG to the community and linking them with					
	financial institution including MFIs.					
	(b) Adequate awareness on financial services, so that people could take own					
	initiatives for availing the services from the available sources					
	(c) To provide credit facilities for modern equipment (tractors etc.)					
	The suggested programme is:					
	(a) Program on financial inclusion.					
Strategic	Summarizing the suggested programmes at above as strategic interventions for the					
Interventions	Livelihood Development Plan:					
	1 Agriculture & Horticulture : Tractor operation training, Agri-skill development					
	programme, Training on insecticides, pesticides, hybrid cultivation					
	2. Livestock: Cattle rearing, Goatery, Poultry, Piggery.					
	3. NWFP : Plantation of Food plants, Medicinal Plant etc					
	4. Specialized Skills: Training on Modern Tools and Equipment, Providing					
	modern technology to the villagers, Skill Up gradation & Training on New					
	Product Development and Product Diversification, Setting up a raw material					
	bank, Providing a bulk buy arrangement of the finished product with					
	institutional buyers.					
	5. Credit facility: Setting up modern financial institution in the nearby areas					
	1					

9. Livelihood Development Plan

Income	The main income generating activities as planned at the village are:
Generating	
Activities	Farm Sector :
	1.Livestock
	2.Farming
	3.Horticulture
	Non-Farm sector:
	1. Weaving
	2. Electrician
	3. Carpentry
	4. Tailoring
SHG Activities	SHGs of the village can plan the following activities:
	1. To create awareness.
	2. To organise and form group
	3. To involve the villagers in Livelihood Activities collectively.
Exposure Trips	The following exposure trips are planned:
	1. NIL
	2. NIL
	Source: Table-34 of Record-4

Convergence	The planned initiatives may be converged with the following schemes of the
	Government of India:

- (a) National Rural Employment Guarantee Scheme for rural employment
- (b) Rashtriya Krishi Vikas Yojana (RKVY) for agricultural and allied development
- (c) Rashtriya Krishi Sinchay Yojana (RKSY) for irrigation, including watershed development
- (d) National Rural Livelihoods Mission
- (e) Skills Development schemes
- (f) Other schemes for rural development and livelihoods as found appropriate.

The above convergence will yield synergies for the present plan, as well as help in sustaining the planned works in the post-project period.

10. Forest Development Plan of Rigbi JFMC

This Forest Development Plan has been prepared after a detailed PRA exercise at the village level as a part of the Micro-Plan of Rigbi JFMC. The objective of this plan is to provide for the sustenance of the conservation and bio-diversity values, environmental functions and productive potential of the forests assigned to the JFMC; while meeting the consumption and livelihood needs of the community in a sustainable manner.

1. Status of the JFMC Forests

The micro-plan takes into consideration the following categories of the JFM Forests of the Rigbi JFMC:

- (a) Forest areas assigned to the JFMC by the Forest Department; and
- (b) Areas planted / to be planted on community lands and other lands outside the notified forest area.

The status of both the above categories of JFMC forests is briefly discussed below.

1.1. Forests & Their Conditions

The details of the status of forest areas assigned to the JFMC have been furnished at Table-3.1 under Proforma-3 ('Forest Development Plan'), which has been attached as Annexure to this micro-plan. After considering other areas planted (or to be planted), the conditions of the forests of the Rigbi JFMC have been summarized below.

Table-1: Conditions of the Forests of Rigbi JFMC

Identification	Area of JFMC Forest (Ha)	Distance from Village (Km)	Condition of Forest [Good - Forest with crown density of 40% of more	Frequency of Use by Community [2-3 m/3-6 m/6- 9 m/Over 9 m]
			Else 'Degraded']	
(A) Assigned Forest				
RF / PF Name: Poba RF	153.70	1 Km	Good Area: - 90 Ha	Over 9 m
Beat: 3 Mile Beat	На		Plantation area 63.80 ha.	
Compartment:			Degraded Area: 0.0 Ha	

(B) Other Planted Area			
Location:		Good Area: - Nil	
Type of Forest: Rain Forest		Degraded Area: Nil	
VF / Other			
TOTAL	153.70	Good Area: 90Ha	
	Ha	Plantation area 63.80 ha.	
		Degraded Area: 0 Ha	

Source: Proforma-3, Table 3.1 / Discussions with Forest Department personnel & Community members

It is seen that the Rigbi JFMC has 153.70 Ha under its forests, of which 90 Ha is 'Good' and have no 'Degraded' area.

1.2. Forest Soil Type

The forests of Rigbi JFMC are located in loamy type(s) of soil. Some salient points of the forest soil type have been given in the following table.

Table-2: Forest Soil Type in Rigbi JFMC

Parameter	Status in Assigned Forests	Status	in	Other	Planted
Fertility Level	4.3 to 6.94% organic. The available N, P205 and K20 content of the Soil is comparatively more.	Areas		-	
Soil Erosion Status	High			-	
Presence of:					
(a) Silt	10%			-	
(b) Mud-flat	35%			-	
(c) Newly accreted land	NIL			-	
(d) Sand dune	55%			-	

Source: Proforma-3, 'B. Forest Soil Type' / Discussions with Forest Department personnel & Community members.

For the Rigbi JFMC; the salient points of the forest soil type are summarized below:

- 1. Entisol (35%)
- 2. Inceptisol (50%)
- 3. Alfisols (10%)
- 4. Ultisols (5%)

1.3. Existing Composition of Flora

In the forests of the Rigbi JFMC, the existing composition of the flora has been given as follows. It may be noted that the local forests are classified as deciduous moist Forests.

Table-3: Existing Composition of Flora in the Rigbi JFMC

	Parameter	Local Name(s)	Biological Name(s)
--	-----------	---------------	--------------------

Major Forest Species	Ajar, Gomari	Lagerstroemia parviflora,Gmelina Arborea Linn
Associates	Gamari	Gmelina Arborea
Shrubs	Dhekia	Diplazium esculentum
Medicinal Plants	Arjun,	Terminalia arjuna
	Hilikha	Terminalia Chebula
	Neem	Azadirachta indica
	Amlakhi	Phyllanthus emblica
Produces	Jori bet	Calamus erectus
	Jati bet	Calamus tenuis
	Raidang bet	Calamus rotang
	Chuli bet	Calamus
		Flagellum
	Lejai bet	Calamus floribundus
	Kako Bah	D. hamiltonii
_	Pahari Jati Bah	Oxytenthera parvifolia
_	Dulu Bah	Schizostachyum dulloa
_	Amlakhi	Emblica officinalis
_	Halakh	Terminalia myriocarpa
_	Hollong	Dipterocarpus macrocarpus
	Arjun	Terminalia arjuna
	Agar	Aquillaria agallocha

Source: Proforma-3, 'C. Composition of Existing Fauna & Flora' / Discussions with Forest Department personnel & Community members.

2. Other Inputs for the Forest Development Plan

The following sub-sections discuss the other inputs for the Forest Development Plan of the Rigbi JFMC.

2.1. Past Protection Measures of the JFMC

The measures taken by the Rigbi JFMC for forest protection in the past have been discussed as follows.

(a) Number of households involved: Nil

(b) Number of people involved: Nil

(c) Summary of the measures: Nil

(d) Any formal mechanism: Nil

[Source: Proforma-3, 'JFMC Status - viii + ix' / Discussions with Forest Department personnel & JFMC members]

2.2. Domestic Requirements of Forest Produce

The dependency of the local community on forest produce for household requirements is available in the table given at below.

Table-4 (A): Domestic Requirement of Forest Produce per Household of the Rigbi JFMC

Name of Forest Produce	Average Household Requirement		How met at Present	Source
	Frequency of Requirement	Approx. Qty(per Year)		
Firewood	Frequent	400-500 kg/yr		Forest
Timber for House	Once in a year	6-10 nos/yr		Forest
Small timber for Implements	-	-		-
Pole / Bamboo	Once in a month	30-50 Nos bamboo /Year		Forest
Fodder from Forest	Frequent	90-100kg. /yr		Forest
NTFP	Frequent	10-15kg per yr		Forest

Source: Proforma-3, Table-3.2 / Discussions with Forest Department personnel & Community members

There are 237 households in the Rigbi JFMC. From the above table and this number of households, it is inferred that the total annual requirements of the Rigbi village for forest products for own use is as follows:

 $\begin{tabular}{ll} Table-4 (B): Total \begin{tabular}{ll} Domestic \begin{tabular}{ll} Requirement of Forest Produce - All Households of the Rigbi JFMC \end{tabular}$

Name of Forest Produce	Community Requirement (Kg per annum) (*)	Remarks
Firewood	5400-6000 kg	Throughout the year
Timber for House	500-1500 kg.	Throughout the year
Small Timber for Implements	-	-
Pole / Bamboo	500-600 kg.	Throughout the year
Fodder from Forest	24800-37200 kg	Throughout the year
NTFP	300-400 kg	Throughout the year

Source: Table - 4(A) at above & Total Household Number from Community records

(*) = Approx. Oty. of Average Household Requirement (from Table-4 (A) x 237 Households

2.3. Collection & Marketing of Forest Produce by Villagers

Apart from use in the households, the community dependency on forest produces also includes the collection of such items for sale in local markets. The collection and marketing of forest produce by villagers of Rigbi JFMC is given in the following table.

Table-5 (A): Collection & Marketing of Forest Produce by Villagers of the Rigbi JFMC

Name of Forest	Collection for Marketing			Location of
Produce	Season / Months	No of Households Collecting	Average Qty. Collected (Kg)	Collection
Firewood	-	237 Nos	380 Kg.	R.F area
Timber for House	-	-	-	-
Small timber for Implements	-	-	-	-
Bamboo	-	100-150 Nos.	1200 Kg.	R.F area
Pole	-	-	-	-
Fodder from Forest	-	210 Nos	14000 kg.	R.F area
NTFP	-	40 to 90 Nos.	100 kg	R.F area
Other	-	-	-	-

Source: Proforma-3, Table-3.3 / Discussions with Forest Department personnel & Community members

In the above connection, the following table gives additional pertinent information.

Table-5 (B): Collection & Marketing of Forest Produce - Additional Information [Rigbi JFMC]

Name of Forest Produce	Surplus Marketed (Kg)	How marketed	Average Income per HH from sale of Forest Produce
Firewood	180 Kg.	By head load and bicycle to Leku and Jonai Market	Rs.80/-
Timber for House	-	-	-
Small timber for Implements	-	-	-
Bamboo	220 Kg.	By Thela to Leku and Jonai Market	Rs.40/-
Pole	-	-	-
Fodder from Forest	4500 kg.	By head load and bicycle to Leku and Jonai Market	Rs.100/-
NTFP	50 Kg.	By head load and bicycle to Leku and Jonai Market	Rs.95/-

Other -	-	-
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Source: Proforma-3, Table-3.4 / Discussions with Forest Department personnel & Community members

2.4. Total Requirements of Forest Produce - Domestic Use & Marketing

The total requirements of forest produce by the community members of the Rigbi JFMC have been summarized below - based on the information in the previous sub-sections.

Table-6: Total Requirements of Forest Produce by Villagers of the Rigbi JFMC

Name of Forest Produce	Community Requirement (Kg per annum) From Table-4(B)	Surplus Marketed (Kg) From Table- 5(B)	Total Requirements (Kg)
Firewood	6000kg	180 kg.	6180 kg
Timber for House	500-1000 Kg.	-	500-1000 Kg.
Small timber for Implements	-	-	-
Bamboo	1200 Kg.	220 Kg.	1420 Kg.
Pole	-	-	-
Fodder from Forest	12000 kg	4500kg.	16500kg
NTFP	100 Kg.	50 Kg.	150 kg

Source: Tables 4 (B) & 5 (B) of this Section, given at the previous pages

3. Forest Protection Issues

3.1. Protection Problems

The protection issues of the forests of Rigbi JFMC have been summarized below.

• Table-7: Protection Problems of the Rigbi JFMC

Type of Problem	Relevant (Yes / No)	Significant (Yes / No)
Grazing - Local Animals	Yes	Yes
Grazing - Animals from Other Area	Yes	Yes
Illicit Felling of Timber	No	No
Smuggling of Timber	Yes	Yes
Accidental Fires	Yes	Yes
Encroachment of Forest Lands	Yes	Yes
Incident of Snake bites/life threats/risks while protecting forest	Yes	Yes
Theft of Medicinal Plants	No	No

Source: Proforma-3, Table-3.5 / Discussions with Forest Department personnel & Community members

Thus, it is seen that the significant forest protection issues facing the above JFMC are:

- (a) Grazing Local Animals
- (b) Grazing Animals from Other Area

3.2. Reasons for Degradation of the Forest

In the Rigbi JFMC, the reasons for degradation of forest are as follows:

- (a) No Scientific Plan
- (b) Traditional Cultivation of Tribal People
- (c) Extremist problem in hill sides

[**Source**: Proforma-3, Table-3.6 / Discussions with Forest Department personnel & Community members]

4. Components of the Forest Development Plan

The following sub-sections discuss the main components of the Forest Development Plan of Rigbi JFMC; viz. the plans for Protection, Forest Improvement (Treatment), Nursery Development, Maintenance and Miscellaneous Operations.

4.1. Protection Plan

The Protection Plan given at below, discusses the measures for the protection of the forests of Rigbi JFMC from the issues discussed earlier at Sub-section 3.1

Table-8: Protection Plan of the Rigbi JFMC

Protection W [to be filled 3.7 of Pro applicable]	from Table	Location in Forest Area	Quantification of the Measures [Length, Area, Size etc.]	Timing	Priority [High / Medium / Low]
1. Enga Wate	gement of cher	R.F	5 km,30 Ha	бат-брт	Medium
2. Fire 1	Protection	R.F	5 km,30 Ha	Dry season	Medium
3. Rotar Graz		R.F	-	Rainy Season	Medium
4. Socia	nl Fencing	-	-	Throughout the year	Medium

Source: Proforma-3, Table-3.7 / Discussions with Forest Department personnel & Community members

Thus, it is seen that the significant protection measures planned to be undertaken in the Rigbi JFMC (with high / medium priority) are as follows:

- (a) Social Fencing.
- (b) Fire protection.
- (c) Engagement Of watcher.
- (d) Rotational Grazing.

4.2. Forest Improvement – Action Plan

Action Plan for Misc. Harwood Plantation with Associates of Firewood.

Name of Plantation : Misc. Harwood Plantation with Associates of Firewood

Plantation Period : 2016-17 to 2025-26 (10 Years)

Plantation Area : 100 ha.

Spacing : 2m X 2 m-2500 plants per ha

No. of Plants to be Raised: 2,50,000 (62,500) approx. annually)

Number Blocks : 4 Numbers(25 ha each) (1st, 2nd, 3rd & 4th Plots)

Species : Ajar, Koroi, Khayer, Sissoo, Jia, Arjun, Ghora Neem, Bamboo(Jaati, Kako,

Bholuka & Bijuli), etc

Wage Rate =Rs.280/DL

	Action Plan for Creation of Plantation				
Financial Year	Activities	Amount (Rs.)			
	A. Advance Works:				
2016-17	1. Site clearance including survey (GPS) of 1st plot of 25 Ha @15 DLs/Ha @Rs.280/DL	105000/-			
	2. Raising of Site Nursery, 9 Dls/Ha @ Rs.280/Ha	63000/-			
	B. Creation & Maintenance :				
2017-18*	Creation of 25 Ha Plantation (1 st Plot) during the period of April-June followed by 1st year maintenance viz 4 weedings and carrying out advance works in 2 nd plot of 25 Ha area for next year creation, 2100 DLs @Rs.280/DL	588000/-			
2018-19*	Creation of 25 ha Plantation (2 nd Plot) during the period of April-June followed by 1st year maintenance viz 4 weedings and carrying out advance works in 3 rd plot of 25 ha area for next year creation, 2100 DLs @Rs.280/DL	588000/-			
	2 nd year maintenance of 1 st plot of 25 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the previous year, (2017-18)	210000/-			
	Creation of 25 Ha Plantation (3 rd Plot) during the period of April-June followed by 1st year maintenance viz 4 weedings and carrying out advance works in 4 th plot of 25 Ha area for next year creation, 2100 DLs @Rs.280/DL	588000/-			
2019-20*	3 rd year maintenance of 1 st plot of 25 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2017-18 & fire watching	210000/-			
	2 nd year maintenance of 2 nd plot of 25 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2018-19	210000/-			
	Creation of 25 Ha Plantation (4 th Plot) during the period of April-June followed by 1st year maintenance viz 4 weedings, 1500 DLs @Rs.280/DL	420000/-			
2020-21*	4 th year maintenance of 1 st plot of 25 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2017-18 & fire watching	210000/-			
	3rd year maintenance of 2 nd plot of 25 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2018-19 & fire watching	210000/-			
	2 nd year maintenance of 3 rd plot of 25 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2019-20	210000/-			

4 th year maintenance of 2 nd plot of 25 ha viz 4 Weedings includin replacement of dead/struggling saplings raised in the year, 2018-19 & fir watching			
3rd year maintenance of 3 rd plot of 25 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2019-20 & fir watching			
2 nd year maintenance of 4 th plot of 25 ha viz 4 Weedings includin replacement of dead/struggling saplings raised in the year, 2020-21	g 210000/-		
4 th year maintenance of 3 rd plot of 25 ha viz 4 Weedings includin	g 210000/-		
replacement of dead/struggling saplings raised in the year, 2019-20 & fir watching			
2022-23* 3rd year maintenance of 4th plot of 25 ha viz 4 Weedings including			
replacement of dead/struggling saplings raised in the year, 2020-21 & fin watching	e		
Silvicutural thinning of 25 ha.(1st plot) plantation created in 2017-18, 1	0 70000/-		
Dls./ <u>ha.@Rs.280/</u> DL.			
4th year maintenance of 4th plot of 25 ha viz 4 Weedings including			
replacement of dead/struggling saplings raised in the year, 2019-20 & fin	e		
2023-24* watching	70000/		
Silvicutural thinning of 25 ha.(2 nd plot) plantation created in 2018-19, 1	0 70000/-		
Dls./ ha.@Rs.280/ DL.	70000/		
2024-25* Silvicutural thinning of 25 ha.(3rd plot) plantation created in 2019-20, 1 Dls./ ha.@Rs.280/- per DL.	0 70000/-		
Silvicutural thinning of 25 ha.(4 th plot) plantation created in 2020-21, 1	0 70000/-		
2025-26* Shivicutural thinning of 23 ha.(4** plot) plantation created in 2020-21, 1 Dls./ ha.@Rs.280/ DL.	/0000/-		
Total Budgetray Requirement			

^{*} Silvicutural thinning to be undertaken on intervals of five years post plantation

Source: Proforma-3, Table-3.10 / Discussions with Forest Department personnel & Community member

Action Plan for Plantation of Non Timber Forest Produce

Name of Plantation : NTFP Plantation

Plantation Period : 2016-17 to 2025-26 (10 Years)

Plantation Area : 20 ha

Spacing : 2m X 2 m-2500 plants per ha.

No. of Plants to be Raised : 50,000 (Annually) Number Blocks : 1 Number (20 ha)

Species : Amla, Hilikha, Bhomora, Mango, Guava, Neem, Arjun, etc

Wage Rate=Rs.280/DL

Financial Year	Activities		
	A. Advance Works :		
2016-17	1. Survey (GPS), site clearance, stacking etc-10 DLs/ha @Rs.280/ha	56000/-	
	2. Raising of site Nursery – 9 DLs/ ha.@Rs.280/ DL	50400/-	
	3. Providing fencing in vulnerable point @Rs.2000/ha	40000/-	
	B. Creation & Maintenance :		
2017-18*	Creation of 20 ha plantation during the period of April-June ; followed by 1 st	336000/-	
	year maintenance viz 4 weedings - 60 Dls/ ha. @Rs.280/ DL.		

2010 104	2 nd year maintenance viz 4 weedings, replacement of dead/struggling saplings	168000/-
	- 30 Dls/ ha. @Rs.280/ DL.	
2018-19*	3 rd year maintenance viz 3 weedings, replacement of dead/struggling saplings	112000/-
	- 20 Dls/ ha. @Rs.280/ DL.	
2020-21*	4th year maintenance viz 2 weedings, replacement of dead/struggling	84000/-
2020-21	saplings, prunning etc 15 Dls/ ha. @Rs.280/ DL.	
Total Budgetary Requirement		

4.3. Nursery Development Plan

The Nursery Development Plan for the Rigbi JFMC depends on the following types of Nurseries:

(a) JFMC Peoples' Nursery (incl. Departmental Nursery) The details are given below.

JFMC Nurseries

The following table gives the details of the nurseries of the Rigbi JFMC. This includes the Departmental Nursery involved in JFMC works.

Table-9: JFMC Nurseries of the Rigbi JFMC

Location of Nursery	Species	Year of Development	Number of Seedlings	Remarks
	Major- Ajar, Gamari, Bhumora & Owtenga Associates- Sissoo, Titasopa, Koroi, Arjun, Khayer etc	2016-17	40000 Nos 22500 Nos 50000 Nos	Provide sapling for plantation to be under taken in the year 2017-18
	NTFP Major- Ajar, Gamari, Bhumora & Owtenga Associates- Sissoo,		40000 Nos 22500 Nos	Provide sapling for plantation to be under
Within the Village	Titasopa, Koroi, Arjun, Khayer etc NTFP	2017-18	-	taken in the year 2018-19
	Major- Ajar, Gamari, Bhumora & Owtenga Associates- Sissoo, Titasopa, Koroi, Arjun, Khayer etc	2018-19	40000 Nos 22500 Nos	Provide sapling for plantation to be under taken in the year 2019-20
	NTFP Major- Ajar, Gamari, Bhumora & Owtenga Associates- Sissoo,	2019-20	40000 Nos 22500 Nos	Provide sapling for plantation to be under
	Titasopa, Koroi, Arjun, Khayer etc		223001103	taken in the year 2020-21

Source: Proforma-3, Table-3.11 / Discussions with Forest Department personnel & Community member

4.4. Maintenance Plan - 10 Years

The maintenance plan for plantations raised in the Rigbi JFMC is given below. This covers a period of ten years.

(A) Fuel wood Plantation

Table-10 (A): Maintenance Plan of Misc Hardwood with Associates of Fuel Wood Plantation in the Rigbi JFMC

Year(s)	Treatment
2016-17 to 2025-26	As provided in Action Plan for Misc. Harwood Plantation with Associates of Firewood.

Source: Discussions with Forest Department personnel & Community members

(B) NTFP / Medicinal Plantation

Table-10 (B): Maintenance Plan of NTFP / Medicinal Plantation in the Rigbi JFMC

Year(s)	Treatment
2016-17 to 2025-26	As provided in Action Plan for NTFP Plantation

Source: Discussions with Forest Department personnel & Community members

4.5 ENTRY POINT ACTIVITES FOR RIGBI J.F.M.C:-

Based on the priority Ranking of Entry Point Activities resulted from PRA exercises carried out by the JFMC personnel, Forest Department and IIE the following activities as a part of Forest Development Plan are hereby proposed to be executed for the JFMC villagers during the project period.

- 1. Construction of composite Plants of Biogas and Vermicompost to the needy House Holds on priority basis.
- 2. Renovation of Community Hall.

The detailed action plan along with financial assistance @Rs.25,000.00 per Ha of Plantation proposed is mentioned below (Table No-11)

Area of Plantation proposed for Rigbi JFMC= 120 Ha Amount earmarked =25000x120= Rs.30,00,000.00

Table No-11

Financial Year	Activities	Amount (Rs)
2016-17	Nil	Nil
2017-18	Construction of Biogas and Vermicompost Plants- 12 Nos @Rs.55,000/No	6,60,000.00
	Renovation of Community Hall-1 No @Rs.250000/No	2,50,000.00
2018-19	Construction of Biogas and Vermicompost Plants- 12 Nos @Rs.55,000/No	6,60,000.00
2019-20	Construction of Biogas and Vermicompost Plants- 12 Nos @Rs.55,000/No	6,60,000.00
2020-21	Construction of Biogas and Vermicompost Plants- 14 Nos @Rs.55,000/No	7,70,000.00
	TOTAL=	30,00,000.00

The concerned Estimates are annexed as Annexure-1, 2 & 3

Abstract of total Financial outlay:

Sl No	Activities	Amount (Rs)
1	Creation & maintenance of 120 Ha Plantation over a period of 10 years	Rs.59,98,400.00
2	Entry Point Activities over a period of 5 years	Rs.30,00,000.00
	Grand Total =	Rs.89,98,400.00

4.6 Miscellaneous Operations Plan

The miscellaneous operations planned in the Rigbi JFMC are given below.

Table-13): Miscellaneous Operations in the Rigbi JFMC

Operation	Required (Yes / No)	Responsibility	Month / Year	Area (Ha)
No such planned	-	-	-	-

Source: Proforma-3, Table-3.13 / Discussions with Forest Department personnel & Community members

5. Expected Benefits

This sub-section furnishes the benefits expected from the forests protected by members of the Rigbi JFMC, as well as the sharing mechanism for the usufruct benefits.

5.1. Expected Benefits Related to Wood & Grass

The above has been tabulated below for the Rigbi JFMC. The benefits are expected from the forests protected by its members under this Forest Development Plan.

Table-14: Expected Benefits from Forests Protected by Members of Rigbi JFMC

Item	Month	Year	Quantity
		(Indicative)	
Firewood	Throughout the	2026-27	10000 Kg.
	year	onwards	(Approx)
Timber for House	Throughout the	2040 Onwards	3000 Kg.
	year		(Approx)
Small timber for Implements	-	-	-
Bamboo	Throughout the	2030 Onwards	8000 Kg.
Bamoso	year		(Approx)
Pole	-	-	-
Fodder from Forest Trees &	Throughout the	2026-27	50000 Kg.
Grass	year	onwards	(Approx)
NTFP	Throughout the	2035 onwards	1000 Kg.
	year		(Approx)
Wages	Throughout the	2016-17	25000 DLs
	year	onwards	(Approx)
Other	-	-	-

Source: Proforma-3, Table-3.14 / Discussions with Forest Department personnel & Community members

5.2. Sharing Mechanisms

The sharing mechanism for the benefits is indicated below for members of the Rigbi JFMC.

Table-15: Sharing Mechanism for Rigbi JFMC

Method	Items
To be shared equally	NTFP
To be freely collected by the members	Firewood,
Other Methods	Processing of NTFPs

Source: Proforma-3, Table-3.15 / Discussions with Forest Department personnel & Community members

List of Appendices

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	Table Nos. 1-16	

HOW TO REACH

Guwahati to Jonai distance, location, road map and direction

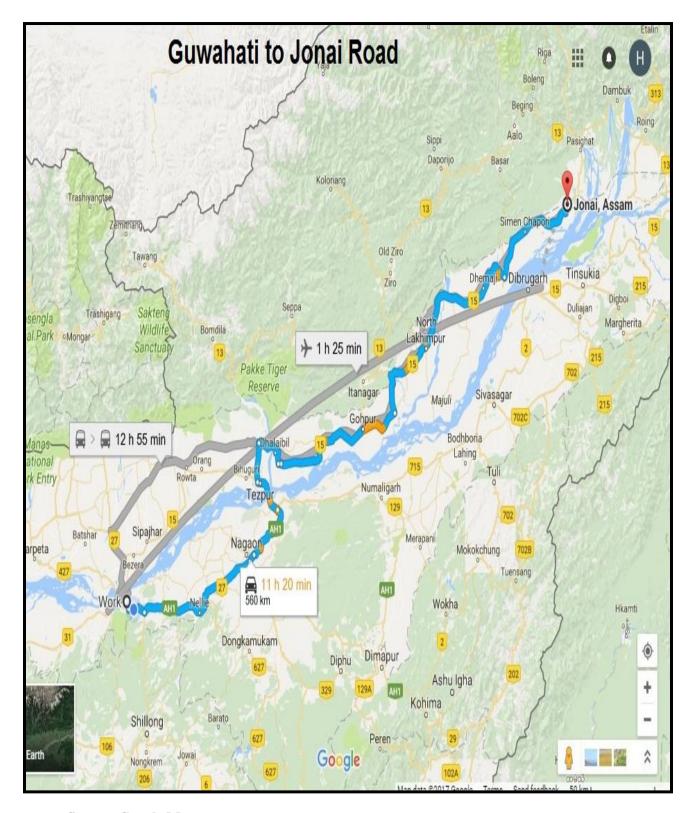
Guwahati is located in **India** at the longitude of 91.75 and latitude of 26.19. Jonai is located in **India** at the longitude of 95.23 and latitude of 27.83.

Distance between Guwahati and Jonai

The total straight line distance between Guwahati and Jonai is **389 KM** (kilometers) and 730.36 meters. The miles based distance from Guwahati to Jonai is **242.2**miles. This is a straight line distance and so most of the time the actual travel distance between Guwahati and Jonai may be higher or vary due to curvature of the road.

Guwahati To Jonai road map

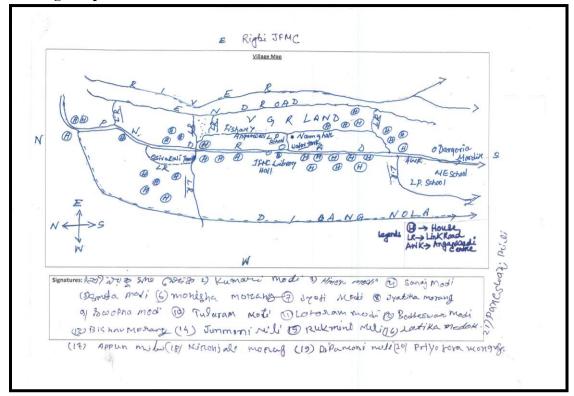
Guwahati is located nearly **west** side to Jonai. The given west direction from Guwahati is only approximate. The given google map shows the direction in which the blue color line indicates road connectivity to Jonai. In the travel map towards Jonai you may find enroute hotels, tourist spots, picnic spots, petrol pumps and various religious places.



Source: Google Map

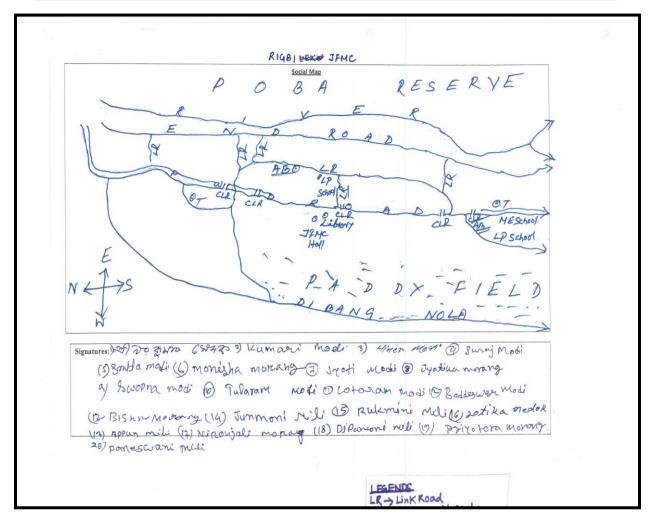
Appendix 1

1. Village Map:



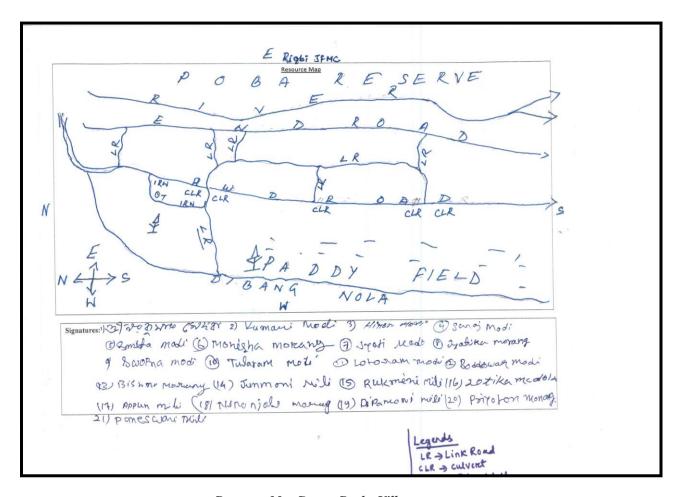
Village Map Drawn By the Villagers

2. Social map



Social Map Drawn By the Villagers

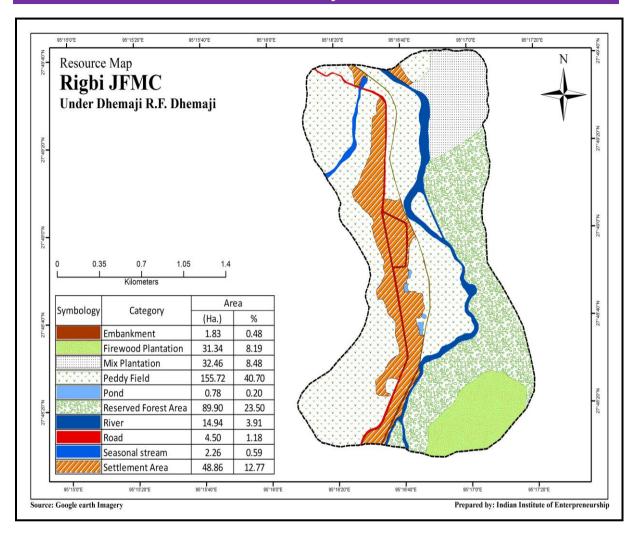
3. Resource Map:



Resource Map Drawn By the Villagers

Appendix 2

Land Use map of GIS



PRA ACTIVITY

Location and Timing of Participatory Rural Appraisal:

Numbers of participants:	95		
Time:	11:30 am, 1st March 2017		
Venue:	Community Hall, Rigbi		

Source: Field Survey

Table – 3.1Brief Profile about the villages under Rigbi JFMC

	J	0 0			
Sl. No.	Name of the Village	No. of households	Population		
			Total	Male	Female
1	Rigbi	237	1265	729	536
	Total	237	1265	729	536

Source: Field Survey

Table – 3.2 Age Profile of Rigbi JFMC

Age Class	<5 years	5-18 years	18-45 years	45-60 years	>60 years
Male	228	203	145	61	88
Female	141	121	137	53	84
Total	369	324	282	114	172

Source: Field Survey

Table – 3.3 Education Profile of Rigbi JFMC

Village Name	Illiterate	Up- to IV	V- VII	VIII- X	X- XII	Graduate	Masters
Rigbi	17	112	103	241	298	80	4
Total	17	322	303	241	298	80	4

Source: Field Survey

Table – 3.4 Income Distribution of Rigbi JFMC

Income Category(in Rs) Yearly	No of HHs
>5000 Rs	0
5,0000-10,000	0
11,000-20,000	0
21,000-30,000	0
31,000-40,000	0
41,000-50,000	20
51,000-60,000	0
61,000-70,000	210
71,000-80,000	5
81,000-90,000	0
91,000-1,00,000	0
<1,00,000	2

Source: Field Survey

Different PRA tools used under the exercise of PRA technique are:

- a) Social Mapping
- b) Wealth Ranking
- c) Time Line Review
- d) Seasonality Analysis
- e) Chapatti diagram

3.1 Social Mapping:

Social mapping is used to visualise the socio-economic aspects of the Rigbi JFMC where the housing patterns of the households, the numbers of schools, social infrastructure, and religious beliefs among households. Awareness camp about the project was carried out beforehand. So it was easy to gather people for the PRA process in the Rigbi Tiniali. And due to time constraint we have to skip the transect walk. The villagers were enthusiastic about the mapping process and they actively participated in the process.

Table 3.2: Information about the villages

	Village →	Rigbi
	Total population	1265
	Male	729
	Female	536
	Total households	237
	Numbers of Pucca Houses	5
	No of thatch house	200
	No's of semi pukka house	32
Social information	River	1
	Community hall	1
	Ring Well	35
	Embankment	1
	Anganwadi Centre	1
	LP School	2
	ME School	1

At first, the people of villagers were asked to draw the main roads of the village and then asked them to locate their houses and locate the important social places and government offices with help of the PRA team members. Two of them voluntarily came out to draw and they were assisted by other villagers and the team members. All the villagers spotted their households in the map. After the mapping process the team members collected the information about the pattern of their household's namely pukka, semi pukka and thatch house.

Findings of social map:

- The participants of social mapping have identified all 237 households out of which 200 households are thatch house or Kuccha house. There is only 32 semi pukka house and 5 Pucca houses. This shows that the people of the village is still deprived of the basic household schemes from the Government.
- From the observations it is learnt that there are one Community hall, Two LP Schools, One ME School, Two Anganwadi Centres, one embankment, Ring Wells, Electricity but is deprived of Proper Drainage System, Veterinary centre, Transport Facilities, Primary Health Centre etc.
- Main sources of water for the villagers is Sile River which is used by villagers for their day to day use. The water is available throughout the year.
- Provision of Education facility is not satisfactory in the villages as there is only two primary school, one ME school available within the village. There is Two Anganawadi centres in the village but there are no Health facilities within
- All of the people belong to the Mishing community and are of schedule tribe caste. The religion of all the villagers is Hindu.

Learnings:

- ➤ Electricity is available inside the village of the Rigbi JFMC. There are few LPG gas connections in the JFMC. The Household still dependent on forest and use firewood for their cooking purposes. They used to go to the forest for collecting the firewood which is still a concern for the forest department for degradation of the forest.
- The primary health centre along with bank, Bus facility is located in Jonai which is 12 KM away from the JFMC. The villagers have to cover a long distance for their health check-up.
- ➤ There is one community hall available in the JFMC but they use the Anganwadi centre and the LP School where various meetings are held. Major meeting are Gram panchayat meeting, village head meetings, forest department meetings and other political meetings.
- The availability of fodder for domestic animals depends on the resource available in the forest area and the capacity of the household who can rear the livestock. The Village of the JFMC are fully dependent on crop residue, trees fodder, grasses, and green fodder. Field residues are materials left in an agricultural field after the crop has been harvested. These residues include stalks and stubble (stems), leaves, and seed pods.
- There are some grazing field where villagers use for their cattle rearing. These fields are available for a maximum of six months. Seasonal grazing incorporates "grazing animals on a particular area allows the land that is not being grazed to rest and allow for new forage to grow.
- ➤ The villagers of the Rigbi JFMC have to move Jonai, a distance covered with 12 km, for their weekly marketing activity. Domestic materials, utensils, bangles, cloths and stationeries are sold in different stalls.

3.2 Wealth Ranking:

Wealth ranking, or well-being ranking, involves community members identifying and analysing the different wealth groups in a community. It enables evaluators to learn about the socioeconomic stratification of project beneficiaries and local people's definitions and indicators of wealth/well-being.

Wealth ranking was done with the help of the following criteria:

- a) Land holding
- b) Occupation

About 84 per cent people are poor, about 14 per cent are belong to middle class and about 2 per cent are categorised to be rich. Poor people are mainly irregular wage earners, sometimes they lease (adhi lua) others land. They have favourable amount of agricultural land.

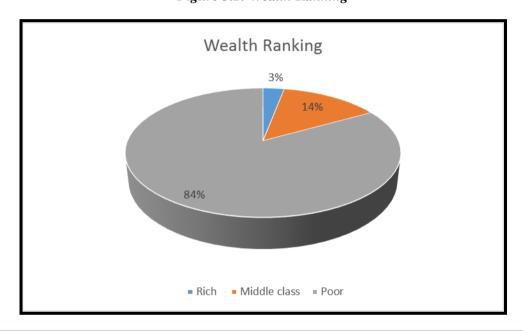


Figure 3.1: Wealth Ranking

3.3 Timeline Review

In order to know the past important cum historical events over time, the team has conducted the timeline analysis. The team members discussed about the local events to the village head, elderly persons and also to some young people to have an idea about how they dealt with those situations and what was the impact of those events on their lives as well as on the development of the village. Our time line illustrates the following events.

	Year	Event	Type
Post-	1968	A Heavy Flood caused a great damage of	Destructive
Independence		Houses, Crops and livestock.	
	1970	There was a celebration of Ali Ai ligang	Festive
		Festival for the first time with its real Ethnic	
		Ritual.	
	1976	Natural River Channel Diversification caused a	Destructive
		great damage in the village.	

Table 3.3: Timeline review

	1985	AGP Govt Built a construction Embankment	Constructive
		on Sile River.	
	1986	A Boy Named Suresh Regon was the first boy	Precognitive
		from the village to get the First Division in	
		HSLC Exam.	
	1992	Suresh Regon was also the first to get job in	Precognitive
		State Bank Of India	
20th Century	2003-04	The JFMC was formed.	Formative

Source:Field Survey

Learning:

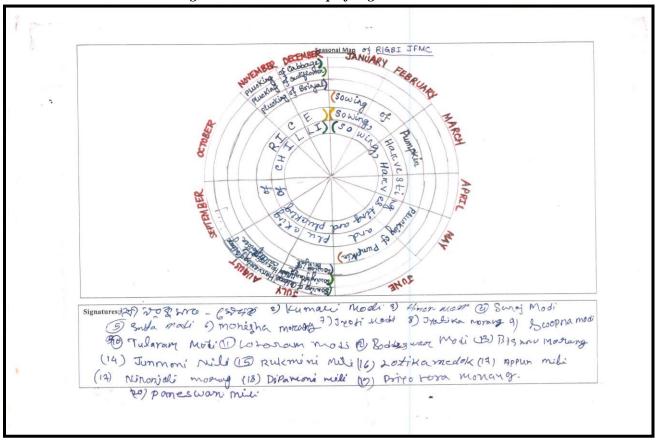
• It has been observed and learnt from our research and information from the village people that there are some kind of destructive and constructive events in the village. In addition to that there are two precognitive and one Formative events which is being learnt during the PRA exercise.

3.4 Seasonal Mapping of livelihood activities:

Seasonal calendars drawn by the local people are very useful means of generating information about seasonal trends within the community and identifying periods of particular stress and vulnerability. Best undertaken in the context of a group discussion (to help verify the information obtained), seasonal calendars are often drawn on the ground with the relative trends depicted using stones or seeds, as in a preference-ranking matrix. In other instances, simple line graphs can be drawn to show seasonal increases or decreases. A whole series of seasonal variables can be included in one calendar to give an overview of the situation throughout the year. These variables can include: rainfall, crop sequences, labour demand, availability of paid employment, out-migration, incidence of human diseases, expenditure levels, and so on. Important periods, such as festivals, can also be shown.

Seasonal mapping mainly covers the seasonal variation of crops. In seasonal mapping, we considered agricultural crops and the timing of three activities viz. showing, cropping and harvesting criteria and collected the details throughout the year. From the seasonal mapping, it has been noticed that the main crops grown in the village are Aijong, Pankaj, Bao rice, Mustard, Betel-nut, Ginger, Potato, Cabbage, Tomato, etc. The FGD conducted revealed that other major livelihood options available in the JFMC are Livestock rearing (Piggery, poultry), weaving, daily wage labourers, masonry, tailoring, carpentry which are not seasonal in nature.

Figure 3.2: Seasonal Map of Rigbi JFMC



Seasonal Map Drawn By the Villagers

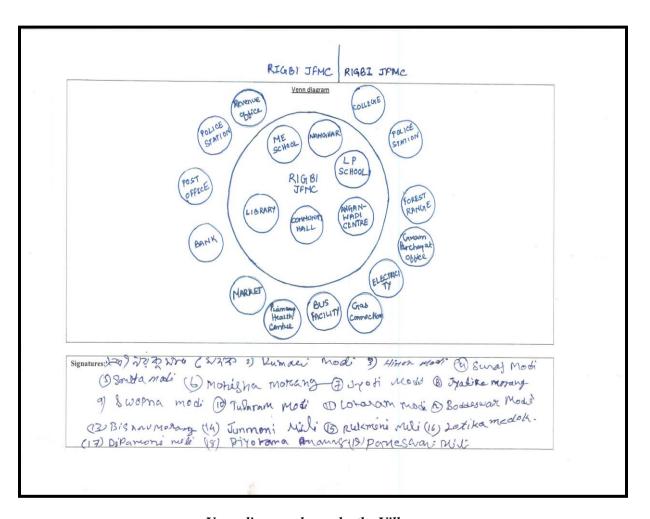
Table 3.4 Seasonal cropping pattern

Categories		Time of A	Activity				
Farming		Sowing	Plucking				
	Cabbage	July	August	Dec-Jan			
<u> </u>	Pumpkin	Jan-March		May-June			
	Cauliflower	July	August	Dec-Jan			
	Brinjal	July	August	Dec-Jan			
	Paddy	Throughout the Year					
	Chilli		Throughout the year	r			
Z	Weaving						
on-	Livestock Rearing						
E a	Daily Wage						
Non-Farming	Earning	Throughout the year					
ing							
	Masonry						
	Tailoring						

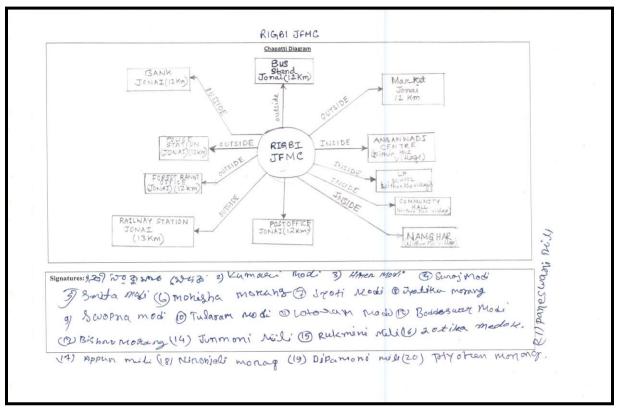
Learnings:

• The villagers are involved in cropping of Paddy which includes Sali, Aijong, Pankaj, Joha, Bora, Bao Dhan, Vegetables (Lemon, Chilli, Cauliflower, Potato, Pumpki n, etc.), Mustard, Fruits like Guava, Mango, Litchi, Papaya, Jackfruit, Sweet potato etc.

3.5 Venn Diagram



Venn diagram drawn by the Villagers



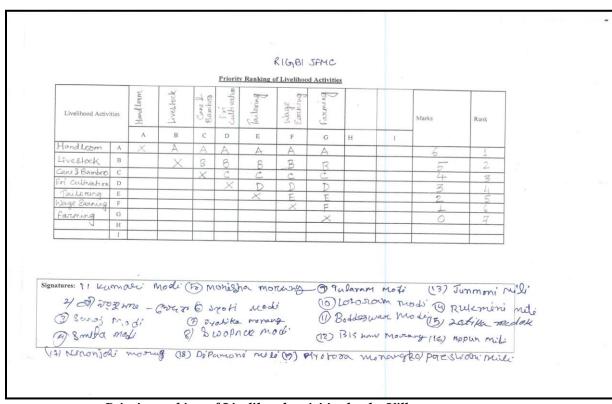
Chapatti Diagram drawn by the villagers

EPA activity:

			D.	iority R	an Island			JF							
			1.	IOTHY K		-	2	- 3	VILV						
Entry Point Activities		60-605	Ditainage System	Ditirking Water	Sanitatia	Hall Hall Mangyahid	Veterrings	Medical Sub-Cank		*:			Marks	Rank	
		A	В	С	D	E	F	G	Н	1	1	К			
Bio-Gas	A	×	Α	Α	A	A	A	A					6	1	
Dreoinage System	В		X	B	13	B	В	B				-	5	2	
Dreinking water	C			X	c	c	C	C					4	3	
Sanitation	D			1	X	D	D	D					3	4	
Community Hall Henovation	E					X	E	E					2	5	
veterinany	F						X	F					2+	6	
Medical Sub centre	G							X					1	7	
	Н														
	1														
	J														
	K														
Signifures: 1) Kumari (a) 200 p + mo (3) Sunaj Mai (5) South a M (6) Appun	nuo Cso di odi	di (4	Most of Sun &	high Hi ika i	a m News Moral	ioren li	ng	_ (C	D B	Tula Loto odda	Tam Das Saai	m m m n n n	10 ds (13)	Janmoni Rukmin Lotika 1	mili i mli medosi

Priority ranking of EPA by the Villagers

Livelihood activity:



Priority ranking of Livelihood activities by the Villagers

DETAILED COST ESTIMATE FOR CONSTRUCTION OF FIXED DOME DEENBANDHU MODEL BIOGAS PLANT UNDER RIGBI J.F.M.C.

Capacity of the Plant ...= 2 cum Retention period = 40 days

(The Estimate has been prepared based on the Norms of National Biogas and Manure Management Programme)

Sl No	Item of Works	Quantity	Rate/unit (Rs)	Amount (Rs)
1	Supply of 1st class Bricks	1000 Nos	9/No	9,000.00
2	Supply of Cement	12 Bags	375/bag	4500.00
3	Supply of Stone Chips	1.20 cum	1700/cum	2040.00
4	Supply of Sand	2.50 cum	1300/cum	3250.00
6	Cost of G.I Pipe (1/2 inch)	20 cm	4.75/cm	95.00
7	Cost of A.C Pipe (130 mm dia)	1.83 m	100/m	183.00
8	Cost of Iron bars (6 mm dia)	7 kg	60/kg	420.00
	Cost of Brass Nipple	1 pc	90/pc	90.00
	Cost of Gate Valve	1 pc	600/pc	600.00
	Cost of Bend Pipe	30 cm	3/ cm	90.00
9	Cost of Paint	1.00 litre	300/litre	300.00
	Cost of Biogas Stove	1 pc	2500/pc	2500.00
10	Engaging of semi-skilled labours for digging of Pit	10 DLs	350/DL	3500.00
11	Engaging Masons for construction works	5 Nos	500/No	2500.00
13	Contingency	L.S		932.00
	ТО	30,000.00		

Cost of construction of one Biogas Plant = Rs.30,000.00 (Rupees Thirty thousand) only

Submitted

Soci J. S. Morang President, Rigbi JFMC

Rigbi JFMC, Jonai

Jonai Forest

Range Forest Officer Jonal Range Jonal

Member Secretary Rigbi JFMC, Jonai

Member Secy Rigbi JFMC Jonai Forest Range

I/C Divisional Forest Officer
Dhemaji Division Dhemaji

COST ESTIMATE OF A TWO TANK VERMICOMPOST UNIT

Tank Size- 2.00m x 1.00m x 0.75m Wall thickness =0.25m

President

Rigbi JFMC

President Rigbi JFMC Jonai Forest Range

SI No	Particulars	Quantity	Rate/unit	Amount in Rs.
1	Bricks	1000 Nos	9.00/no	9000.00
2	Cement	11 Bags	380.00/Bag	3080.00
3	Sand	3 cum	900.00/cum	2700.00
4	Jelly	2 cum	1200.00/cum	2400.00
5	BHuluka Bamboo Posts	6 Nos	120.00/No	720.00
6	Thatch	600 bundles	5.00/bundle	3000.00
7	Cost of Earthworm	L.S		2000.00
8	Labour charges (Carpenter & Mason)	L.S		2000.00
9	Miscellaneous expenditure	L.S		100.00
	Trinscendine dus emperatura.	Rs.25,000.00		

(Rupees twenty five thousand)only

Submitted

Ional Range

Ional

(Agum Ch. Boga) Member Secretary

Rigbi JFMC

Approved

UC Divisional Forest Officer Dhemaji Division Dhemaji

Name of Work :- Repair/Renovation of Rigbi JFMC Community Hall at Jonai, Dist-Dhemaji for the year 2017-2018.

ABSTRACT OF COST

1. Repair/Renovation of Community Hall		Rs. 2,75,448.00
Less 10% Contractor Profit	(-) Total	Rs. 27,544.00 Rs. 2,47,903.00
Add 1% contingency (+)	Total	Rs. 2,479.00 Rs. 2,50,382.00
	Say	Rs. 2,50,000.00

(Rupees Two Lakhs Fifty Thousand) only

Sze J. s. Mosany,

President Rigbi JFMC Jonai Forest Range Sub-Engineer p.W.D.
Building Sub-Division
Dhemaji

Member Secy Rigbi JFMC Jonai Forest Range

Approved

UC Divisional Forest Officer
Dhemaji Division
Dhemaji

Name of Work: Repair/Renovation of Rigbi JFMC Community Hall at Jonai, Dist-Dhemaji for the year 201₹-201&

Item No.1/9.2.1:- Providing undressed wood work in roof truss, rafter, purlin, tie and the like including hoisting and fixing in position with necessary spikes, nails including M.S straps with bolt and nuts etc.complete with kiricide oiling two coats to all timber members and two coats of anticorrosive paint to M.S straps (M.S flats, angle cleats, and bolt and nuts required for flat and angle cleats wherever used shall be measured and paid separately)

(b) With Hollock/ Sundi/ Sam

Rafter =
$$2 \times 7 \times 2.55 \times 0.10 \times 0.08 = 0.2856 \text{ m}^3$$

Purlin = $2 \times 3 \times 19.50 \times 0.08 \times 0.05 = 0.468 \text{ m}^3$
Total = 0.7536 m³

@Rs. 51,443.43/m³

Rs. 38,767.00.

Item No.2/8.1.33:- Providing Pre Painted Galvanized Iron Sheet Roofing
(PPGI) at all levels including fitting and fixing with self
drilling, self tapping screws complete. (Roof trusses, purlins
etc. to be measured and paid separately.)
TATA Blue scope/ Dyna roof / Durakolor /Wonder Roof or
equivalent as directed by the Departement

(b) 0.50 mm thick.

$$= 2 \times 19.50 \times 2.55 = 99.45 \text{ m}^{2}$$

$$= 2 \times 19.50 \times 3.25 = 126.75 \text{ m}^{2}$$

$$= 126.75 \text{ m}^{2}$$

$$= 226.20 \text{ m}^{2}$$

 $@Rs. 802.77/m^2$

Rs. 1,81,586.00

Item No.3/9.1.1:- Providing dressed wood work in post, walls, battens, post plate bressumers etc. including supplying and fixing with spikes, nails, bolt and nuts of 12mm dia(M.S) and required length etc.complete with kiricide oiling two coats to faces in contact with C.C or masonry (M.S flats, angle cleats and bolt and nuts required for flats, angle cleats wherever use shall be measured and paid separately)

(b) With hillock timber.

 $= 2 \times 19.50 \times 0.15 \times 0.08 = 0.468 \text{ m}^2$

@Rs. 56,388.61/m³

Rs. 26,389.00

ri J. S. Morang

President Rigbi JFMC Jonai Forest Range Member Secy Rigbi JFMC Jonai Forest Range

Sub it wise of PWIO.
Buildings benegit

Item No.4/1.4:- Raising low site around the building with approved soil obtained from outside by truck carriage including breaking clods, dressing etc. complete including paying necessary forest royelty, sales tax, land compensation, municipal gate fees, if any monopoly duty etc. (profile measurement to be taken and 12.5% deduction for shrinkage to be made from total quantity) etc. complete as directed and specified.

(i) Other than Ghy. City.

	=	1 x 15.00 x 1	0.20		153.00 m ²
					153.00 m^2
Adge height					$\times 0.45 \text{ m}^2$
1148	- Halledge		Total	=	68.85 m^2

@Rs. 210.20/m² Rs. 14,472.00

Item No.5/5.1.3:- 40 mm thick cement concrete floor consisting of 25 mm under layer of cement concrete in prop. 1:3:6 (1cement : 3 coarse sand : 6 coarse aggregate of 12.5 mm and down) and 15 mm thick wearing layer in cement concrete in prop. 1:1:2 (1cement :1 coarse sand : 2 coarse aggregate of size 10mm down) finished with a floating coat of neat cement finish using cement slurry for bond @ 2.75 kg. per square metre of floor area , wearing layer is to be laid in panels including curing etc. complete as directed.

Ver.	=	1.80 x 19.50	$= 35.10 \text{ m}^2$	
@Rs. 405.53/m ²	2	MC P	T . 1	Rs. 14,234.00
			Total	Rs. 2,75,448.00
Less 10% Contr	actor Profit	(-)		Rs. 27,544.00
			Total	Rs. 2,47,903.00
Contingency 1%	0		(+)	Rs. 2,479.00
Commignity			Total	Rs. 2,50,382.00
			Say	Rs. 2,50,000.00

(Rupees Two Lakhs Fifty Thousand) only

Sre J. s. Horang

Righi JFMC Jonal Forest Range Sub-Signification Sub-Division Dhemail

Member Secy Rigbi JFMC Jonai Forest Range

VC Divisional Forest Officer
Dhemajl Division

Dhemaji

Annexure 4

PHOTOGRAPHS



A Snap During Awareness



A Snap Of PRA Activity



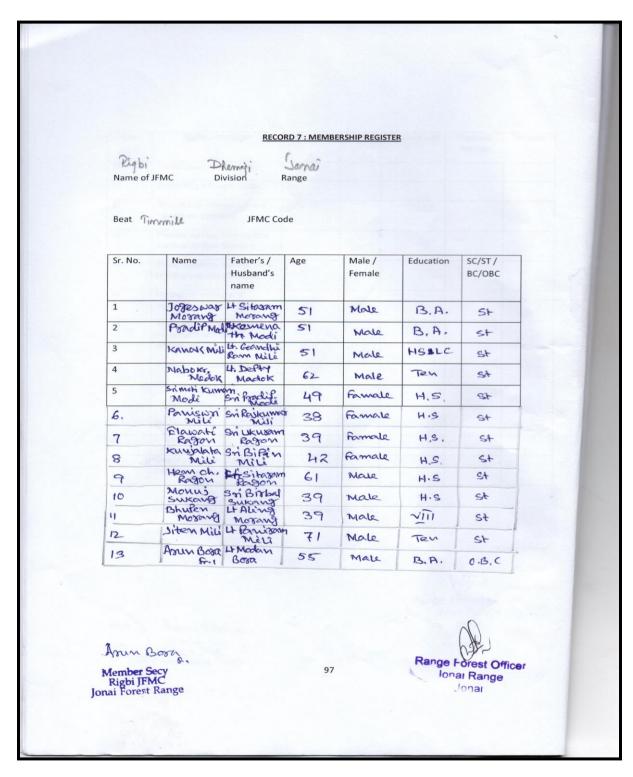
A Snap after PRA ACTIVITY



A Group Photo with the Villagers after completion of PRA exercise

Annexure 5

LIST OF JFMC MEMBERS



Source: Range Office Jonai

Annexure 6 (Record I)

Table 1: Basic data of the village:

Table 1: Basic data of the JFMC

Sl no	Name of the JFMC	Date of establishment	No. of members in executive	Name of the president	Name of the secretary	Money in VDF	Contribution per family /per person	Social fencing used Yes / No	Remarks on special attainment	Grading %of success by RFO
	Rigbi	2003-	11	Jogeswar Moran	Arun Bora	No		Yes		80%

Source: JFMC records

Table 2: Village wise population data:

Table -2: Demographic status of the project villages

Sl. No.	Name of village	Households (No.)		ST		Sex ratio (per 1000 male)	Avg. HH size
110.		(110.)	Total	Male	Female	(per 1000 maie)	SIZC
1	Rigbi	237	1265	729	536	390	5
	Total	237	1265	729	536	390	5

Source: - Field survey report.

Table 3: Village wise farmer category on the basis of land holding:

Table3 Village wise farmer category on the basis of land holding

Sl no	Name of the village	7	nd holding			
		Large farmer >10 ha.	small farmer 2-10 ha.	Marginal farmer (household) <2ha.	Land less (household)	total
1	Rigbi	-	7	210	20	237
	Total	-	7	210	20	237

Table 4: Cattle Population:

Table 4: Cattle Population of the JFMC

Sl	Name of the	village wise no of cattle's or type of animal							
no	village	cows	buffaloes	Poultry	Pig	bulls	Duck	Goats	Total
1	Rigbi	75	200	1310	1010	375	150	350	2470
	Total	75	200	1310	1010	375	150	350	2470

Source: - Field survey report.

Table 5: Village wise Infrastructure:

Table 5 showing village wise infrastructure

	Table 3 snowing village wise infrastructure				
Sl no	Infrastructure	Location	Distance from		
			village		
1	Electricity	Jonai	12km		
	J				
2	Gas connection	Jonai	12km		
3	Transport	Jonai	12km		
4	РНС	Jonai	12km		
5	LP school	Inside	0.5km		
6	ME school	Inside	1km		
7	Post office	Datangua	8 km		
/	Post office	Ratanpur	8 KIII		
8	Bank	Jonai	12 Km		
	Dank	Jonas	12 Km		
9	Anganawadi centre	Inside	0.5Km		
10	Revenue Office	Jonai	12 km		
11	Police station	Jonai	12 km		
12	F OPP (D4)	3 Mile Beat	6 km		
12	Forest Office(Beat)	3 Mile Beat	O KIII		
13	Bus facility	Jonai	12km		
13	Dus facility	Jonai	128111		
14	Railway Station	Murkong Selek	13km		
15	District head quarter	Dhemaji	100 km		
	_	_			

Table 6: Agricultural crops

Table 6 Agriculture Crops

	Rain Fed	Irrigation		
	Name of the crop	Area (in ha.)	Name of the crop	Area (in hac)
Kharif	Sali, Aijong, Pankaj, joha, Bao	155.72	-	-
Rabi	Mustard,Pea,Cabbage,Potato	124.9	-	-
Others	Fruits	19.2	-	-

Source: - Field survey report.

Table 7: Crop production profile of Rigbi JFMC:

Table 7 Crop production profile of Rigbi JFMC

Type of crop	Total Production (approx) in	No of household growing	Average production (quintal/ hac)	Area under crop (hac) approx
	quintals		approx	
Paddy	9480	217	61.16	155.72
Oil seeds	20	25	0.80	9.72
Vegetables	118.50	237	1.029	115.18
Fruit	47.4	237	2.46	19.2

Source: - Field survey report.

Table 8: Fodder Availability (animal)

Table 8 fodder availability of the JFMC

Types	1-3 month	3-6 month	>6 month
Crop residue		✓	
Trees fodder	✓	√	✓
Grasses	✓	√	✓
Green Fodder		✓	✓
Grazing in Forest			√

Table 9: Location of market from the village

Table 9 Location of market from the village

For Purchase	Location	Distance from village if in other village (in km)
Grocery shop	Inside	0 km
Weekly Market	Jonai	12 km
Major Market	Jonai	12 km
Forest Corporation Sale Depot.	-	-
Tendu Patta PHAD	-	-
Fish Market	Jonai	12km
Medicinal Plant collection Centre	-	-
Forest Corporation Medicinal plant Collection Centre	-	-

Source: - Field survey report.

Table 10: Water Resources Facility:

Table 10: showing the water resource facility available in the village

Water source	Number	Availability of water	Uses
Tube well	-	-	-
River	1	Adequate	Drinking, Bathing,
			Irrigation, livestock
			rearing
Ring well	35	Adequate	Drinking, Bathing,
			Irrigation, livestock
			rearing

Source: - Field survey report.

Table 11: Energy consumption:

Table11 showing the Energy Consumption of the JFMC

Type of Fuel	Number of	Number of	Sources (local,	Major/
	household	months	village, forest,	Secondary
	depending	dependent	other sources)	
Fuel wood	237	12	Forest	Major
Kerosene stove	Nil	12	Market	Secondary
Gobar /Bio gas	-	-	-	-
LPG	7	12	Govt.	Secondary

RECORD: II

LIVELIHOOD OPPORTUNITY ANALYSIS

Table 12: Agriculture and Horticulture:

Table 12: showing the agricultural and horticultural status

Constraints	Reason	Opportunities	Programme
Low Production	 Traditional way of cultivation. Only one crop undertaken annually (Paddy) Very negligible use of fertilizers and pesticides, insecticides. Lack of irrigation facilities. Lack of agricultural infrastructure, modern tools and equipment's viz, power tillers, tractors etc. Non usages of high yielding seeds. 	 Application of proper and controlled pesticides and insecticides. Introduction of new and advance technology. Well-structured training programme. The villagers are inherited with the skill of cultivation. But an improvisation of skills is the need of the hour. Usage of high yielding seed programme. 	 Tractor operation training Agro-skill development programme. Training on insecticides, pesticides, hybrid cultivation
Storage and Production	 Lack of common storing place Lack of cold storage facility due to non-availability of electricity 	 Helpful in preserving unsold products for a longer period of time. They can store their product and sell it when there is a higher demand. 	PackagingTransportation and distribution.
Marketing	 Lack of transporting facilities for carrying products Less contact with the direct market; much dependency upon middle man No knowledge on marketing know-how, dependence on traditional system of selling. 	 Smooth transportation facility will help the farmers to carry their products to the nearby markets. Generate highest market price by removing middle men. More knowledge about the current market situation as well as the current value of their products. 	Buyers sellers meet

Table 13: Livestock

Table 13 Livestock

Constraints	Reasons	Opportunities	Programme
Less grazing land	Not Applicable		
Availability of fodder	 Unable to buy fodder from market due to poor financial condition Trees fodder n crop residue are available only for 3-6 months. Green fodder is also not available for the whole year. 	 Higher income from livestock rearing. The villagers can make it as an alternative livelihood opportunity if they have the easy access of livestock fodder. 	
Veterinary care facility	 No veterinary care clinic Lack of knowledge about the proper rearing of live stock 	 Disease control Increases the life span of cattle. It will also help to aware the villagers and will encourage them for livestock rearing. 	
Production of milk	 Less availability of fodder No scientific knowledge on cattle rearing to increase the milk production. 	 Training on the milk production can enhance the skill of milk production. Availability of supplements like cattle "Milk Booster, Milk Plus" etc. can increase the production of milk in the area. 	
Milk market	 Less contact with the direct market for milk Unaware of the market demand of different milk made products. 	A huge milk market is in demand.	

Table 14: NWFP

Table 14 NWFP

Constraints	Reasons	Opportunities	Programme
Less collection	Less availability of NWFP	Availability of fertile fallow land	Plantation of Food plans, Medicinal Plant etc.
Unsustainable extraction	-	Availability of fertile fallow land	-
Low rates	-	-	-
Value addition	 No processing units Non availability of required resources No technical knowhow 		

Table 15: Specialised skill

Table 15: Specialised skills: Weaving

Constraints	Reasons	Opportunities	Programme
Raw material availability	 Ineffective use of the available raw materials No Storage 	Common place for setting a raw material storage	 Setting up a raw material bank Training Programmes on Weaving by using modern methodology
Product quality	 Shortage of High Quality Materials Use of Traditional machineries 	Developing Quality Products for new market exploration.	 Training on Modern Tools and Equipment. Providing modern technology to the villagers
Marketing potential	 No standardised market No pricing policy No linkage with the institutional buyers No Product Diversification or New Product Development. 	Exploring new markets with diversified products	Providing a bulk buy arrangement of the finished product with institutional buyers.
Credit facilities	 No linkage with the banks or post office saving banks. Unaware of the development schemes of banks and government 	 Financial assistance by the Govt. Providing easy access to credit. 	Microfinance, Term Loans, Working Capital Arrangement
Product Diversification	 No Product Diversification or New Product Development. Lack of concept for product diversification. 	Developing Demand Based Products, as per the needs of the modern day market.	Skill Upgradation & Training on New Product Development and Product Diversification

Table 16: Credit facility

Table 16 Credit facility

Constraints	Reason	Opportunities	Programme
Ineptness	-	Setting up modern financial institution in the nearby areas.	
Rate of interest	Higher lending rates charged by the private money lender	Subsidised credit arrangement	
Availability of loan	Fear of risk taking No knowledge of documentation	Start-ups entrepreneurial venture	
Mortgage difficulty	Unavailability of proper documentation of mortgaged property.	Proper awareness about documentation in the area	

ErozoM. s. T is E

President Rigbi JFMC Jonal Fores Range Forest Officer
Jonar Range
Jonar

Member Secy Rigbi JFMC Jonai Forest Range

Approved

I/C Divisional Forest Officer
Dhemajl Division
Dhemajl