

NAKHUTI JOINT FOREST MANAGEMENT COMMITTEE (JFMC)

Lanka Range, Nagaon South Forest Division

NORTHERN ASSAM CIRCLE

MICRO-PLAN

(2016-17 to 2025-26)

Prepared by Nakhuti Joint Forest Management Committee

assisted by
Assam Forest Department

&
COMPELO
(IIE & RGVN)

Approved:
ansn
11/7/17
Divisional Forest Officer
Nagaon South Division
Tejaj

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

NAKHUTI JOINT FOREST MANAGEMENT COMMITTEE
Nagaon South Forest Division, Lanka 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 Oppourtunities)</p>	<p>Assam Project on Forest and Bio-diversity Conservation co funded by French Development Agency Project and state Government of Assam envisages integration of sustainable forest management interventions with special emphasis on income generation and livelihood security of forest dependent communities. 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 explore value addition to the existing forest and bio-diversity products and services, 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 Nakhuti JFMC</p>	<p>This document gives the need analysis of the Village through Micro-Plan for the Nakhuti JFMC, which is located in the Nagaon South Division of Assam. The JFMC falls under the Lumding Reserve Forest of the Nagaon South Forest Division.</p> <p>The area covered by the above JFMC falls within the Lumding Development Block of Hojai District of Assam. The villagers belong to the Muslim community and are mainly weaker sections of the society. The profile of the community is given in the next section.</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.
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B. Village Socio-Economic Profile of Nakhuti JFMC

Location of Nakhuti JFMC	<p>The Nakhuti Joint Forest Management Committee (JFMC) has been formed in the year 2006 to cover the existing community. The Nakhuti JFMC, is a village which is located on the fringe of the Lumding Reserve Forest under Nagaon South Division. The area covered by the above JFMC falls within the Lumding Development Block of Hojai District of Assam.</p> <p>Appendix-1(B) gives the Village Map.</p>																						
Key Information in terms of Forest Range, Division, Year of Establishment etc	<p>The key information of the JFMC is furnished below.</p> <p>Table-A: Key Information of the JFMC</p> <table border="1"> <tr> <td>Name of the JFMC</td> <td>Nakhuti</td> </tr> <tr> <td>Habitation</td> <td></td> </tr> <tr> <td>Name of Revenue Village</td> <td></td> </tr> <tr> <td>Name of the Gram Panchayat / VCDC</td> <td>Nakhuti Gram Panchayat</td> </tr> <tr> <td>Revenue Circle</td> <td>Lanka Circle</td> </tr> <tr> <td>District</td> <td>Hojai</td> </tr> <tr> <td>Forest Division</td> <td>Nagaon South Forest Division, Hojai</td> </tr> <tr> <td>Forest Range</td> <td>Lanka</td> </tr> <tr> <td>Forest Beat</td> <td>Nakhuti</td> </tr> <tr> <td>Year Formed</td> <td>2006</td> </tr> <tr> <td>Description of Boundary of JFMC</td> <td>As below North: 2,3 No. Mouzdargaon South: Lumding Reserve Forest West: RamsingGaon and 7 no. Pubudali East: 1 & 2 Sarthe Gaon</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	Nakhuti	Habitation		Name of Revenue Village		Name of the Gram Panchayat / VCDC	Nakhuti Gram Panchayat	Revenue Circle	Lanka Circle	District	Hojai	Forest Division	Nagaon South Forest Division, Hojai	Forest Range	Lanka	Forest Beat	Nakhuti	Year Formed	2006	Description of Boundary of JFMC	As below North: 2,3 No. Mouzdargaon South: Lumding Reserve Forest West: RamsingGaon and 7 no. Pubudali East: 1 & 2 Sarthe Gaon
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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"> <tr> <td>Name of President</td> <td>Mr. Gulap Mohammad Lutfur Rahman</td> </tr> <tr> <td>Name of Member Secretary</td> <td>Mr. Rahul Borah, Forester-I</td> </tr> <tr> <td>Name of Treasurer</td> <td>Mr. Abul Hussain</td> </tr> <tr> <td>No. of Members in Executive Committee</td> <td>Male:10 Female:5</td> </tr> </table>	Name of President	Mr. Gulap Mohammad Lutfur Rahman	Name of Member Secretary	Mr. Rahul Borah, Forester-I	Name of Treasurer	Mr. Abul Hussain	No. of Members in Executive Committee	Male:10 Female:5														
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		Total:15
	No. of Members in the General Body	480(The number represents each adult member of the household of the JFMC)
	Source: JFMC Records	
Households & Population Structure	<p>The Nakhuti JFMC consists of 480 households out of which the number of female headed households is nil. The total population of the village is 4500, of which 2320 are male and 2180 are female members. The population includes 110 SC people, 105 OBC people and 4285 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 (480 HHs). (2) The sex ratios of 939.65 females per 1000 males in the village and female percentage (i.e. 48.44 %) are very less than males' percentage (i.e. 51.55%) in the village. 	
Education & Skills Development Profile of Nakhuti JFMC	<p>The percentage of literacy of Nakhuti JFMC is 64.94% of the population and 35.06% is reported to be illiterate as depicted in Table-4 of Record-I. Most of the villagers have received school level education but on the other hand, relatively fewer villagers have received college level education.</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. The villagers have traditional skills in the following areas:</p> <ol style="list-style-type: none"> (a) Agriculture (b) Business (c) Fishery (d) Poultry (e) Carpentry (f) Masonry (g) Tailoring, Service 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 Type of Nakhuti JFMC	The soil type of the project area is sandy soil in plain areas. This type of soil can support different kinds of crops, as the soil is reported to be fertile on the whole.	
Water Resource Availability	The area is drained by Lankajan stream, which flows from the adjoining hills of Karbi-Anglong into the project area and joining the river Kapili to the west. This is a perennial river.	
Climate: Temperature & Rainfall	<p>The maximum temperature during the summer is 45 ° C. The minimum temperature during the winter is 5.5 ° C.</p> <p>The annual rainfall is about 60-125 mm. About one-third of the rainfall usually occurs during the rainy season (June-September). The village has high levels of humidity (over 90%) during the rainy months and low levels in the winter (Below 30%). Lumding and adjoining areas Rain shadow Zone and is known to be an area with least rain fall ranging from 70% to 79%.</p>	

Forest & Bio-diversity	<p>The local forests have been broadly classified as reserve forest. The main tree species are Teak, Sal, Arjuna, Bogipuma. The forests can yield a range of NTFP like spices, leafy vegetables, ferns, medicinal plants, bamboo, cane, thatch, fodder, broom stick etc.</p> <p>Additional details in this regard are given at the 'Forest Development Plan':Table-3: Existing Composition of Flora in the Nakhuti JFMC.</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 – 38.35% DegradedForest-0.64% Pond-1.85% Road-2.28% Settlement Area-55.19% Stream-1.70%</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"> • 10.83 % of the households are landless (52 HH) • 81.66 % of the households are marginal farmers i.e. less than 2 Ha (392 HH) • 7.5 % of the households are small farmers i.e. .2-10 Ha (36 HH).
Livestock	<p>The total number of livestock in the JFMC is 3519. The main types of livestock possessed by the households include:</p> <p>Cows: 965 Goats: 476 Poultry: 1804 Buffaloes : NIL Bulls : 274 Pigs : NIL Duck :NIL</p> <p>Table-7 of Record-I may be referred to for the details in the above connection.</p>
Village Infrastructure & Communication Facilities	<p>The availability of basic infrastructure in any community enables the development of sustainable livelihood options. The present condition of infrastructure in the village is not satisfactory which is depicted inTable-8 of Record-I, which gives the detailed present status of the village infrastructure on the basis of Physical, Educational, Health, Govt. Offices and Financial Inclusion.</p> <p>From the above table, the following have been noted with regard to village infrastructure:</p> <p>Physical Infrastructure: The basic physical infrastructures such as paved roads, electricity, water supply, mobile network condition are very poor in this Village area.</p> <p>Education & Health Facilities: There are few educational institutions and the health facilities are present which is not sufficient for the Village People. Public transport and Market is not available under this JFMC area and the</p>

	<p>community members have to use bicycles to move around.</p> <p>Govt. Offices: The government offices (such as Police station i.e.6 km away, Revenue office i.e.18 km away, Railway Station i.e. 18km away 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 (i.e.in Udali Tinali, 6 km away) and post office (i.e. Lanka Town, 18 km away) are located at a considerable distance from the habitation. The 25 no. of community members have bank accounts in faraway places.</p>
Agricultural Crops such as Kharif, Rabi and others	<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:</p> <p>Kharif Crops: Pankaj, Aijong Rabi Crops: Mustard Others: Mango, Jackfruit, Cabbage, Cauliflower, Chilli, Brinjal, etc Most crops are rain-fed.</p>
Crop Production Profile in terms of Paddy, Vegetables, Fruits	<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 Paddy, vegetables, Fruits and Tea.</p> <p>The production and yield of these crops is given as follows:</p> <p>(a) Paddy: Production 3200 qt Yield 30.87qt /ha (b) Turmeric: Production 5226qt Yield 100.46qt/ha (c) Oil Seed: Production 206qt Yield 12.87qt/ha (d) Jute: Production 1235qt Yield 55.90qt/ha</p>
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 such as Grocery, Weekly/Bi-Weekly, Major Market	<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: UdaliTinaliat 6 km away. (c) Major Market: Lanka Town at 18 km away.</p>
Water Resources in terms of River, Stream, Ring Well, Tube Well or others	<p>The water resources are tabulated at Table-13 of Record-I. The main water resources with the water availability is as follows:</p> <p>(a) Nala(Water Availability: Perennial / Seasonal) (b) Ring wells (Water Availability: Perennial / Seasonal) (c) Tube wells (Water Availability: Perennial / Seasonal)</p>

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: 457 Nos. Source: Forest, Market</p> <p>(b) LPG- Households Depending: 8 Nos. Source: Govt</p> <p>(c) Kerosene - Households Depending: 457 Nos. Source: Open Market and PDS.</p>
Socio-economic status	<p>Social set-up: The villagers belong to the Muslim community and are mainly weaker sections of the society. They have a caste system such as SC, OBC, General Category . 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, agriculture, daily wage earning, vegetable vendoring etc. The Annual income of the villagers ranges from Rs. 41,000 to 50,000 per year.</p> <p>Additional details are available at the next section.</p>
Maps	<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 Nakhuti 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 Nakhuti JFMC are Bamboo, Teak, Sal and various species of Bamboo.(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 Nakhuti 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 170 numbers of semi-pucca houses, 70 numbers of pucca houses and the remaining 217 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 five LP school present within the JFMC area. And one Middle schools are 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, 15 per cent HH have access to Nala, 35 percent HH have access to both ring well and tube well. (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 eight SHGs in the village. However, the village consists of Namghar, Anganwadi Center, Masjid, Community hall, Temple etc. where social meetings of the villages are held. (Refer to **Table 3.1, annexure 3**)

4. Human Capital

66.98 % per cent of total population of the JFMC are literate and 33.01 % are illiterate. (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.

25 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 Nakhuti JFMC are identified on the basis of following criteria:

- 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 Nakhuti JFMC as follows:</p> <p>Date: 11thApril, 2017Location: Community Hall, Nakhuti JFMC Numbers Present: 33</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.Agriculture 2.Business 3.Fishery 4.Poultry 4.Carpentry and Masonry 5.Taloring 6.Service <p>Ranking of EPA</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Rank</th> <th style="width: 40%;">Village EPA as ranked</th> <th style="width: 30%;">Details (Appendix-3 has additional particulars)</th> <th style="width: 20%;">Budget</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td>Renovation of Community HallNakhuti JFMC with Toilet including one Ring well</td> <td>Community hall with infrastructure facility and sanitation facility</td> <td style="text-align: center;">6 Lakh</td> </tr> </tbody> </table>			Rank	Village EPA as ranked	Details (Appendix-3 has additional particulars)	Budget	1.	Renovation of Community HallNakhuti JFMC with Toilet including one Ring well	Community hall with infrastructure facility and sanitation facility	6 Lakh
Rank	Village EPA as ranked	Details (Appendix-3 has additional particulars)	Budget								
1.	Renovation of Community HallNakhuti JFMC with Toilet including one Ring well	Community hall with infrastructure facility and sanitation facility	6 Lakh								

			nearby.	
	2.	No.1 Mouzadar Gaon Jalalia Subahi Muktab School(Ward No.1)	Size :14*28 Ft	2 Lakh
	3.	No.1 Mouzadar Gaon open women Community Hall (Ward No.2)		2 Lakh
	4.	No.1 Mouzadar Gaon Nurania Subahi Muktab School (Ward No.2,Near Abdul Hoque House)	It is required Under the JFMC area.	2.5 Lakh
	5.	No.2 Deben Gaon Masjid Boundari wall with gate		2.5 Lakh
	6.	No.1 Deben Gaon Alomgiri L.P School(1 Room)		3 Lakh
	7.	No.1 Deben Gaon Banat Madrassa		2 Lakh
	8.	Community Nursary,Nakhuti JFMC		5 Lakh
		<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 of Nakhuti JFMC were identified as follows: Agriculture & Horticulture Livestock Weaving Skills Development Credit Facility Additional discussion about the above has been given below in Appendix-3(Table 3.8: Priority Ranking of Livelihood Activities)</p>			
Agriculture & Horticulture	<p>Table-15 under Record-II may be seen in this connection for opportunities in the areas of agriculture and horticulture. 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. The opportunities are: (a)Nearness to any marketing hub. (b)Availability of new technologies and farming practices (c)Rising demand for diversified agricultural products. The suggested programmes are: <ul style="list-style-type: none"> • Tractor operation training • Agro-skill development programme. • Training on insecticides, pesticides, hybrid cultivation etc. </p>			

<p>Livestock</p>	<p>Table-16 under Record-II furnishes additional information about opportunities for livestock rearing.</p> <p>The main constraints are:</p> <p>(a) Unable to buy beekeeping equipment from market due to poor financial condition.</p> <p>(b) Insufficient knowledge on marketing and technical skills</p> <p>(c) Lack of knowledge on the increasing demand for tea products.</p> <p>(d) No veterinary care clinic</p> <p>The opportunities are:</p> <p>(a) Income generating activity</p> <p>(b) Good domestic market</p> <p>(c) Majority of the workforce is engaged in this activity.</p> <p>The suggested programme are:</p> <p>(a) Training on Agarbatti making</p> <p>(b) Training on Weaving</p> <p>(c) Training on Tailoring</p>
<p>NWFP</p>	<p>The opportunities for NWFP are tabulated at Table-17 under Record-II</p> <p>The main constraints are:</p> <p>(a) Less availability of NWFP</p> <p>(b) No technical know-how</p> <p>(c) No processing units</p> <p>(d) Lack of trained personnel and facilities.</p> <p>The opportunities are:</p> <p>(a) Availability of fertile fallow land</p> <p>(b) Increasing demand for herbal products</p> <p>The suggested programme are:</p> <p>(a) Plantation of Food plants,</p> <p>(b) Medicinal Plant etc.</p>
<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> <p>(a) Lack of product diversification</p> <p>(b) Lack of research on product quality</p> <p>(c) Lack of TQM techniques.</p> <p>The opportunities are:</p> <p>(a) Providing good communication facility</p> <p>(b) Training of the skill holder</p> <p>(c) Financial assistance from govt.</p> <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-19 under Record-II discusses this aspect. 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>
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, 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 : 1. Livestock 2. Farming 3. Horticulture</p> <p>Non-Farm sector: 1. Weaving 2. Electrician 3. Carpentry 4. Tailoring</p>
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.
Exposure Trips	<p>The following exposure trips are planned:</p> <ol style="list-style-type: none"> 1. Nil

	Source: Table-34 of Record-4
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> <p>(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> <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 Nakhuti 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 Nakhuti 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 Nakhuti 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 Nakhuti JFMC have been summarized below.

Table-1: Conditions of the Forests of Nakhuti 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: Lumding Reserve Forest Beat: Nakhuti Compartment:	300 Ha		Good Area: 300 Ha Degraded Area: 0 Ha	3-6 m
(B) Other Planted Area				
Location: Type of Forest:	-	-	-	-
TOTAL	300 Ha		Good Area: 300 Ha Degraded Area: 0 Ha	

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

It is seen that the Nakhuti JFMC has 300 Ha under its forests, of which 300 Ha is 'Good' and 0 Ha is 'Degraded'.

1.2. Forest Soil Type

The forests of Nakhuti 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	2.3 to 2.94% organic. The available N, P ₂₀₅ and K ₂₀ content of the Soil is comparatively less.	-
Soil Erosion Status	-	-
Presence of:		-
(a) Silt	15%	-
(b) Mud-flat	20%	-
(c) Newly accreted land	Low	-
(d) Sand dune	65%	-

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

For the Nakhuti 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 Nakhuti 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 Nakhuti JFMC

Parameter	Local Name(s)	Botanical Name(s)
Major Forest Species	Teak	<i>Tectonagrandis Linn</i>
Associates	Gamari	<i>GmelinaArborea</i>
Shrubs	Dhekia	<i>Ferns</i>
	Bhotjalakia	<i>Capsicum chinense</i>
Medicinal Plants	Arjun,	<i>Terminalia arjuna</i>
	Hilikha	<i>Terminalia Chebula</i>
	Neem	<i>Azadirachtaindica</i>
	Amlakhi	<i>Phyllanthusemblica</i>
	Arjun,	<i>Terminalia arjuna</i>
Produces	Pahari Jati Bah	<i>Oxytenteraparvifolia</i>
	Dulu Bah	<i>Schizostachyumdulloa</i>
	Amlakhi	<i>Emblica officinalis</i>
Others, if any	Halakh	<i>Terminalia myriocarpa</i>
	Hollong	<i>Dipterocarpusmacrocarpus</i>
	Arjun	<i>Terminalia arjuna</i>
	Agar	<i>Aquillariaagallocha</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 NakhutiJFMC.

2.1. Past Protection Measures of the JFMC

The measures taken by the Nakhuti 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: 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 Nakhuti JFMC

Name of Forest Produce	Average Household Requirement		How met at Present	Source
	Frequency of Requirement	Approx. Qty		
Firewood	monthly	60-70 kg		Forest
Timber for House	Once in a year	2-3 nos./yr		
Small timber for agriculture Implements	-	-	-	-
Pole / Bamboo	-	-	-	-
Fodder from Forest	monthly	4 kg		Forest
NTFP				

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

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

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

Name of Forest Produce	Community Requirement (Kg per annum) (*)	Remarks
Firewood	161000	Throughout the year
Timber for House	2-3 nos.	Throughout the year
Small Timber for	-	-

Implements		
Pole / Bamboo	-	-
Fodder from Forest	530 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 _____ 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 Nakhuti JFMC is given in the following table.

Table-5 (A): Collection & Marketing of Forest Produce by Villagers of the Nakhuti 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 Nakhuti 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 Nakhuti 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 Nakhuti 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	161000 kg	-	161000 kg
Timber for House	2-3 nos.	-	2-3 nos.
Small timber for Implements	-	-	-
Bamboo	-	-	-
Pole	-	-	-
Fodder from Forest	530 kg	-	530 kg
NTFP	-	-	-
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 Nakhuti JFMC have been summarized below.

Table-7: Protection Problems of the Nakhuti 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	No	No
Accidental Fires	Yes	Yes
Encroachment of Forest Lands	No	No
Incident of snake bites/life threat/risk while protecting forest	No	No
Theft of Medicinal Plants	Yes	Yes
Other (specify)		

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

- (a) Deforestation (Due to constant used of fuel wood)
- (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 Nakhuti 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 Nakhuti JFMC from the issues discussed earlier at Sub-section 3.1

Table-8: Protection Plan of the Nakhuti 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	--	--	--	--
Solar Fencing	--	--	--	--
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 Nakhuti JFMC (with high / medium priority) are as follows:

- (a) Solar Fencing
- (b) Accidental fire control by fire line cutting
- (c) Control of over grazing- Establishment of Pounds for keeping cattle as per the Cattle Trespass Act, 1871.
- (d) Joint Patrolling along with Forest deptt by the J.F.M.C members in those areas for protection of the same.
- (e) Organize Awareness campaign in that area for importance of forest among that locality.

4.2. Types of Operations Proposed

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

Table-9: Types of Operations Proposed in the Nakhuti 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	No	No	-	-
Protection to Cut Stumps of Trees	Yes	Yes	Any time	-

Treatment	Required (Yes/ No)	Responsibility of JFMC (Yes / No)	Month / Year when can be done	Extent of Area proposed for Treatment (Ha)
Watershed Treatment	Yes	Yes	Any time	-
Water Reservoirs	Yes	Yes	Any time	-
Grass & Silvi Pastoral activities	No	No	-	-
Bamboo Plantation	Yes	Yes	Jun- August	-
Seed Sowing	Yes	Yes	Jun/July	-
Root & Shoot Cutting & Plantation	Yes	Yes	Jun/July	-
Cut Back & Coppice Treatment	No	No	-	-
Stone wall Fencing	Yes	Yes	Sep- Nov	-
Social Fencing	Yes	Yes	Any time	-
Other Activities	No	No	-	-

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 Nakhuti JFMC:

- (a) Seed Sowing
- (b) Root & Shoot Cutting & Plantation

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 Nakhuti JFMC

Treatment	Area in Ha under Plantation Module	Priority for Block Plantation	Species	Spacing (metre x metre)
Assisted Natural Regeneration (with plantation in gap)	--	--	--	--
Block Plantation	-	-	-	-
Sowing of Medicinal Plants	-	-	-	-
Enrichment Plantation				
Direct Plantation				

Treatment	Area in Ha under Plantation Module	Priority for Block Plantation	Species	Spacing (metre x metre)
Other	-	-	-	-

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 NonSaal Mixed with Associates

Name of Plantation	: Block Plantation of NonSaal Mixed with Associates
Plantation Period	: 2016-17 to 2025-26 (10 Years)
Plantation Area	: 100 ha
Spacing	: 3m X 3 m-1100 plants per ha
No. of Plants to be Raised	: 110000 (44000 approx. annually)
Number Blocks	: 4 Numbers(25 ha each)
Species	: Non Saal; Associates-Gamari, Sissoo, Titasopa, etc.
Rates	: As Approved by APFBCS(to be increased by 20% every two years)

Financial Year	Activities	Amount
2016-17	Identification of suitable site for regeneration-examine possibilities of natural seed fall-determine intensity and nature of biotic interference-Area Not Less than 100 ha, Demarcation of land during the month of December-January, Partition of land in 4 blocks, Land development, Soil Working @ Rs 1000/ha	-
2017-18*	Block Plantation 3m x 3m, 1111 plants/ha-during the season of April-June ; GPS marking of the area	-
2018-19*	Block Plantation 3m x 3m, 1111 plants/ha-during the season of April-June ; GPS marking of the area	-
	1st Weeding; Replacement of dead/struggling saplings raised in the previous year	-
2019-20*	Block Plantation 3m x 3m, 1111 plants/ha-during the season of April-June ; GPS marking of the area	-
	2nd Weeding; Replacement of dead/struggling saplings raised in the previous year	-
2020-21*	Block Plantation 3m x 3m, 1111 plants/ha-during the season of April-June ; GPS marking of the area	-
	3rd Weeding	-
2021-22*	4th Weeding; Replacement of dead/struggling saplings raised in the previous year	-
2022-13*	5th Weeding; Replacement of dead/struggling saplings raised in the previous year	-
2023-24*	6th Weeding; Replacement of dead/struggling saplings raised in the previous year	-
2024-25*	7th Weeding	-
2025-26*	8th Weeding	-

Total Budgetary Requirement	-
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* Silvicultural thinning to be undertaken on intervals of five years post plantation

Action Plan for Block Plantation of Mixed Harwood Plantation - Teak with Associates, Firewood and Bamboo

Name of Plantation : Block Plantation of Mixed Harwood Plantation - Teak with Associates, Firewood and Bamboo
 Plantation Period : 2016-17 to 2025-26 (10 Years)
 Plantation Area : 100 ha
 Spacing : 2m X 2 m-2500 plants per ha
 No. of Plants to be Raised : 2,50,000 (62,500) approx. annually
 Number Blocks : 4 Numbers(25 ha each)
 Species : Teak; Associates-Ajar, Khoroi, Khayer, Sissoo, Jia, Arjun, Ghora Neem, Bamboo(Jaati, Kako, Bholoka, Bijili), etc

Action Plan for Creation of Plantation		
Financial Year	Activities	Amount
2016-17	Identification of suitable site for regeneration-examine possibilities of natural seed fall-determine intensity and nature of biotic interference-Area Not Less than 100 ha, Demarcation of land during the month of December-January, Partition of land in 4 blocks, Land development, Soil Working @ Rs 1000/ha	-
2017-18*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June ; GPS marking of the area	-
2018-19*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June; GPS marking of the area	-
	1st Weeding; Replacement of dead/struggling saplings raised in the previous year	-
2019-20*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June; GPS marking of the area	-
	2nd Weeding; Replacement of dead/struggling saplings raised in the previous year	-
2020-21*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June; GPS marking of the area	-
	3rd Weeding	-
2021-22*	4th Weeding; Replacement of dead/struggling saplings raised in the previous year	-
2022-13*	5th Weeding; Replacement of dead/struggling saplings raised in the previous year	-
2023-24*	6th Weeding; Replacement of dead/struggling saplings raised in the previous year	-
2024-25*	7th Weeding	-
2025-26*	8th Weeding	-
Total Budgetray Requirement		-

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

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

Action Plan for Block Plantation of Non Timber Forest Produce

Name of Plantation : NTFP PLANTATION
 Plantation Period : 2016-17 to 2025-26 (10 Years)
 Plantation Area : 50 ha
 Spacing : 2m X 2 m-2500 plants per ha
 No. of Plants to be Raised : 1,25,000 (31,250) approx. annually)
 Number Blocks : 4 Numbers(25 ha each)
 Species : Amla, Hilikha, Bhomora, Bohera, Mango, Guava, Neem, Arjun, etc

Financial Year	Activities	Amount
2016-17	Identification of suitable site for regeneration-examine possibilities of natural seed fall-determine intensity and nature of biotic interference-Area Not Less than 50 ha, Demarcation of land during the month of December-January, Partition of land in 4 blocks, Land development, Soil Working @ Rs 1000/ha, 3 wired barb fencing 2800 RM @ Rs56.36/RM	-
2017-18*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June ; GPS marking of the area	-
2018-19*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June ; GPS marking of the area	-
	1st Weeding; Replacement of dead/struggling saplings raised in the previous year	-
2019-20*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June ; GPS marking of the area	-
	2nd Weeding; Replacement of dead/struggling saplings raised in the previous year	-
2020-21*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June ; GPS marking of the area	-
	3rd Weeding & Pruning	-
2021-22*	4th Weeding & Pruning; Replacement of dead/struggling saplings raised in the previous year	-
2022-13*	5th Weeding & Pruning; Replacement of dead/struggling saplings raised in the previous year	-
2023-24*	6th Weeding & Pruning	-
2024-25*	7th Weeding	-
2025-26*	8th Weeding	-
Total Budgetary Requirement		-

4.5. Nursery Development Plan

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

- (a) JFMC Nurseries (incl. Departmental Nursery)
- (b) Other Nurseries - SHG & Private.

The details are given below.

JFMC Nurseries

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

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

Location of Nursery	Species	Year of Development	Number of Seedlings	Remarks
Nakhuti (Within the JFMC)				

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 Nakhuti JFMC is given below. This covers a period of ten years.

(A) Timber Species NonSal, Teak

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

Year(s)	Treatment
2016-17 to 2025-26	As provided in Action Plan for Block Plantation of Saal Mixed with Associates
2016-17 to 2025-26	As provided in Action Plan for Block Mixed Harwood Plantation - Teak with Associates, Firewood and Bamboo

Source: Discussions with Forest Department personnel & Community members

(B) Bamboo

Table-12 (B): Maintenance Plan of Bamboo Plantation in the Nakhuti JFMC

Year(s)	Treatment
2016-17 to 2025-26	As provided in Action Plan for Block Mixed Harwood Plantation - Teak with Associates, Firewood and Bamboo

Source: Discussions with Forest Department personnel & Community members

(C) Fuel wood Plantation

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

Year(s)	Treatment
2016-17 to 2025-26	As provided in Action Plan for Block Mixed Harwood Plantation - Teak with Associates, Firewood and Bamboo

Source: Discussions with Forest Department personnel & Community members

(D) NTFP / Medicinal Plantation

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

Year(s)	Treatment
2016-17 to 2025-26	Action Plan for Block Plantation of Non Timber Forest Produce

Source: Discussions with Forest Department personnel & Community members

NB::As Confirmed by DFO there is no available area for Plantation(Copy enclosed below)

4.7. Miscellaneous Operations Plan

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

Table-13: Miscellaneous Operations in the Nakhuti JFMC

Operation	Required (Yes / No)	Responsibility	Month / Year	Area (Ha)
(i)Medical/Health care Camp				
(ii)Centre For Non-Formal education				
(iii)Promotion of Fuel Saving Devices				
(iv)Cattle improvement/health improvements				

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

Marketing Operations

For produce from the Nakhuti JFMC, the planned marketing operations are:

(a) Marketing directly to private purchasers: NIL

(b) Marketing to retail outlet: NIL

5. Expected Benefits

This sub-section furnishes the benefits expected from the forests protected by members of the Nakhuti 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 Nakhuti 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 Nakhuti JFMC

Item	Month	Year (Indicative)	Quantity
Firewood	-	-	-
Timber for House	-	-	-
Small timber for Implements	-	-	-
Bamboo	-	-	-
Pole	-	-	-
Fodder from Forest Trees & Grass	-	-	-
NWFP	-	-	-
Wages	-	-	-
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 Nakhuti JFMC.

Table-15: Sharing Mechanism for Nakhuti JFMC

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

According to Forest Officials of Lanka Range, the sharing mechanism process has not been started officially and the people who work in the plantation collect the residual remains only.

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

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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. Lanka is located in India at the longitude of 92.95 and latitude of 25.93

Distance between Guwahati and North Lakimpur

The total straight line distance between Guwahati and Lanka is 123 KM (kilometres) and 339.64 meters. The miles based distance from Guwahati to Lanka is 76.6 miles. This is a straight line distance and so most of the time the actual travel distance between Guwahati and Lanka may be higher or vary due to curvature of the road.

Guwahati To Lanka travel time

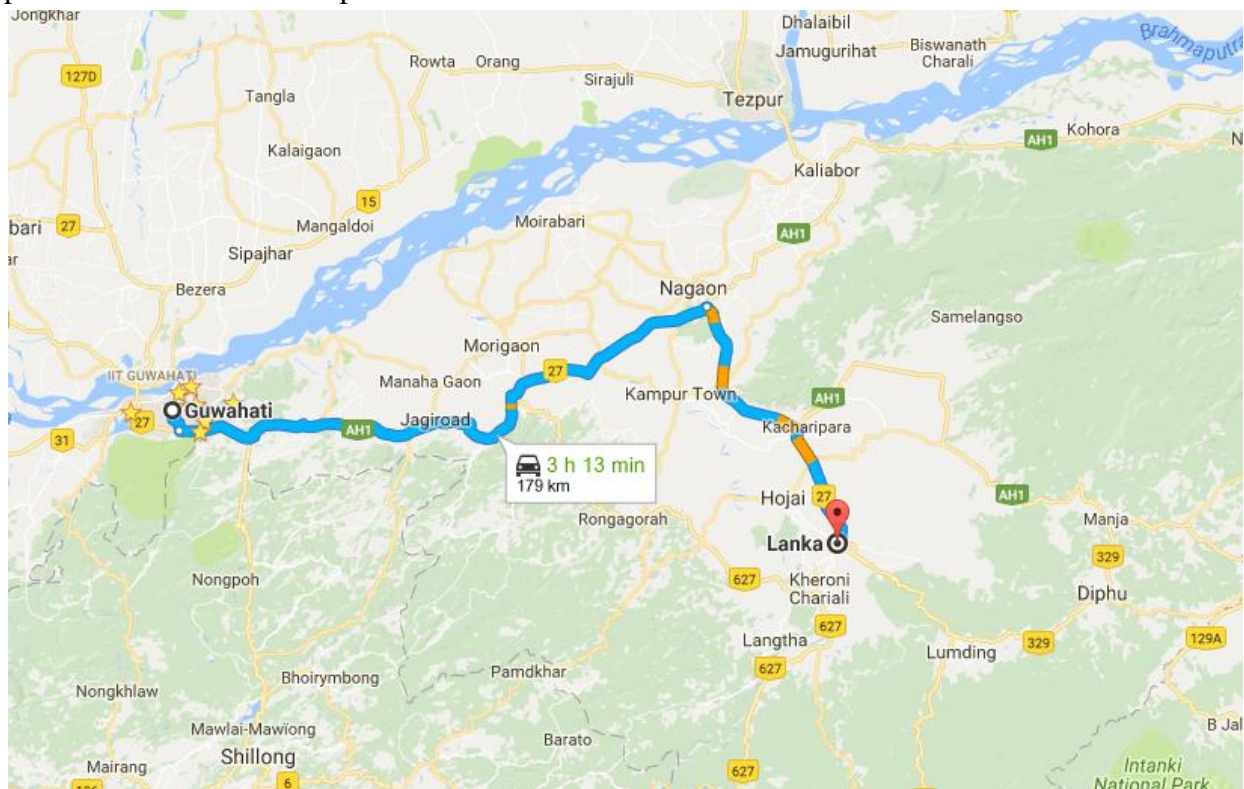
Guwahati is located around 123 KM away from Lanka so if you travel at the consistent speed of 50 KM per hour you can reach Lanka in 2.47 hours. Your Lanka travel time may vary due to your bus speed, train speed or depending upon the vehicle you use.

Guwahati to Lanka Bus

Bus timings from Guwahati to Lanka is around 2.06 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 Lanka 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.

Guwahati To Lanka road map

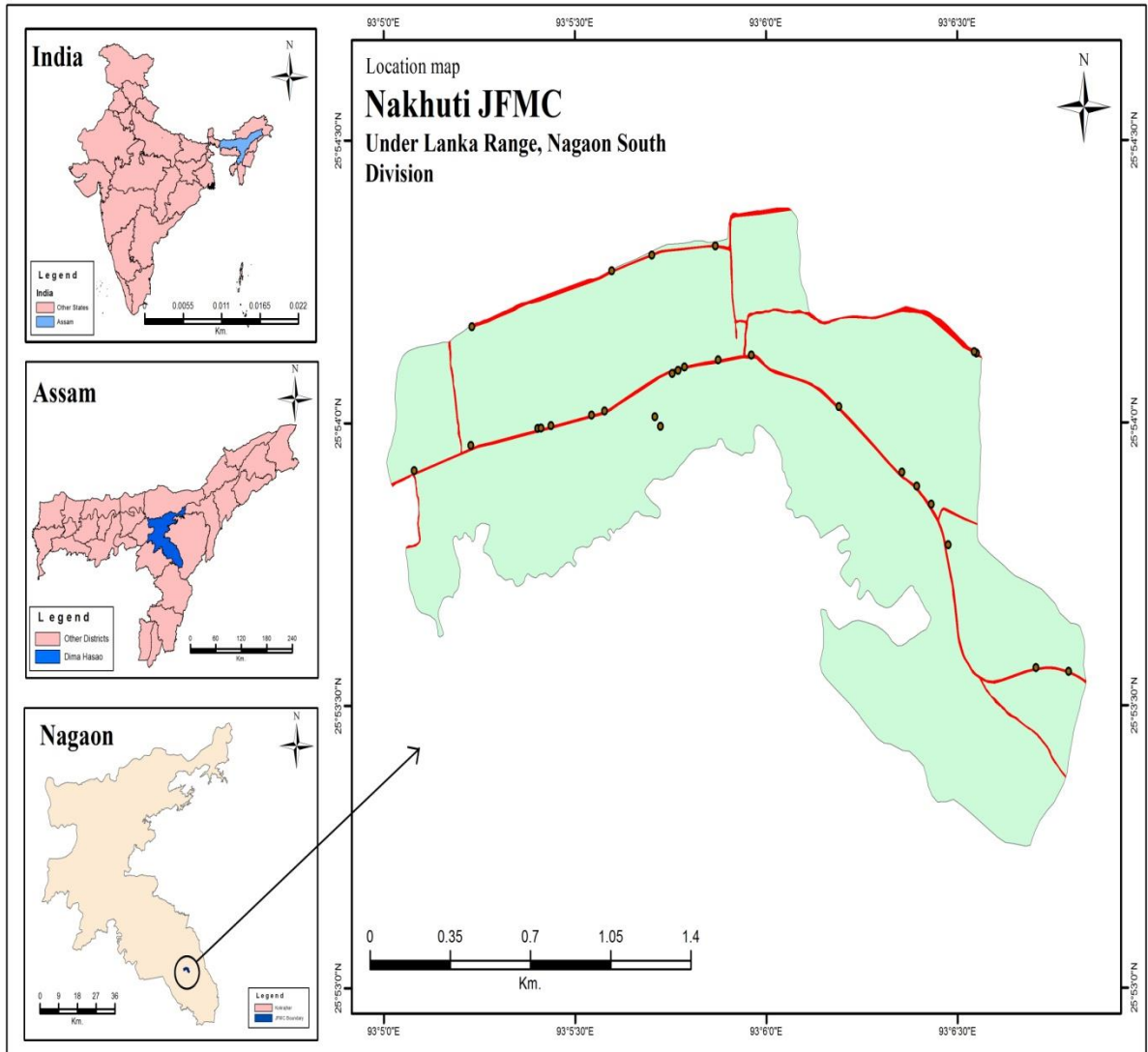
Guwahati is located nearly west side to Lanka. The given west direction from Guwahati is only approximate. The given google map shows the direction in which the blue color line indicates road connectivity to Lanka. In the travel map towards Lanka you may find enroute hotels, tourist spots, picnic spots,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

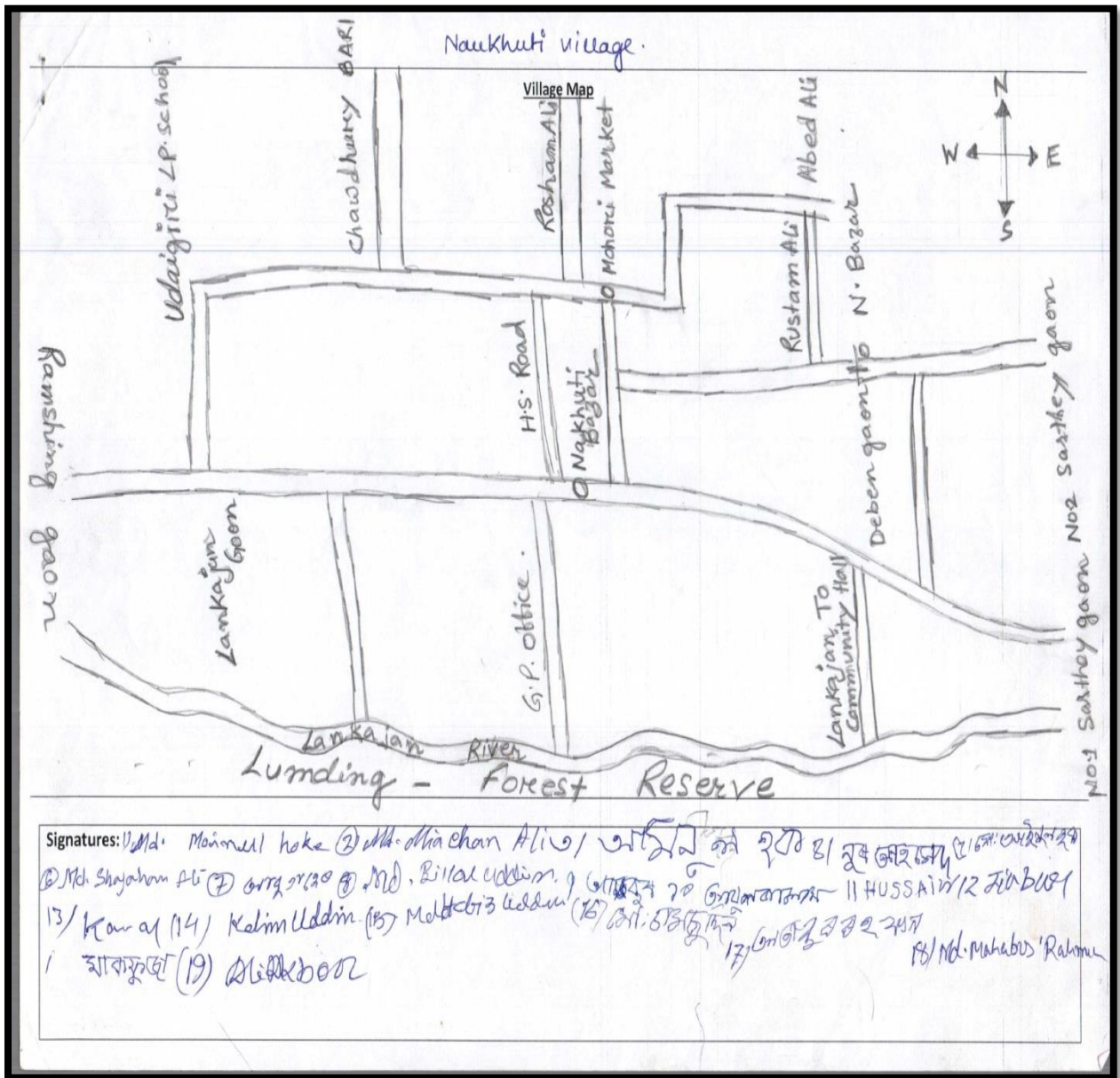
Appendix 1(B)

a) GIS Location map



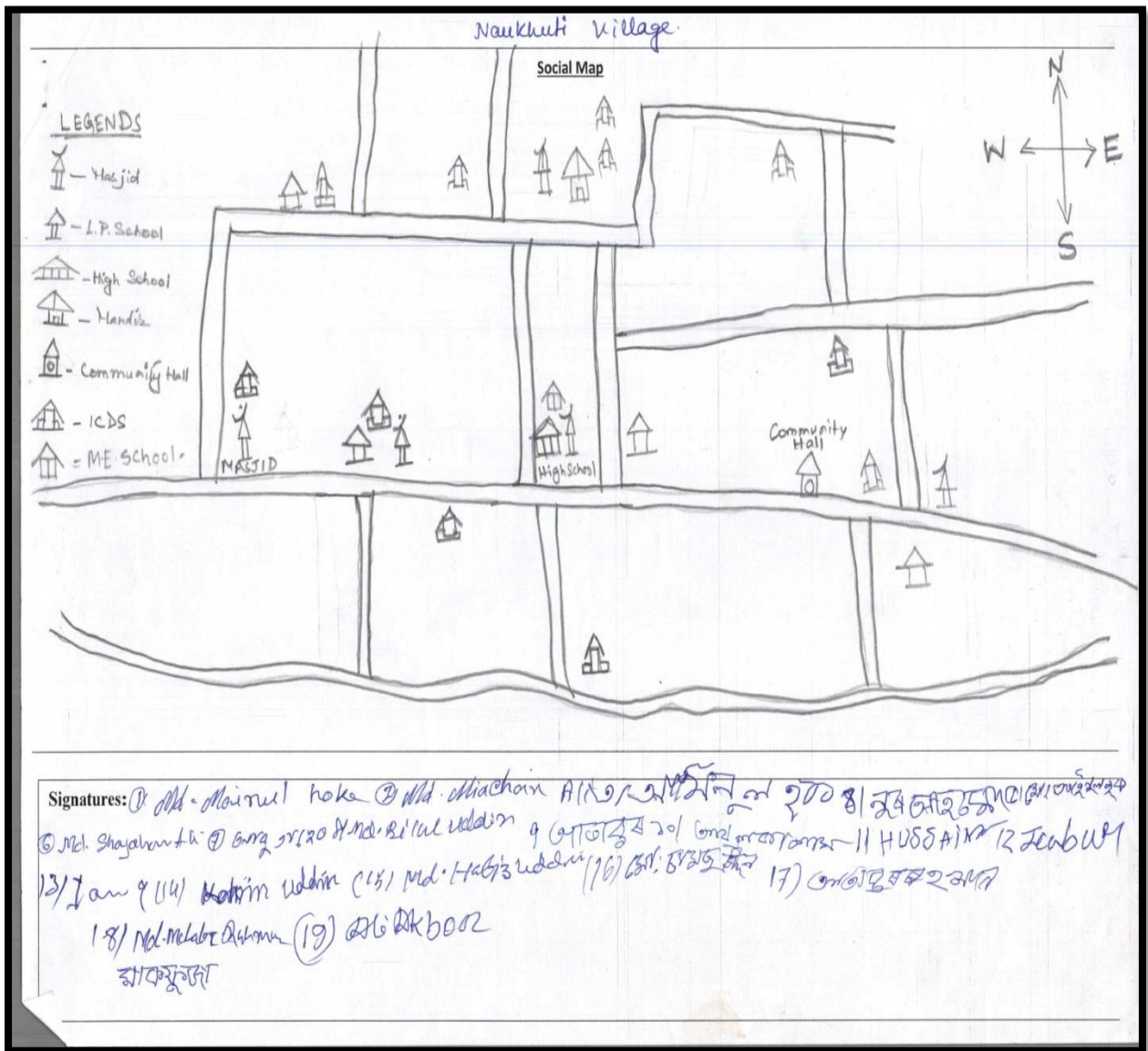
Prepared by: Indian Institute of Entrepreneurship

b) Village map :



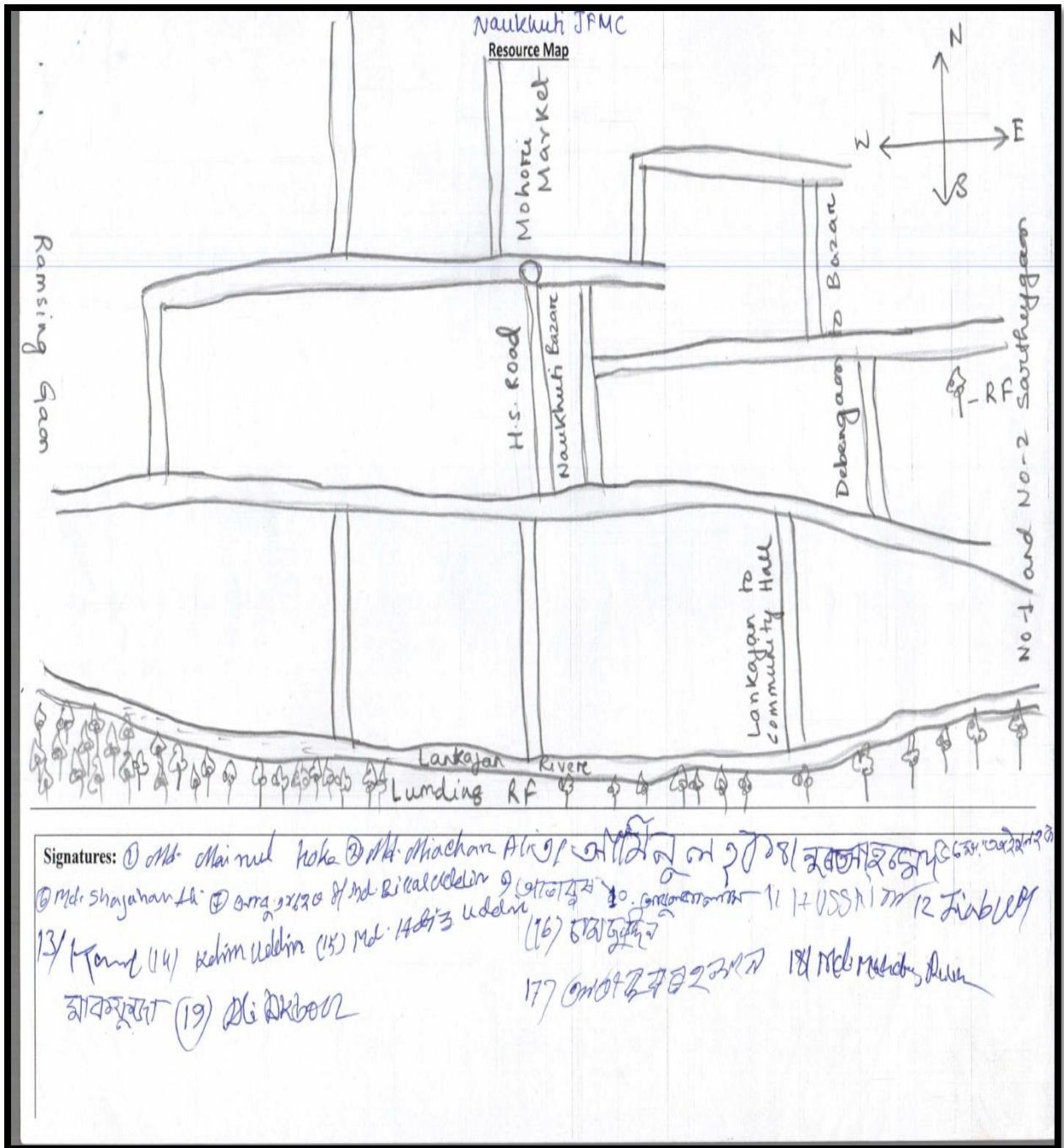
Village Map Being Drawn By the Villagers

c) Social map



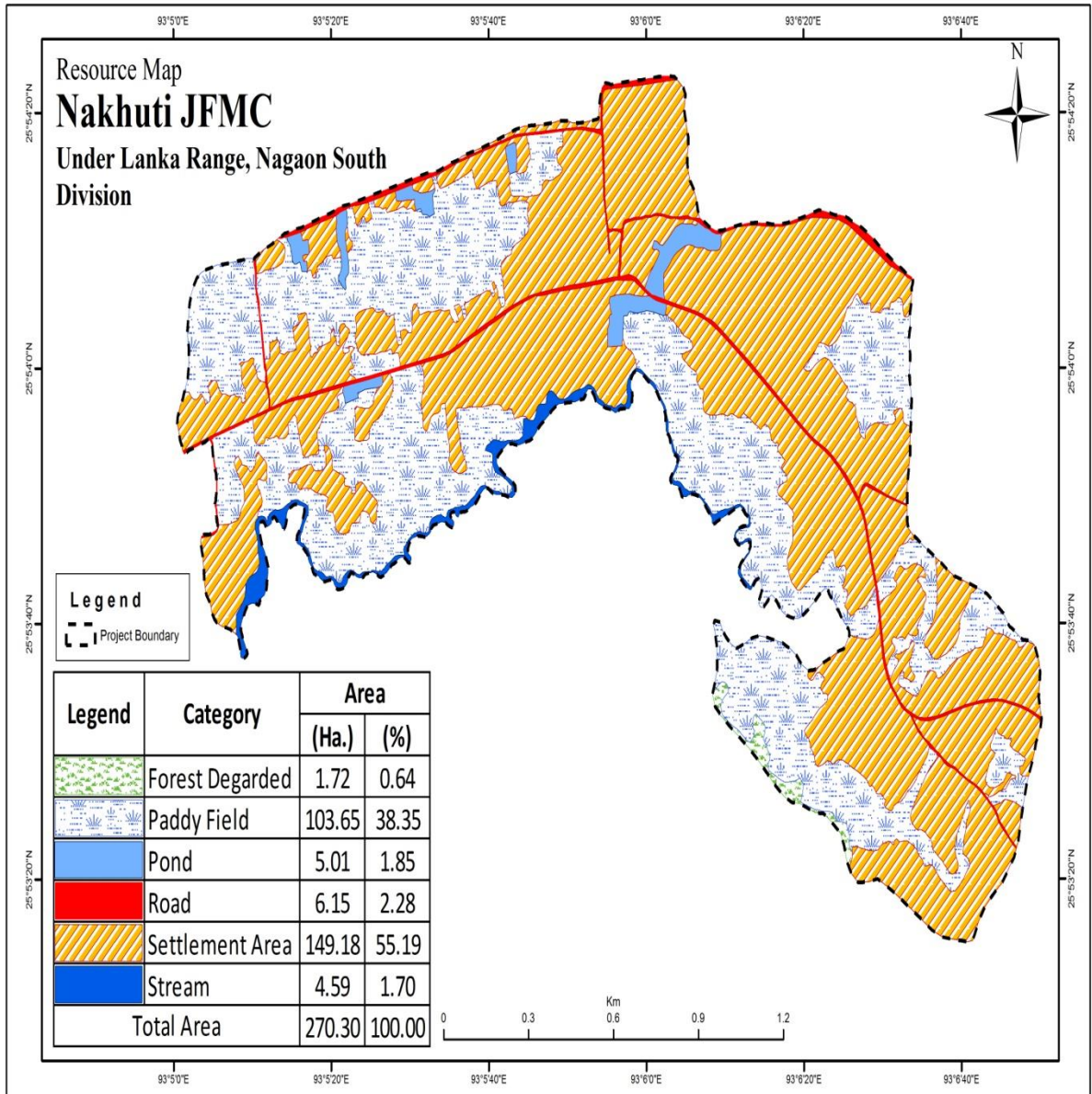
Social Map Being Drawn By the Villagers

d) Resource Map:



Resource Map Being Drawn By the Villagers

Land Use map of GIS



Source: Google earth Imagery

Prepared by: Indian Institute of Entrepreneurship

PRA ACTIVITY**Location and Timing of Participatory Rural Appraisal:**

Numbers of participants :	33(JFMC members including Forest Officials)
Time :	10 a.m., 11 th March 2017
Venue :	Community Hall,NakhutiJFMC

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 →	NakhutiJFMC
Social information	Total population	4041
	Male	2251
	Female	1790
	Total households	457
	No. of Pakka houses	70
	No. of semi pakka house	170
	No. of kuccha/thatch	217

	houses	
Landmarks	Bridges	Nil
	Nala	Yes (1 No.)
	River	Nil
	SHG	8 No.
	Community hall	Yes (2 No.)
	Madrassa	Yes (2 No.)
	Masjid	Yes (8 No.)
	Temple	Yes (1 No.)
	PHC(Sub Centre)	Yes (1 No.)
	LP School	Yes (5 No.)
	ME School	Yes (1 No.)
	Power Transformer	Yes (6 No.)

Source: Discussed with JFMC members and Forest Officials.

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 or kuccha house.

Findings of social map:

- The participants of social mapping have identified 457 households out of which 170 households have semi pakka houses and 70 have pakka houses and the remaining 217 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 LP and ME schools, Pond, Nala, Community Hall and Masjid are mapped.
- A main source of water for the villagers is Pond 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 in maximum number of school drop outs.
- Majority of the population belongs to the SC, 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 hospital along with Railway station is located in Lanka Town, which is 18 KM away from the JFMC. The villagers have to cover a long distance for their health centre 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 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 NakhutiJFMC have to move toLankaTown, a distance covered with 18 km, for their major marketing activity.

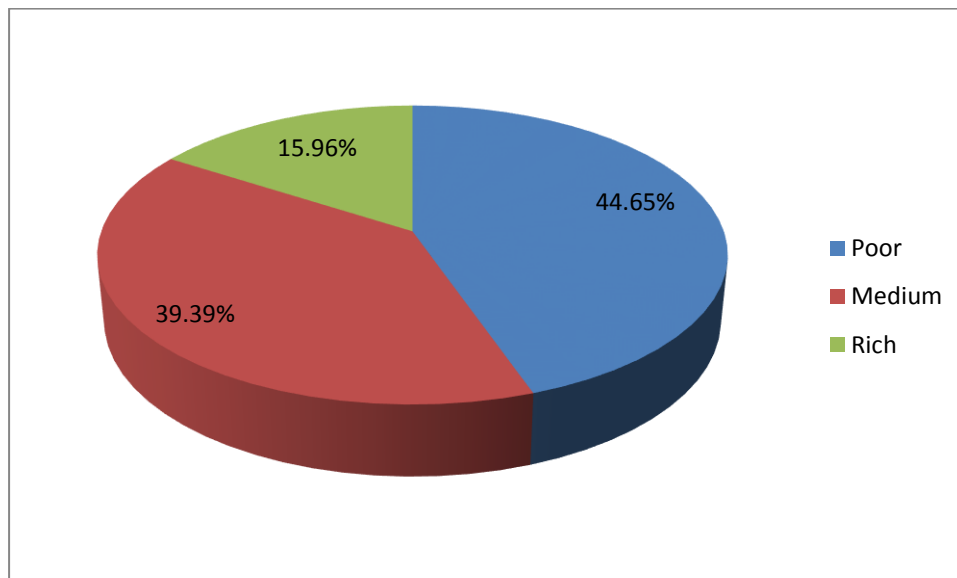
3.2 Wealth Ranking:

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:

- Land holding
- Occupation

As such about 44.65 per cent people are poor, about 39.39 per cent belong to middle class and about 15.96 per cent are categorised to be rich. Poor people are mainly irregular wage earners, sometimes they lease (adhilua) 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. Our time line illustrates the following events:

Table 3.3: Timeline review of Nakhuti JFMC

Timeline Category	Year	Event	Type
Pre-Independence	Nil	Nil	Nil
Post -Independence	1955	First LP School was established	Constructive
	1957	The village inhabitants came to the village from cachar	Destructive
	1978	There was a severe draught in the JFMC area	Destructive
	1983	KhursidAlam was the first on to pass HSLC	Educative
	1992	There was a serious disease (malaria) spread all the area	Destructive
	1993	Ismail Hussain was the first one to get Bachelor of Homeo and Science (BHMS) Degree from the village	Educative
20 th Century	2006	Nakhuti JFMC was formed	Constructive
	2008	First Firewood Plantation was started	Constructive
	2009	Community Hall was formed	Constructive

Source: Field Survey Report

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 major events in the Nakhuti JFMC.

In the year 1955, the first L.P school were established respectively which is a step for the development of children both mentally and physically.

During the year 2006, Nakhuti JFMC was formed which is one of the remarkable event for the people of the village.

In the year 2009 the first community Hall for Nakhuti JFMC was formed which helps the villagers for social gathering.

Learning:

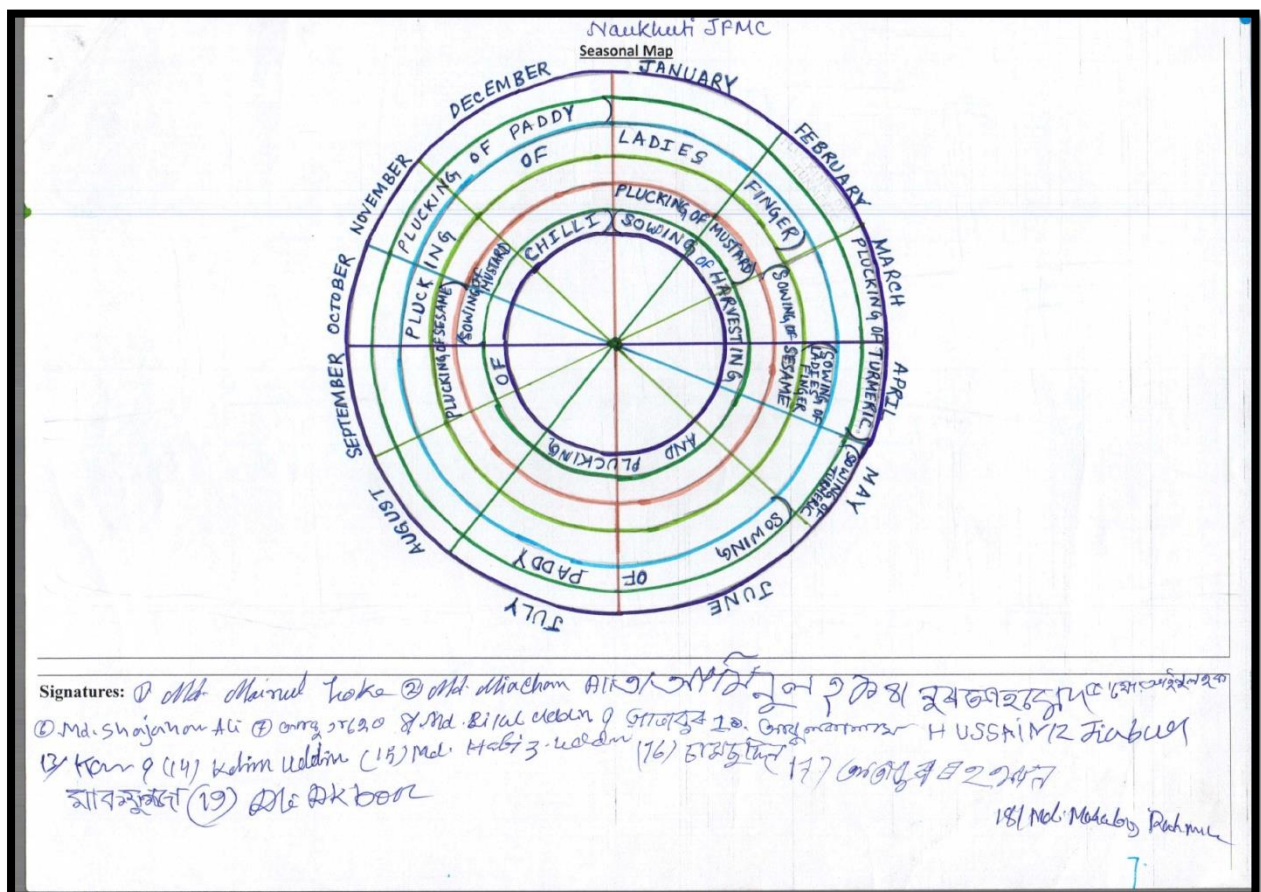
- It has been observed and learnt from our research and information from the village people that there are some kinds of Formative, destructive and constructive events in the village which is being learnt during the PRA exercise.

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, weaving, daily wage labourers, masonry, tailoring, carpentry which are not seasonal in nature.

Figure 3.4(A): Seasonal Map of NakhutiJFMC



Source : PRA Exercise

Table 3.4(B) Seasonal cropping pattern

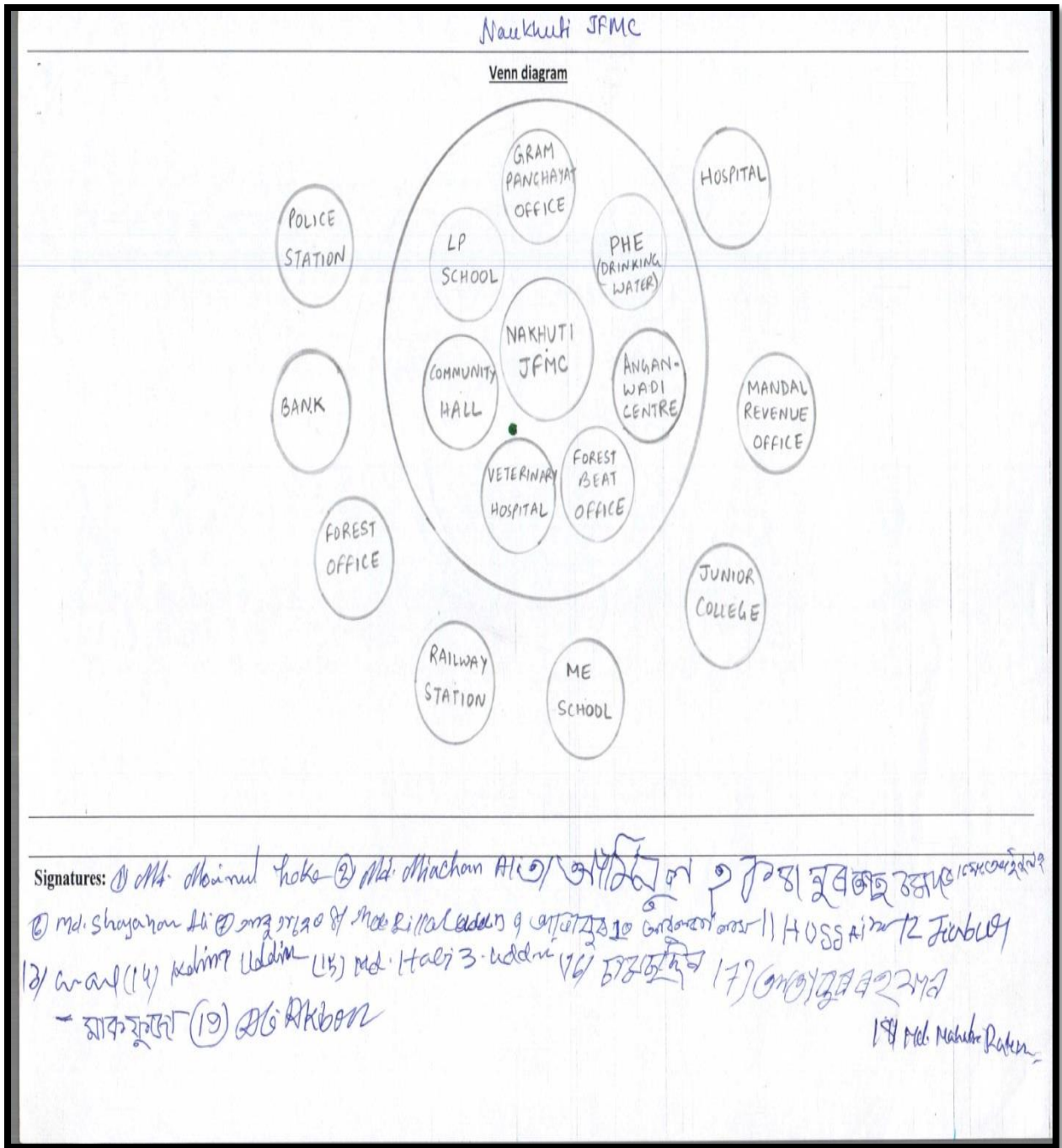
Agricultural Crop	Time of Activity			
		Sowing	Harvesting	Plucking
Farming	Paddy (Sali, Pankaj, Ranjit, Aijang)	Throughout the year		
	Turmeric	April	June	Feb
	Mustard			
	Chilli	Throughout the year		
	Sesame			
	Pulses	October	November	Dec-Jan
	Jute	March-April	May	June-July
	Non-Farming	Business	Throughout the year	
Fishery				
Carpentry				
Masonry				
Tailoring and Service.				

Source:PRA Exercise

Learnings:

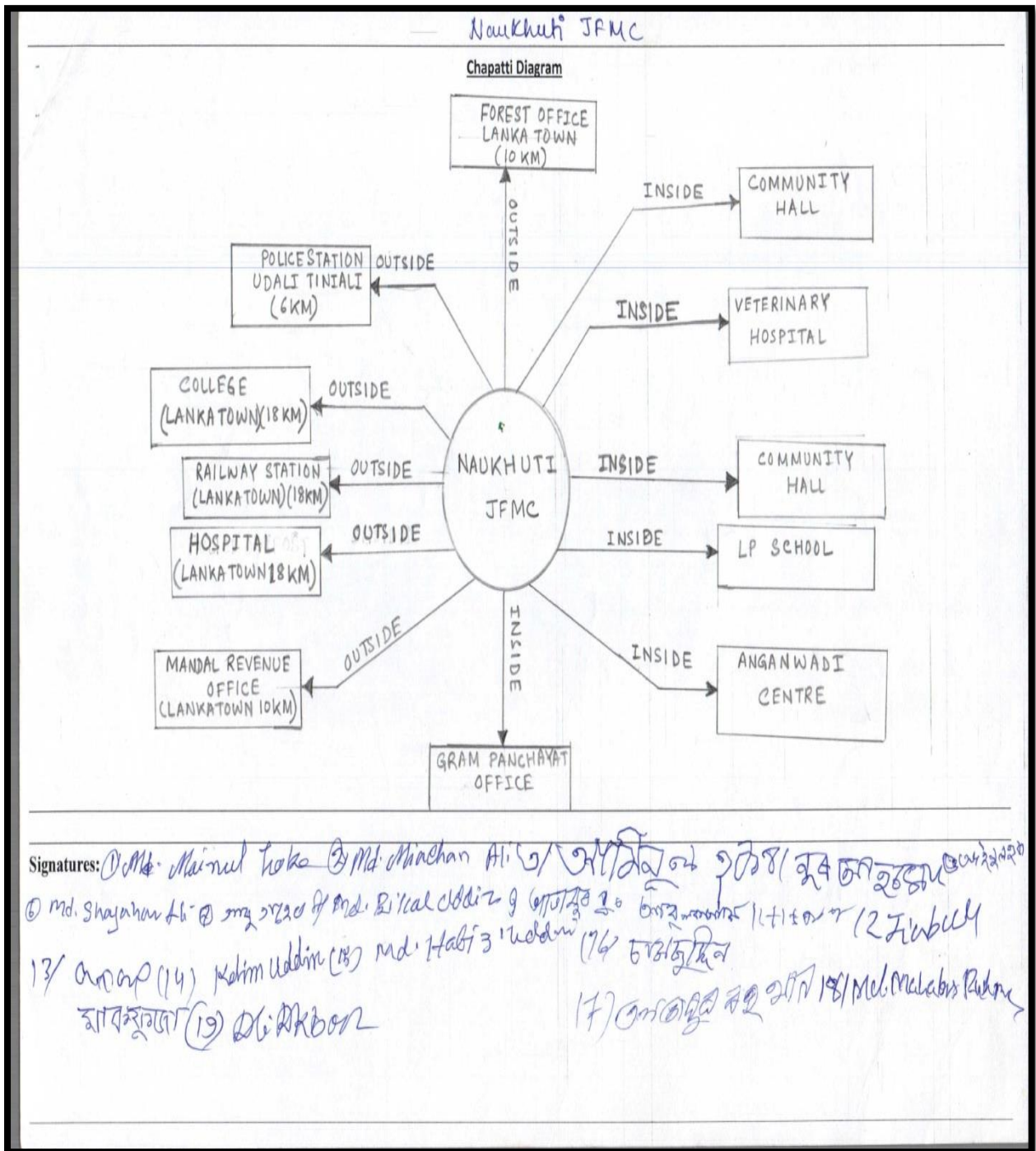
- Water availability is less during the period October to March, so agricultural productivity becomes less in this period.

3.5 Venn Diagram



Source : PRA Exercise and Being drawn by JFMCmembers

3.6 Chapatti Diagram



Source : PRA Exercise and Being drawn by JFMC members

3.7 Priority Ranking- EPA

Nakhuti JPMC

Priority Ranking of Entry Point Activity

Entry Point Activities		Generation of priority ranking with their rank including 5 ring well											Marks	Rank		
		A	B	C	D	E	F	G	H	I	J	K				
RENOVATION OF COMMUNITY HALL NAKHUTI JPMC WITH OFFICE, TOILET INCLUDING 2 RING WELL	A	X	A	A	A	A	A	A							7	1
No.2 Mouzaden goon Jalia Lia Subani Muktabi School (ward No 1)	B		X	B	B	B	B	B							6	2
No.3 Mouzaden goon open women Community Hall, (ward No. 2)	C			X	C	C	C	C							5	3
No.1 Mouzaden goon Nurania Subeh Muktabi School, (ward No.2, Near Abdul Hoque House)	D				X	D	D	D							4	4
No.2 Deben goon Masjid Boundari wall with gate	E						X	E	E	E					3	5
No.3 Deben goon Namgini L.P School	F								X	F	F				2	6
No.1 Deben goon Banat Maddhassa	G										X	G			1	7 [†]
Community Nursery, Nakhuti JPMC	H											X			0	7
	I															
	J															
	K															

Signatures: ① Md. Mainul Hossain ② Md. Moshann Ali ③ Md. Shajahan Ali ④ Md. Bilal Uddin ⑤ Md. Hossain Uddin ⑥ Md. Hossain Uddin ⑦ Md. Hossain Uddin ⑧ Md. Hossain Uddin ⑨ Md. Hossain Uddin ⑩ Md. Hossain Uddin ⑪ Md. Hossain Uddin ⑫ Md. Hossain Uddin ⑬ Md. Hossain Uddin ⑭ Md. Hossain Uddin ⑮ Md. Hossain Uddin ⑯ Md. Hossain Uddin ⑰ Md. Hossain Uddin ⑱ Md. Hossain Uddin ⑲ Md. Hossain Uddin ⑳ Md. Hossain Uddin ㉑ Md. Hossain Uddin ㉒ Md. Hossain Uddin ㉓ Md. Hossain Uddin ㉔ Md. Hossain Uddin ㉕ Md. Hossain Uddin ㉖ Md. Hossain Uddin ㉗ Md. Hossain Uddin ㉘ Md. Hossain Uddin ㉙ Md. Hossain Uddin ㉚ Md. Hossain Uddin ㉛ Md. Hossain Uddin ㉜ Md. Hossain Uddin ㉝ Md. Hossain Uddin ㉞ Md. Hossain Uddin ㉟ Md. Hossain Uddin ㊱ Md. Hossain Uddin ㊲ Md. Hossain Uddin ㊳ Md. Hossain Uddin ㊴ Md. Hossain Uddin ㊵ Md. Hossain Uddin ㊶ Md. Hossain Uddin ㊷ Md. Hossain Uddin ㊸ Md. Hossain Uddin ㊹ Md. Hossain Uddin ㊺ Md. Hossain Uddin ㊻ Md. Hossain Uddin ㊼ Md. Hossain Uddin ㊽ Md. Hossain Uddin ㊾ Md. Hossain Uddin ㊿ Md. Hossain Uddin

Source : PRA Exercise

3.8 Priority Ranking-Livelihood

Naukhuri JFMC.

Priority Ranking of Livelihood Activities

Livelihood Activities		Agriculture	Business	Fishery	Poultry	Carpentry	Masonry	Tailoring	Service	Marks	Rank
		A	B	C	D	E	F	G	H		
Agriculture	A	X	A	A	A	A	A	A	A	7	1
Business	B		X	B	B	B	B	B	B	6	2
Fishery	C			X	C	C	C	C	C	5	3
Poultry	D				X	D	D	D	D	4	4
Carpentry	E					X	E	E	E	3	5
Masonry	F						X	F	F	2	6
Tailoring	G							X	G	1	7
Service	H								X		
	I										

Signatures: 1) Md. Mainul Hossain 2) Md. Miachan Ali 3) Md. Shahab Ali 4) Md. Billal Hossain 5) Md. Hossain 6) Md. Hossain 7) Md. Hossain 8) Md. Hossain 9) Md. Hossain 10) Md. Hossain 11) HUSSAIN 12) Md. Hossain 13) Md. Hossain 14) Md. Hossain 15) Md. Hossain 16) Md. Hossain 17) Md. Hossain 18) Md. Hossain 19) Md. Hossain 20) Md. Hossain

Source : PRA Exercise

ANNEXURE 4

PHOTOGRAPHS -1



During Awareness

PHOTOGRAPHS -2



PRA Activity

PHOTOGRAPHS -3



Data Collection and drawing of maps being drawn by the villagers

PHOTOGRAPHS -3



Group photo with the Villagers

Annexure 5

LIST OF JFMC MEMBERS

Name Of The Executive Members of Nakhuti J.F.M.C
Under Lanka Range, Nagaon South Division, Hojai (Assam)

Sl No	Name	Father's / Husband's Name	Gender	Age	Designation	Education Qualification	Contact No	Rem
1	Gulap Md. Lutfur Rahman	Md. Abul Hussain	Male	37	President	H.S.L.C Passed	8811904524	
2	Mrs. Makhfuja Begum	Md. Abul Kalam	Female	32	Vice President	ix Passed	7664095367	
3	Sri. Rahul Borah	Late. Sarad Borah	Male	42	Member Secretary	M.Sc (Stats)	9957063328	
4	Md. Abul Hussain	Late. Ahmed Ullah	Male	39	Treasurer	H.S.L.C Passed	9401871862 8761012807	
5	Md. Abdulla Al Faruk	Md. Abdul Motalib	Male	36	Executive Member	B.A Passed	9854061700	
6	Md. Sirazul Islam	Late. Mosrof Ali	Male	32	Executive Member	ix Passed	9957170458	
7	Md. Abul Hussain Chawdury	Late. Hazi Sirajul Hoque	Male	39	Executive Member	B.A Passed	9954266404	
8	Md. Mustahak Ali	Md. Abdul Hashen	Male	40	Executive Member	H.S Passed	8011058446	
9	Sri. Sanjay Kr. Shill	Sri. Komol Shill	Male	36	Executive Member	H.S Passed	8011058446	
10	Md. Mahabur Rahman	Hazi Md. Jamal Uddin	Male	34	Executive Member	ix Passed	8011355306	
11	Md. Jalal Uddin	Late. Altab Ali	Male	39	Executive Member	ix Passed	8011892330	
12	Mrs. Sabikun Nahar	Md. Alal Uddin	Female	30	Executive Member	ix Passed	9678242504	
13	Mrs. Momtaz Begum	Md. Abu Sama Morol	Female	35	Executive Member	ix Passed	9957492443	
14	Mrs. Nasima Sahanazi	Md. Afaz Uddin	Female	29	Executive Member	H.S Passed	9435960121	
15	Mrs. Majeda Khatun	Md. Noor Mohommod	Female	38	Executive Member	viii Passed	9678035996	

Abul Hussain
Treasurer
Nakhuti J.F.M.C.
Signature of Treasurer

Abul Hussain
President
Signature Of President

Rahul Borah
Member / Secretary
Nakhuti J.F.M.C.
Signature Of Member Secretary

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	Nakhuti	2008	14	Mr. Gulap Mohammad Lutfur Rahman	Mr. Rahul Borah, Forester-I	No	-	NO	-	70%

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 House holds	SC		OBC		General		Total- all category
			Male	Female	Male	Female	Male	Female	
1.	Nakhuti	480	60	50	55	50	2308	1977	4500
	Total	480	60	50	55	50	2308	1977	4500

Source: - Field survey report.

Table 3: Age profile of the JFMC

Age Class	<5 years	5-18 years	18-45 years	45-60 years	>60 years	Total
Male	120	1221	722	190	67	2320
Female	118	1169	659	175	59	2180
Total	238	2390	1381	365	126	4500

Table 4: Education profile of the JFMC

Name of Village	Illiterate	Up-to IV	V-VII	VIII-X	X-XII	Graduate	Total	Percentage (%) of Literacy	Percentage (%) of Illiterate
Nakhuti	1578	815	741	737	626	3	4500	64.94	35.06
TOTAL	1578	815	741	737	626	3	4500	64.94	35.06

Table 5: Income Distribution of the JFMC

Income Category(in Rs) Yearly	No of HHs
>5000 Rs	-
5,0000-10,000	15
11,000-20,000	30
21,000-30,000	52
31,000-40,000	68
41,000-50,000	315
<50,000	-

Table 6: JFMC farmer category on the basis of landholding:

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	Nakhuti	0	36	392	52	480
Total		0	36	392	52	480

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	Nakhuti	965	0	476	274	1804	0	0	3519
Total		965	0	476	274	1804	0	0	3519

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	18km	Good
2	Hospital	Lanka Town	18 km	Good
3	Community Hall	Inside	Under Village area	Average
4	Veterinary Hospital	Inside	Under Village area	Average
5	Mandal Revenue Office	Lanka Town	18 Km	Average
6	Gas connection	Lanka Town	18 Km	Average
7	Transport	Lanka Town	18 Km	Average
8	Primary Health Centre	Nakhuti (Inside)	Under Village area	Poor
9	School (LP)	Nakhuti(Inside)	Under Village area	Average
10	Bank	UdaliTinali	6 km	Average
11	ME School	Nakhuti(Inside)	Under Village area	Average
12	Gram Panchayat Office	Nakhuti (Inside)	Under Village area	Average
13	Police station	UdaliTinali	6 km	Average
14	Forest Office (Beat)	Nakhuti(Inside)	Under Village area	Average

		de)		
15	Post Office	Lanka Town	18 km	Good
16	Bus facility	Nakhuti (Inside)	Under Village area	Poor
17	Railway Station	Lanka Town	18 km	Good
18	Drinking Water	Inside (Ring well)	Under Village area	Average
19	Namghar	Nakhuti (Inside)	Under Village area	Average
20	Forest Range Office	Lanka Town	18 Km	Good
21	Anganwadi Centre	Nakhuti (Inside)	Under Village area	Average
22	Junior College	UdaliTinali	6 Km	Average
23	Degree College	Lanka Town	18 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 and Ranjit)		-	-
Rabi	Mustard,Potato,Tomato ,Pulses,Chilli		-	-
Others	Fruits		-	-

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	3200 q	388	30.87	103.65
Turmeric	5226 q	411	100.46	52.02
Oil Seed	206 q	137	12.87	16
Jute	1235 q	367	55.90	22.09

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 kilometer
Grocery Shop/PDS center	Under village area (Inside)	0KM
Weekly Market	Under village area (Inside)	0KM
Major Market	Lanka Town	18 Km
Forest corporation sale depo.	-	-
TenduPatta PHAD	-	-
Fish Market	Lanka Town	18 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	0	-	-
Check dam	0	-	-
Tube well	20	-	Drinking, Bathing, Irrigation, livestock rearing
River/Nala	1(Nala)	Adequate	Bathing, Irrigation, livestock rearing
Ring well	30	Adequate	Drinking, Bathing, Irrigation, livestock rearing
Canal	0	-	-
Water Reservoir	0	-	-

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	469	12 month	Forest, Village area	Major
Kerosene stove	469	12 month	Market	Major
Gobar/Bio Gas	0	-	-	-
LPG	11	6 month	Govt.	Secondary

Source: - Field survey report.

RECORD II

LIVELIHOOD OPPORTUNITY ANALYSIS

Table- 15: Agriculture and Horticulture

Constraints	Reasons	Opportunities	Programme
Low production/ collection	<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. 	
Tea Market	<ul style="list-style-type: none"> Proper linkage with the market Unaware of the market demand of different tea made 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 	--	--
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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 marketing channels and hub. 	<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.