

TARIONI BORBIL JOINT FOREST MANAGEMENT COMMITTEE (JFMC)

North Lakhimpur Range, Lakhimpur Forest Division

NORTHERN ASSAM CIRCLE

MICRO-PLAN

(2016-17 to 2025-26)

Prepared by Tarioni Borbil 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 Center
PMU	Project Monitoring Unit
PRA	Participatory Rural Appraisal
SC	Scheduled Caste
SDG	Sustainable Development Goals
ST	Scheduled Tribes
WPC	Working Plan Circle

**Tarioni Borbil JOINT FOREST MANAGEMENT COMMITTEE
Lakhimpur Forest Division, North Lakhimpur Forest Range**

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

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A. Introduction

<p>About the Project of COMPELO (Consulting for Micro Planning and Enhancing Livelihood Opportunities)</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 Agence France de Development (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 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.</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 Tarioni Borbil JFMC</p>	<p>This document gives the detailed need analysis of the villagers through Micro-Plan for the Tarioni Borbil JFMC, which is located in the Lakhimpur district of Assam. The Tarioni Borbil JFMC falls under the Dullung Reserve Forest of the Lakhimpur Forest Division of the Northern Assam Forest Circle. The villagers belong to Missing, Ahom, Sonowal, Assamese, Boro and Nepali. The profile of the community is given in the next section.</p> <p>The present micro-plan has been prepared by members of the villagers and community members, 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>

B. Village Socio-Economic Profile of Tarioni Borbil JFMC

Location	<p>The Tarioni Borbil Joint Forest Management Committee (JFMC) has been formed to cover the existing community dwelling in Tarioni Borbil, a village located on the fringe of the Dullung Reserve Forest, North Lakhimpur Sub Division. The area covered by the above JFMC falls within the Boginadi Revenue Circle of Lakhimpur District of Assam.</p> <p>Appendix-1(B) 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" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Name of the JFMC</td> <td>Tarioni Borbil</td> </tr> <tr> <td>Habitation</td> <td>Tarioni Borbil</td> </tr> <tr> <td>Name of Revenue Village</td> <td>Tarioni Borbil</td> </tr> <tr> <td>Name of the Gram Panchayat / VCDC</td> <td>Ukhamati</td> </tr> <tr> <td>Revenue Circle</td> <td>Boginadi Circle</td> </tr> <tr> <td>District</td> <td>Lakhimpur</td> </tr> <tr> <td>Forest Division</td> <td>Lakhimpur Division</td> </tr> <tr> <td>Forest Range</td> <td>North Lakhimpur</td> </tr> <tr> <td>Forest Beat</td> <td>Tarioni Beat</td> </tr> <tr> <td>Year Formed</td> <td>2005-2006</td> </tr> <tr> <td>Description of Boundary of JFMC</td> <td>As below North: Dullung Reserve Forest South: NF Railway Station West: Reserve Forest East: Borbil High School</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 6)</p>	Name of the JFMC	Tarioni Borbil	Habitation	Tarioni Borbil	Name of Revenue Village	Tarioni Borbil	Name of the Gram Panchayat / VCDC	Ukhamati	Revenue Circle	Boginadi Circle	District	Lakhimpur	Forest Division	Lakhimpur Division	Forest Range	North Lakhimpur	Forest Beat	Tarioni Beat	Year Formed	2005-2006	Description of Boundary of JFMC	As below North: Dullung Reserve Forest South: NF Railway Station West: Reserve Forest East: Borbil High School
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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" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Name of President</td> <td>Mr. Mozin Deka</td> </tr> <tr> <td>Name of Member Secretary</td> <td>Mr. Deepak Kumar Dutta</td> </tr> <tr> <td>Name of Treasurer</td> <td>Mr. Krishna Gopal Upadhya</td> </tr> <tr> <td>No. of Members in Executive Committee</td> <td>Male:9 Female:2 Total:11</td> </tr> <tr> <td>No. of Members in the General Body</td> <td>320 (The number represents each adult member of the household of the JFMC)</td> </tr> </table> <p>Source: JFMC Records</p>	Name of President	Mr. Mozin Deka	Name of Member Secretary	Mr. Deepak Kumar Dutta	Name of Treasurer	Mr. Krishna Gopal Upadhya	No. of Members in Executive Committee	Male:9 Female:2 Total:11	No. of Members in the General Body	320 (The number represents each adult member of the household of the JFMC)												
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Households & Population Structure	<p>The village has 320 households. The number of female headed households is nil. The total population is 1610, of which 840 are male and 770 are female members. The population includes 390 ST, 250 SC, 660 OBC and 310 people are from General Category.</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(320 HHs). (2) The sex ratios of 916 females per 1000 males in the village and female percentage (i.e. 47.82 %) are less than male's percentage (i.e. 57.12%) in the village.
Education & Skills Development	<p>Over 75.04% (Table-4 of Record-I) of the population is reported to be literate. Most of the community members have received school level education. On the other hand, relatively fewer households have college educated members.</p> <p>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 traditional skills in the following areas:</p> <ol style="list-style-type: none"> (a) Weaving (b) Cane & Bamboo (c) Tea Farmer (d) Carpentry (e) Shop(grocery, computer etc) <p>Government has been active in promoting formal skills development programmes in the country as well as in the state. The village has not reported receipt of benefits of any such programme has been carried out in the habitation or in nearby areas.</p>
Soil	<p>The soil type of the project area includes:</p> <ul style="list-style-type: none"> • Alluvial soil in plain areas. <p>This type of soil can support different kinds of crops, as the soil is reported to be fertile on the whole.</p>
Water	<p>The area is drained by river Boginadi, which flows from the adjoining hills of Dullung Reserve Forest into the project area and joining the River Subhansiri to the East. This is a perennial river.</p>
Climate: Temperature & Rainfall	<p>The all year climate and weather averages are as follows –</p> <ol style="list-style-type: none"> a) The high temperature during the summer is 33 ° C and low temperature during the winter is 9 ° C. b) The mean temperature is 24 ° C and precipitation is 129.3 mm. c) The annual rainfall is about 1551.3 mm per year. About one-third of the rainfall usually occurs during the rainy season (June-September). d) The humidity level of the village is ranging from 70% to 88% during the summer and rainy season and the level of humidity in the winter season ranging from 70% to 79%.
Forest & Bio-diversity	<p>The local forests have been broadly classified as reserve forest. The main tree species are Ajar, Gomari, Bhelkar, Poma, Hillikha, Dhuna, Samkathal, Jutuli and many other medicinal plants. Additional details in this regard are given at the 'Forest Development Plan'.</p>
Land Use Pattern	<p>The land use pattern of Tarioni Borbil JFMC is shown and described in Appendix-2. From the same, it is observed some of the important points which described as follows:</p>

	<p>Paddy Field - 41.80% Fallow land – 0.38 % Degraded land – 1.59 % Pond-0.05% RF Area-23.50% Road-4.71% Tea Estate – 16.24% Wetland – 1.53 % Settlement Area-33.69%</p>
Land Holdings	<p>The type of households as per land-holding is given at Table-6 of Record-I. From the same, it is seen that:</p> <ul style="list-style-type: none"> • 23.75 % of the households are landless (76 HH) • 60.93 % of the households are marginal farmers i.e. less than 2 Ha (195 HH) • 15.31 % of the households are small farmers i.e. .2-10 Ha (49 HH).
Livestock	<p>The total number of livestock in the JFMC is 3925. The main types of livestock possessed by the households include:</p> <p>Cows: 210 Goats: 320 Poultry: 1510 Buffaloes : 220 Bulls : 475 Pigs :970 Duck :220</p> <p>Table-7 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-8 of Record-I, which gives the present status of the village infrastructure.</p> <p>From the above table, the following have been noted with regard to village infrastructure:</p> <p>Physical Infrastructure: The habitation is deprived of basic physical infrastructure like paved roads, electricity, water supply, mobile network, Primary Health Centre etc.</p> <p>Education & Health Facilities: There are minimal educational institutions and the health facilities are not sufficient. Public transport and Market is not available, and the community members have to use bicycles to move around.</p> <p>Govt. Offices: The government offices (such as Police station, Forest Beat Office, Revenue office, Railway Station etc.) are located at a considerable distance, which gets amplified as the villagers do not have access to regular public transport from either the habitation or from nearby areas.</p> <p>Financial Inclusion: Facilities for financial inclusion like bank and post office are located at a considerable distance from the habitation. The community members have accounts in faraway places.</p>

Agricultural Crops	<p>The details of the agricultural crops grown in the JFMC is available at Table-9 of Record-I.</p> <p>The above shows that the following are the main crops grown in the JFMC. Kharif Crops (Monsoon crops): Paddy (Aijong, Pankaj, Bao, Joha, Bora) Rabi Crops (Winter Crops) : Mustard(Brassica juncea L.),Potato (Solanum tuberosum), Tomato(Solanum lycopersicum,L) Others: Pineapple, Mango, Jackfruit, Cabbage, Betel Nut, Lemon, Cauliflower, Chilli, Brinjal, etc Most crops are rain-fed.</p>																				
Crop Production Profile	<p>Table-10 of Record-I may be referred to for the production and yield details of the crops grown in the JFMC.</p> <p>The maximum numbers of households are involved in growing crops like rice and vegetables.</p> <p>The production and yield of these crops is given as follows:</p> <table border="0" data-bbox="512 808 1257 943"> <tr> <td>(a) Paddy:</td> <td>Production</td> <td>50759 qt</td> <td>Yield</td> <td>39.68 qt /ha</td> </tr> <tr> <td>(b) Vegetables:</td> <td>Production</td> <td>2389 qt</td> <td>Yield</td> <td>11.66 qt/ha</td> </tr> <tr> <td>(c) Fruits:</td> <td>Production</td> <td>1049 qt</td> <td>Yield</td> <td>4.52 qt/ha</td> </tr> <tr> <td>(d) Tea:</td> <td>Production</td> <td>30 qt</td> <td>Yield</td> <td>15.09 qt/ha</td> </tr> </table>	(a) Paddy:	Production	50759 qt	Yield	39.68 qt /ha	(b) Vegetables:	Production	2389 qt	Yield	11.66 qt/ha	(c) Fruits:	Production	1049 qt	Yield	4.52 qt/ha	(d) Tea:	Production	30 qt	Yield	15.09 qt/ha
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Fodder Availability	<p>The matter of fodder availability in the village is dealt with at Table-11 of Record-I. The above shows that the main sources of fodder in the JFMC are as follows:</p> <p>(a) Crop residue (b) Grazing in forest (c) Household wastage (d) Green fodder and grasses</p>																				
Markets	<p>Table-12 of Record-I shows the location of the different markets from the JFMC. The main markets used by the community are as follows:</p> <p>(a) Grocery / PDS: Within the village. (b) Weekly / Bi-weekly Market: Balijan Boginadi at 7 km away. (c) Major Market: Lakhimpur at 20 km away.</p>																				
Water Resources	<p>The water resources are tabulated at Table-13 of Record-I. The main water resources with the water availability is as follows:</p> <table border="0" data-bbox="464 1581 1257 1682"> <tr> <td>(a) River</td> <td>(Water Availability: Perennial / Seasonal)</td> </tr> <tr> <td>(b) Ring wells</td> <td>(Water Availability: Perennial / Seasonal)</td> </tr> <tr> <td>(c) Pond</td> <td>(Water Availability: Perennial / Seasonal)</td> </tr> </table>	(a) River	(Water Availability: Perennial / Seasonal)	(b) Ring wells	(Water Availability: Perennial / Seasonal)	(c) Pond	(Water Availability: Perennial / Seasonal)														
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Energy Consumption	<p>Table-14 of Record-I shows the major sources of energy in the JFMC. The same have been listed below.</p> <p>(a) Fuel Wood - Households Depending: 200 Nos. Source: Forest, Market (b) LPG - Households Depending: 40 Nos. Source: Govt (c) Kerosene - Households Depending: 200 Nos. Source: Open Market and PDS (d) Gobar Gas - Households Depending: 20 Nos. Source: Village Area.</p>																				

<p>Socio-economic status</p>	<p>Social set-up: The village is inhabited by Missing, Ahom, Sonowal, Assamese, Boro and Nepali community. They have a caste system. The society is not marked by deep social divisions. The observed position of women is satisfactory.</p> <p>Economic Condition: The economic status of the village people is not satisfactory. The main livelihoods are Farming, tea waging, agriculture, daily wage earning, vegetable vendoring etc. The Annual income of the villagers ranges from Rs. 80,000 to 90,000 per year.</p> <p>There is no large-scale migration of the youth and others for any livelihood activity. Additional details are available at the next section.</p>
<p>Maps</p>	<p>Appendix-1(B) 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).

C. Livelihood Opportunity Analysis

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

- Livelihood assets
- Livelihood context
- Priority ranking on potential livelihood

The livelihood situation of Tarioni Borbil JFMC has been analysed 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

- Natural Capital
- Physical Capital
- Social Capital
- Human Capital
- Financial Capital

1. Natural Capital

The major natural capital of Tarioni Borbil JFMC are Ajhar, Gomari, Bhelkar, Poma, Hillikha, Bhomora, Nefafo, Bamboo and there is only one river namely Balijan Boginadi. (Refer **Table- 3 of FDP**)

Majority of the people are dependent on the forest for firewood, green fodder, timber etc. The villagers use the river water for farming purpose and for livestock rearing. (Refer **Table- 4(A) and Table-4(B) of FDP** for further details)

2. Physical Capital

Majority of the households in the Tarioni Borbil 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- 6(annexure 6)**.

The JFMC has 177 numbers of semi-pucca houses, 20 numbers of pucca houses and the remaining houses are katcha (**Table 3.1, annexure 3**). Among the various sources of energy consumption such as Biomass, kerosene, electricity, LPG and candle, villagers depend on the firewood and kerosene for household and other uses.

Although some of the household have LPG, but reliability is very less. (Refer to **Table 14, annexure 6**) There is four LP school present within the JFMC area. And one Middle school is very nearby just on the boundary of the JFMC. No other education institution is present. (Refer to **Table 3.1, annexure 3**)

In case of water sources, 30 per cent HH have access to check dam and water reservoir, 45 percent HH have access to both ring well, river and canal. (Refer **Table-13, annexure 6**)

3. 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.

There are SHGS in the village. However, the village consists of five gaon such as Ino. Tarioni, 2 no. Tarioni, Ahom gaon, Holok bari, Borbil and Rajgarh Sonowal. The village consist of Raninarah Tea estate, one Community Hall, one club ghar ,one waiting shed, Namghar, two Anganwadi Center, Seven temple including Shiv temple, Ganesh mandir and Durga Mandir where social meetings of the villages are held. (Refer to **Table 3.1, annexure 3**)

4. Human Capital

63.98% per cent of total population of the JFMC are literate and 37 % are illiterate. The remaining 1.24 per cent of them has crossed degree level education. (Refer to **Table 4, annexure 6**)

5. Financial Capital

There is no government bank or lending institution available in the JFMC area or in the nearby areas. However, villagers lend from informal lending groups, relatives etc.

646 numbers of people have bank account in commercial banks, but they are not aware of the benefits of financial inclusion.

6. Livelihood Context


Livelihood activities of the Tarioni Borbil JFMC are identifies on the basis of following criteria:

7. Priority Ranking through PRA Exercise

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

7. Priority Ranking through PRA Exercise

PRA Exercise	<p>Team from IIE Guwahati carried out PRA exercise in Tarioni Borbil JFMC as follows:</p> <p>Date: 8th March, 2017 Location: 1 No. Tarioni, Forest Beat Office, Tarioni Borbil</p> <p>Numbers Present: 107</p> <p>In Presence of: JFMC President, JFMC Member secretary, community members, Forest Department personnel, JFMC office bearers, Village Headman etc.</p>								
Objective of PRA	<p>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.</p>								
Tools Used & Outcomes of the PRA	<p>Different tools were used and outcomes obtained. These include:</p> <p>Social Mapping Wealth Ranking Time Line review Seasonality of Livelihoods Venn Diagram Chapatti Diagram</p> <p>Appendix-3 furnishes detailed information of the above.</p>								
Ranking	<p>Ranking exercise has been done for the following:</p> <ul style="list-style-type: none"> • Livelihoods & Skills Development • Entry Point Activities (EPA) <p>Appendix-3 elaborates the above. From the same, it is stated that:</p> <p>Ranking of Livelihoods & Skills Development</p> <ol style="list-style-type: none"> 1. Tea Waging 2. Handloom 3. Farming 4. Livestock 5. Cane and Bamboo <p>Ranking of EPA</p> <table border="1" data-bbox="533 1406 1216 1576"> <thead> <tr> <th data-bbox="533 1406 603 1480">Rank</th> <th data-bbox="603 1406 762 1480">Village EPA as ranked</th> <th data-bbox="762 1406 1011 1480">Details (Appendix-3 has additional particulars)</th> <th data-bbox="1011 1406 1216 1480">Probable source of funding/deptt.</th> </tr> </thead> <tbody> <tr> <td data-bbox="533 1480 603 1576">1.</td> <td data-bbox="603 1480 762 1576">Community Hall</td> <td data-bbox="762 1480 1011 1576">Up gradation of community hall with infrastructure facility and sanitation facility nearby.</td> <td data-bbox="1011 1480 1216 1576">EPA APFBC/ NRDWP</td> </tr> </tbody> </table>	Rank	Village EPA as ranked	Details (Appendix-3 has additional particulars)	Probable source of funding/deptt.	1.	Community Hall	Up gradation of community hall with infrastructure facility and sanitation facility nearby.	EPA APFBC/ NRDWP
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1.	Community Hall	Up gradation of community hall with infrastructure facility and sanitation facility nearby.	EPA APFBC/ NRDWP						

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 Lakhimpur Division

	2.	Drinking Water	At least 4-5 ring well (Particularly required in Sonowal gaon)	EPA APFBC/ NRDWP
	3.	Solar fencing	Battery and solar system required.	EPA APFBC/ NRDWP
	4	Electricity	Electricity required especially to ahom gaon.	APFBC or Govt. Scheme
	5.	Community Piggery Farm	A community Farm should be setup for Pig rearing and Breeding	APFBC
	6.	Village Road Connectivity	Road From Boginadi to the village.	PMGSY/PWD
	7.	Tent house	A tent house along with Chairs and Utensils	APFBC
	8.	Watch Tower	At least two watch tower within the JFMC.	APFBC
	<ul style="list-style-type: none"> ➤ An arrangement of working capital worth Rs 2 Lacs should be arranged from the EPA fund for promoting Livelihood activities. ➤ A low Community work shed cum JFMC office to be setup within the JFMC boundaries for setting up and commissioning of Tool kits/Equipment/Machineries. 			
Livelihood opportunities	<p>Livelihood Opportunities were identified as follows: Agriculture & Horticulture Tea waging Livestock Weaving Skills Development in Bamboo product making Credit Facility Additional discussion about the above has been given below.</p>			
Agriculture & Horticulture	<p>Table-15 under Record-II may be seen in this connection for opportunities in the areas of agriculture and horticulture.</p> <p>The main constraints are: (a) Inadequate rainfall and irrigation facilities (b) Animal Depredation (c) Prevalence of Pests and inefficient use of insecticides. (d) Lack of modern tools, equipment and machineries.</p> <p>The opportunities are: (a) Nearness to any marketing hub. (b) Availability of new technologies and farming practices (c) Rising demand for diversified agricultural products.</p> <p>The suggested programmes are: • Tractor operation training • Agro-skill development programme. • Training on insecticides, pesticides, hybrid cultivation etc.</p>			
	Table-16 under Record-II furnishes additional information about opportunities for			

<p>Livestock</p>	<p>Table-16 under Record-II furnishes additional information about opportunities for livestock rearing.</p> <p>The main constraints are:</p> <ul style="list-style-type: none"> (a) Unable to buy beekeeping equipment from market due to poor financial condition. (b) Insufficient knowledge on marketing and technical skills (c) Lack of knowledge on the increasing demand for various products. (d) No veterinary care clinic <p>The opportunities are:</p> <ul style="list-style-type: none"> (a) Income generating activity (b) Good domestic market (c) Majority of the workforce is engaged in this activity. <p>The suggested programme is:</p> <ul style="list-style-type: none"> (a) Training on Areca Leaf Plate Making (b) Training on Tailoring (c) Training on Bee Keeping
<p>NWFP</p>	<p>The opportunities for NWFP are tabulated at Table-17 under Record-II</p> <p>The main constraints are:</p> <ul style="list-style-type: none"> (a) Less availability of NWFP (b) No technical know-how (c) No processing units (d) Lack of trained personnel and facilities. <p>The opportunities are:</p> <ul style="list-style-type: none"> (a) Availability of fertile fallow land (b) Increasing demand for herbal products <p>The suggested programme are:</p> <ul style="list-style-type: none"> (a) Plantation of Food plants, (b) Medicinal Plant etc.
<p>Specialized Skills</p>	<p>For skills development, the opportunities are tabulated at Table-18 under Record-II.</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.
<p>Credit Facility</p>	<p>Table-19 under Record-II discusses this aspect.</p> <p>The main constraints with the reasons are: (a) Financial exclusion (b) Higher rate charged by the private money lender.</p> <p>The opportunities are: (a) Setting up modern financial institution (b) Adequate awareness. (c) To provide credit facilities for modern equipment.</p> <p>The suggested programme is: (a) Setting up modern financial institution in the nearby areas.</p>
<p>Strategic Interventions</p>	<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, Agro-skill development programme ,Training on insecticides, pesticides, hybrid cultivation 2. Livestock: Poultry and Cattle rearing. 3. NWFP : Plantation of different variety of food plants, Medicinal Plant etc 4. Specialized Skills: Training on Modern Tools and Equipment, Setting up a raw material bank, Providing a bulk buy arrangement of the finished product with institutional buyers. 5. Credit facility: Setting up micro finance institute in the nearby areas.

D. Livelihood Development Plan

Income Generating Activities	<p>The main income generating activities as planned at the JFMC are:</p> <p>Farm Sector :</p> <ol style="list-style-type: none"> 1.Livestock 2.Farming 3.Horticulture <p>Non-Farm sector:</p> <ol style="list-style-type: none"> 1. Weaving 2. Electrician 3. Carpentry 4. Tailoring
SHG Activities	<p>SHGs of the village can plan the following activities:</p> <ol style="list-style-type: none"> 1. To create awareness. 2. To organise and form group 3. To involve the villagers in Livelihood Activities collectively.
Summary of Action Plan	As attached in next page.
Convergence	<p>The planned initiatives may be converged with the following schemes of the Government of India:</p> <ol style="list-style-type: none"> (a) National Rural Employment Guarantee Scheme - for rural employment (b) Rashtriya Krishi Vikas Yojana (RKVY) - for agricultural and allied development (c) Swarna Jayanti Gram Swarajgar Yojana (SJGSY) - for irrigation, including watershed development (d) National Rural Livelihood Mission (e) Skills Development schemes (f) Other schemes for rural development and livelihoods as found appropriate. <p>The above convergence will yield synergies for the present plan, as well as help in sustaining the planned works in the post-project period.</p>

E. Forest Development Plan of Tarioni Borbil 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 Tarioni Borbil 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 Tarioni Borbil 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 Condition

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 Tarioni Borbil JFMC have been summarized below.

Table-1: Conditions of the Forests of Tarioni Borbil 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: Dullung Reserve Forest Beat: Tarioni Beat Compartment:	246 Ha	5km	Good Area: 242 Ha Degraded Area: 4 Ha	Over 9 m
(B) Other Planted Area				
Location: Tarioni Borbil Type of Forest: Dullung Reserve Forest	i) 20 Ha (Firewood plantation APFBC) ii) 10 Ha (Mixed plantation) iii) 30 Ha (Artificial Regeneration) iv) 10 Ha (Cane)	-	Good Area: 69 Ha Degraded Area: 1 Ha	3-6m
TOTAL	316 Ha (Including firewood, mixed and AR plantation)		Good Area: 311 Ha Degraded Area: 5 Ha	

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

It is seen that the Tarioni Borbil JFMC has 316 Ha under its forests, of which 311 Ha is ‘Good’ and 5 Ha is ‘Degraded’.

1.2. Forest Soil Type

The forests of Tarioni Borbil JFMC are located in alluvial type 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	4.5 to 7.94% organic. The available N, P205 and K20 content of the Soil is comparatively less.	-
Soil Erosion Status	-	-
Presence of:		-
(a) Silt	Low	-
(b) Mud-flat	25%	-
(c) Newly accreted land	5%	-
(d) Sand dune	65%	-

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

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

- a. Entisol (32.3%)
- b. Inceptisol (49.3%)
- c. Alfisols (12.3%)
- d. Ultisols (6.1%)

1.3. Existing Composition of Flora

In the forests of the Tarioni Borbil JFMC, the existing composition of the Flora has been given as follows. It may be noted that the local Forests are classified as Reserved Forests

Table-3: Existing Composition of Flora in the Tarioni Borbil JFMC

Parameter	Local Name(s)	Botanical Name(s)
Major Forest Species	Ajhar	Lagerstroemia speciosa
	Gomari	Gmelina arborea
	Bhelkor	Trewai nudiflora
	Poma	Cedrela toona

	Dhuna	Canarium resiniferum
Associates	Sia-nahar	<i>Kayea assamica</i>
	Samkathal	<i>Artocarpus chama</i>
	Jutuli	<i>Altingia excelsa</i>
	Lejai bet	<i>Calamus floribundus</i>
Shrubs	Jomlakhuti	<i>Costus speciosus</i>
	Nayantara	<i>Catharanthus rose us</i>
	Phulkata	<i>Styrax serrulatum</i>
	Sah goss (Tea plant)	<i>Camellia chinensis</i>
	Sorat goss	<i>Laportea crenulata</i>
	Pasotia	<i>Vitex negundo</i>
Medicinal Plants	Hilikha	<i>Terminalia chebua</i>
	Bhomora	<i>Terminalia chebua</i>
	Thekera	<i>Garcina sp</i>
	Nephaphu	<i>Clerodendrum colebrookianum</i>
	Bhatghila	<i>Oroxylum indicum</i>
Produces	Bamboo	<i>Bambusa dendrocalmus</i>
	Outenga	<i>Dillenia indica</i>
	Khomal Iota	<i>Dregea volubilis</i>
Others, if any	Dimoru	<i>Ficus hispida</i>
	Jamuk	<i>Syzygium cumini</i>
	Rudrasksha	<i>Elaeocarpus shpaericus</i>
	Bandardima	<i>Dysoxylum binectarferum</i>

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

2. Other Inputs for the Forest Development Plan

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

2.1. Past Protection Measures of the JFMC

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

(a) Number of households involved: 100 HH

- (b) Number of people involved:170
- (c) Summary of the measures: Patrolling by forest officials
- (d) Any formal mechanism: Not available

[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 Tarioni Borbil JFMC

Name of Forest Produce	Average Household Requirement		How met at Present	Source
	Frequency of Requirement	Approx. Qty		
Firewood	High (100%)	20 stm ³	From the Forest Area	Forest Area
Timber for House	Moderate (50%)	4 m ³	Purchasing	Dept., Saw Mill, Depot
Small timber for agriculture Implements	High (80%)	0.028 m ³	From the Forest Area	Forest Area
Pole / Bamboo	--	--	--	--
Fodder from Forest	High (100%)	5 Quintal	From the Forest Area	Forest Area
NTFP	Low (5%)	50 Rmtr	From the Forest Area	Forest Area

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

There are 320 households in the Tarioni Borbil JFMC. From the above table and this number of households, it is inferred that the total annual requirements of the Tarioni Borbil village for forest produce for own use is as follows:

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

Name of Forest Produce	Community Requirement (Kg per annum) (*)	Remarks
Firewood	80-120/yr	Throughout the year
Timber for House	5-6 nos/yr	Throughout the year
Small Timber for Implements	7-8 nos/yr	Throughout the year

Pole / Bamboo	--	--
Fodder from Forest	80-120/yr	Throughout the year
NTFP	2-5kg per yr	Throughout the year

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

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

Table-5 (A): Collection & Marketing of Forest Produce by Villagers of the Tarioni Borbil 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**Tarioni Borbil 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 Tarioni Borbil 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 Tarioni Borbil 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	-	-	-
Timber for House	-	-	-
Small timber for Implements	-	-	-
Bamboo	-	-	-
Pole	-	-	-
Fodder from Forest	-	-	-
NTFP	-	-	-

Name of Forest Produce	Community Requirement (Kg per annum) From Table-4(B)	Surplus Marketed (Kg) From Table-5(B)	Total Requirements (Kg)
Other	-	-	-

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 Tarioni Borbil JFMC have been summarized below.

Table-7: Protection Problems of the Tarioni Borbil 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	NIL	NIL
Incident of snake bites/life threat/risk while protecting forest	Life treat	Yes
Theft of Medicinal Plants	No	No
Other (specify)	Due to low infrastructure protection problem arises in this Forest Area.	

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) Accidental Fires
- (c) Smuggling of Timber

3.2. Reasons for Degradation of the Forest

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

- (a) Deforestation
- (b) Accidental fire
- (c) Grazing of animals
- (d) No Scientific plan

[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 Tarioni Borbil 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 Tarioni Borbil JFMC from the issues discussed earlier at Sub-section 3.1

Table-8: Protection Plan of the Tarioni Borbil 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]
Engagement of watcher	Forest area		Morning/Evening	Low
Solar Fencing	Forest area		Morning/Evening	High
Rotational grazing	--	--	--	--
Fire Protection	--	--	--	--

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 Tarioni Borbil JFMC (with high / medium priority) are as follows:

- (a) Solar Fencing (Up gradation)
- (b) Fire protection

4.2. Types of Operations Proposed

The types of operations proposed for the treatment of degraded areas of the JFMC Forest of Tarioni Borbil JFMC are given hereunder.

Table-9: Types of Operations Proposed in the Tarioni Borbil JFMC

Treatment	Required (Yes/ No)	Responsibility of JFMC (Yes / No)	Month / Year when can be done	Extent of Area proposed for Treatment (Ha)
Restoration of Degraded Forests	Yes	Yes	Should be initiated by Govt. only	10Ha
Protection to Cut Stumps of Trees	Yes	--do--	--do--	100Ha
Watershed Treatment	No	No	No	No
Water Reservoirs	No	No	No	No
Grass & Silvi Pastoral activities	No	No	No	No
Bamboo Plantation	No	No	No	No
Seed Sowing	Yes	Yes	Should be initiated by Govt. only	100Ha
Root & Shoot Cutting & Plantation	No	No	No	No
Cut Back & Coppice Treatment	No	No	No	No
Stone wall Fencing	Yes	Yes	Should be initiated by Govt. only	100Ha
Social Fencing	No	No	No	No
Other Activities	Awareness Training	Yes	Should be initiated by Govt. only	---

Source: Proforma-3, Table-3.9 / Discussions with Forest Department personnel & Community members

Thus, it is seen that the following are the treatment operations which have been proposed in the forest area of the Tarioni Borbil JFMC:

- (a) Root & Shoot Cutting & Plantation
- (b) Restoration of Degraded Forests
- (c) Seed Sowing
- (d) Stone wall Fencing
- (e) Awareness Training

4.3. Forest Improvement Plan - Advance Works & Creation

The pertinent details in the above connection have been tabulated as follows.

Table-10: Forest Improvement Planned in the Tarioni Borbil JFMC

Treatment	Area in Ha under Plantation Module	Priority for Block Plantation	Species	Spacing (metre x metre)
Assisted Natural Regeneration (with plantation in gap)	10 Ha	Yes (Block plantation)	-	2m*2m
Block Plantation	100 Ha	Yes (Block plantation)	Ajhar, Jia, Poma, Bhelkar, Simul,	2m*2m
Sowing of Neem, Amla, Mahua, Bahera (Medicinal Plants)	Planting of seedlings	Yes	-	2m*2m
Firewood Plantation	20 Ha	Yes	-	2m*2m
Mixed Plantation	30 Ha	Yes	-	2m*2m
Total	160 Ha	-	-	-

Source: Proforma-3, Table-3.8 / Discussions with Forest Department personnel & Community members

4.4. 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/-
2022-23*	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/-
	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 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/-
2022-23*	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/-
	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

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-

4.5. Nursery Development Plan

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

Table-11 (A): JFMC Nurseries of the Tarioni Borbil 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 2017-18
	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,		25,000	

Location of Nursery	Species	Year of Development	Number of Seedlings	Remarks
	Neem, Arjun, Ashok, Nara singha, Bhatghila, Jolphai etc.			
	Non Saal; Arjun, Seleng, Poma, Borpat, Udal, Hollock, Khokon, Jutuli, Amari, Bola etc	2017-18	5500	Provide sapling for plantation to be under taken in the 2018-19
	Mixed Hardwood : Cham, Gomari, Bola, Dhuna, Titasopa, Poma, Hollock, etc. Fuel wood – Kadam Ghora neem, Moj, Siris, etc.		12,500	
	NTPF: 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	2018-19	5500	Provide sapling for plantation to be under taken in the 2019-20
	Mixed Hardwood : Cham, Gomari, Bola, Dhuna, Titasopa, Poma, Hollock, etc. Fuel wood – Kadam Ghora neem, Moj, Siris, etc.		12,500	
	NTPF: 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

4.6. Maintenance Plan - 10 Years

The maintenance plan for plantations raised in the Tarioni Borbil 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 Tarioni Borbil JFMC

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

4.7. Miscellaneous Operations Plan

The miscellaneous operations planned in the Tarioni Borbil JFMC are given below.

Table-13): Miscellaneous Operations in the Tarioni Borbil 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 Tarioni Borbil 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 Tarioni Borbil 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 Tarioni Borbil 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 Tarioni Borbil JFMC.

Table-15: Sharing Mechanism for Tarioni Borbil 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

Appendix 1(A)

HOW TO REACH:

Guwahati to North Lakimpur distance, location, road map and direction

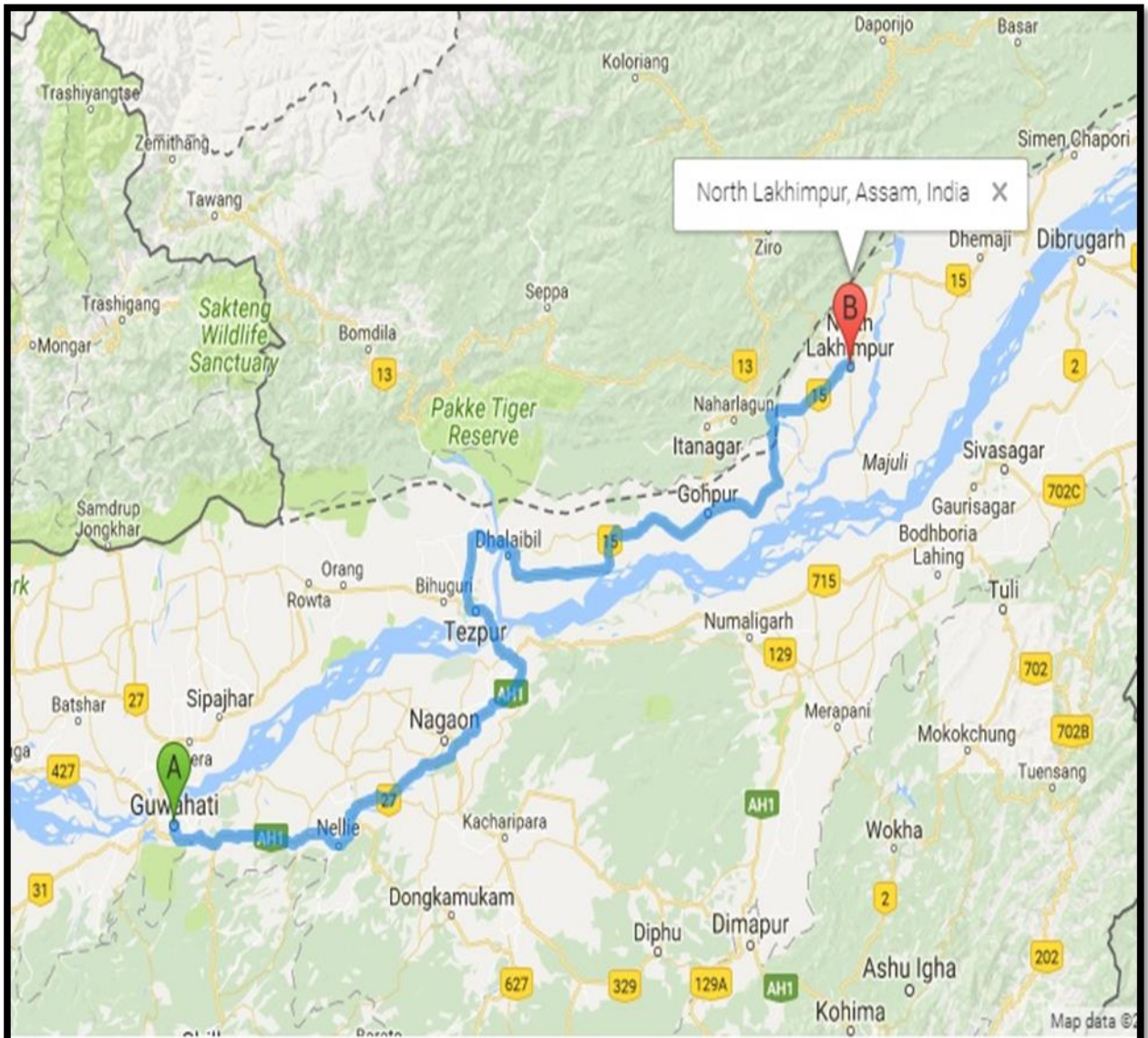
Guwahati is located in India at the longitude of 91.75 and latitude of 26.19. North Lakimpur is located in India at the longitude of 94.11 and latitude of 27.24

Distance between Guwahati and North Lakimpur

The total straight line distance between Guwahati and North Lakimpur is 450KM (kilometers) and 640.39 meters. The miles based distance from Guwahati to North Lakimpur is 162.6 miles. This is a straight line distance and so most of the time the actual travel distance between Guwahati and North Lakimpur may be higher or vary due to curvature of the road.

Guwahati To North Lakimpur road map

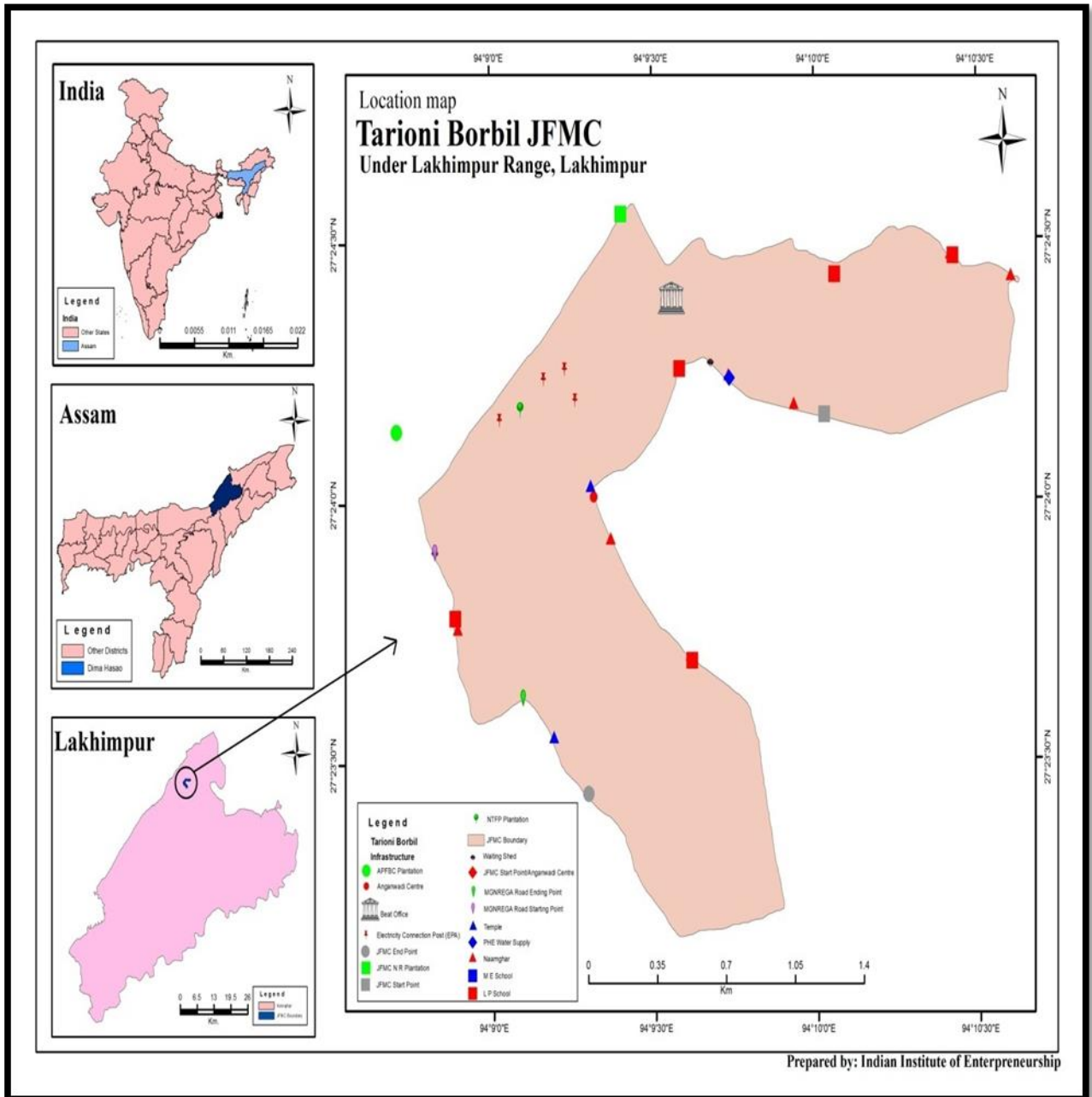
Guwahati is located nearly west side to North Lakhimpur. The given west direction from Guwahati is only approximate. The given google map shows the direction in which the blue color line indicates road connectivity to North Lakimpur. In the travel map towards North Lakimpur you may find enroute hotels, 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.



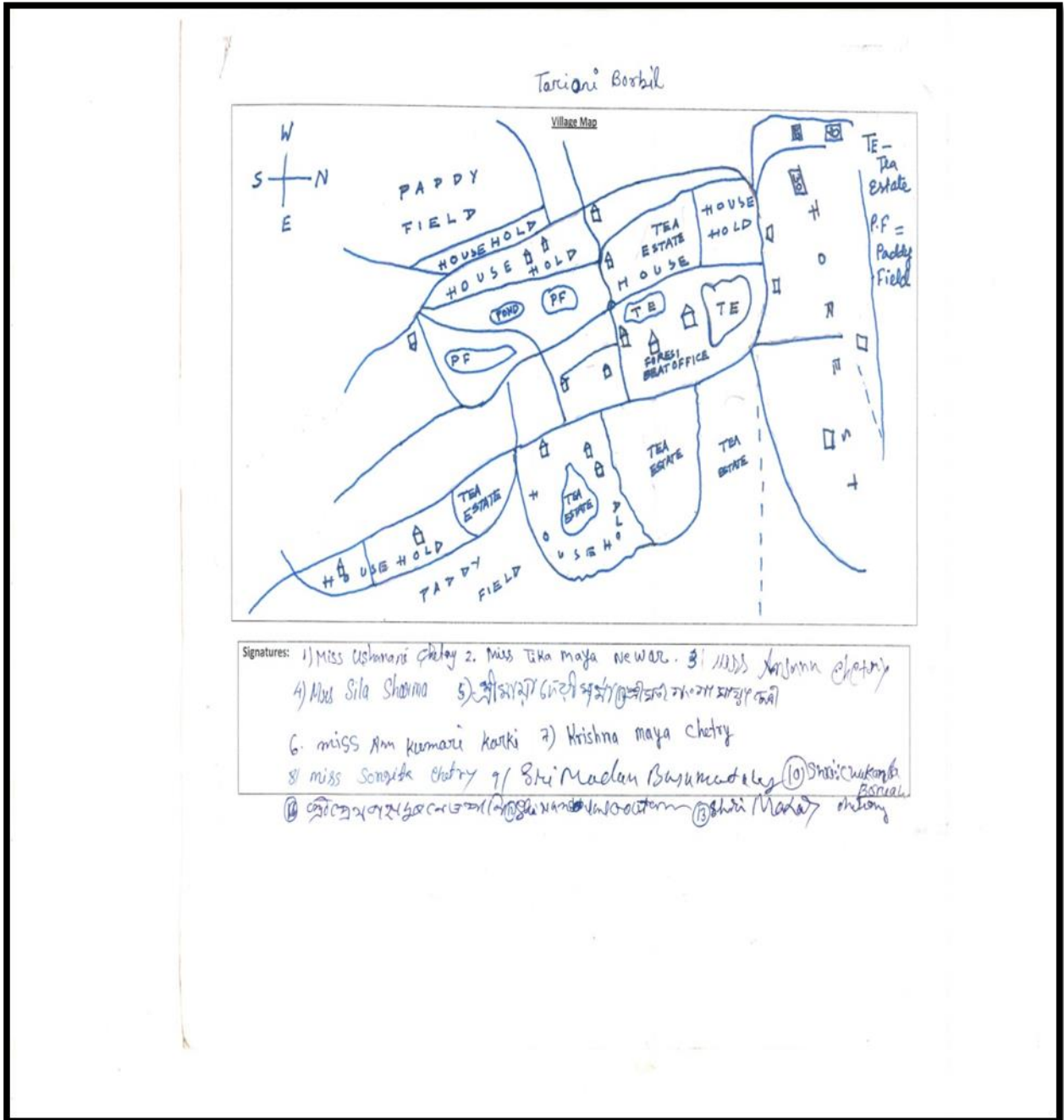
Guwahati To North Lakhimpur driving direction

Appendix 1(B)

a) GIS Location map

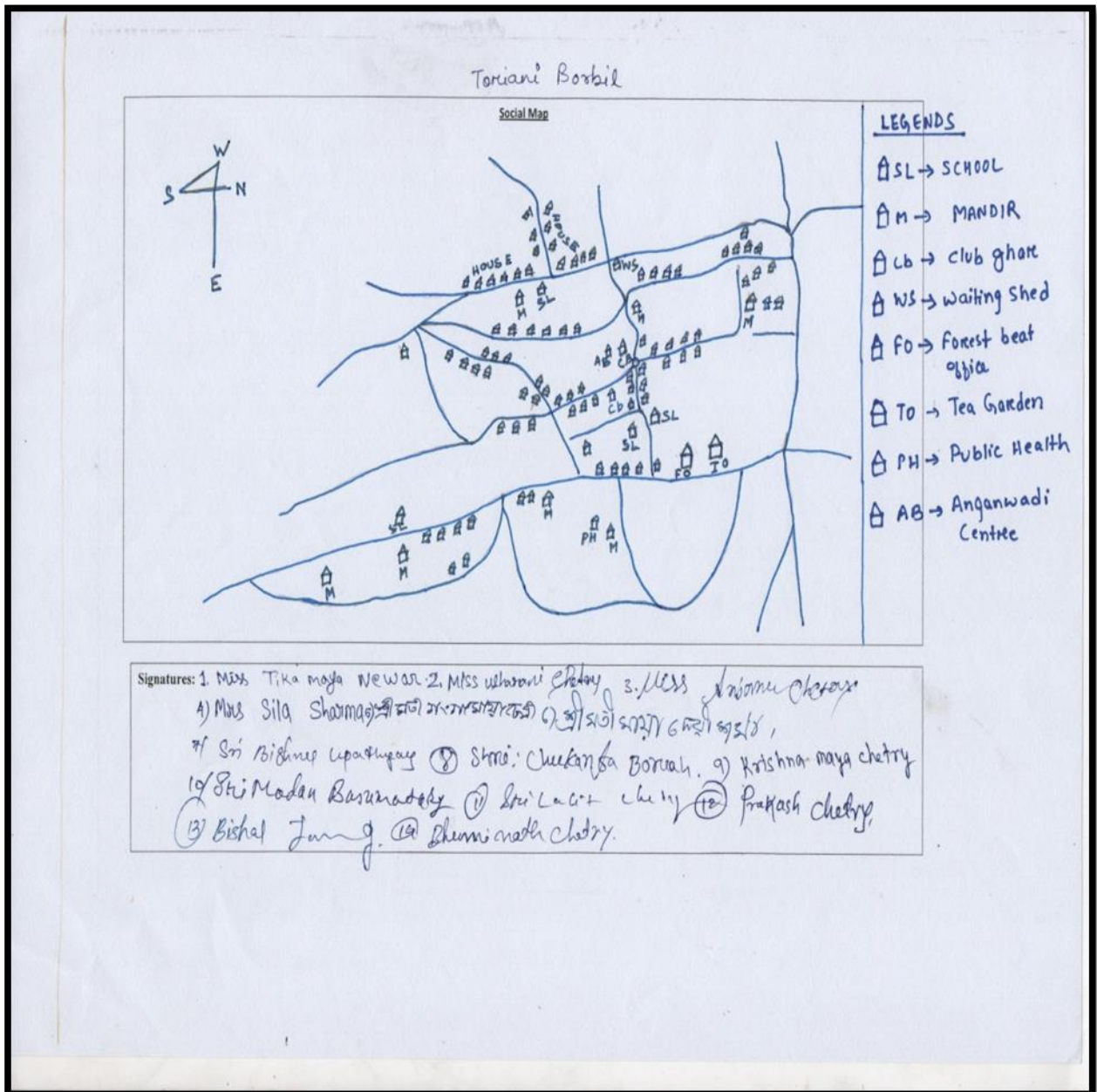


b) Village map :



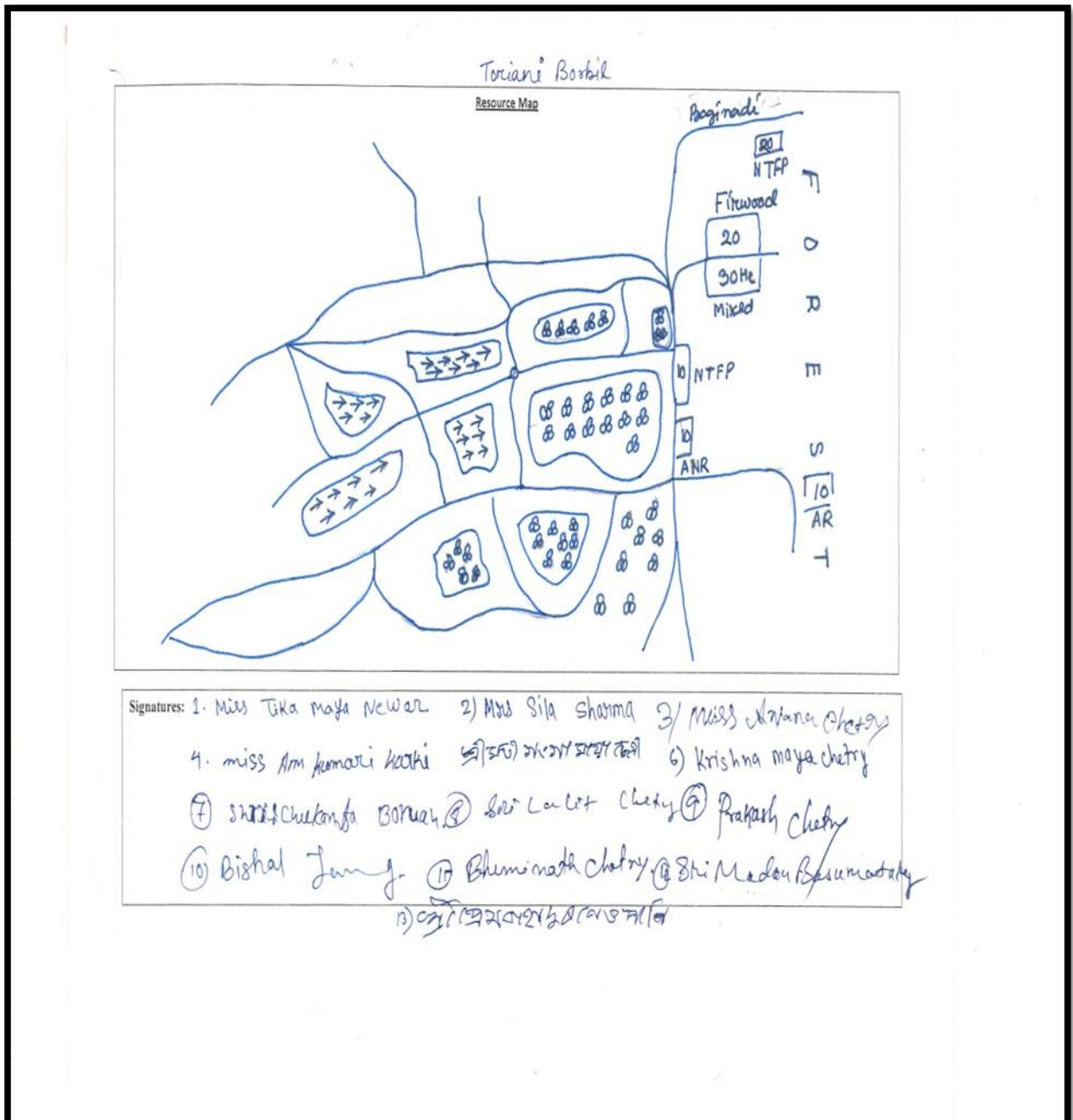
Village Map Being Drawn By the Villagers

c) Social map



Social Map Being Drawn By the Villagers

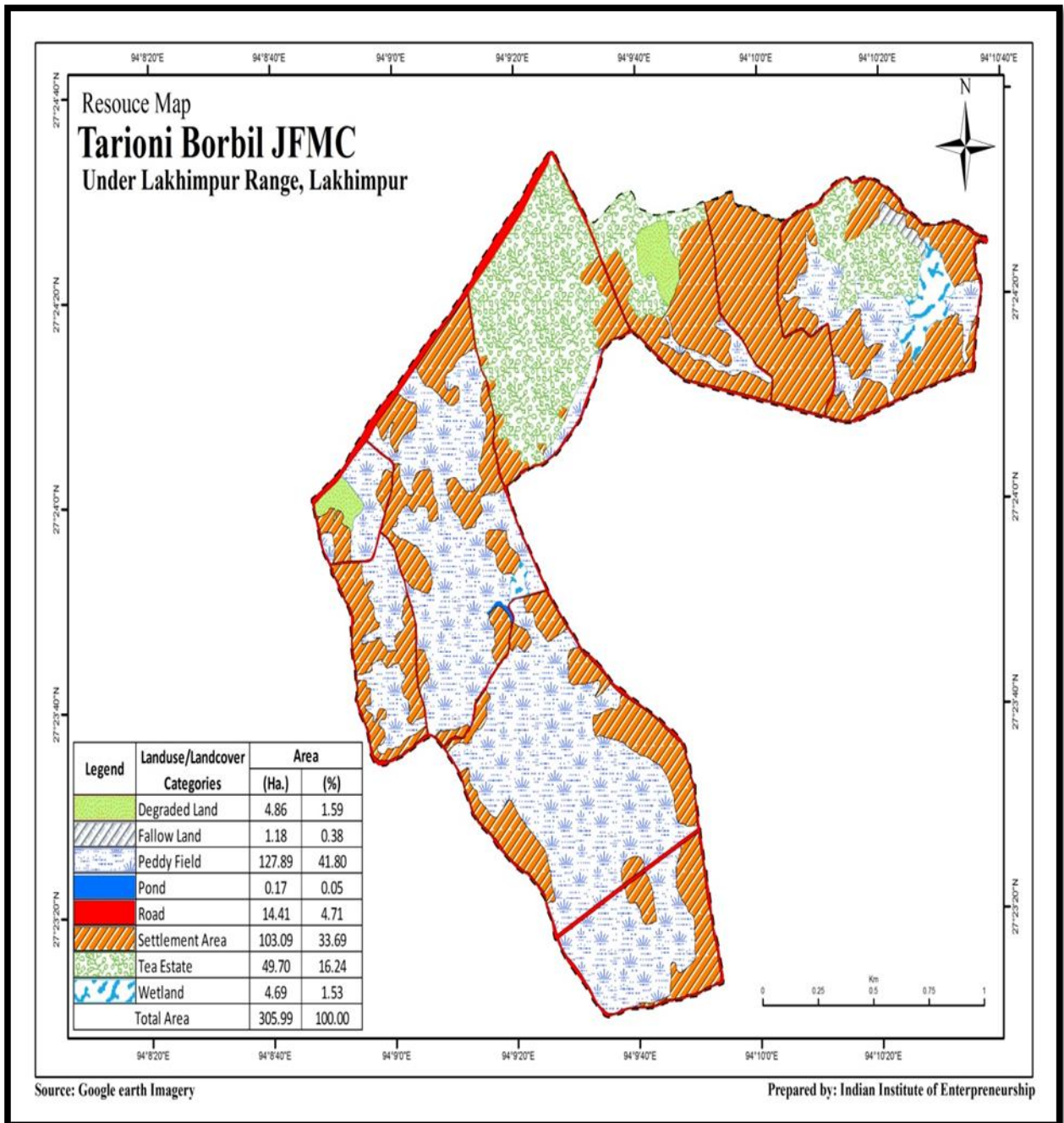
d) Resource Map:



Resource Map Being 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 :	107 (JFMC members including Forest Officials)
Time :	10 a.m., 8 th March 2017
Venue :	1 No. Taroni, Forest Beat Office, Tarioni Borbil JFMC

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 help the villagers and facilitators to develop in-depth understanding of socio-economic status of the area through preparation of maps and discussion on different social and economic aspects. Considerable efforts were made to present the information on the available community infrastructure, social structure, institutions, occupations etc. through a social map. Awareness camp about the project was carried out beforehand. So it was easy to gather people for the PRA process in the school. The enthusiasm level of the villagers was appreciating and they actively participated in the mapping process.

At first, the people of villages 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 the 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 households namely pakka, semi pakka, IAY and thatch house.

Table 3.1: Information about the villages

	Village →	Tarioni Borbil
General and Social information	Total population	1610
	Male	840
	Female	770
	Total households	320
	No. of Pakka houses	20
	No. of semi pakka house	177

	No. of kuccha houses	123
	River	Yes (1 No.)
	PHE water supply	Yes in Tarioni Borbil
	Community hall	Yes (one)
	APFBC plantation	Yes
	Ring Well	Yes
	Embankment	Nil
	Forest Beat office	Yes (1 No.)
	Electricity connection Post	Yes
	Anganwadi	Yes (2 No.)
	LP School	Yes (4 No.)
	ME School	Yes (1 No.)
	Club Ghar	Yes (1 No.)
	WaterShed	Yes (1 No.)
	Mandir	Yes (7 No.)
	Raninarah Tea Estate	Yes (1 No.)
	JFMC NR plantation	Yes
	NTPF plantation	Yes

Source: Field Survey Report

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 320 households out of which 177 households have semi pakka houses and 20 have pakka houses and the remaining 123 households are kuccha or thatch houses. This shows that the person of the village is still deprived of the basic household schemes from the Government.
- Other than the class based division of the households, important places like community hall, schools, ring well, river, club ghar, forest beat office and bridges are mapped.
- A main source of water for the villagers is Balijan Boginadi 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 no high school level education facility within the JFMC which results is maximum number of school drop outs.
- Majority of the population belongs to the tribe and OBC community and are of General caste.

Learnings :

- The Households are still dependent on forest and use firewood for their cooking purpose which is still a concern for the forest department for degradation of the forest.
- The market along with police station is located in Boginadi, which is 7 KM away from the JFMC. The villagers have to cover a long distance for their market facility.
- 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's. The Six villages 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.
- The villagers of the Tarioni Borbil JFMC have to move to Boginadi, a distance covered with 7 km, for their weekly marketing activity.

3.2 Wealth Ranking:

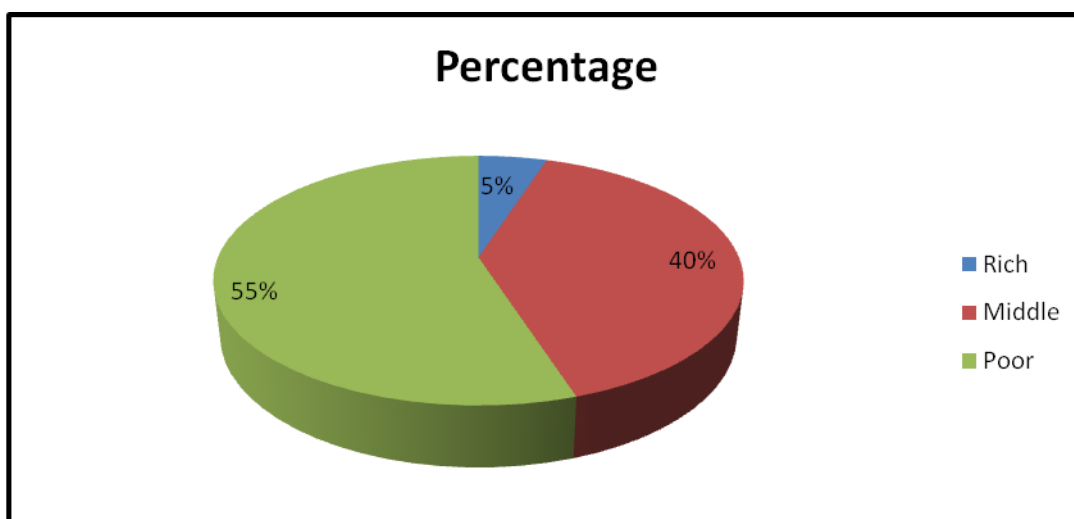
Wealth ranking, or well-being ranking, involves community members identifying and analysing the different wealth groups in a community. It enables evaluators to learn about the socioeconomic stratification of project beneficiaries and local people's definitions and indicators of wealth/well-being.

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

- a) Land holding
- b) Occupation

As such about 55 per cent people are poor, about 40 per cent belong to middle class and about 5 per cent are categorised to be rich. Poor people are mainly irregular wage earners, sometimes they lease (adhi lua) others land. They also have good amount of agricultural land.

Figure 3.2: Wealth Ranking



Source: Field Survey Report

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. Out time line illustrates the following events:

Table 3.3: Timeline review

Timeline Category	Year	Event	Type
Pre-Independence	Nil	Nil	Nil
Post -Independence	1990	Rajib Moran secured First Division in HSLC.	Formative
20 th Century	2005	Tarioni Borbil JFMC was formed	Constructive
	2006	There was an animal depredation where a tiger attacked a village person .The person name is Chandra Bahadur Newar.	Destructive
	2012	There was a animal depredation where a elephant attacked a village person named Premeswar Baruah.	Destructive
	2013	Rajib Moran got a government job as supply inspector.	Formative
	2014	Basudev Sarma got job as a Junior Electrician in BRPL.	Formative
	2016	There was an Elephant depredation about 7 Ha areas of agricultural crops.	Destructive

Source: Discussed with JFMC members and forest officials

Learning:

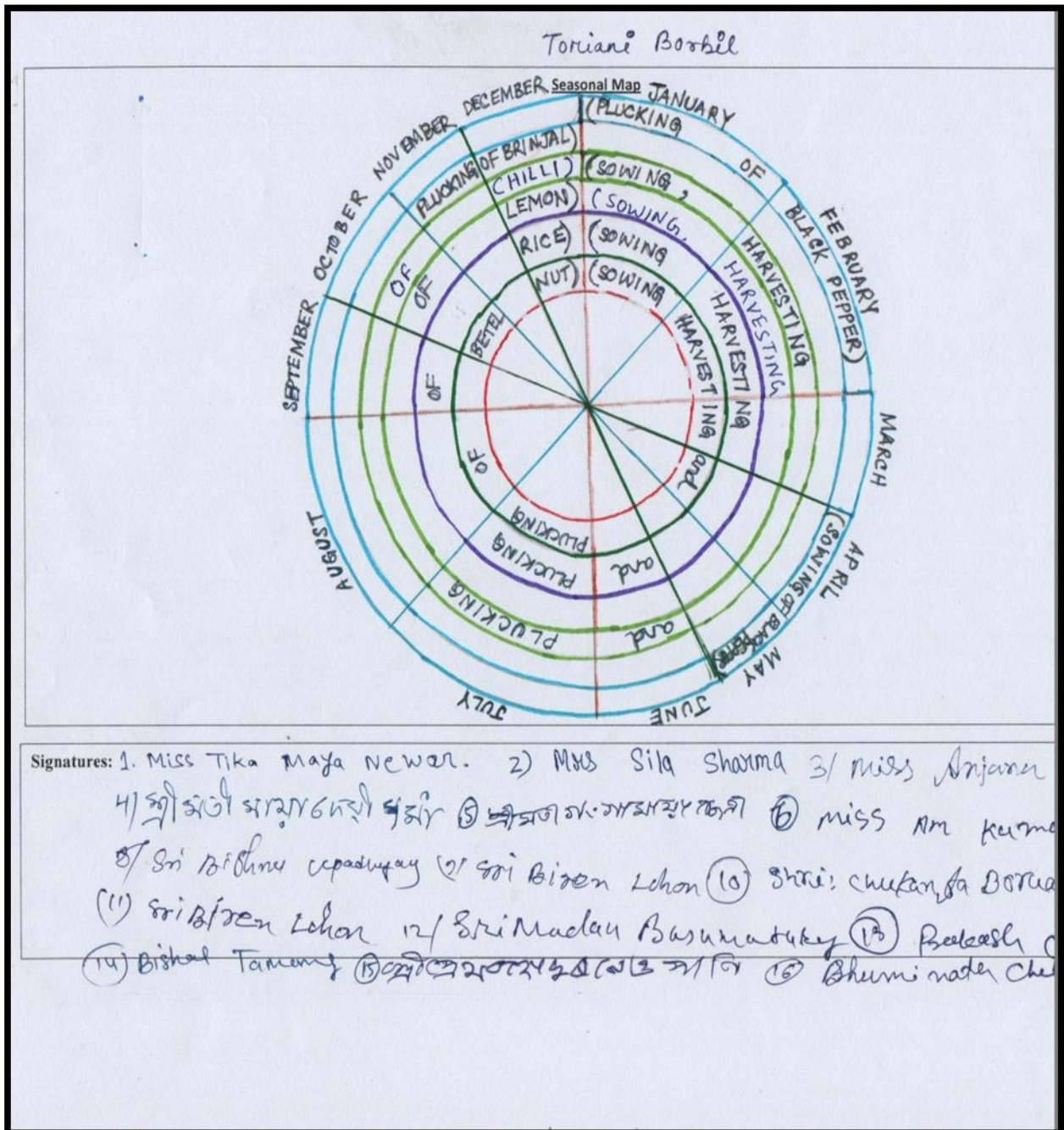
- It has been observed and learnt from our research and information from the village people that there are some kinds of Formative, destructive and constructive events in the village which is being learnt during the PRA exercise.

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. sowing, 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 Pineapple, tomato, Potato, chilli, cabbage, cauliflower, mango 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 3.4(A): Seasonal Map of Tarioni Borbil JFMC



Source : PRA Exercise

Table 3.4(B) Seasonal cropping pattern

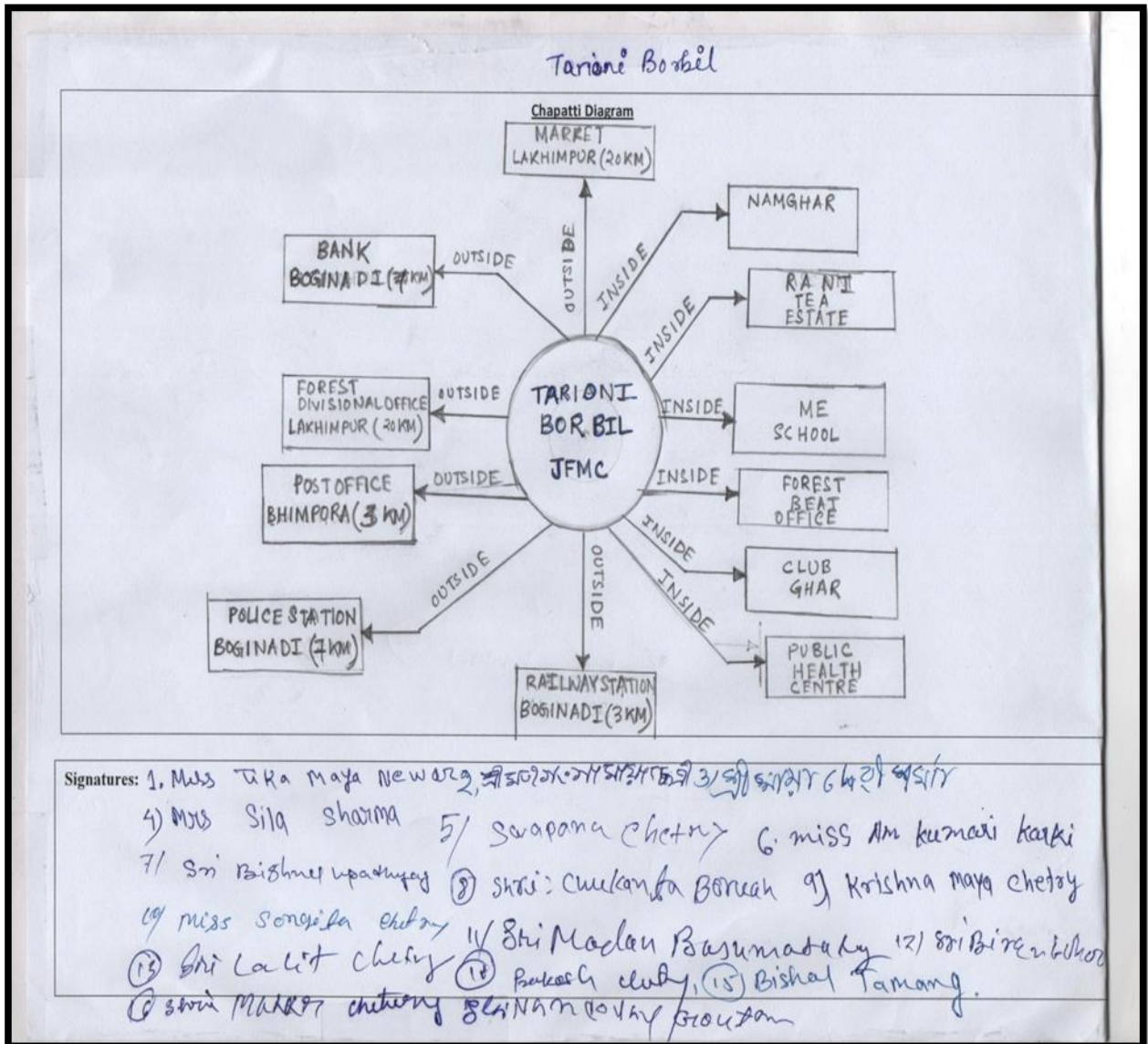
Agricultural Crop	Time of Activity			
		Sowing	Harvesting	Plucking
Farming	Black pepper	April-May	June-Dec	Jan-Feb
	Tomato	Jan-Mar		May-June
	Potato	October		Nov-Dec
	Lemon	March-April		May-June
	Chilli	April-May		May-June
	Betel Nut	Jan -April		July- Oct
	Brinjal	July	August	Dec-Jan
	Non-Farming	Weaving	Throughout the year	
Livestock Rearing				
Daily Wage Earning				
Shop-keeper				
Electrician				
Tailoring				

Source: PRA Exercise

Learnings:

- Water availability is less during the period October to March, so agricultural productivity becomes less in this period.

3.6 Chapatti Diagram



Source : PRA Exercise

3.7 Priority Ranking- EPA

Toniari Boreil

Priority Ranking of Entry Point Activity

Entry Point Activities	Community Hall	Drinking Water	Solar fencing	Electricity	Community Piggery	Village Road connectivity	Tent House	Watch Tower						Marks	Rank
	A	B	C	D	E	F	G	H	I	J	K				
Community Hall	A	X	A	A	A	A	A	A						7	1
Drinking water	B		X	B	B	B	B	B						6	2
Solar fencing	C			X	C	C	C	C						5	3
Electricity	D				X	D	D	D						4	4
Community Piggery	E					X	E	E						3	5
Village Road connectivity	F						X	F						2	6
Tent House	G							X	G					1+	7+
Watch Tower	H								X					1	7
	I														
	J														
	K														

Signatures: 1. Miss Tikamaya Newar. 2) Miss Sila Shrestha 3/ Miss Anjana Chetani
 4) Miss Anjana Chetani 5) Miss Sita Shrestha 6) Miss Anjana Chetani
 7) Koushina Maya Chetani 8) Miss Sonalika Chetani 9) Sri Madan Basumatary 10) Prakash Chetani
 11) Sri Lalit Chetani 12) Bishal Tamrakar 13) Khumi Math Chetani.

Source : PRA Exercise

3.8 Priority Ranking-Livelihood

Taruni Borbil

Priority Ranking of Livelihood Activities

Livelihood Activities	Tea Waging	Handloom	Farming	Livestock	Cane & Bamboo					Marks	Rank
	A	B	C	D	E	F	G	H	I		
Tea Waging	A	X	A	A	A					4	1
Handloom	B		X	B	B					3	2
Farming	C			X	C					2	3
Livestock	D				X	D				1	4
Cane & Bamboo	E					X				0	5
	F										
	G										
	H										
	I										

Signatures: 1. Miss Tika Maya Newar. 2. ~~Miss~~ Miss SIM Shoma श्रीमती. श्रीमती. श्रीमती. श्रीमती.
 3) Miss Am Kumari Karki 4. Swapna Chetty. 5. Sri Bishnu Upadhyay
 6) Sri Bideen Lohan 7) Sri Laxmi Chetty 8) Prakash Chetty
 9) Bishal Tamang. 10) Bhuminath Chetty. 11) Sri Madan Basumatary
 12) Sri: Chukon, Ga Boruah.

Source : PRA Exercise

ANNEXURE 4

PHOTOGRAPHS -1



During Awareness

PHOTOGRAPHS -2



PRA Activity

LIST OF JFMC MEMBERS

RECORD 7 : MEMBERSHIP REGISTER

Name of JFMC
Tasiani
Borbil

Division
Lakhimpur
Division

Range
Lakhimpur Range

Beat

JFMC Code

Sr. No.	Name	Father's / Husband's name	Age	Male / Female	Education	SC/ST/ BC/OBC
1	Mojin Deka	H-Bishnu Izum Deka	51	Male -	H-S-	OBC.
2	Dipak k. Dutta	Rama Dutta.	45.	Male -	BA -	General.
3	Kiziprasad Upadhyay	H-Sri Prasad.	56.	Male -	X.	"
4	Tarun Sonowal	Maheswar	41	Male -	H.S.	ST.
5	Khagen Sonowal	Dinanath	42	Male -	H.S.	ST.
6	Pran bd. Neupani	Devi bd. Neupani	58.	Male -	VII	OBC.
7	Minoti Dutta	H-Thane swar Dutta.	52.	Female	VII	General
8	Binakumari Powel-	Lakhi Powel	39.	Female -	X	OBC.
9	Purusuttam Sarmah	Dhanu Prasad -	51.	Male -	X	General.
10	Biren Lahon	H- Sonowal	38	Male	X	OBC.
11	Jagat Borah	H- Krishna	38	Male	X	OBC.


Pradip
Regional Borbil J.F.M.C Committee
Lakhimpur, F. I. A.

97


Range Forest Officer
North Lakhimpur Range
North Lakhimpur, F. I. A.

Annexure 6 (Record I)

Table 1: Basic data of the JFMC:

Sl. No	Name of JFMC/Village	Date of Establishment	No. Of Members In Executive Comtt.	Name of President	Name of Member Secretary	Money in village Dev. Fund (VDF)	Contribution per family or per person	Social fencing used Yes/ No	Remarks on special attainments	Grading % of Success of JFMC by RFO
1	Tarioni Borbil	2005 - 2006	11	Mozin Dekka	Deepak Kumar Dutta	No	-	Yes	-	73%

Source: - Field survey report.

Table 2: Village Wise Population data of the JFMC:

Table -2: Demographic status of the project villages

Sl. No	Name of Village	No. of Households	SC		ST		OBC		General		Total-all category
			M	F	M	F	M	F	M	F	
1.	Tarioni Borbil	320	143	107	230	160	335	325	185	125	1610
	Total	320	143	107	230	160	335	325	185	125	1610

Source: - Field survey report.

M-Male; F-Female

Table 3: Age profile of the JFMC

Age Class	<5 years	5-18 years	18-45 years	45-60 years	>60 years	Total
Male	37	271	320	185	27	840
Female	32	255	295	165	23	770
Total	69	526	615	350	50	1610

Table 4: Education profile of the JFMC

Name of Village	Illiterate	Up-to IV	V-VII	VIII-X	X-XII	Graduate	Total
Tarioni Borbil	580	400	300	200	110	20	1610
TOTAL	580	400	300	200	110	20	1610

Table 5: Income Distribution of the JFMC

Income Category(in Rs) Yearly	No of HHs
>5000 Rs	-
5,0000-10,000	10
11,000-20,000	152
21,000-30,000	148
31,000-40,000	10
41,000-50,000	-
<50,000	-

Table 6: JFMC farmer category on the basis of land holding :

Sl.No	Name of Village	Type of Farmers according to land holding				Total
		Large Farmer > 10ha.	Small Farmer 2-10 ha	Marginal farmer (household) <2ha.	Land less (house hold)	
1	Tarioni Borbil	---	49	195	76	320
Total		---	49	195	76	320

Table 7: Cattle Population of the JFMC

Sl. No	Name of Village	Village wise no of cattle							
		Cows	Buffaloes	Goats	Bull	Poultry	Pig	Duck	Total
1	Tarioni Borbil	210	220	320	475	1510	970	220	3925
Total		210	220	320	475	1510	970	220	3925

Table 8: Infrastructure of the JFMC

Sl. No.	Infrastructure	Location	Distance from village, if in another location (in Kilometers)	Condition and status of present use
1	Main Road	NH-15	3km	Good
2	Electricity	Inside	Under Village area	Average
3	Gas connection	Inside	Under Village area	Average
4	Transport	Inside	Under Village area	Average
5	Primary Health Centre	Dirpai	2 km	Poor
6	School (LP)	Inside	Under Village area	Average
8	Bank	Balijan Boginadi	7 km	Average
9	Anganwadi Centre	Inside	Under Village area	Average
10	Gram Panchayat Office	Ukhamati	Under Village area	Average
11	Revenue Office	Nil	-	-
12	Police Office	Boginadi	7 km	Average
13	Forest Office (Beat)	Inside	Under Village area	Average
14	Post Office	Boginadi	7 km	Good
15	Bus facility	Boginadi	7 km	Poor
16	Railway Station	Boginadi	7 km	Good

17	Drinking Water	Ring well	Under Village area	Average
18	Community hall	Yes	Under Village area	Average
19	District Head Quarter	Lakhimpur	20 km	Good

Source: - Field survey report.

Table 9: Agricultural crops of the JFMC

	Rain fed		Irrigation	
	Name of Crop	Area in ha.	Name of Crop	Area in ha.
Kharif	Paddy (Sali, Aijong, Pankaj, joha, Bao)	127.89	-	-
Rabi	Mustard, Potato, Tomato	20.4	-	-
Tea	Tea Estate	49.70	-	-
Fruits	Pineapple, Mango	23		

Table 10: Crop production profile of the JFMC

Crop	Total production (approx) in quintals	Number of households growing	Average production (quintal per/hac) approx	Area under crop (hac) approx
Paddy	5075 q	145	39.68	127.89
Vegetables	238 q	119	11.66	20.4
Fruits	104 q	52	4.52	23
Tea Estate	30 q	25	15.09	49.70

Table 11: Fodder Availability (animal) of the JFMC

	1 – 3 months	3 – 6 months	> 6 months
Crop residue	✓	-	-
Trees fodder	-	✓	✓
Grasses	✓	✓	✓

Green fodder		✓	-
Grazing in forest	-	-	✓

Table 12: Location of market from the JFMC

For purchase	Location	Distance from village if in other village kilometre
Grocery Shop/PDS center	Under village area (Inside)	0KM
Weekly Market	Boginadi	7 km
Major Market	Boginadi	7 km
Forest corporation sale depo.	-	
Tendu Patta PHAD	-	
Fish Market	Boginadi	7 km
Medicinal Plant Collection Center	-	-
Forest Corporation Medicinal	-	-
Plant Collection Center	-	-
Other Specify	-	-

Source: - Field survey report.

Table 13: Water Resources Facility available in the JFMC

Water Source	Number	Water Availability (Adequacy, seasonality)	Uses (drinking, irrigation, livestock bathing)
Water Harvesting Structure	2	-	Bathing, Irrigation, livestock rearing
Check dam	1	-	Bathing, Irrigation, livestock rearing
Tube well	0	-	-

River/Nala	1	Adequate	Drinking
Ring well	4	Adequate	Drinking
Canal	2	Adequate	Bathing, Irrigation, livestock rearing
Water Reservoir	2	Adequate	Bathing, Irrigation, livestock rearing

Table 14: Energy consumption of the JFMC:

Type of fuel	Number of household depending	Number of months dependent	Source (local village, forest, other source)	Major/Secondary
Fuel wood	200	12 month	Forest, Village area	Major
Kerosene stove	200	12 month	Market	Major
Gobar /Bio Gas	20	4 month	Forest, Village area	Secondary
LPG	40	6 month	Govt.	Secondary

Source: - Field survey report.

RECORD II

LIVELIHOOD OPPORTUNITY ANALYSIS

Table- 15: Agriculture and Horticulture

Constr aints	Reasons	Opportunities	Programme
Low produc tion/co llection	<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"> • Nearness to any marketing hub. • 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. 	<ul style="list-style-type: none"> • Tractor operation training. • Agro-skill development programme. • Training on insecticides, pesticides, hybrid cultivation

Storage & processing	<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"> Availability of new technologies and farming practices. 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"> Training programme. Packaging Transportation and distribution
Marketing	<ul style="list-style-type: none"> Lack of cold storage facility due to non-availability of electricity 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"> Rising demand for diversified agriculture product and more knowledge about current market situation. 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"> Awareness programme to know the market condition. Sellers and Buyers meeting.

TABLE- 16: Livestock

Constraints	Reasons	Opportunities	Programme
Less grazing land	Not applicable	<ul style="list-style-type: none"> Income generating activity 	
Availability of fodder	<ul style="list-style-type: none"> Trees fodder and crop residue are available only for 3-6 months. Green fodder is also not available for the whole year. Because of poor financial condition, unable to buy from market. 	<ul style="list-style-type: none"> Good domestic market for the fodder if they have access facility and can make an alternative livelihood opportunity. 	
Lack of skilled manpower	<ul style="list-style-type: none"> Insufficient knowledge on technical skills and marketing skills. 	<ul style="list-style-type: none"> Training on the skills development can enhance and increase their productivity. 	

Market	<ul style="list-style-type: none"> • Proper linkage with the market • Unaware of the market demand of different products. 	<ul style="list-style-type: none"> • Good market demand for both National and International market. 	
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. 	
Problems related to other Livestock	Poor nutrition		Cattle improvement /health programmes

TABLE- 17: NWFP

Constraints	Reasons	Opportunities	Programme
Less Collection	<ul style="list-style-type: none"> • Less availability of NWFP 	<ul style="list-style-type: none"> • Increasing demand in the market 	<ul style="list-style-type: none"> • Training programme on benefits of NWFP
Unsustainable extraction	NA	--	--
Low Rates	NA	--	--
Value addition	<ul style="list-style-type: none"> • No processing units • Non availability of required resources • No technical know-how 	--	--

TABLE- 18: Specialized skills

Constraints	Reasons	Opportunities	Programme
Raw material availability	<ul style="list-style-type: none"> • Lack of monetary assistance • No storage facility • Lack of effective use of raw materials 	<ul style="list-style-type: none"> • Diversified market products. • Provide central storage facility. 	<ul style="list-style-type: none"> • Training on Skill development. • Provide awareness and information programme for modern infrastructure and machine.

Product quality	<ul style="list-style-type: none"> • Lack of training • Use of Traditional machineries • Lack of knowledge for packaging of product. 	<ul style="list-style-type: none"> • Developing new and innovative products with the help of modern technology. 	<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"> • Lack of domestic market knowledge. • No linkage with the institutional buyers. • Lack of proper 	<ul style="list-style-type: none"> • Innovative ideas and new product development for better marketing channels. 	<ul style="list-style-type: none"> • Providing a bulk buy arrangement of the finished product with institutional buyers.
Credit facility	<ul style="list-style-type: none"> • Lack of Micro Finance Institutions like SHG'S 	<ul style="list-style-type: none"> • Providing credit and short term money loan facility or financial assistance from some government organisation. 	<ul style="list-style-type: none"> • Microfinance, Term Loans, Working Capital Arrangement
Innovative and diversified Product	<ul style="list-style-type: none"> • Lack of new ideas and selling strategy. • Lack of awareness about new trends of market. 	<ul style="list-style-type: none"> • New product development as per needs of the market. 	<ul style="list-style-type: none"> • Training on diversified Products.

TABLE- 19: Credit facility

Constraints	Reasons	Opportunities	Programme
Rate of interest	<ul style="list-style-type: none"> • Higher lending rates charged by the private money lender 	<ul style="list-style-type: none"> • Financial assistance setup by government institution 	<ul style="list-style-type: none"> • Awareness Programme.
Availability of loan	<ul style="list-style-type: none"> • Lack of Micro Finance Institutions like SHG'S 	<ul style="list-style-type: none"> • Creating SHG's and new venture. 	<ul style="list-style-type: none"> • Awareness programme on SHG
Cash Credit	<ul style="list-style-type: none"> • Unavailability of financial assistance. 	<ul style="list-style-type: none"> • Cash Credit can also be secured by way of mortgage of immovable properties 	<ul style="list-style-type: none"> • Awareness Programme.