

BOGOLI JOINT FOREST MANAGEMENT COMMITTEE (JFMC)

Harmuti Range, Lakhimpur Forest Division

NORTHERN ASSAM CIRCLE

MICRO-PLAN

(2016-17 to 2025-26)

Prepared by Bogoli Joint Forest Management Committee

**assisted by
Assam Forest Department**

**&
COMPELO
(IIE & RGVN)**

June - 2017

Approved
[Signature]
**Divisional Forest Officer
Lakhimpur Division**

List of Acronyms

Acronym	Full Form
AfD	Agence Francaise 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
Ha.	Hectare
IIE	Indian Institute of Entrepreneurship
JFMC	Joint Forest Management Committee
NTFP	Non Timber Forest Produce
OBC	Other Backward Classes
PHC	Primary Health Centre
PMU	Project Monitoring Unit
PRA	Participatory Rural Appraisal
SC	Scheduled Caste
SDG	Sustainable Development Goals
ST	Scheduled Tribes

BOGOLI JOINT FOREST MANAGEMENT COMMITTEE
Harmuti Range, Lakhimpur Forest Division

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

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1. Introduction

<p>About the Project</p>	<p>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’.</p> <p>The above project is being mainly funded by the <i>Agence France de Développement</i> (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.</p>
<p>Micro-Planning & Livelihood Development</p>	<p>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.</p> <p>A consortium comprising of Indian Institute of Entrepreneurship (IIE) Guwahati and <i>Rashtriya Gramin Vikas Nidhi</i> (RGVN) has been formed to implement (<i>inter-alia</i>) 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.</p> <p>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.</p>
<p>Micro-Plan for the Bogoli JFMC</p>	<p>This document gives the Micro-Plan for the Bogoli JFMC, which is located in the Lakhimpur district of Assam. The JFMC falls under the Ranga Reserve Forest of the Northern Assam Forest Circle. The villagers belong to the Assamese Nepali and Sonowal Community. The Ranga Reserve comprised of mostly medium size trees with few large trees. Shrubs, Lianas, Climbers, Orchids and ferns grow Copiously. At the fringe bamboos and canes occupy the space.</p> <p>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.</p>

2. Village Socio-Economic Profile

Location	<p>The Bogoli Joint Forest Management Committee (JFMC) has been formed to cover the existing community dwelling in Bogoli village located on the fringe of the Ranga Reserve Forest, of Harmuti range Sub-Division. The area covered by the above JFMC falls within Karunabari Revenue Circle of Lakhimpur District of Assam.</p> <p>Appendix-1 Gives the Village Map.</p>																				
Key Information	<p>The key information of the JFMC is furnished below.</p> <p>Table-A: Key Information of the JFMC</p> <table border="1" data-bbox="464 613 1396 1137"> <tr> <td>Name of the JFMC</td> <td>Bogoli</td> </tr> <tr> <td>Habitation</td> <td>Bogoli</td> </tr> <tr> <td>Name of the Gram Panchayat / VCDC</td> <td>Uttar Laluk</td> </tr> <tr> <td>Revenue Circle</td> <td>Karunabari</td> </tr> <tr> <td>District</td> <td>Lakhimpur</td> </tr> <tr> <td>Forest Division</td> <td>Lakhimpur</td> </tr> <tr> <td>Forest Range</td> <td>Harmuti</td> </tr> <tr> <td>Forest Beat</td> <td>Bogoli</td> </tr> <tr> <td>Year Formed</td> <td>2014-2015</td> </tr> <tr> <td>Description of Boundary of JFMC</td> <td>As below North: Arunachal Pradesh Forest Area South: Shantipur Village West: Ranga Reserve Forest East: Kachojuli Village</td> </tr> </table> <p>Source: JFMC Records & Discussions during PRA Exercise in March 2017 Additional details are given at Table-1 of Record-I (Given at Annexure)</p>	Name of the JFMC	Bogoli	Habitation	Bogoli	Name of the Gram Panchayat / VCDC	Uttar Laluk	Revenue Circle	Karunabari	District	Lakhimpur	Forest Division	Lakhimpur	Forest Range	Harmuti	Forest Beat	Bogoli	Year Formed	2014-2015	Description of Boundary of JFMC	As below North: Arunachal Pradesh Forest Area South: Shantipur Village West: Ranga Reserve Forest East: Kachojuli Village
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Brief Details of the Executive Committee & General Body	<p>The brief details of Executive Committee & General Body of the JFMC are contained in the table, which is given below.</p> <p>Table-B: Brief Details of Executive Committee & general Body</p> <table border="1" data-bbox="464 1305 1396 1552"> <tr> <td>Name of President</td> <td>Mr. Gobinda Newar</td> </tr> <tr> <td>Name of Secretary</td> <td>Mr. Jugal Sarmah</td> </tr> <tr> <td>Name of Treasurer</td> <td>Mr. Haren Saikia</td> </tr> <tr> <td>No. of Members in Executive Committee</td> <td>Male: 8 Female: 3 Total-11</td> </tr> <tr> <td>No. of Members in the General Body</td> <td>45 (Represented by one adult member of each household)</td> </tr> </table> <p>Source: JFMC Records</p>	Name of President	Mr. Gobinda Newar	Name of Secretary	Mr. Jugal Sarmah	Name of Treasurer	Mr. Haren Saikia	No. of Members in Executive Committee	Male: 8 Female: 3 Total-11	No. of Members in the General Body	45 (Represented by one adult member of each household)										
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Households & Population Structure	<p>The village has 45 households. During the PRA exercise we have not observed any Female Headed Households. The total population is 210, of which 80 are males and 130 are female members and are of Assameses, Sonowal and Nepali Community.</p> <p>Table-2 of Record-I may be referred for further details in the above regard.</p> <p>From this, it is inferred that:</p> <ol style="list-style-type: none"> (1) The average number of persons in a household is 5 (45 HHs). (2) The sex ratio is 1625 females per 1000 males in the village which is 57% of the sex ratio of India. 																				

Education & Skills Development	<p>Over 76% (45 HHs) of the population is reported to be literate. Most of the community members are reported to have received School level education. While the no. of people receiving Graduate level and master Level Education are very Few. Livelihood skills are usually acquired under various settings – formal & informal. A rural livelihood essentially consists of three major components namely; stores and resources, livelihood capabilities and claims and access. India has an Agrarian economy. Agriculture is like the lifeline of the people from the JFMC area. In the JFMC area, informal means for skills development is in the traditional norm. People have skills in the following areas:</p> <p>(a) Tea Wage Earning. (b) Cane & Bamboo. (c) Livestock. (d) Handloom. (e) Tailoring. (f) Farming.</p> <p>Government has been always active in promoting formal skills development programmes in the country as well as in the state. However the village <i>is yet</i> to receive benefits of any such programme.</p>
Soil	<p>The soil type of the project area includes:</p> <ul style="list-style-type: none"> • Alluvial and fertile. <p>This type of soil can support different kind of crops, as the soil is reported to be very fertile for which crops flourish without use of any artificial manure or hard labour.</p>
Water	<p>The area bestowed with a perennial river namely Pilkhane which flows from the adjoining hills of Arunachal Pradesh in the north to the project area before joining the river Pavo to the south.</p>
Climate: Temperature & Rainfall	<p>The maximum temperature during the summer is 40° C. The minimum temperature during the winter is 9°-15° C. The summers here have a good deal of rainfall, while the winters have very little. The annual rainfall is about 3200-3400 mm. About three-fourth of the rainfall usually occurs during the rainy season (June-September). The village has a high level of humidity (over 92%) during the summer season and low levels in the winter (Below 20%).</p>
Forest & Bio-diversity	<p>The local forests have been broadly classified as a rain forest and densely vegetated. The main tree species are Ajar, Gomari, Jutuli Dhuna and Hilikha. Some other associate species are like Jalphi, Kadam, Bon bogori, Khokhan etc. followed by some other medicinal plants Hilikha, Bhumura Nefafo etc. These type of forest have luxuriant growth of epiphytes and trees with fissured bark support magnificent Additional details in this regard are given at the 'Forest Development Plan'.</p>
Land Use Pattern	<p>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:</p> <p>Paddy Field -24.37% Forest Degraded-8.62% Plantation Area (Individual)-1.95% Road-1.73% River-3.84% Settlement Area-19.44% Seasonal Stream-0.66% Reserved Forest-39.38%</p>

Land Holdings	<p>The type of households as per land-holding is given at Table-3 of Record-I. From the same, it is seen that:</p> <ul style="list-style-type: none"> • 11.11% of the households are landless (5 HH) • 66.66% of the households are marginal farmers (30 HH) • 22.22% of the households belong to small Farmer (10 HH) 															
Livestock	<p>The total number of livestock in the village is 2470. The main types of livestock possessed by the households include:</p> <p>Cows: 325 Goats: 410 Hens: 500 Duck: 220</p> <p>Table-4 of Record-I may be referred to for the details in the above connection.</p>															
Village Infrastructure & Communication Facilities	<p>In any community; the availability of basic infrastructure enables the development of sustainable livelihood options. The present condition of infrastructure in the village is not satisfactory. This is borne out by Table-5 of 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:</p> <p>Physical Infrastructure: The habitation is Consist of basic physical infrastructure like Naamghar, Rangamancha etc. Most of the Roads are Kuccha.</p> <p>Education & Health Facilities: The JFMC area does not have proper Educational as well as Health facilities. The same are located at a distance of 1.5 Km. Public transport is not available, and the community members have to use bicycles and motor cycles to move around.</p> <p>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 5-10 km. Lack of public transport system making the situation more deplorable.</p> <p>Financial Inclusion: Facilities for providing financial services, the banks and post office are located in Harmuti at a considerable distance of 5 km from the habitation. The community members have accounts in faraway places.</p>															
Agricultural Crops	<p>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.</p> <p>Kharif Crops: Paddy Rabi Crops: Sugarcane, potato, Sweet Potato etc. All the crops are rain fed.</p>															
Crop Production Profile	<p>Table-7 of Record-I may be referred to for the production and yield details of 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:</p> <table style="margin-left: 40px;"> <tr> <td>(a) Paddy :</td> <td>Production</td> <td>700 Quintals</td> <td>Yield</td> <td>22 q /ha</td> </tr> <tr> <td>(b) Vegetable:</td> <td>Production</td> <td>100 Quintals</td> <td>Yield</td> <td>3.13 q/ha</td> </tr> <tr> <td>(c) Fruit Orchard:</td> <td>Production</td> <td>50 Quintals</td> <td>Yield</td> <td>1.56 q/ha</td> </tr> </table>	(a) Paddy :	Production	700 Quintals	Yield	22 q /ha	(b) Vegetable:	Production	100 Quintals	Yield	3.13 q/ha	(c) Fruit Orchard:	Production	50 Quintals	Yield	1.56 q/ha
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Fodder Availability	<p>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 as follows:</p> <ul style="list-style-type: none"> (a) Crop residue (b) Grazing in forest (c) Trees fodder (d) Green fodder (e) Grasses 															

Markets	<p>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:</p> <p>(a) Grocery / PDS: Outside at 200 mtr.. (b) Weekly / Bi-weekly Market: Outside (Kachajuli) 2 Km away. (c) Major Market: Harmuti at 5 km away. (d) Fish Market: Harmuti at 5 km away.</p>
Water Resources	<p>The water resources are tabulated at Table-10 of Record-I. The main water resources with the water availability is as follows:</p> <p>(a) Ringwell (Water Availability: Perennial/ Seasonal) (b) Nala/Stream (Water Availability: Perennial/ Seasonal)</p>
Energy Consumption	<p>Table-11 of Record-I shows the major sources of energy in the village. The same have been listed below.</p> <p>(a) Fuel wood - Households Depending 45 Nos. Source: Forest (b) Kerosene - Households Depending: 9 Nos. Source: Open Market and PDS (c) LPG- Households Depending 3 Nos. Source: Govt</p>
Socio-economic status	<p>Social set-up: The village is inhabited by Assamese community and the inhabitants are classified as Schedule Caste, Schedule Tribe, OBC and General Category. The society is not marked by deep social divisions. The observed position of women is Comparatively less.</p> <p>Economic Condition: The economic position is not satisfactory. The people from this JFMC mostly engaged themselves in traditional way of livelihoods activities e.g. Farming, cane bamboo, Handloom, Daily wages etc.</p>
Maps	<p>Appendix-1 gives the following maps, based on PRA exercise:</p> <ul style="list-style-type: none"> • 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 Bogoli 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 Bogoli JFMC under Harmuti Range , Ranga Reserve Forest, major natural capital are Ajar, Gomari, Jutuli Dhuna and Hilikha and many other medicinal plants like Hilikha, Bhumura Nefafu etc. There are about 8 ringwell and six nos. of seasonal stream or nala present in the particular vicinity.

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 stream water.

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

5. Physical Capital

About 66% households with farming land of less than 2 ha belongs to this JFMC are dependent on farming activities and are categorised as marginal farmers. Detailed land holding pattern is described in the table 3/annexure 6.

The village has 28 numbers of semi-pucca houses, 7 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. Some of the households have LPG connection, but supply of the same is not reliable. (Refer to table 10, 11)

There is no any Educational institution inside the JFMC area and the villagers have to make a way of about 1.5 km. to reach the nearby L.P. School at Kachajuli Gaon.

(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 functioning due to lack of awareness on their roles, functions, and specific benefits they are going to receive.

The women folk of the JFMC area formed SHGs. The village has one Community Namghar, One Anganwadi Centres and one Rangamancha where social meetings of the villages are held.

7. Human Capital

40 per cent of total population of the JFMC are educated and 60 per cent are illiterate. (Refer to table 3.3)

8. Financial Capital

There is not any commercial or Regional Rural banks or lending institution available inside the JFMC area .However, villagers avail credit from informal lending groups, relatives etc.723 numbers of people have bank account in commercial banks, which are situated at a considerable distance from the habitation. Due to their poor economic position they face problems in maintaining their accounts on a regular basis and also are not aware of the benefits of financial inclusion.

Livelihood activities of the Bogoli 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

9. Priority Ranking Through PRA Exercise

PRA Exercise	Team from IIE Guwahati carried out PRA exercise in Bogoli village as follows: Date: 15 th March, 2017 Location: Open Field, Bogoli Numbers Present: 32 In Presence of: JFMC office bearers, Village Headman, community members, Forest Department personnel, etc.		
Objective of PRA	The objective was to study the existing household conditions and obtain other primary data about the community for developing the livelihood options and the forest development plan.		
Tools Used & Outcomes of the PRA	Different tools were used and outcomes obtained. These include: Social Mapping Wealth Ranking Time Line review Seasonality of Livelihoods Venn Diagram Chapatti Diagram Appendix-3 furnishes detailed information of the above.		
Ranking	Ranking exercise has been done for the following: ❖ Entry Point Activities (EPA) ❖ Livelihoods & Skills Development Appendix-3 elaborates the above. From the same, it is stated that: Ranking of EPA (Refer page no. 37)		
	Rank	Village EPA as ranked	Probable source of funding/dept.
	1.	Community Hall	APFBC
	2.	Drinking water supply	APFBC/NRDWP
	3.	Solar Fencing	APFBC
	4.	Electricity	APFBC
	5.	Village Road	PMGSY/PWD/APFBC
	6.	Tent House	APFBC
	7.	Bio-Gas Plant	APFBC
	<ul style="list-style-type: none"> ❖ An arrangement of working capital worth Rs.2 Lakh should be arranged from the EPA fund for promoting livelihood activities. ❖ A low cost Community work shed cum JFMC office to be setup within the JFMC boundaries for setting up and commissioning of Tool kits/Equipment/Machineries. 		

	<p>Ranking of Livelihoods & Skills Development</p> <ol style="list-style-type: none"> 1. Tea Wage earning. 2. Cane & Bamboo. 3. Livestock 4. Handloom. 5. Tailoring.
Livelihood opportunities	<p>Livelihood Opportunities were identified as follows:</p> <p>Agriculture.</p> <ol style="list-style-type: none"> 1. Tea Wage earning. 2. Cane & Bamboo. 3. Livestock 4. Handloom. 5. Tailoring. <p>Additional discussion about the above has been given below.</p>
Agriculture & Horticulture	<p>Table-12 under Record-2 may be seen in this connection for opportunities in the areas of agriculture and horticulture.</p> <p>The main constraints are:</p> <ol style="list-style-type: none"> (a) Very negligible use of fertilizers and pesticides, insecticides. (b) Lack of irrigation facilities (c) Lack of agricultural infrastructure, modern tools and equipment's viz, power tillers, tractors etc. (d) Non usages of high yielding seeds etc. <p>The opportunities are:</p> <ol style="list-style-type: none"> (a) Application of proper and controlled pesticides and insecticides. (b) Introduction of new and advance technology (c) Well-structured training programme. <p>The villagers are inherited with the skill of cultivation. All they need is improvisation of their skill level.</p> <p>The suggested programmes are:</p> <ul style="list-style-type: none"> • Tractor operation training • Agri.-skill development programme. • Training on insecticides, pesticides, hybrid cultivation etc.
Livestock	<p>Table-13 Furnishes additional information about opportunities for livestock rearing.</p> <p>The main constraints are:</p> <ol style="list-style-type: none"> (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 <p>The opportunities are:</p> <ol style="list-style-type: none"> (a) Higher income from livestock rearing. (b) Majority of the workforce is engaged in this activity. <p>The suggested Skill Development Programme is:</p> <ol style="list-style-type: none"> (a) Agarbatti (b) Tailoring (c) Weaving

NTFP	<p>The opportunities for NTFP are tabulated at Table-14 under Record-2</p> <p>The main constraints are:</p> <ul style="list-style-type: none"> (a) Lack of proper utilisation of NTFP due to inadequate knowledge. (b) Lack of research on development of high yielding varieties, domestication etc. (c) No technical know-how (d) No processing units (e) Lack of trained personnel and equipment (f) Lack of facilities to fabricate equipment locally <p>The opportunities is:</p> <ul style="list-style-type: none"> (a) Availability of fertile fallow land (b) A ready market for the finished products. <p>The suggested programme are:</p> <ul style="list-style-type: none"> (a) Plantation of Food plants. (b) Medicinal Plant etc.
Specialized Skills	<p>For skills development, the opportunities are tabulated at Table-15 under Record2</p> <p>The main constraints are:</p> <ul style="list-style-type: none"> (a) Lack of product diversification (b) Lack of research on product quality (c) Lack of TQM techniques. <p>The opportunities are:</p> <ul style="list-style-type: none"> (a) Providing good communication facility (b) Training of the skill holder (c) Financial assistance from govt. <p>The suggested programme are:</p> <ul style="list-style-type: none"> • 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	<p>Table-16 under Record-2 discusses this aspect.</p> <p>The main constraints with the reasons are:</p> <ul style="list-style-type: none"> (a) Financial exclusion (b) Higher rate charged by the private money lender. <p>The opportunities are:</p> <ul style="list-style-type: none"> (a) <u>Setting up modern financial institution</u> (Forming SHG/JLG and linking them with Banks for financial services) (b) <u>Adequate awareness.</u> (c) To provide credit facilities for modern equipment (tractors etc.) <p>The suggested programme is:</p> <ul style="list-style-type: none"> (a) <u>Setting up modern financial institution in the nearby areas (Repeat).</u>
Strategic Interventions	<p>Summarizing the suggested programmes at above as strategic interventions for the Livelihood Development Plan:</p> <ol style="list-style-type: none"> 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
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10. Livelihood Development Plan

Income Generating Activities	The main income generating activities as planned at the village are: Farm Sector : 1. Tea wage Earning. 2.Farming 3.Horticulture Non-Farm sector: 1. Electrician 2. Carpentry 3. 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	Two Exposure tips to Successful JFMC, within Assam and other States. Source: Table-34 of Record-4
Summary of Action Plan	As attached in next page.
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 (RKSJ) - 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.

11. Forest Development Plan of Bogoli 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 Bogoli 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 Bogoli 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 Bogoli JFMC have been summarized below.

Table-1: Conditions of the Forests of Bogoli JFMC

Identification	Area of JFMC Forest (Ha)	Distance from Village (Km)	Condition of Forest [Good - Forest with crown density of 40% of more Else 'Degraded']	Frequency of Use by Community [2-3 m / 3-6 m / 6-9 m / Over 9 m]
(A) Assigned Forest				
RF / PF Name: Ranga RF Beat: Bogoli	105Ha	200 mtrs.	Good Area: - 40Ha Degraded Area: 65Ha	3-6 m
(B) Other Planted Area				
Location: Type of Forest: Rain Forest VF / Other _____				

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

It is seen that the Bogoli JFMC has 105 Ha under its forests, of which 40 Ha is '**Good**' and have 65 '**Degraded**' area.

1.2. Forest Soil Type

The forests of Bogoli 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 JFMC

Parameter	Status in Assigned Forests	Status in Other Planted Areas
Fertility Level	4.3 to 6.94% organic. The available N, P205 and K20 content of the Soil is comparatively more.	-
Soil Erosion Status	High	-
Presence of:		
(a) Silt	3%	-
(b) Mud-flat	37%	-
(c) Newly accreted land	Low	-
(d) Sand dune	60%	-

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

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

1. Entisol (32.3%)
2. Inceptisol (49.3%)
3. Alfisols (12.3%)
4. Ultisols (6.1%)

1.3. Existing Composition of Flora

In the forests of the Bogoli 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 Bogoli JFMC

Parameter	Local Name(s)	Biological Name(s)
Associates	Kadam	<i>Neolamarckia cadamba</i>
	Garjan	<i>Dipterocarpus terbinatus</i>
Shrubs	Dhekia	<i>Diplazium esculentum</i>
	Jam Lakhuti	<i>Costus speciosus</i>
Medicinal Plants	Bhumura,	<i>Terminalia belerica</i>
	Hilikha	<i>Terminalia Chebula</i>
	Neem	<i>Azadirachta indica</i>
	Amlakhi	<i>Phyllanthus emblica</i>
Produces	Jori bet	<i>Calamus erectus</i>
	Jati bet	<i>Calamus tenuis</i>
	Raidang bet	<i>Calamus rotang</i>

	Chuli bet	<i>Calamus Flagellum</i>
	Lejai bet	<i>Calamus floribundus</i>
	Kako Bah	<i>D. hamiltonii</i>
	Pahari Jati Bah	<i>Oxytenthera parvifolia</i>
	Dulu Bah	<i>Schizostachyum dulloa</i>
	Amlakhi	<i>Emblica officinalis</i>
	Halakh	<i>Terminalia myriocarpa</i>
	Hollong	<i>Dipterocarpus macrocarpus</i>
	Arjun	<i>Terminalia arjuna</i>
	Agar	<i>Aquillaria agallocha</i>

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 Bogoli JFMC.

2.1. Past Protection Measures of the JFMC

The measures taken by the Bogoli 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 Bogoli JFMC

Name of Forest Produce	Average Household Requirement		How met at Present	Source
	Frequency of Requirement	Approx. Qty(per Year)		
Firewood	90%	30-40 kg/yr	-	Forest
Timber for House	50%	5-7 nos/yr	-	Forest
Small timber for Implements	80%	0.025m ³	-	-
Pole / Bamboo	Nil	-	-	-
Fodder from Forest	Frequent	20-40/yr	-	Forest
NTFP	-	-	-	-

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

There are 45 households in the Bogoli JFMC. From the above table and this number of households, it is inferred that the total annual requirements of the Bogoli village for forest products for own use is as follows:

Table-4 (B): Total Domestic Requirement of Forest Produce - All Households of the Bogoli JFMC

Name of Forest Produce	Community Requirement (Kg per annum) (*)	Remarks
Firewood	1350-1800 kg	Throughout the year
Timber for House	225-315 nos.	Throughout the year
Small Timber for Implements	-	-
Pole / Bamboo	-	-
Fodder from Forest	900-1800 kg	Throughout the year
NTFP	-	-

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

(*) = Approx. Qty. of Average Household Requirement (from Table-4 (A) x 45 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 Bogoli JFMC is given in the following table.

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

Name of Forest Produce	Collection for Marketing			Location of Collection
	Season / Months	No of Households Collecting	Average Qty. Collected (Kg)	
Firewood	-	-	-	-
Timber for House	-	-	-	-

Small timber for Implements	-	-	-	-
Bamboo	-	-	-	-
Pole	-	-	-	-
Fodder from Forest	-	-	-	-
NTFP	-	-	-	-
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 [Bogoli JFMC]

Name of Forest Produce	Surplus Marketed (Kg)	How marketed	Average Income per HH from sale of Forest Produce
Firewood	-	-	-
Timber for House	-	-	-
Small timber for Implements	-	-	-
Bamboo	-	-	-
Pole	-	-	-
Fodder from Forest	-	-	-
NTFP	-	-	-
Other	-	-	-

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 Bogoli 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 Bogoli JFMC

Name of Forest Produce	Community Requirement (Kg per annum) (*)	Remarks
Firewood	1350-1800 kg	Throughout the year
Timber for House	225-315 nos.	Throughout the year
Small Timber for Implements	-	-
Pole / Bamboo	-	-
Fodder from Forest	900-1800 kg	Throughout the year

NTFP	-	-
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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 Bogoli JFMC have been summarized below.

- **Table-7: Protection Problems of the Bogoli 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	Yes	Yes
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	Yes	Yes

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:

- Grazing - Local Animals
- Grazing - Animals from Other Area

3.2. Reasons for Degradation of the Forest

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

- Due to constant use of fuel wood & NTFP
- Low protection problem
- Encroachment of forest.

[**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 Bogoli 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 Bogoli JFMC from the issues discussed earlier at Sub-section 3.1

Table-8: Protection Plan of the Bogoli JFMC

Protection Work [to be filled from Table 3.7 of Proforma-3 as applicable]	Location in Forest Area	Quantification of the Measures [Length, Area, Size etc.]	Timing	Priority [High / Medium / Low]
1. Engagement of Watcher	Yes	50Ha	7am-5pm	Medium
2. Fire Protection	Within the Forest	50Ha	Autumn-Winter	High
3. Social Fencing	Boundary	Along the Demarcation of Plantation Area	Grazing Seasons	High

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

4.2. Forest Improvement – Action Plan

Action Plan for Block Plantation of Non Saal Mixed with Associates

Name of Plantation	: Block Plantation
Plantation Period	: 2016-17 to 2025-26 (10 Years)
Plantation Area	: 20 Ha
Spacing	: 3 x 3 m-1100plants per ha
No. of Plants to be Raised	: 22,000(5500 approx.annually)
Number Blocks	: 4Numbers(5ha each)
Species	: Non Saal; Associates Arjun, Seleng,Poma, Borpat,Udal,Hollock, Khokon, Jutuli, Amari, Bola etc.
Rates	: As Approved by APFBCS (to be increased by 20% every two years)

Action Plan for Creation of Plantation		
Financial Year	Activities	Amount (Rs.)
2016-17	A. Advance Works:	
	1. Site clearance including survey (GPS) of 1st plot of 5Ha @ 15 DLs/Ha @Rs.280/DL	21,000/-
	2. Raising of Site Nursery, 9 Dls/Ha @ Rs.280/Ha	12,600/-
	3. Providing fencing in vulnerable point @ Rs. 2000/ha	40,000/-
	B. Creation & Maintenance :	

2017-18*	Creation of 5Ha 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 5 Ha area for next year creation, 420 DLs @Rs.280/DL	1,17,600/-
2018-19*	Creation of 5 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 5 ha area for next year creation, 420 DLs @Rs.280/DL	1,17,600/-
	2 nd year maintenance of 1 st plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the previous year, (2017-18)	42,000/-
2019-20*	Creation of 5 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 5 Ha area for next year creation, 420 DLs @Rs.280/DL	1,17,600/-
	3 rd year maintenance of 1 st plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2017-18 & fire watching	42,000/-
	2 nd year maintenance of 2 nd plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2018-19	42,000/-
2020-21*	Creation of 5 Ha Plantation (4 th Plot) during the period of April-June followed by 1st year maintenance viz 4 weedings, 300 DLs @Rs.280/DL	84,000/-
	4 th year maintenance of 1 st plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2017-18 & fire watching	42,000/-
	3 rd year maintenance of 2 nd plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2018-19 & fire watching	42,000/-
	2 nd year maintenance of 3 rd plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2019-20	42,000/-
2021-22*	4 th year maintenance of 2 nd plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2018-19 & fire watching	42,000/-
	3 rd year maintenance of 3 rd plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2019-20 & fire watching	42,000/-
	2 nd year maintenance of 4 th plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2020-21	42,000/-
	4 th year maintenance of 3 rd plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2019-20 & fire watching	42,000/-
2022-23*	3 rd year maintenance of 4 th plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2020-21 & fire watching	42,000/-
	Silvicultural thinning of 5 ha.(1 st plot) plantation created in 2017-18, 10 Dls./ ha.@Rs.280/ DL.	14,000/-
2023-24*	4 th year maintenance of 4 th plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2019-20 & fire watching	42,000/-
	Silvicultural thinning of 5 ha.(2 nd plot) plantation created in 2018-19, 10 Dls./ ha.@Rs.280/ DL.	14,000/-
2024-5*	Silvicultural thinning of 5 ha.(3 rd plot) plantation created in 2019-20, 10 Dls./ ha.@Rs.280/- per DL.	14,000/-
205-26*	Silvicultural thinning of 5 ha.(4 th plot) plantation created in 2020-21, 10 Dls./ ha.@Rs.280/ DL.	14,000/-
Total Budgetray Requirement		10,70,400/-

* Silvicultural thinning to be undertaken on intervals of five years post plantation

Action Plan for Block Plantation of Mixed Harwood Plantation - Associates, Firewood

Name of Plantation	: Block Plantation of Non Saal Mixed with Associates, Firewood and Bamboo
Plantation Period	: 2016-17 to 205-26 (10 Years)
Plantation Area	: 20 ha
Spacing	: 2m X 2 m-500 plants per ha
No. of Plants to be Raised	: 50,000 (12,500 approx. annually)
Number Blocks	: 4Numbers(5 ha each)
Species	: Non Saal; Associates- Cham, Gomari, Titasopa, Poma, Hollock, etc.Fuel wood – Ghora neem, Moj, Dhuna, Siris, Bola etc.

Action Plan for Creation of Plantation		
Financial Year	Activities	Amount (Rs.)
2016-17	A. Advance Works:	
	1.Site clearance including survey (GPS) of 1st plot of 5Ha @15 DLs/Ha @Rs.280/DL	21,000/-
	2.Raising of Site Nursery, 9 Dls/Ha @ Rs.280/Ha	12,600/-
	3.Providing fencing in vulnerable point @ Rs. 2000/ha	40,000/-
	B. Creation & Maintenance :	
2017-18*	Creation of 5Ha 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 5 Ha area for next year creation, 420 DLs @Rs.280/DL	1,17,600/-
2018-19*	Creation of 5 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 5 ha area for next year creation, 420 DLs @Rs.280/DL	1,17,600/-
	2 nd year maintenance of 1 st plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the previous year, (2017-18)	42,000/-
2019-20*	Creation of 5 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 5 Ha area for next year creation, 420 DLs @Rs.280/DL	1,17,600/-
	3 rd year maintenance of 1 st plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2017-18 & fire watching	42,000/-
	2 nd year maintenance of 2 nd plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2018-19	42,000/-
2020-21*	Creation of 5 Ha Plantation (4 th Plot) during the period of April-June followed by 1st year maintenance viz 4 weedings, 300 DLs @Rs.280/DL	84,000/-
	4 th year maintenance of 1 st plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2017-18 & fire watching	42,000/-
	3 rd year maintenance of 2 nd plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2018-19 & fire watching	42,000/-
	2 nd year maintenance of 3 rd plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2019-20	42,000/-
2021-22*	4 th year maintenance of 2 nd plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2018-19 & fire	42,000/-

	watching	
	3rd year maintenance of 3 rd plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2019-20 & fire watching	42,000/-
	2 nd year maintenance of 4 th plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2020-21	42,000/-
	4 th year maintenance of 3 rd plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2019-20 & fire watching	42,000/-
2022-23*	3rd year maintenance of 4 th plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2020-21 & fire watching	42,000/-
	Silvicultural thinning of 5 ha.(1 st plot) plantation created in 2017-18, 10 Dls./ ha.@Rs.280/ DL.	14,000/-
2023-24*	4 th year maintenance of 4 th plot of 5 ha viz 4 Weedings including replacement of dead/struggling saplings raised in the year, 2019-20 & fire watching	42,000/-
	Silvicultural thinning of 5 ha.(2 nd plot) plantation created in 2018-19, 10 Dls./ ha.@Rs.280/ DL.	14,000/-
2024-5*	Silvicultural thinning of 5 ha.(3rd plot) plantation created in 2019-20, 10 Dls./ ha.@Rs.280/- per DL.	14,000/-
205-26*	Silvicultural thinning of 5 ha.(4 th plot) plantation created in 2020-21, 10 Dls./ ha.@Rs.280/ DL.	14,000/-
Total Budgetray Requirement		10,70,400/-

* Silvicultural 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 Block Plantation of Non Timber Forest Produce

Name of Plantation : NTFP PLANTATION
Plantation Period : 2016-17 to 205-26 (5Years)
Plantation Area : 10ha
Spacing : 2m X 2 m-500 plants per ha
No. of Plants to be Raised : 25,000
Number Blocks : 1 Number(10 ha)
Species : Amlokhi, Hilikha, Bhomora, Bohera, Mango, Guava, Neem, Arjun, Ashok, Nara singha, Bhatghila, Jolphai etc.

Wage Rate- Rs.280/DL

Action Plan for Creation of Plantation		
Financial Year	Activities	Amount (Rs.)
2016-17	A. Advance Works:	
	1.Site clearance including survey (GPS) of 1st plot of 5Ha @15 DLs/Ha @Rs.280/DL	28,000/-
	2.Raising of Site Nursery, 9 Dls/Ha @ Rs.280/Ha	25,200/-

	3.Providing fencing in vulnerable point @ Rs.2000/Ha	20,000/-
	B. Creation & Maintenance :	
2017-18*	Creation of 10Ha Plantation during the period of April-June;followed by 1 st year maintenance viz 4 weedings 60Dls/ha.@ Rs.280/DL.	1,68,000/-
2018-19*	2 nd year maintenance viz 4 weedings, replacement of dead/struggling saplings 30Dls/ha.@Rs.280/DL.	84,000/-
	3 rd Year maintenance viz 4 weedings , replacement of dead /struggling saplings-20Dls/ha.@Rs.280/DL	56,000/-
2020-21*	4 th year maintenance viz 2 Weedings including replacement of dead/struggling saplings pruning etc. -15 Dls /ha. @ Rs.280/Dl	42,000/-
Total Budgetray Requirement		4,23,200-

4.3. Nursery Development Plan

The Nursery Development Plan for the Bogoli 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 Bogoli JFMC. This includes the Departmental Nursery involved in JFMC works.

Table-11 (A): JFMC Nurseries of the Bogoli JFMC

Location of Nursery	Species	Year of Development	Number of Seedlings	Remarks
RF	Non Saal; Arjun, Seleng,Poma, Borpat,Udal,Hollock, Khokon, Jutuli, Amari, Bola etc	2016-17	5500	Provide sapling for plantation to be under taken in the 2016-17
	Mixed Hardwood :Cham, Gomari, Bola,Dhuna, Titasopa, Poma, Hollock, etc.Fuel wood – Kadam Ghora neem, Moj, Siris, etc.		12,500	
	NTFP: Amlokhi, Hilikha, Bhomora, Bohera, Mango, Guava, Neem, Arjun, Ashok, Nara singha, Bhatghila, Jolphai etc.		25,000	
	Non Saal; Arjun, Seleng,Poma, Borpat,Udal,Hollock, Khokon, Jutuli, Amari,	2017-18	5500	Provide sapling for plantation to be under taken in the 2017-18

Location of Nursery	Species	Year of Development	Number of Seedlings	Remarks
	Bola etc			
	Mixed Hardwood :Cham, Gomari, Bola,Dhuna, Titasopa, Poma, Hollock, etc.Fuel wood – Kadam Ghora neem, Moj, Siris, etc.		12,500	
	NTFP: Amlokhi, Hilikha, Bhomora, Bohera, Mango, Guava, Neem, Arjun, Ashok, Nara singha, Bhatghila, Jolphai etc.		25,000	
	Non Saal; Arjun, Seleng,Poma, Borpat,Udal,Hollock, Khokon, Jutuli, Amari, Bola etc		5500	
	Mixed Hardwood :Cham, Gomari, Bola,Dhuna, Titasopa, Poma, Hollock, etc.Fuel wood – Kadam Ghora neem, Moj, Siris, etc.	2018-19	12,500	Provide sapling for plantation to be under taken in the 2018-19
	NTFP: Amlokhi, Hilikha, Bhomora, Bohera, Mango, Guava, Neem, Arjun, Ashok, Nara singha, Bhatghila, Jolphai etc.		25,000	

N.B. 35% extra will be raised each year in each category for vacancy fill up.

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

4.4. Maintenance Plan - 10 Years

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

(A) Timber Species - Non Saal, Associates

Table-12 (A): Maintenance Plan of Plantation in the Bogoli JFMC

Year(s)	Treatment
2016-17 to 205-26	As provided in Action Plan for Block Plantation of Timber, Non Saal

Year(s)	Treatment
	Mixed with Associates
2016-17 to 205-26	As provided in Action Plan for Block Mixed Harwood Plantation - Firewood

Source: Discussions with Forest Department personnel & Community members.

(B) Fuel wood Plantation

Table-12 (C): Maintenance Plan of Fuel Wood Plantation in the Bogoli JFMC

Year(s)	Treatment
2016-17 to 205-26	As provided in Action Plan for Block Mixed Harwood Plantation – Firewood

Source: Discussions with Forest Department personnel & Community members

(C) NTFP / Medicinal Plantation

Table-12 (D): Maintenance Plan of NTFP / Medicinal Plantation in the Bogoli JFMC

Year(s)	Treatment
2016-17 to 205-26	Action Plan for Block Plantation of Non Timber Forest Produce

Source: Discussions with Forest Department personnel & Community members

4.5. Miscellaneous Operations Plan

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

Table-13): Miscellaneous Operations in the Bogoli 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 Bogoli 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 Bogoli 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 Bogoli JFMC

Item	Month	Year (Indicative)	Quantity
Firewood	Throughout the year	2026-27 onwards	8000 Kg. (Approx)
Timber for House	Throughout the year	2040 Onwards	2000 Kg. (Approx)

Small timber for Implements	-	-	-
Pole	-	-	-
Fodder from Forest Trees & Grass	Throughout the year	2026-27 onwards	40000 Kg. (Approx)
NTFP	Throughout the year	2035 onwards	1000 Kg. (Approx)
Wages	Throughout the year	2016-17 onwards	5000 DLs (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 Bogoli JFMC.

Table-15: Sharing Mechanism for Bogoli JFMC

Method	Items
To be shared equally	NTFP, Firewood (as revenue sharing)
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

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HOW TO REACH:

Guwahati to Harmuti distance, location, road map and direction

Guwahati is located in **India** at the longitude of 91.75 and latitude of 26.19. Harmuti is located in **India** at the longitude of 93.86 and latitude of 27.12 .

Distance between Guwahati and Harmuti

The total straight line distance between Guwahati and Harmuti is **351KM** (kilometers) and 729.98 meters. The miles based distance from Guwahati to Harmuti is **145.2miles**. This is a straight line distance and so most of the time the actual travel distance between Guwahati and Harmuti may be higher or vary due to curvature of the road.

Guwahati To Harmuti travel time

Guwahati is located around 351KM away from Harmuti so if you travel at the consist ant speed of 50 KM per hour you can reach Harmuti in 4.67 hours. Your Harmuti travel time may vary due to your bus speed, train speed or depending upon the vehicle you use.

Guwahati to Harmuti Bus

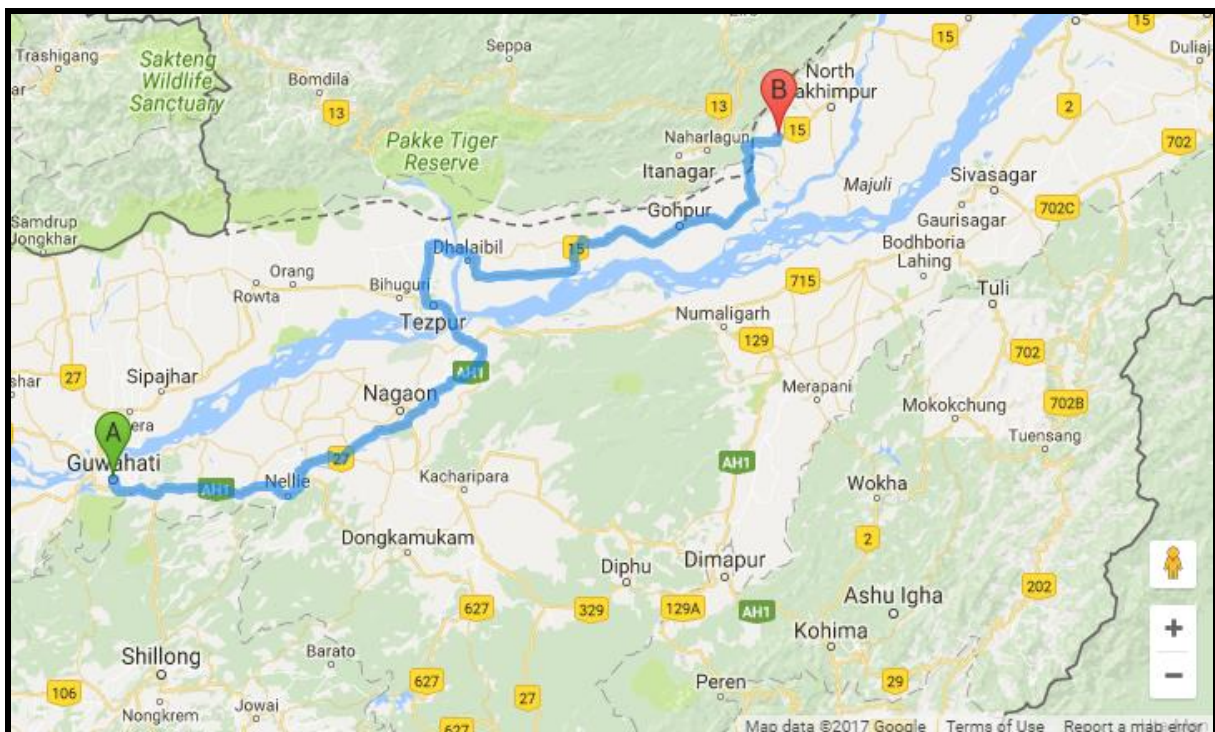
Bus timings from Guwahati to Harmuti is around **3.9 hours** when your bus maintains an average speed of sixty kilometer per hour over the course of your journey. The estimated travel time from Guwahati to Harmuti by bus may vary or it will take more time than the above mentioned time due to the road condition and different travel route. Travel time has been calculated based on crow fly distance so there may not be any road or bus connectivity also.

Bus fare from Guwahati to Harmuti

May be around Rs.350/-

Guwahati To Harmuti road map

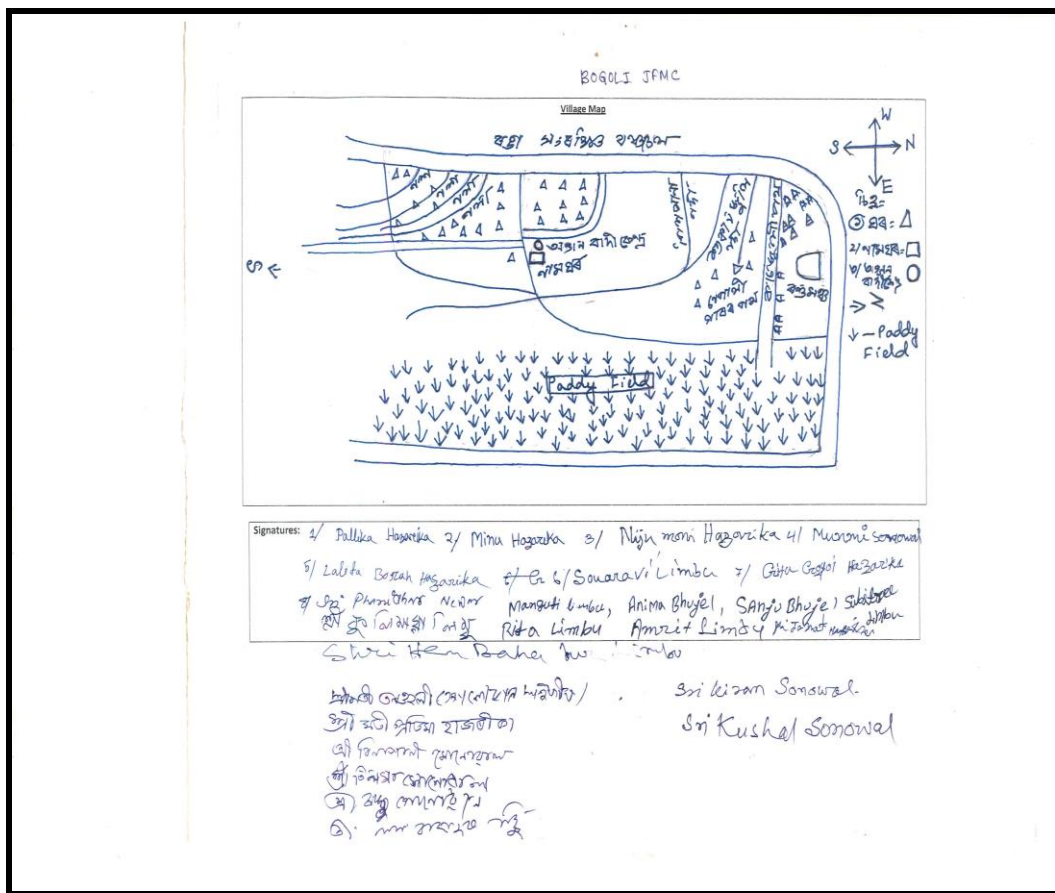
Guwahati is located nearly **west** side to Harmuti. The given west direction from Guwahati is only approximate. The given google map shows the direction in which the blue color line indicates road connectivity to Harmuti . In the travel map towards Harmuti you may find enroute hotels, tourist spots, picnic spots, petrol pumps and various religious places. The given google map is not comfortable to view all the places as per your expectation then to view street maps, local places see our detailed map here.



Source: Google Map

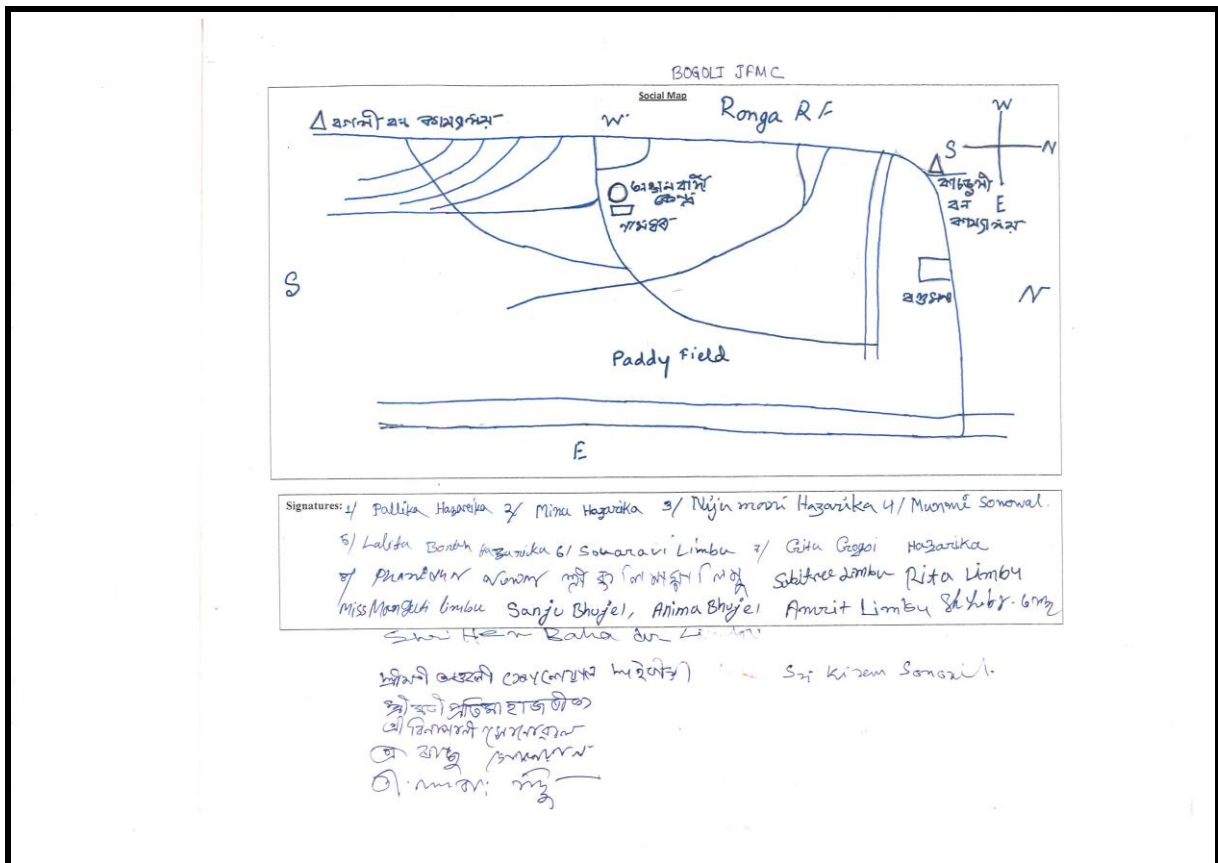
Appendix 1

1. Village Map:



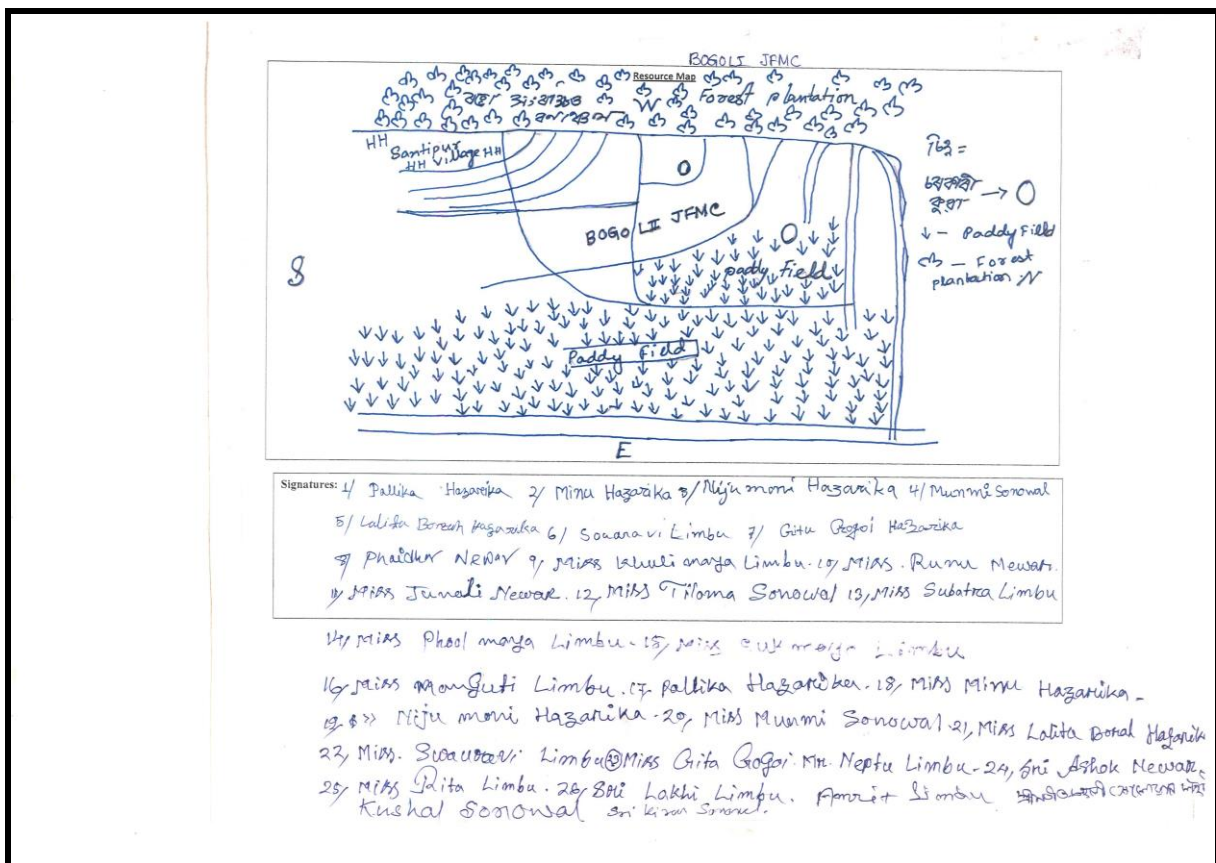
Village Map Drawn By the Villagers

2. Social map



Social Map Drawn By the Villagers

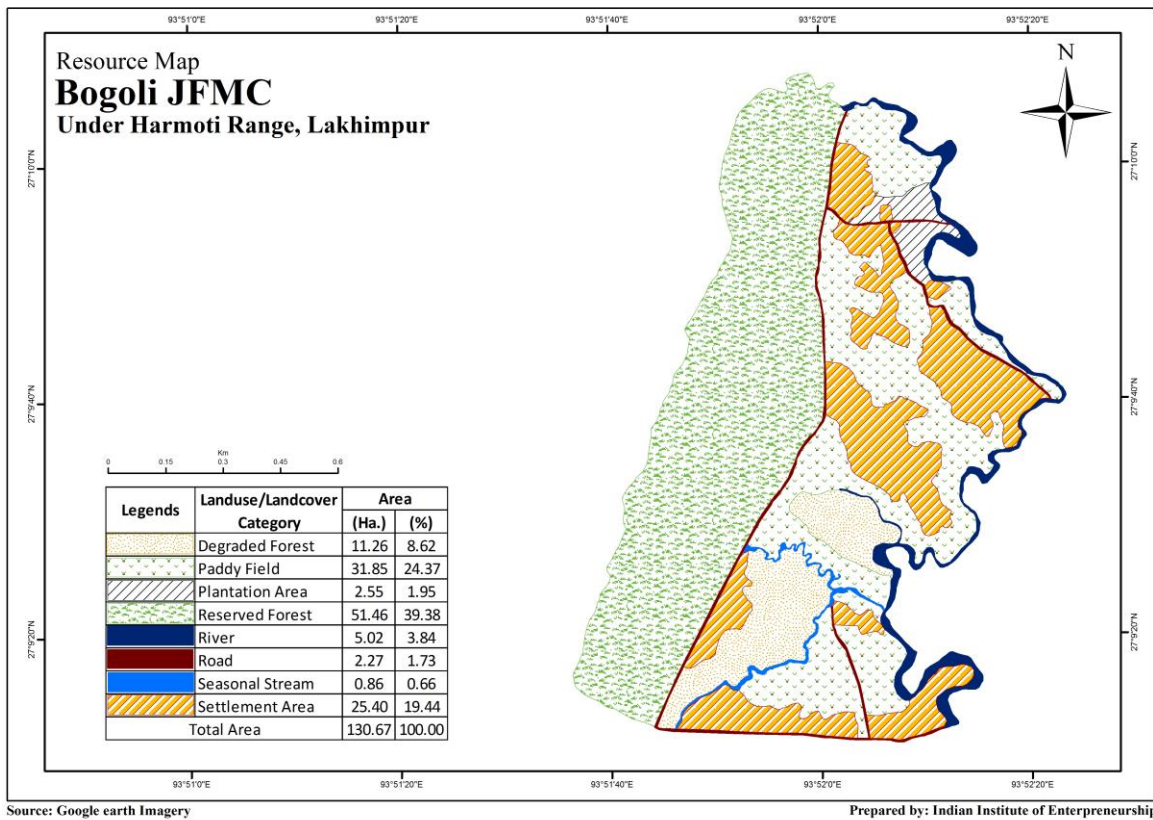
3. Resource Map:



Resource Map Drawn By the Villagers

Appendix 2

Land Use map of GIS



Appendix 3

PRA ACTIVITY

Location and Timing of Participatory Rural Appraisal:

Numbers of participants :	5
Time :	11.00 am, 14 th March 2017
Venue :	Open field, Bogoli

Source: Field Survey

Table – 3.1 Brief Profile about the villages under Bogoli JFMC

Sl. No.	Name of the Village	No. of households	Population		
			Total	Male	Female
1	Bogoli	45	220	80	140
	Total	45	220	80	140

Source: Field Survey

Table – 3.2 Age Profile of Bogoli JFMC

Age Class	<5 years	5-18 years	18-45 years	45-60 years	>60 years
Male	10	5	15	15	15
Female	20	50	5	5	20
Total	30	75	40	40	35

Source: Field Survey

Table – 3.3 Education Profile of Bogoli JFMC

Village Name	Illiterate	Up-to IV	V-VII	VIII-X	X-XII	Graduate	Masters
Bogoli	130	30	20	20	14	6	1
Total	130	30	20	20	14	6	1

Source: Field Survey

Table – 3.4 Income Distribution of Bogoli JFMC

Income Category(in Rs) Yearly	No of HHs
>5000 Rs	2
5,000-10,000	3
11,000-20,000	12
21,000-30,000	27
31,000-40,000	1

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 generally used to demonstrate the socio-economic profile of the Bogoli JFMC where the housing patterns, the numbers of educational institute, social infrastructure, and religious beliefs among JFMC. Initially awareness was carried out in the particular JFMC which help in conducting of PRA in an effective manner. The peoples also become very interested and enthusiast to participate in preparation of different mappings during the PRA.

Table 3.2: Information about the villages

	Village →	Bogoli
Social information	Total population	220
	Male	80
	Female	140
	Total households	45
	Numbers of Pucca Houses	7

	No of thatch house	10
	Nos of semi pukka house	28
	Community hall	Nil
	Tube Well	Nil
	Anganwadi Centre	1
	LP School	Nil
	ME School	Nil

At first, the people of villagers were asked to draw the map of the JFMC following the main roads of the village during the PRA exercise and then identification of their houses and the important social as well as Govt. infrastructures. Few 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 all the data related to the JFMC households are collected by the PRA team members.

Findings of social map:

- During the PRA exercise a total of 45 households identified among which 28 nos. semi-Pucca houses, 7 Pucca houses and the remaining houses are of thatched type. This shows that the people of the village are still deprived of the basic household schemes from the Government.
- From the observations it is learnt that there is no any Educational Institute and Community hall inside the JFMC. However one Anganwadi centre and one Rangamanch has been found, but still they are deprived of Good Road connectivity, Veterinary centre, Transport Facilities, Primary Health Centre, Electrification etc.
- Main sources of water for the villagers is ring wells, streams only which is used by villagers for their day to day use. The water is available throughout the year.
- Mainly people from this JFMC belong to Assamese, Nepali and Sonowal community.

Learnings:

- There are few LPG gas connections in the JFMC. The Household still dependent on forest and use firewood for their cooking purposes which ultimately leads to degradation of forest.
- The village of the JFMC largely collected fodder for domestic animals from the forest area only. The JFMC are fully dependent on crop residue and green fodder.
- The primary health centre along with bank, Bus facility, Forest Office is located at Kachajuli, Gabhoru tini jaan, and Harmuti which is at 5-15 KM away from the JFMC. The villagers have to cover a long distance for their health check-up.
- There is no community hall available inside the JFMC but they use the Anganwadi centre and the Ranga Mancha where various meetings are held. Major meeting are – Gram panchayat meeting, village head meetings, forest department meetings and other political meetings.
- There are some grazing field where villagers use for their cattle rearing. These fields are available for a maximum of six months.

- The villagers of the Bogoli JFMC have to move Harmuti, a distance covered with 5 km, for their weekly marketing activity. Domestic materials, utensils, bangles, cloths and stationeries are sold in different stalls.

3.2 Wealth Ranking:

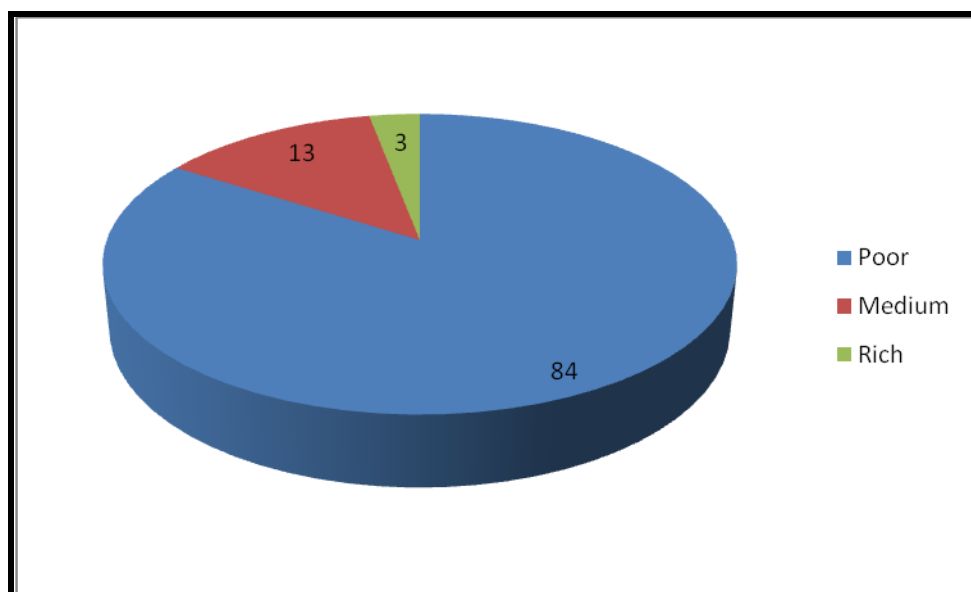
Wealth ranking, or well-being ranking, involves community members identifying and analysing the different wealth groups in a community. It enables evaluators to learn about the socioeconomic stratification of project beneficiaries and local people's definitions and indicators of wealth/well-being.

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

- Land holding
- Occupation

About 84 per cent people are poor, about 13 per cent are belong to middle class and about 3 per cent are categorised to be rich. Poor people are mainly landless 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.

Table 3.3: Timeline review

Year		Event	Type
Post-Independence	1970	There was a heavy cyclone in the village which causes a great damage in the village.	Destructive
20 th Century	2011	There was a big elephant depredation which caused havoc in the village.	Destructive
	2014	The JFMC was named after Bogoli River	Formative

Learning:

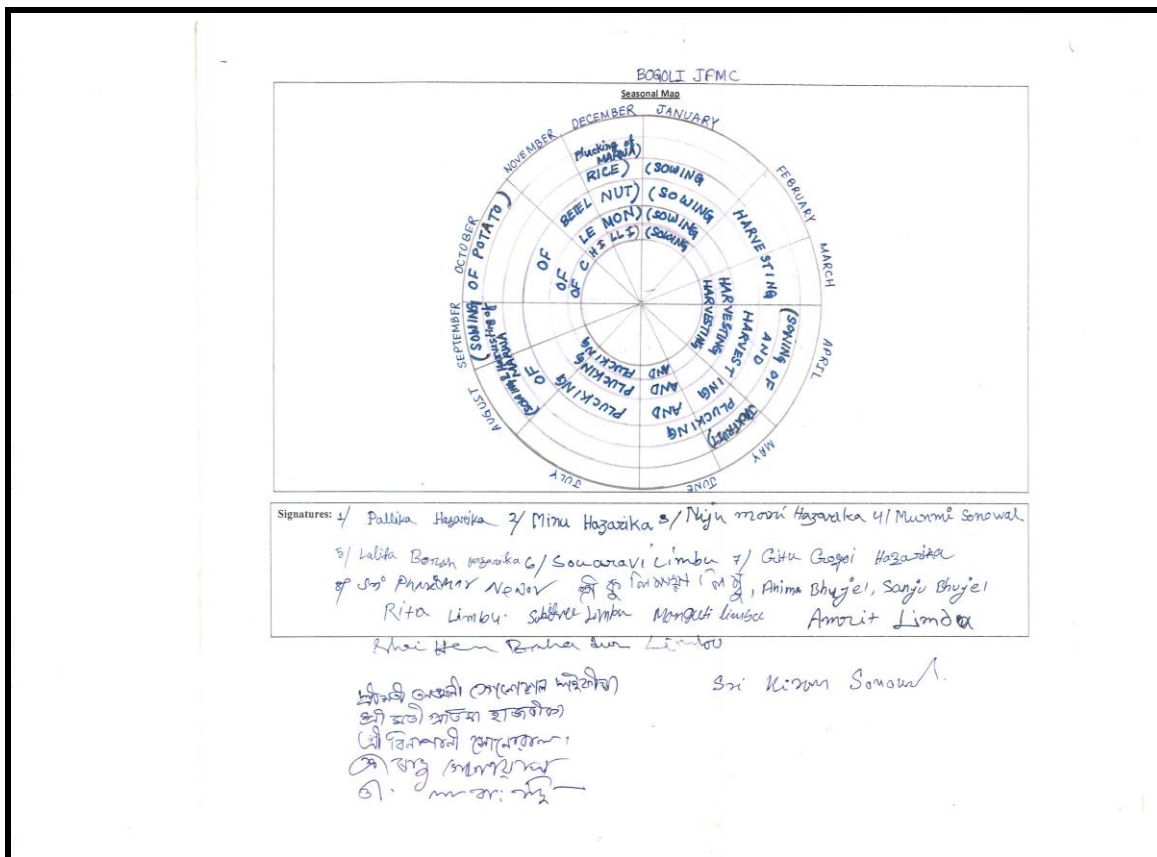
- It has been observed and learnt from our research and information from the village people that are two destructive events and one formative event in the village during the PRA exercise.

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 handloom, Cane Bamboo, Beekeeping , daily wage labourers, masonry, tailoring, carpentry which are not seasonal in nature.

Figure 3.2: Seasonal Map of Bogoli JFMC



Seasonal Map Drawn By the Villagers

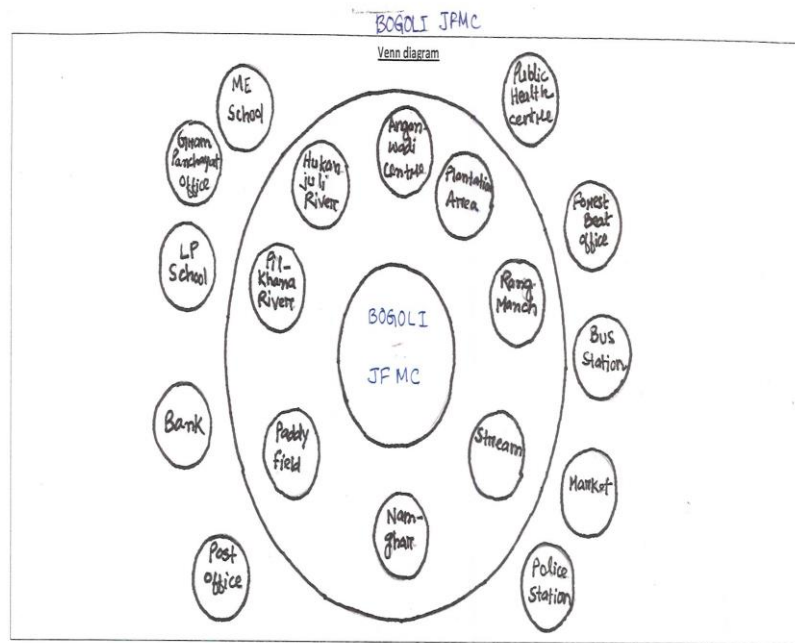
Table 3.4 Seasonal cropping pattern

Categories	Time of Activity			
		Sowing	Harvesting	Plucking
Farming	Potato	Sept-Oct		Jan
	Marwa	Aug-Sep	Aug-Sep	Dec
	Sugarcane	March-April		Oct-Nov
	Gourd	September		April
	Betel Nut	Throughout the Year		
	Chilli	Throughout the year		
	Paddy	Throughout the year		
	Lemon	Throughout the year		
Non-Farming	Tea waging	Throughout the year		
	Cane & Bamboo			
	Handloom			
	Tailoring			

Learnings:

- The villagers are involved in cropping focussing mainly on Tea, Paddy which includes Sali, Aijong, Pankaj, Joha, Bora, BaoDhan, Vegetables (Lemon, Chilli, Cauliflower, Potato, Pumpkin, etc), Gourd, Fruits like Guava, Mango, Litchi, Papaya, Jackfruit, Sweet potato etc.

3.5 Venn Diagram



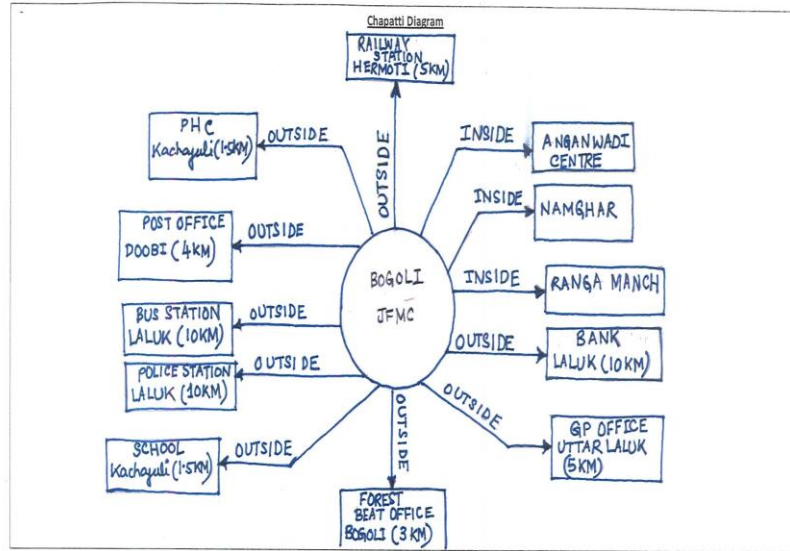
Signatures: 1/ Pallika Hazarika 2/ Minu Hazarika 3/ Nijmomi Hazarika 4/ Muanme Sonowal.
 5/ Lalita Borah 6/ Souaravi Limbu 7/ Manojit Barua 8/ Ritesh Limbu
 9/ Subrata Limbu 10/ MINU LIMBU, ANIMA Bhujel, Sanju Bhujel
 Ananta Limbu and Jasant Hazarika

Khaci Hem Baha dwi Limbu
 ...
 ...
 ...
 ...
 ...

Venn diagram Drawn By the Villagers

3.6 Chapatti Diagram

BOGOLI JFMC



Signatures: 1/ Pallika Hazarika 2/ Mira Hazarika 3/ Nijimoni Hazarika 4/ Musumi Sonowal
 5/ Lalika Borah Hazarika 6/ Souaravi Limbu 7/ Gita Gogoi Hazarika
 8/ Sri Phaniwar Acharjee 9/ Sri Chandrajit Barua 10/ Anima Bhujel, Sanju Bhujel
 Rita Limbu Subitua Limbu
 Sri Jitendra Hazarika Monkali Limbu Amrit Limbu
 Shree Hem Limbu - श्री हेम लिम्बू

श्री देवी प्रतिभा हाजरीका श्री सुशीला हाजरीका
 श्री विमला हाजरीका
 श्री देवी विमला हाजरीका श्री सुशीला हाजरीका
 Kushal Sonowal

Chapatti Diagram Drawn By the Villagers

Priority Ranking- EPA and Livelihood

EPA activity:

Bogati JFMC

Priority Ranking of Entry Point Activity

Entry Point Activities	Community Hall	Electricity	Drinking Water facility	JFMC area Road	Solea fencing	Public Health centre								Marks	Rank
	A	B	C	D	E	F	G	H	I	J	K				
Community Hall	X	A	A	A	A	A								5	1
Electricity		X	B	B	B	B								4	2
Drinking Water facility			X	C	C	C								3	3
JFMC area Road				X	D	D								2	4
Solea fencing					X	E								1	5+
Public Health centre						X								0	5

Signatures: 1/ Balika Hazarika 2/ Mina Hazarika 3/ Nijumoni Hazarika 4/ Musmi Sonowal
 5/ Lalita Borah Hazarika 6/ Sowaravi Limbu 7/ Gita Gosoi Hazarika
 8/ Pramodhar Newari 9/ Sita Devi Limbu 10/ Miss Gita Gosoi Hazarika
 11/ Miss Rita Limbu 12/ Miss Punni Newari 13/ Miss Tunali Newari.

14/ Miss Khageswari Limbu 15/ Sita Hazarika 16/ Miss Pratima Hazarika

17/ Miss. Bhujdai Hazarika 18/ Neptu Limbu 19/ Sita Ashok Newari.

20/ Kishor Gosoi Hazarika 21/ Sita Pratima Hazarika 22/ Pratima Hazarika
 Kushal Sonowal

Priority Ranking Of EPA by the Villagers

Livelihood activity:

BOGOLI JFMC

Priority Ranking of Livelihood Activities

Livelihood Activities	Tea Waging	Cane	Bambo	Livestock	Handloom	Tailoring					Marks	Rank
	A	B	C	D	E	F	G	H	I			
Tea waging	X	A	A	A	A						4	1
cane & Bambo		X	B	B	B	-					3	2
Livestock			X	C	C						2	3
Handloom				X	D						1	4
Tailoring					X						0	5

Signatures: 1/ Pallika Hazarika 2/ Mimi Hazarika 3/ Nijmoni Hazarika 4/ Muanmi Sonowal.
 5/ Lalita Borkh Hazarika 6/ Souaravi Limbu 7/ Manguti Limbu 8) MINU LIMBU
 9) Sabitree Limbu Rishi Limbu, Anima Bhyel, Sanjo Bhyel, Jitrat-
 Anzai Limbu

স্বাক্ষরিত করছেন (স্বাক্ষরিত করছেন) -
 সই কিসান সোনওয়াল
 সই কুশল সোনওয়াল

Priority Ranking Of Livelihood Activities by the Villagers

PHOTOGRAPHS



Snap During Awareness



PRA Mapping with the Village People



Data Collection

LIST OF JFMC MEMBERS

RECORD 7 : MEMBERSHIP REGISTER

Name of JFMC *Bogoli* Division *Lakhimpur* Range *Harmuti*

Beat *Bogoli* JFMC Code *Bogoli*

Sr. No.	Name	Father's / Husband's name	Age	Male / Female	Education	SC/ST / BC/OBC
1	Jugal Sarmah	H Kamuk Ch. Sarmah	50	Male	BA	Gen.
2	Geeta Nemal	Lt. Siva Narasimhan	46	"	Class IX	OBC
3	Horan Sikia	Bhagawan Sikia	58	"		
4	Bul Sarmah Sarmah	Sri Bhoban Sarmah	35	"		ST
5	Bhaton Sarmah	Dimbarua Sarmah	55	"		ST
6	Raju Hazarika	Dimbarua Hazarika	23	"	B.A.	ST
7	Bogira Sarmah	Dimbarua Sarmah	55	"	-	ST
8	Kalu Limbu	Sokimona Limbu	47	"	-	OBC
9	Kiron Sarmah	Preela Sarmah	55	"	HSLC	ST
10	Lolita Sikia	Lakshman Sikia	50	"	-	ST
11	Sukmaya Limbu	H/o Anon Limbu	36	"	-	OBC

97

G. Meher
President
Bogali J.F.M.C.
Lakhimpur F.D.A.

Sarmah
Secretary
Bogali J.F.M.C.
Lakhimpur F.D.A.

Source: Range Office Harmuti

Annexure 6 (Record I)

Table 1: Basic data of the village:

Table 1: Basic data of the JFMC

Name of the JFMC	Date of establishment	No. of members in executive	Name of the president	Name of the member secretary	Money in VDF	Contribution per family /per person	Social fencing used Yes / No	Remarks on special attainment	Grading %of success by RFO
Bogoli	2014-15	11	Gobinda Newar	Jugal Sarmah	No		Yes		65%

Source: JFMC Records

Table 2: Village wise population data:

Table -2: Demographic status of the project villages

Sl. No.	Name of village	Households (No.)	SC		ST		OBC		General		Total
			Male	Female	Male	Female	Male	Female	Male	Female	
1	Bogoli	45	27	30	40	46	30	35	5	7	220
Total		45	27	30	40	46	30	35	5	7	220

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	Type of famer according to land holding				
		Large farmer >10 ha.	small farmer 2-10 ha.	Marginal farmer (household) <2ha.	Land less (household)	total
1	Bogoli	-	10	30	5	45
Total		-	10	30	5	45

Source: - Field survey report.

Table 4: Cattle Population:*Table 4: Cattle Population of the JFMC*

Sl no	Name of the village	cows	Hen	Bulls/Oxeing	Goats	Duck	Total
1		35	500	0	410	220	1455
Total		35	500	0	410	220	1455

Source: - Field survey report.

Table 5: Village wise Infrastructure:*Table 5 showing village wise infrastructure*

Sl no	Infrastructure	Location	Distance from village
1	Main Road	Laluk	10 Km
2	Electricity	Kachajuli	1.5 Km
3	Gas connection	Laluk	10 Km
4	Bus Facility	Laluk	10 Km
5	PHC	Kachajuli	1.5 Km
6	LP school	Kachajuli	1.5 Km
7	Post office	Gabhoru Tini Jaan	5 Km
8	Bank	Laluk	10 Km
9	Anganawadi centre	Inside	-----
10	Police station	Laluk	10 Km
11	Forest Office(Beat)	Bogoli	3 Km
12	Railway Station	Harmuti	5 Km

Source: - Field survey report.

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	Paddy	18.5	-	-
Rabi	Sugarcane, potato, Sweet Potato etc.	13.35	-	-

Source: - Field survey report.

Table 7: Crop production profile of Bogoli JFMC:*Table 7 Crop production profile of Bogoli JFMC*

Type of crop	Total Production (approx) in quintals	No of household growing	Average production (quintal/ hac) approx
Paddy	700	45	6
Vegetables	100	30	3

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			✓

Source: - Field survey report.

Table 9: Location of market from the village*Table 9 Location of market from the village n of from the village*

For Purchase	Location	Distance from village if in other village (in km)
Grocery shop	Outside	200 Mtr
Weekly Market	Outside (Kachajuli)	2 Km
Major Market	Harmuti	5 Km
Fish Market	Harmuti	5 Km

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
Stream	6	Adequate	Drinking, Bathing, Irrigation, livestock rearing
Ring well	8	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 household depending	Number of months dependent	Sources (local, village, forest, other sources)	Major/ Secondary
Fuel wood	45	12	Forest	Major
Kerosene stove	9	4	Market	Secondary

Source: - Field survey report.

RECORD: II

LIVELIHOOD OPPORTUNITY ANALYSIS

Table 12: Agriculture:

Table 12: showing the agricultural and horticultural status

Constraints	Reason	Opportunities	Programme
Low Production	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Tractor operation training • Agro-skill development programme. • Training on insecticides, pesticides, hybrid cultivation
Storage and Production	<ul style="list-style-type: none"> • Lack of common storing place • Lack of cold storage facility due to non-availability of electricity 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Packaging • Transportation and distribution.
Marketing	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Buyers sellers meet

Table 13: Livestock*Table 13 Livestock*

Constraints	Reasons	Opportunities	Programme
Less grazing land	<ul style="list-style-type: none"> • Not Applicable 		
Availability of fodder	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • No veterinary care clinic • Lack of knowledge about the proper rearing of live stock 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Less availability of fodder • No scientific knowledge on cattle rearing to increase the milk production. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Less contact with the direct market for milk • Unaware of the market demand of different milk made products. 	<ul style="list-style-type: none"> • A huge milk market is in demand. 	

Table 14: NWFP*Table 14 NWFP*

Constraints	Reasons	Opportunities	Programme
Less collection	<ul style="list-style-type: none"> • Less availability of NWFP 	<ul style="list-style-type: none"> • Availability of fertile fallow land 	<ul style="list-style-type: none"> • Plantation of Food plans, Medicinal Plant etc.
Unsustainable extraction	-	<ul style="list-style-type: none"> • Availability of fertile fallow land 	-
Low rates	-	-	-
Value addition	<ul style="list-style-type: none"> • No processing units • Non availability of required resources • No technical know-how 		

Table 15: Specialised skill

Table 15: Specialised skills: Cane & Bamboo, Handloom

Constraints	Reasons	Opportunities	Programme
Raw material availability	<ul style="list-style-type: none"> • Ineffective use of the available raw materials • Shortage of Storage 	<ul style="list-style-type: none"> • Construction of a common infrastructure for storage purpose 	<ul style="list-style-type: none"> • Setting up a raw material bank • Training Programmes on different products of Cane & Bamboo
Product quality	<ul style="list-style-type: none"> • High Quality Materials Shortage • Use of machineries 	<ul style="list-style-type: none"> • Developing Products for market exploration. 	<ul style="list-style-type: none"> • Training on Modern Tools and Equipment. • Providing modern technology to the villagers
Marketing potential	<ul style="list-style-type: none"> • Unavailability of standardised market • uncertain pricing policy • No linkage with the institutional buyers • No Product Diversification or New Product Development. 	<ul style="list-style-type: none"> • Exploring new markets with diversified products 	<ul style="list-style-type: none"> • Providing a bulk buy arrangement of the finished product with institutional buyers.
Credit facilities	<ul style="list-style-type: none"> • No linkage with the banks or post office saving banks. • Unaware of the development schemes of banks and government 	<ul style="list-style-type: none"> • Financial assistance by the Govt. • Providing easy access to credit. 	<ul style="list-style-type: none"> • Microfinance, Term Loans, Working Capital Arrangement
Product Diversification	<ul style="list-style-type: none"> • No Product Diversification or New Product Development. • Lack of concept for product diversification. 	<ul style="list-style-type: none"> • Developing Demand Based Products, as per the needs of the modern day market. 	<ul style="list-style-type: none"> • Skill Upgradation & Training on New Product Development and Product Diversification

Table 16: Credit facility

Table 16 Credit facility

Constraints	Reason	Opportunities	Programme
Ineptness	-	<ul style="list-style-type: none"> • Setting up modern financial institution in the nearby areas. 	
Rate of interest	<ul style="list-style-type: none"> • Higher lending rates charged by the private money lender 	<ul style="list-style-type: none"> • Subsidised credit arrangement 	
Availability of loan	<ul style="list-style-type: none"> • Fear of risk taking • No knowledge of documentation 	<ul style="list-style-type: none"> • Start-ups entrepreneurial venture 	
Mortgage difficulty	<ul style="list-style-type: none"> • Unavailability of proper documentation of mortgaged property. 	<ul style="list-style-type: none"> • Proper awareness about documentation in the area 	

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 Divisional Forest Officer
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