

**LAKHIPATHAR PURBANCHAL JOINT FOREST MANAGEMENT COMMITTEE
(JFMC)**

DIGBOI FOREST DIVISION

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

**Prepared by
Lakhipathar Purbanchal Joint Forest Management Committee**

**Assisted by
Assam Forest Department
&
COMPELO
(IIE & RGVN)**

June 2017

Approved
[Signature]
**Divisional Forest Officer
Digboi Division, Digboi
Tinsukia, Assam**

1. Introduction

<p>About the Project</p>	<p>The vision of the Assam Project on Forest and Biodiversity Conservation (APFBC) is 'to enable sustainable forest and biodiversity conservation and management in Assam through multi-scale integrative planning and involvement of forest dependent communities in target areas and giving fillip to their livelihood activities through sustainable use of forest and non-forest resources'. The project's objective has been stated as: 'In collaboration with the forest dependent communities, to restore forest eco-systems to enhance the forest dependent community's livelihoods and ensure conservation and sustainable use of biodiversity'</p> <p>The above project is being mainly funded by the <i>Agence France de Développement</i> (AFD)- i.e. the French Development Agency, with co-funding from the Government of Assam. The Assam Project on Forest and Biodiversity Conservation Society (APFBC Society) has the mandate for planning, implementation, monitoring, coordination and management of all the activities under the above mentioned project.</p>
<p>Micro-Planning & Livelihood Development</p>	<p>In order to promote livelihood activities through market potential based value addition; the present project intends to take up activities like entrepreneurship promotion, product processing value addition and marketing under this project. This has become necessary on account of the pressures on existing forest resources due to the growth of population. There is a need to explore value addition to the existing forest and biodiversity products and services, based on the market potential. In addition, non-forest based livelihoods need to be explored and the capacities of the community members need to be built-up through skills development initiatives.</p> <p>A consortium comprising of Indian Institute of Entrepreneurship (IIE) Guwahati, <i>Rashtriya Gramin Vikas Nidhi</i> (RGVN) and Centre for Microfinance & Livelihood (CML) has been formed to implement (<i>inter-alia</i>) the micro- planning and livelihood development under the above project. The above consortium has been titled as 'Consortium for Micro Planning and Enhancing Livelihood Opportunities'- COMPELO in short.</p> <p>As per project guidelines, this micro-plan includes 'various operations of village and forest development livelihood support of forest dependent members and keeping sustainable forest management as the broad objective'. It includes both forest development and livelihood</p>

	development.
Micro-Plan for the Lakhipathar Purbanchal JFMC	<p>This document gives the Micro-Plan for the Lakhipathar Purbanchal JFMC, which is located in the Tinsukia district of Assam. The Lakhipathar Purbanchal JFMC falls under the jurisdiction of the Lakhipathar Forest Range under Digboi Forest Division. 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 Centre for Microfinance and Livelihood (CML) Guwahati in June 2016. The micro-plan has been compiled by CML based on the project guidelines. The document has been discussed and finalized for adoption in July 2016.</p>

2. Village Socio – Economic Profile

Key Information	<p>The Lakhipathar Purbanchal JFMC was formed comprising six villages namely Lakhipathar, 1 No Lakhipathar, Laopatti, Gondhia, Pandhowa and Dhunda. The JFC falls under Itakhuli development block. The JFMC falls in Lakhipathar forest range under Digboi Forest Division and is located almost 7-8 kms from the Divisional Forest Office, Digboi.</p> <p>Nearest town of the village is Digboi and the distance from Lakhipathar Purbanchal JFMC to Digboi is 7 km. District head quarter of the village is Tinsukia which is 40 km away.</p> <p>Appendix-1 gives the Village Map and GIS Map</p>																						
	<p>The key information of the JFMC is furnished below.</p> <p style="text-align: center;">Table A: Key Information of the JFMC</p> <table border="1" data-bbox="565 898 1383 1444"> <tr> <td>Name of the JFMC</td><td>Lakhipathar Purbanchal</td></tr> <tr> <td>Name of the Gram Panchayat</td><td>Lakhipathar</td></tr> <tr> <td>Block</td><td>Itakhuli</td></tr> <tr> <td>District</td><td>Tinsukia</td></tr> <tr> <td>Forest Division</td><td>Digboi</td></tr> <tr> <td>Forest Range</td><td>Lakhipathar</td></tr> <tr> <td>Forest Beat</td><td>Lakhipathar HQ</td></tr> <tr> <td>Year of formation</td><td>2015-16</td></tr> <tr> <td>Description of Boundary of JFMC</td><td> North: Upper Dehing Reserve Forest (West Block) South: Borajan Forest Village East: Balijan Forest Village West: Upper Dehing Reserve Forest (West Block) </td></tr> <tr> <td>Total Households</td><td>281</td></tr> <tr> <td>Number of JFMC Villages</td><td>6</td></tr> </table> <p>Source: JFMC Records and Discussions during PRA exercise in June, 2016.</p> <p>Additional details are given at Table-1 of Record-I (Given as annexure)</p>	Name of the JFMC	Lakhipathar Purbanchal	Name of the Gram Panchayat	Lakhipathar	Block	Itakhuli	District	Tinsukia	Forest Division	Digboi	Forest Range	Lakhipathar	Forest Beat	Lakhipathar HQ	Year of formation	2015-16	Description of Boundary of JFMC	North: Upper Dehing Reserve Forest (West Block) South: Borajan Forest Village East: Balijan Forest Village West: Upper Dehing Reserve Forest (West Block)	Total Households	281	Number of JFMC Villages	6
Name of the JFMC	Lakhipathar Purbanchal																						
Name of the Gram Panchayat	Lakhipathar																						
Block	Itakhuli																						
District	Tinsukia																						
Forest Division	Digboi																						
Forest Range	Lakhipathar																						
Forest Beat	Lakhipathar HQ																						
Year of formation	2015-16																						
Description of Boundary of JFMC	North: Upper Dehing Reserve Forest (West Block) South: Borajan Forest Village East: Balijan Forest Village West: Upper Dehing Reserve Forest (West Block)																						
Total Households	281																						
Number of JFMC Villages	6																						
Brief Details of the Executive Committee & General Body	<p>The brief details of the Executive Committee and General Body of the JFMC are contained in the table, which is given below:</p> <p>Table B: Brief details of the Executive Committee & General Body</p>																						

	Name of President	Kamal Gogoi
	Name of Secretary	Arun Kr. Hazarika
	No. of Members in Executive Committee	11 Male: 8 Female: 3
	Source: JFMC Records	
Household and Population Structure	<p>The JFMC has two villages namely Lakhipathar, 1 No Lakhipathar, Laopatti, Gondhia, Pandhowa and Dhundawith a total households of 281 and the total population of 1383.</p> <p>The total male population stands at 710 whereas the total female population is 673. Hindu is the dominant religion of the JFMC and residing communities are Tai Ahom, Ahom, Adivasi and Sonowal Kachari.</p> <p>Almost 81% of the total population belongs to OBC category and rest are ST.</p> <p>The average size of the households is 5 and the sex ratio is 948 females per 1000 males in the JFMC villages.</p> <p>As per the household survey conducted, only 17% of the households are BPL whereas 74.5% belong to APL category which signifies that the economic condition of majority of the households in the JFMC are quite better off. 85.5% of the households possess Government ration cards.</p> <p>Almost 99% of the total households from the JFMC have encroached and have migrated from the Dibrugarh and Tinsukia districts of Assam. Interestingly, 72% of the total encroached families have migrated from Dibrugarh district and the rest from Tinsukia district.</p> <p>Table-2 of Record-I may be referred for further details.</p>	
Education & Skills Development	<p>The total literacy rate of the JFMC villages is 60.6%. Most of the villagers have attained school education upto standard IV. Only a mere 1% of the total population have passed graduation.</p> <p>Among all the JFMC villages, the literacy rate of 1 No Lakhipathar village has found to be highest at 69.86% which is still below the state literacy rate of 74% whereas the literacy rate of Gondhia village has found to be lowest at 50.41%.</p>	

	<p>Table-3 of Record-I may be referred for further details.</p> <p>In the Lakhipathar Purbanchal JFMC villages, the villagers are traditionally skilled in following areas:</p> <ul style="list-style-type: none"> • Agriculture - 177 households are engaged • Livestock Rearing- 117 households are engaged • Handicraft -2 households are engaged • Weaving - 2 households are engaged • Daily wage Labour - 134 households are engaged • Carpentry- 1 households are engaged <p>Source: <i>Field survey</i></p>
Soil	The Lakhipathar Purbanchal JFMC is situated on a layer of clay soil of light yellowish and dark grayish colour up to a depth of about 2.5 m. A layer of sand (Quartz) is up to about 16 m and an under layer of clay, grayish colour hard and sticky.
Water	Ground water is the main source of drinking water. Community consultation revealed that adequacy and quantity is not a problem in case for drinking water. But the content of iron is high in the sources.
Climate, Temperature & Rainfall	<p>Highest temperature is generally observed in the months of July/August (33-35°C) and lowest is in the months of December/January (10-12°C).</p> <p>The climate of the region is sub-tropical wet and is characterized by hot and humid summer and dry cool winter.</p> <p>The Lakhipathar Purbanchal JFMC experiences 1500 to 2000 mm rainfall per year. It is observed that on an average 64 to 68% of annual rainfall is received during the monsoon period (June-September) and 22-26% of annual rainfall during pre-monsoon period (March-May).</p>
Forest & Bio-diversity	<p>The local forests have been broadly classified as - Tropical Wet Evergreen and Tropical Semi-Evergreen.</p> <p>The Lakhipathar Purbanchal JFMC forest is enriched with tree species like- Lagerstroemia speciosa (Ajhar), Mansonia dipikae (Badam), Morns laevigata (Bola), Biscofiarmnica (Uriam), Cordial dichotoma (Bual), Bombaxceiba (Simalu), Lagerstroemia parviflora (Sida), Delonixresia (Radhasura), Canarium benealensis & Cresiniferum (Dhuna, Dhup), Ficushispida (Dimoru), Premnabengalensis (Gohra), Caeslpimapulcherima (Krishnasura), Tetramelesmdiflora (Bheleu), and Tactonasrandis (Segun).</p>

Land-use Pattern	<p>The cropping system is diversified depending upon soil, microclimate condition and socio-economic status</p> <ul style="list-style-type: none"> Land under agriculture: 24 % Land under non-agricultural use: 33 % Cultivable wasteland: 14 % Land under Misc. tree crops and groves: 10 % Barren and uncultivable land: 19 % 														
Land Holdings	<p>The land-holding pattern of the JFMC can be depicted as below:</p> <p>Homestead land: 100% of the total households have homestead lands.</p> <p>Farm land: 96% of the total households have farm lands</p> <p>Share-cropping: Almost 6% of the total households are practicing share-cropping</p> <p>Land Mortgage: 11.5% of the total households have mortgaged their land as security</p> <p>The details of the land-holding pattern is provided at Table 4 of Record-I</p>														
Livestock	<p>The total numbers of livestock in the JFMC villages are - cows, bulls, buffaloes, duck, local poultry, pigs and goats. The details of the livestock reared are provided as below:</p> <table border="1"> <tbody> <tr> <td>Cow</td><td>149</td></tr> <tr> <td>Bull</td><td>273</td></tr> <tr> <td>Buffalo</td><td>24</td></tr> <tr> <td>Duck</td><td>319</td></tr> <tr> <td>Local poultry</td><td>740</td></tr> <tr> <td>Pig</td><td>85</td></tr> <tr> <td>Goat</td><td>230</td></tr> </tbody> </table> <p>Table 5 of Record-I can be referred for details on the above.</p>	Cow	149	Bull	273	Buffalo	24	Duck	319	Local poultry	740	Pig	85	Goat	230
Cow	149														
Bull	273														
Buffalo	24														
Duck	319														
Local poultry	740														
Pig	85														
Goat	230														
Village Infrastructure & Communication Facilities	<p>The infrastructures which are available in the villages can be categorized under the following heads:</p>														

	<p>1. Physical Infrastructure: The households have the basic amenities including electricity, mobile phones, cycles and motorbikes for communication purposes. Almost 64.5% of the households have access to electricity. The road to the JFMC from Digboi through Lakhipathar range office is in a motorable condition but requires repair as few patches on the road are in extremely poor condition. There are five approach roads to reach the JFMC namely Digboi-Lakhipathar road (sand gravel), Tengrai-Lakhipathar (kachcha), Ultapool-Lakhipathar road (kachcha), Anandabagh-Lakhipathar road (half pucca) and Makum-Lakhipathar road (sand gravel). The nearest market is located at Tengrai which is located at a distance of 6-7 kms from the JFMC villages.</p> <p>2. Education and Health facilities: Education and health facilities include four primary schools, 5anganwadicenters, one health sub-centre. The nearest ME school is 0.5 kms from the JFMC located at namely DhundanohorKopopuwa. The nearest ME & High School are located at a distance of almost 4-6 kms from the JFMC villages.</p> <p>The medical sub-centre is non-functional. For medical emergencies and regular check-up, people mostly refer to Digboi Civil Hospital located at Digboi.</p> <p>3. Govt. Offices: The Government offices and line departments which are existing at a reasonable distance from the JFMC are Panchayat office, Revenue office, local police station, Forest beat office and range office.</p> <p>4. Financial Institutions: There are banks and post offices which are present in the area but they are at a considerable distance of at an average distance of 3-7kms from the villages.</p> <p>Details of infrastructures are given in Table 6 of Record I</p>
Agriculture Crops & Crop Production Profile	<p>The principle cultivated crops grown in the JFMC villages is:</p> <p>Kharif: Paddy (Sali)</p>

	<p>Plantation crop: Bettlenut& Tea</p> <p>Almost 42% of the households cultivate paddy with an average harvest of 1233.54 kilograms. The average area under cultivation in case of paddy is 4.7 acres. The average investment made by a farmer for paddy cultivation is INR 3475.</p> <p>It was also seen that there is no irrigation facility in the farm lands and 100% of the farm land under paddy cultivation is rain-fed.</p> <p>Apart from paddy, almost 2.5% of the total households cultivate bettlenut and tea in their backyard homestead garden with an average harvest quantity of 280 and 320 kgs annually. The average investment in tea is higher than the bettlenut cultivation with investment on tea being INR 833 and bettlenut being INR 400. However, average area of land under bettlenut and tea were not reported during the field survey conducted.</p> <p>The field survey has also reported cultivation of jackfruit, mangoes, litchis and plum but additional details on the same have not been reported.</p> <p>Table 7 of Record-I depicts the details on agriculture crops</p>
Fodder Availability	<p>The main sources of fodder are:</p> <ol style="list-style-type: none"> 1. Collection from Forest 2. Household kitchen waste <p>It is seen that almost 68% of the households let their livestock graze especially cow, bull and bullocks on forests and the peak season of forest grazing starts from June till December.</p> <p>Table 8 of Record-I depicts the seasonality of grazing.</p>
Markets	<p>The main markets used by the community and its distance from the JFMC villages are mentioned below:</p> <ul style="list-style-type: none"> ▪ The Grocery/ PDS shops are nearly 6 km distance from village at Tengrai. ▪ The Weekly/ Bi-weekly Market is nearly 6 km away at Tengrai ▪ Major Market is at Digboi which is 8-10 kms and from the JFMC villages

	Table 9 of Record-I depicts the seasonality of grazing.
Water Resources	<p>The main water resources within the JFMC villages are as follows:</p> <p>(a) Tube-well: 63 HHs (Water availability: Perennial) (b) Ring Well: 4 HHs (Water availability: Perennial) (c) Pond: 1 HH (Water availability: Perennial)</p> <p>It has been observed that in most of the water sources, iron content has been found to be high. Bacteria in case of ring well water has also been reported.</p> <p>Table 10 of Record-I depicts the availability of water resources</p>
Energy Consumption	<p>The major sources of energy in the village have been listed below:</p> <ul style="list-style-type: none"> • Firewood: Households Depending: 199. Source: Local forest area Average HH consumption of firewood: 286.8 kg • Kerosene: Households Depending: 160. Source: Local market. Average HH consumption of Kerosene: 3.46 litres <p>Table 11 of Record-I depicts the energy use of villagers</p> <p>In case of household lighting, 33.5% of the households completely depend on kerosene lamp which clearly shows that poor penetration of electricity in the JFMC villages. Again, 57.5% of the total households depend both on kerosene lamps and electric run bulbs for household lighting.</p> <p>As per the field survey conducted, only 12.5% of the total households have access to electricity.</p>
Socio-Economic Status	<p>Social set-up: The population caste break-up is quite diverse in the JFMC villages as there multiple communities inhabiting the villages namely Ahom, Tai Ahom, Adivasi and Sonowal Kachari.</p> <p>Economic Condition: The overall economic condition of the villagers is not found to be satisfactory. The average household income has been found to be INR 65596/- (Rupees sixty five thousand five hundred and ninety six only as per the field survey</p>

	<p>undertaken.</p> <p>If we compare the standard of living between the Adivasi community on one hand and the Ahom, Tai Ahom and Sonowal Kachari on the other, it is seen the socio-economic condition of the latter is much better than the former.</p>
Maps	<p>Appendix-1 gives the following maps, based on PRA exercise:</p> <ul style="list-style-type: none">• Village Map (Resource and Social)• GIS Map

3. Livelihood Opportunity Analysis

PRA Exercise	The CML team conducted the PRA exercise on 6 th June, 2016 at Dhundavillage in presence of representatives from all the villages, JFMC President, Executive Committee Members, Village Head and Personnel from Forest Department.
Objectives of PRA	<p>The specific objectives of the exercise are to:</p> <ul style="list-style-type: none"> (a) To understand the livelihood options existing within the region, its prevalence and challenges. (b) Better understand the credit needs of the poor and their coping mechanism. Examine the options, challenges, and opportunities for financial institutions interested in delivering financial services and (c) Identify existing livelihood support mechanisms and explore viable options of providing livelihood support services for increasing income and employment opportunities of the people.
Tools Used for PRA	<p>The tools applied for PRA are given as below:</p> <ul style="list-style-type: none"> • Focus Group Discussion (FGD) • Seasonality Analysis • Social and Resource Mapping <p>Appendix-2 furnishes the details on the above</p>
Ranking	<p>Ranking exercise has been conducted for the following:</p> <ul style="list-style-type: none"> • Livelihood & Skills Development • Entry Point Activities (EPA) <p>Appendix-2 elaborates the above.</p> <p>Ranking of Livelihood & Skills Development:</p> <ol style="list-style-type: none"> 1. Tailoring & Embroidery 2. Livestock Rearing 3. Promotion of Backyard kitchen gardening <p>Ranking of EPAs</p>

	Rank	Village EPA as Ranked	Details (Appendix-2 Additional Particular)	Probable source of funding/Deptt.
	1	Irrigation	Low-cost irrigation facility for farmers	Dept. of Irrigation
	2	Veterinary Extension Services	Establish at least one vet care to promote the livestock activity	Dept. Veterinary (Assam)
	3	Road Connectivity	Black Topping Road	PMGSY/PWD
	4	Skill Training School	Up-gradating the existing skills	NSDC
Livelihood Opportunities	<p>The identified livelihood opportunities were as follows:</p> <ul style="list-style-type: none"> • Tailoring and embroidery • Livestock Rearing (Goat and development of Cluster for rearing of local poultry) • Promotion of Backyard Kitchen gardening 			
Tailoring and Embroidery	<p>The main constraints towards promotion of tailoring and embroidery as a potential livelihood option are:</p> <ul style="list-style-type: none"> • Lack of design development • Lack of knowledge on market and pricing • Poor infrastructure • Lack of mechanization - more application of tools for hand stitching <p>Some of the possible interventions in the promotion of tailoring and</p>			

	<p>embroidery sub-sector are as follows:</p> <ul style="list-style-type: none"> • Basic skills-development training on tailoring and embroidery which can be again upgraded for advanced-level training more focusing on machine based stitching and cutting • Introduction of specialized tools for enhancing production • Establishment of the JFMC run training cum production centre • Training on entrepreneurship and business orientation <p>Table-12 under Record-II can be referred for details</p>
Livestock Rearing	<p>The main constraints towards promotion of livestock rearing as a potential livelihood option are:</p> <ul style="list-style-type: none"> • Outbreak of diseases • Lack of knowledge on scientific method of livestock rearing • Lack of initial investment on the part of the villagers • Unavailability of quality feed - nutrients and other sources of fattening and growth. <p>Some of the possible interventions in the promotion of livestock rearing sub-sector are as follows:</p> <ul style="list-style-type: none"> • Specialized training on livestock rearing and para-vet professional • Setting up of a JFMC run agro-veterinary care centre • Setting up of a JFMC run butchering shop in the nearby town • Training on entrepreneurship and business orientation <p>Table-13 under Record-II can be referred for details</p>
Promotion of backyard kitchen gardening	<p>The main constraints towards promotion of backyard kitchen gardening as a potential livelihood option are:</p> <ul style="list-style-type: none"> • Lack of timely farm inputs • Lack of irrigation facilities • Lack of technical know-how on the part of the farmers <p>Some of the possible interventions in the promotion of backyard kitchen gardening are as follows:</p> <ul style="list-style-type: none"> • Training on seasonal vegetable crops and high value crops by an agro-expert • Developing specialized Package of Practice (PoP) for the households taking up kitchen gardening • Setting up JFMC run agro-vet information centre which is to function on an enterprise mode

	<ul style="list-style-type: none"> • Training on entrepreneurship and business orientation <p>Table-14 under Record-II can be referred for details</p>
Credit Facility	<p>The main constraints with regard to credit facility in the JFMC are as follows:</p> <ul style="list-style-type: none"> • High rate of interest charged by the unorganized village money lenders • Reluctance on the part of the financial institutions to provide loans to interested borrowers <p>Some possible interventions in order to foster better credit facilities among the villagers may be follows:</p> <ul style="list-style-type: none"> • Facilitating bank linkage program on a regular basis • Penetration of Microfinance institutions into the area • Promotion of SHGs or village level institutions <p>Table-15 under Record-II can be referred for details</p>

4. Livelihood Development Plan	
Income Generating activities	<p>The main income generating activities as planned for the JFMC villages are as:</p> <p>Farm Sector:</p> <ul style="list-style-type: none"> • Promotion of livestock cluster (Goatery and local poultry) • Promotion of backyard kitchen gardening <p>Non-Farm Sector:</p> <ul style="list-style-type: none"> • Promotion of tailoring cluster with special focus on apparels <p>Source: Table 32 of Record-IV</p>
Strategic Interventions	<p>Some of the strategic interventions for the above mentioned livelihood opportunities are as follows:</p> <p>Tailoring and embroidery:</p> <ul style="list-style-type: none"> ✓ Basic skills-development training on tailoring and embroidery which can be again upgraded for advanced-level training more focusing on machine based stitching and cutting ✓ Introduction of specialized tools for enhancing production ✓ Establishment of the JFMC run training cum production centre ✓ Training on entrepreneurship and business orientation <p>Livestock Rearing:</p> <ul style="list-style-type: none"> ✓ Specialized training on livestock rearing and para-vet professional ✓ Setting up of a community/ JFMC run agro-veterinary care centre ✓ Setting up of a JFMC run butchering shop in the nearby town ✓ Training on entrepreneurship and business orientation <p>Promotion of backyard kitchen gardening:</p> <ul style="list-style-type: none"> ✓ Training on seasonal vegetable crops and high value crops by an agro-expert ✓ Developing specialized Package of Practice (PoP) for the households taking up kitchen gardening ✓ Setting up JFMC run agro-vet information centre which is to function on an enterprise mode ✓ Training on entrepreneurship and business orientation <p>Credit Facility:</p> <ul style="list-style-type: none"> ✓ Facilitating bank linkage program on a regular basis ✓ Penetration of Microfinance institutions into the area ✓ Promotion of SHGs or village level institutions

5.Action Plan of Lakhpathar Purbanchal JFMC

Sl. No.	Activity	Numbers	Method
A. Participatory Micro Planning			
1	Preparation of Micro Plan	1	PRA, Baseline Survey
B. Organize Producers and Build Entrepreneurial and Technical Capacities (Capacity Building)			
1	Awareness Build-up Programme	1	Awareness Programme
B1	Training on Skill development		
1	Skill Development Training Programme in Tailoring and Embroidery	1	Conducting Training on skill development in Tailoring and embroidery (200 hours)
2	Skill Development Training Programme in Livestock Rearing	1	Conducting training on Livestock rearing and development of Para Professional (20 days)
3	Training on Promotion of backyard kitchen gardening	1	Conducting training on backyard kitchen gardening (for 30 days)
4	Training on Entrepreneurship Orientation	1	Entrepreneurship Orientation programme (30 days)
C. Social Mobilization			
1	Awareness generation camp on Formation of collective units (e.g. SHGs, Societies, NGOs, Bodies, Producers Companies)		4 days awareness camp on formation of collective units through cooperative experts
2	Hand Holding guidance support and linkage promotion programme for self-employment and placement		Hand holding support from agencies experts throughout the year up to march 2017
D. Value Chain Improvement			
D1	Product improvement Through Value Chain Improvement		
1	Value Chain Improvement in Tailoring and embroidery	1	7 days Training on design development
B2	Supply of modern tools		
1	Supply of modern tools kits for trainees	1	Supply of modern tools
2	Rearing Tools	20	
B3	Improved Production and production centre		
E. Support for Access to Market			
D1	Linkage with institutional buyers and/or govt. Organizations. (throughout the year)	2	Creating platform for buyers' and sellers' interactions (5 days)
D2	Setting Up Ban Bazar	Throughout the year	Linkage through van bazar
D3	Trade Fair & Exhibition Participation	1	Participation in one exhibition and Fair through forest department
D4	Access To Other Geographical Markets	1	Exposure visit
D5	Publicity through E-portal, brochure, catalogue etc.	1	2 day training and awareness programme taken by marketing experts

6. Forest Development Plan

This Forest Development Plan has been prepared after a detailed PRA exercise at the village level as a part of the Micro-Plan of Lakhipathar Purbanchal JFMC. The objective of the 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.

Status of the JFMC Forests

The micro-plan takes into consideration the following categories of the Lakhipathar Purbanchal Forests:

- (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.

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 Lakhipathar Purbanchal JFMC have been summarized below.

Table-1: Conditions of the Forests of Lakhipathar Purbanchal 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	50 ha	5 KM	Good area 21 ha degraded 29 ha	6-9
Along with periphery UDRF(WB) under Digboi Range with GPS coordination	Lakhipathar	-	Good area 34 ha degraded 47 ha	6-9
(B) Other Planted Area	-	-	-	-
Location: Type of Forest: VF / Other _____	1124 Hac. (NR-843hac. IP-281	-	-	6-9
TOTAL	50 ha	5 KM	Good area 21 ha degraded 29 ha	6-9

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

It is seen that the Lakhipathar Purbanchal JFMC has 50 Ha under its forests, of which 21 Ha (42%) is 'Good' (Crown density >40%) and the rest 29 ha is 'Degraded'.

Forest Soil Type

The forests of Lakhipathar Purbanchal JFMC are located under Digboi Division. Some salient points of the forest soil type have been given in the following table.

Table-2: Forest Soil Type in Lakhipathar Purbanchal JFMC

Parameter	Status in Assigned Forests	Status in Other Planted Areas
Fertility Level	3.9 to 4.8 organic	NA
Soil Erosion Status	Accelerated erosion Geographical erosion	NA
Presence of:		
(a) Silt	40 %	NA
(b) Mud-flat	32 %	NA
(c) Newly accreted land	21 %	NA
(d) Sand dune	7 %	NA

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

For the Lakhipathar Purbanchal; the salient points of the forest soil type are summarized below:

1. Alluvium
2. Entisol
3. Alfisols

Existing Composition of Flora

In the forests of the Lakhipathar Purbanchal JFMC, the existing composition of the flora has been given as follows. It may be noted that the local forests are classified as: Tropical Semi-Evergreen and Tropical Wet Evergreen

Table-3: Existing Composition of Flora in the Lakhipathar Purbanchal JFMC

Parameter	Local Name(s)	Botanical Name(s)
Major Forest Species	Ghora Neem Velkor Hollong	
Associates	Bandordima Morhal Poma	

Shrubs	Putukola Dighloti	
Medicinal Plants	Nefafu Narahingha hatibhekuri	
Produces	-	
Others, if any	-	

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

Other Inputs for the Forest Development Plan

The following sub-sections discuss the other inputs for the Forest Development Plan of the Lakhipathar Purbanchal JFMC

Past Protection Measures of the JFMC

No measures have been taken by the Lakhipathar Purbanchal JFMC for the forest protection in the past.

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

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 Lakhipathar Purbanchal JFMC.

Name of Forest Produce	Average Household Requirement		How met at Present	Source
	Frequency of Requirement	Approx. Qty		
Firewood	Whole year	1,33,000	-	Local
Timber for House	3-4 months	3200-4000	-	Local
Small timber for Implements	Plantation time	152	-	Local
Pole / Bamboo	Whole year	3500 units	-	Local
Fodder from Forest	Whole year	75,000-100000	-	Local
NTFP	-	-	-	-
Other _____	-	-	-	-

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

There are 281 households in the Lakhipathar Purbanchal JFMC. From the above table and this number of households, it is inferred that the total annual requirements of the two villages under Lakhipathar Purbanchal JFMC for forest produce for own use is as follows:

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

Name of Forest Produce	Community Requirement (Kg per annum) (*)	Remarks
Firewood	1,33,000	-
Timber for House	3200-4000	-
Small Timber for Implements	152	-
Pole / Bamboo	3500 units	-
Fodder from Forest	75,000-100000	-
NTFP	-	-
Other _____	-	-

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

(*) = Approx. Qty. of Average Household Requirement (from Table-4 (A) x 281 Households

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 Lakhipathar Purbanchal JFMC villages is given in the following table.

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

Name of Forest Produce	Collection for Marketing			Location of Collection
	Season / Months	No of Households Collecting	Average Qty. Collected (Kg)	
Firewood	Whole year	301	5	Local
Timber for House	Dec-Jan	301	4-5	Local
Small timber for Implements	April-May	301	80	Local
Bamboo	Dec-Jan	301	3500	Local
Pole	winter	301	1200	Local
Fodder from Forest	Whole year	301	75,000-100000	Local
NTFP	-	-	-	-
Other _____	-	-	-	-

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

The community collect the above mentioned forest produces for their self-consumption. In the above connection, the following table gives additional pertinent information.

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

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

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

Total Requirements of Forest Produce - Domestic Use & Marketing

The total requirements of forest produce by the community members of the **Lakhipathar Purbanchal 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 Lakhipathar Purbanchal 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	1,33,000	NA	1,33,000
Timber for House	3200-4000	NA	3200-4000
Small timber for Implements	152	NA	152
Bamboo	3500	NA	3500
Pole	-	-	-
Fodder from Forest	75000-100000	NA	75000-100000
NTFP	-	-	-
Other _____	-	-	-

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

Forest Protection Issues

Protection Problems

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

Table-7: Protection Problems of the Lakhpathar Purbanchal JFMC

Type of Problem	Relevant (Yes / No)	Significant (Yes / No)
Grazing - Local Animals	Yes	Yes
Grazing - Animals from Other Area	Yes	Yes
Illicit Felling of Timber	No	No
Smuggling of Timber	No	No
Accidental Fires	No	No
Encroachment of Forest Lands	No	No
Others	No	No

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

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

- (a) The grazing animals destroy the crop during harvesting period.
- (b) Due to increase in population, land are encroached by the people.
- (c) Accidental fire and smuggling is another factor that is contributing in degradation of forest.

Reasons for Degradation of the Forest

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

- (a) Increase of Population

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

Components of the Forest Development Plan

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

Protection Plan

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

Table-8: Protection Plan of the Lakhipathar Purbanchal 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]
Hiring of local Chowkider	Lakhipathar Purbanchal JFMC	50 ha	Round the year	High
Bring awareness through camp regarding importance of forest for environmental balances	Lakhipathar Purbanchal JFMC	150 radius	Round the year	High

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 Lakhipathar Purbanchal JFMC (with high / medium priority) are as follows:

1. Hiring of local Chowkider should be given high priority. He can give regular monitoring within and nearby the JFMC area.
2. Bringing awareness about environmental and eco-logical balances among the villagers should also provide high priority. It can reduce the un-necessary cutting of forest trees.

Types of Operations Proposed

The types of operations proposed for the treatment of degraded areas of the JFMC Forest of Lakhipathar Purbanchal JFMC are given here under.

Table-9: Types of Operations Proposed in the Lakhipathar Purbanchal 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	Nov-Jan	50
Protection to Cut Stumps of Trees	Yes	Yes	Nov-Jan	50
Watershed Treatment	Yes	Yes	Nov-Jan	50
Water Reservoirs	Yes	Yes	Whole year	50
Grass & Silvi-pasture	Yes	Yes	Nov-Jan	50

Treatment	Required (Yes/ No)	Responsibility of JFMC (Yes / No)	Month / Year when can be done	Extent of Area proposed for Treatment (Ha)
Bamboo Plantation	No	No	-	-
Seed Sowing	No	No	-	-
Root & Shoot Cutting & Plantation	Yes	Yes	Nov-Jan	50
Cut Back & Coppice Treatment	Yes	Yes	Nov-Jan	50
Physical Fencing	No	No	-	-
Social Fencing	Yes	Yes	Nov-Jan	50
Other Activities	-	-	-	-

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 Lakhipathar Purbanchal JFMC:

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 Lakhipathar Purbanchal JFMC

Treatment	Area in Ha under Plantation Module	Priority for Block Plantation	Species	Spacing (metre x metre)
Assisted Natural Regeneration (with plantation in gap)	50	-	Ghora Neem Velkor Hollong	2*2
Block Plantation	-	-	-	-
Sowing of Neem, Amla, Mahua, Bahera (Medicinal Plants)	-	-	-	-
Enrichment Plantation	-	-	-	-
Direct Plantation	-	-	-	-
Other	-	-	-	-
TOTAL AREA (in Ha)	50	-	Ghora Neem Velkor Hollong	2*2

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

Forest Improvement - Annual Targets

The annual targets in the above connection are given below for a ten year period.

Table-10 (A): Annual Targets of Forest Improvement in Lakhipathar Purbanchal JFMC (Year-1 to Year-5)

Treatment	2016	2017	2018	2019	2020
Assisted Natural Regeneration (with plantation in gap)	50	100	150	200	250
Block Plantation					
Sowing of Neem, Amla, Mahua, Bahera (Medicinal Plants)					
Enrichment Plantation					
Direct Plantation					
Silvi-cultural Operations					
Intermediate Operations					

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

Table-10 (B): Annual Targets of Forest Improvement in Lakhipathar Purbanchal JFMC (Year-6 to Year-10)

Treatment	2021	2022	2023	2024	2025
Assisted Natural Regeneration (with plantation in gap)	300	350	400	450	500
Block Plantation	-	-	-	-	-
Sowing of Neem, Amla, Mahua, Bahera (Medicinal Plants)	-	-	-	-	-
Enrichment Plantation	-	-	-	-	-
Direct Plantation	-	-	-	-	-
Silvi-cultural Operations	-	-	-	-	-
Intermediate Operations	-	-	-	-	-

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

Nursery Development Plan

The Nursery Development Plan for the **Lakhipathar Purbanchal JFMC** depends on the following types of Nurseries:

- (a) Site Nursery(Lakhipathar Purbanchal JFMC)

The details are given below.

JFMC Nurseries

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

Table-11 (A): Nurseries of the Lakhipathar Purbanchal JFMC

Location of Nursery	Species	Year of Development	Number of Seedlings	Remarks
Site Nursery(Lakhipathar Purbanchal JFMC)	Ghora Neem Velkor Hollong	2016-17	8000-10000	Individuals will be assisted
	Ghora Neem Velkor Hollong	2016-17	8000-10000	Individuals will be assisted

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

Other Nurseries

The following table gives the details of other nurseries near the Lakhipathar Purbanchal JFMC.

Table-11 (B): Other Nurseries near the Lakhipathar Purbanchal JFMC

Name of Nursery	Species	Year of Development	Number of Seedlings	Remarks
No	No	No	No	No
-	-	-	-	-
-	-	-	-	-

Source: Proforma-3, Table-3.12 / Discussions with Forest Department personnel & Community members

Maintenance Plan - 10 Years

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

Timber Species: firewood (Velkor,Mojj,Ajhar)**Table-12 (A): Maintenance Plan of Teak Plantation in the Lakhipathar Purbanchal JFMC**

Year(s)	Treatment
1 st Year	Weeding
2 nd Year	Removal of creepers
3 rd Year	Weeding in more effectively
4 th to 6 th Year	Thining up
7 th to 9 th Year	Pruning
10 th Year	Removal of side branches

Source: Discussions with Forest Department personnel & Community members**Bamboo****Table-12 (B): Maintenance Plan of Bamboo Plantation in the Lakhipathar Purbanchal JFMC**

Year(s)	Treatment
1 st Year to 3 rd Year	Weeding
4 th year	Removal of heavy weeds
5 th Year	Separation of culmps
6 th Year	Trimming of criss cross culms
7 th Year	Light pruning
8 th Year	Light pruning
9 th Year	Trimming
10 th Year	Removal of clumps

Source: Discussions with Forest Department personnel & Community members**Fuel wood Plantation****Table-12 (C): Maintenance Plan of Fuel Wood Plantation in the Lakhipathar Purbanchal JFMC**

Year(s)	Treatment
1 st Year to 2 nd Year	Weeding and Ring formation around the seedlings
3 rd Year to 4 th Year	Removal of side branches
5 th Year	Weeding
6 th Year	Cutting of unwanted branches
7 th year	Cutting of unwanted branches
8 th Year	Weeding
9 th Year	Pruning

Year(s)	Treatment
10 th Year	Light pruning

Source: Discussions with -Forest Department personnel & Community members

NTFP / Medicinal Plantation

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

Year(s)	Treatment
1 st & 2 nd Year	Weeding
3 rd Year	Disbudding
4 th Year	Minimum pruning
5 th 6 th & 7 th Year	Fruit yield
8 th & 9 th Year	Fruit yield and pruning
10 th Year	Thinning up and Fruit yield

Source: Discussions with Forest Department personnel & Community members

Miscellaneous Operations Plan

The miscellaneous operations planned in the Lakhipathar Purbanchal JFMC are given below.

Table-(13): Miscellaneous Operations in the Lakhipathar Purbanchal JFMC

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

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

Marketing Operations

For produce from the Lakhipathar Purbanchal JFMC the planned marketing operations are:

- (a) Linkages will be established with traders inside and outside the district
- (b) Selling to the Ban Bazar
- (c) Participating in Exhibition and food festivals

Expected Benefits

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

Expected Benefits Related to Wood & Grass

The above has been tabulated below for the Lakhipathar Purbanchal 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 Lakhipathar Purbanchal JFMC

Item	Month	Year (Indicative)	Quantity
Firewood	-	-	-
Timber for House	-	-	-
Small timber for Implements	-	-	-
Bamboo	-	-	-
Pole	-	-	-
Fodder from Forest Trees & Grass	-	-	-
NTFP	-	-	-
Wages	-	-	-
Other _____	-	-	-

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

Sharing Mechanisms

The sharing mechanism for the benefits is indicated below for members of the **Lakhipathar Purbanchal JFMC**.

Table-15: Sharing Mechanism for Lakhipathar Purbanchal JFMC

Method	Items
To be shared equally	-
To be freely collected by the members	-
Other Methods	-

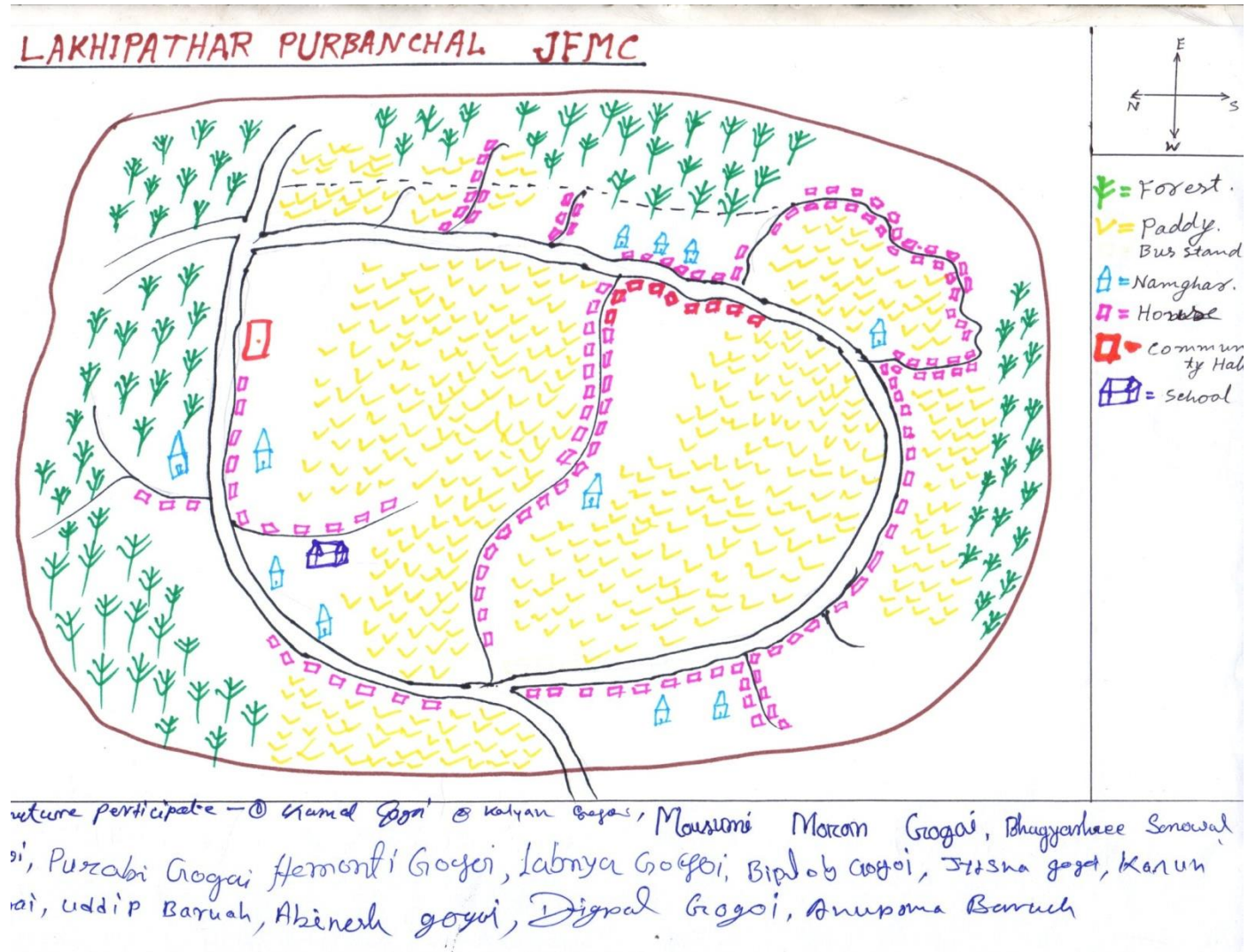
Source: Proforma-3, Table-3.15 / Discussions with Forest Department personnel & Community members

List of Appendices

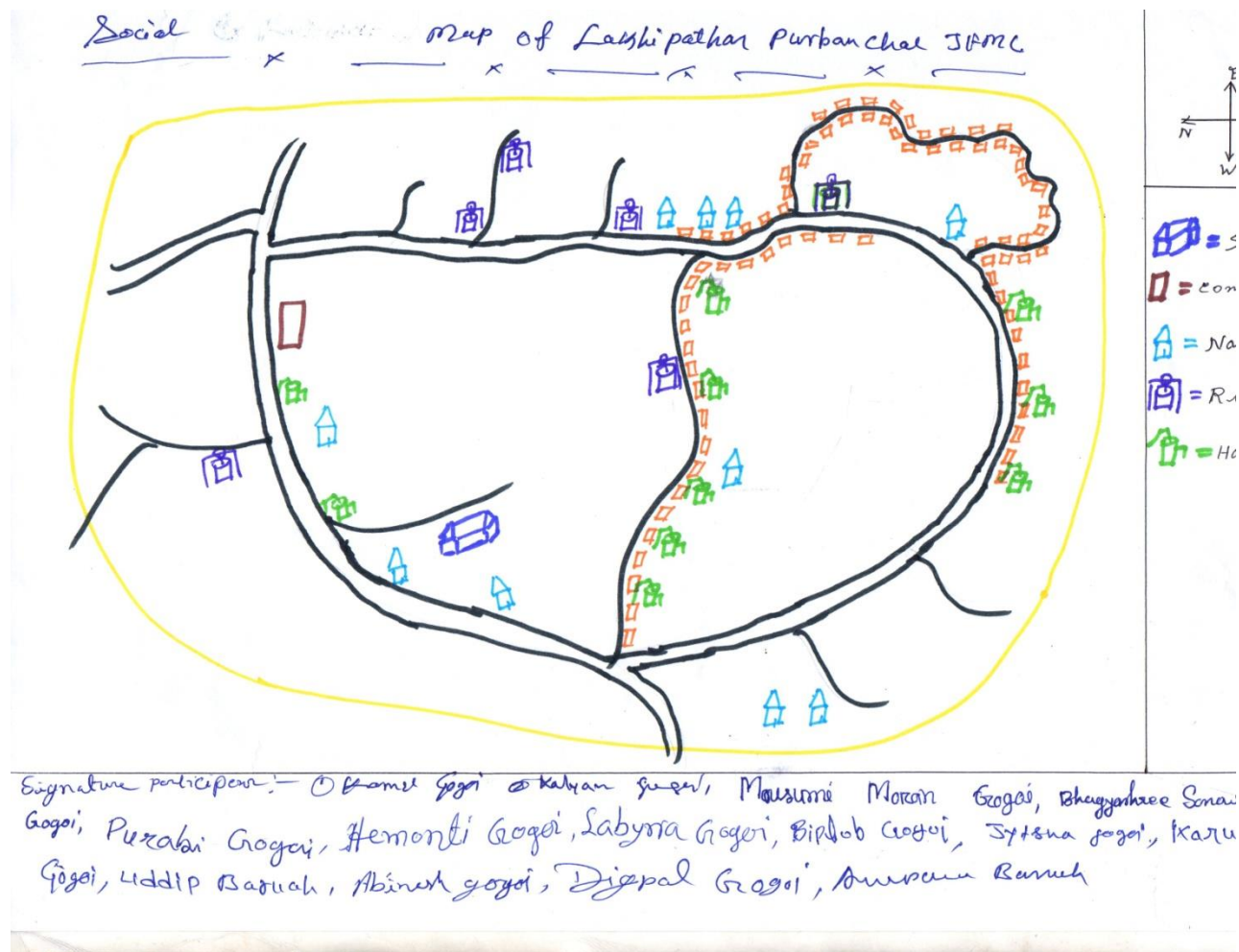
Annexure No	Heading
1	<i>Maps</i> <ul style="list-style-type: none"> • <i>Resource Map</i> • <i>Social Map</i> • <i>GIS Map</i>
2	<i>PRA Exercise</i> <ul style="list-style-type: none"> • <i>Focus Group Discussion</i> • <i>Seasonality Analysis</i> • <i>Social Mapping</i> • <i>Wealth Ranking</i> • <i>Venn Diagram</i> • <i>Chapatti Diagram</i> • <i>Ranking Exercise</i>
3	<i>Pictorial glimpses of the PRA exercises</i>
4	<i>Filled up Table (Proforma 1 to Proforma 4)</i>

Annexure 1

Resource Map

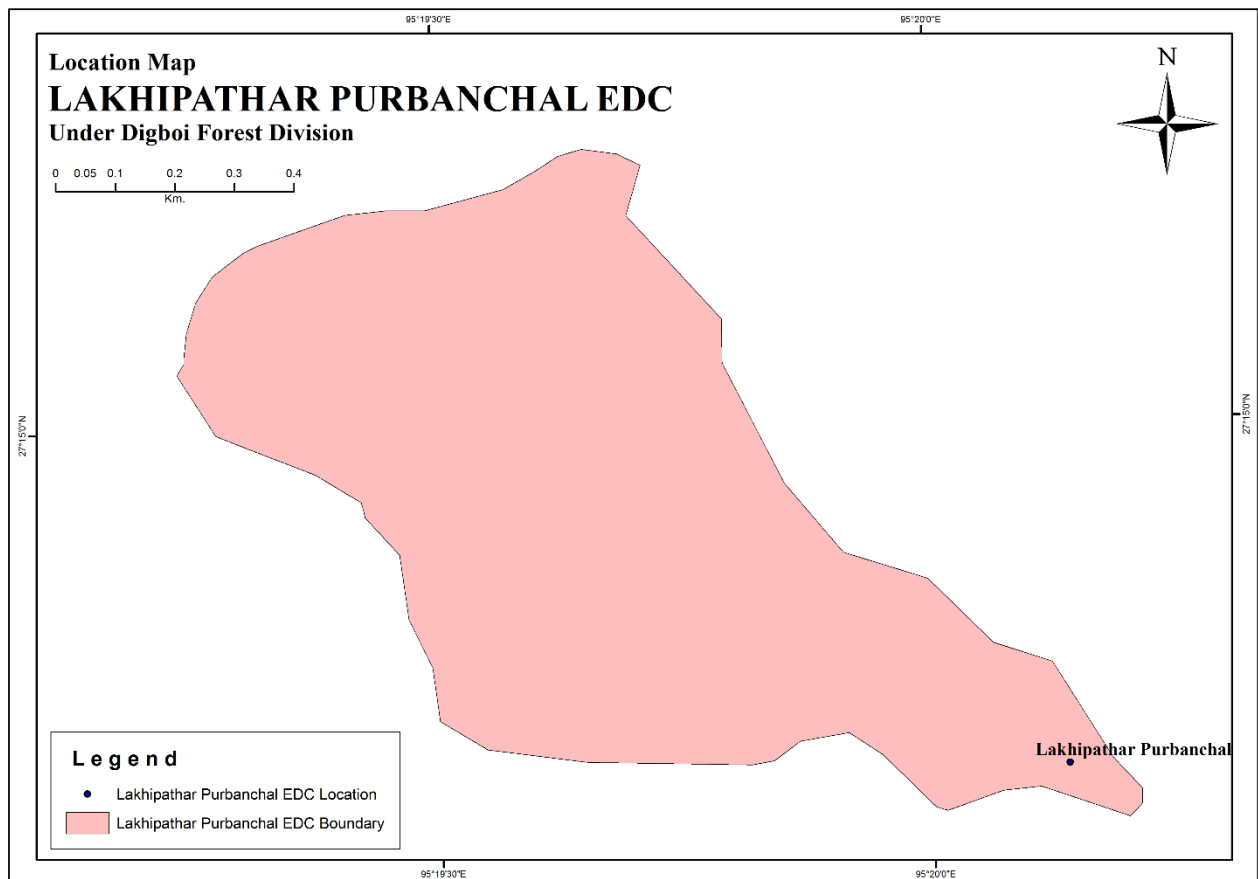


Social Map



Social cum resource map prepared by JFMC members during PRA exercise

GIS MAP



Annexure 2

PRA EXERCISE

Location and Timing of PRA

Numbers of participants	20
Time	11:00 am
Venue	Dhunda Village

Sl. No.	Name of village	Households (No.)	Population (No.)		
			Total	Male	Female
1	1 No Lakhipathar	62	345	180	165
2	Lakhipathar	25	215	109	106
3	Dhunda	42	186	97	89
4	Gondhia	24	123	59	64
5	Pandhowa	95	405	206	199
6	Laopati	33	109	59	50
		281	1383	710	673

Table: 2.1. Brief about the villages under Lakhipathar Purbanchal JFMC**Source: Village Survey**

The tools used for conducting PRA in Lakhipathar Purbanchal JFMC are as follows:

- Focus Group Discussions (FGD)
- Seasonality Analysis
- Social Mapping
- Wealth Ranking
- Venn Diagram
- Chapatti Diagram
- Ranking Exercise

2.1 Focus Group Discussions:

The entire FGD were centered on the elements of rural economy namely- primary livelihood options of the JFMC, agriculture, livestock, skill-sets, available support services, infrastructure etc. and also considering the important determinant of the presence of forests area all around. These factors have been blended well before extracting the information out from the respondents.

Findings from FGD

- The existing livelihood options available in the JFMC villages are agriculture, daily wage labour and a few private jobs. Owing to close proximity with the neighboring Digboi oil refinery, many also get engaged as daily wage labourers under several contractors.
- It was also expressed that people are also skilled in weaving but it is never taken up as a commercial activity
- Some of the serious challenges faced by the villagers practising agriculture are trespassing of wild animals especially elephants, poor irrigation facility, pest infestation and lack of adequate technical know-how on the part of the farmers.

Recession of ground water level and low retention of rain water are causing water shortage problem for paddy cultivation. The respondents pointed out that the farmers in their own ways have been managing irrigation for their farm lands which is not sufficient in most cases.

- As far as existing support services in agriculture are concerned, no such support services which could have benefitted the farmers have been availed so far by the JFMC farmers.
- The villagers rear cow, duck, local poultry and pig. Almost in 90% of the cases, it is mostly the womenfolk who looks after the reared livestock. However, the villagers face serious challenges like outbreak of diseases, attack of wild animals etc. while rearing livestock.
- There is no support services provided by the Government authorities in ensuring proper rearing of livestock. In most of the cases, the State Veterinary Department has failed to take stock of the problems associated with livestock rearing but Indian Army has conducted several vaccination camps in the JFMC.
- Some of the trades where the villagers are skilled at are bamboo craft, weaving, driving, electrician, plumbing etc. In few of these trades, the villagers have been provided basic training as well under the Forest Department project.

2.2 Seasonality Analysis:

Seasonality analysis was done to generate information about and identifying periods of particular stress and vulnerability. In the context of a group discussion with respondents during the PRA, parameters such as expenditure, income, credit and savings were probed in sync with the factors such as employment trend, health conditions, education etc. associated with its increase or decrease in one's households.

Expenditure & Income

Children's education is also a component where most of the households spend during the start of the year. It is especially during the months of January to March when the new academic session of schools begin and apart from admission fees, the people also spend on buying new uniforms, textbooks and stationaries. In the month of April, the community spends a lot on the arrival of Bohagi Bihu as the villagers spend on new clothes etc. Also, during the months of September and October brings the arrival of Durga and Kali puja because of which the villagers of the JFMC have to spend a significant amount. Again, for those engaged in paddy cultivation spends significantly during sowing season starting May till July along with harvest season starting in the months of October till December.

When it comes to income, it is seen that selling of paddy, arecanut and livestock provides a good source of income to the villagers in the months of October and November. Those are engaged as daily wage labour in nearby tea estates earn good amount of income in the months of June and July as these months are considered to be peak season for plucking.

Savings and Credit

It was mostly found that amount of savings increases with the increase in income and most of the dwellers resort to institutional savings with likes of Post Office and bank savings. The annual amount of saving per household ranges anywhere between INR 2000 to 5000.

There are almost 10 number of SHGs who are also engaged in inter-loaning as well as provides credit to other members. It is to be noted that the rate of interest for credit varies between group inter-loaning and outside members.

Seasonality of Engagement_ Farm Activities

Crop	Sowing	Harvesting
Paddy	May-July	October- December
Bettlenut	Plantation Crop	November-December
Tea	Plantation Crop	June-July

Seasonality of Engagement_ Non-Farm Activities

Engagement	Period of Engagement
Daily Wage Labour	June- August
Petty business	Throughout the year
Weaving	Throughout the year
Other Private Service	Throughout the year

2.3 Social Mapping:

Social mapping is used to visualize the socio-economic aspects of the Lakhipathar Purbanchal JFMC where the land holding patterns of the households, the numbers of schools, social infrastructure, and religious beliefs among households. Awareness among the villagers was carried out by the field teams, in order infuse the self-consciousness for protection and enhancement of the forest areas. People from all the households of the village gathered for the PRA process, which was conducted in the community hall of the village. The PRA process marked with enthusiasm and active participation from all people present.

The social and resource mapping process, was undertaken with the help of the villagers in identifying and marking the village. Villagers voluntarily came out to draw the maps. All the villagers spotted their households in the map. After the mapping process the team members collected the information about the pattern of their dwelling namely pucca, semi pucca, IAY and thatch house.

Table 2.2: Information about the villages

	Village	1 No Lakhipathar	Lakhipathar	Dhunda	Gondhia	Pandhowa	Laopati
Social information	<i>Total Population</i>	345	215	186	123	405	109
	<i>Male</i>	180	109	97	59	206	59
	<i>Female</i>	165	106	89	64	199	50
	<i>Total households</i>	62	25	42	24	95	33
	<i>Numbers of semi pucca Houses</i>	18	20	19	27	40	19
	<i>Numbers of Pucca Houses</i>	8	11	10	7	9	6
	<i>Numbers of IAY Houses</i>	-	-	-	-	-	-
Landmarks	<i>Bridges</i>	-	-	-	-	-	-
	<i>Stream</i>	-	-	-	-	-	-
	<i>River</i>	-	-	-	-	-	-
	<i>PHE</i>	-	-	-	-	-	-

<i>Power Transformer</i>	-	-	-	-	-	-
<i>Community hall</i>	-	-	-	-	-	-
<i>Playground</i>	1	1	1	1	1	1
<i>Religious Institutions</i>	2 Namghar	1 Church	1 Namghar + 1 temple	2 Namghar	2 Namghar	1 Namghar
<i>Primary School</i>	1	1	1	1	-	-
<i>Anganwadi Centre</i>	1	1	1	1	-	-
<i>ME, High School & College</i>	-	-	-	-	-	-

- Under social mapping study a total of 281 households have been identified. Of which 51 households are having a proper pucca house with tin roof and cemented floor and 143 households having a semi-pucca house (thatched roof).
- Among all the six villages, Pandhowa is the one with highest number of households and population whereas Gondhia village is the least in both of the said parameters.
- Altogether, there are 10 religious institutions in total in all the villages comprising 8 Namghars, one church and one temple.
- Surprisingly, none of the village has a community hall but there are playgrounds in all the villages.
- Physical infrastructure like primary schools and Anganwadi were mapped by the participants. Provision of Education facility up to primary level is quite satisfactory as 4 LP schools have been mapped. However, both ME and High school are located at a distance of 4 kilometers from the villages at Lakhipathar but it does not fall within the JFMC area.
- There are 3 approach roads to reach Lakhipathar Purbanchal JFMC namely Soraipung road, Bhadoi Panchali road and Shanti tea estate road.

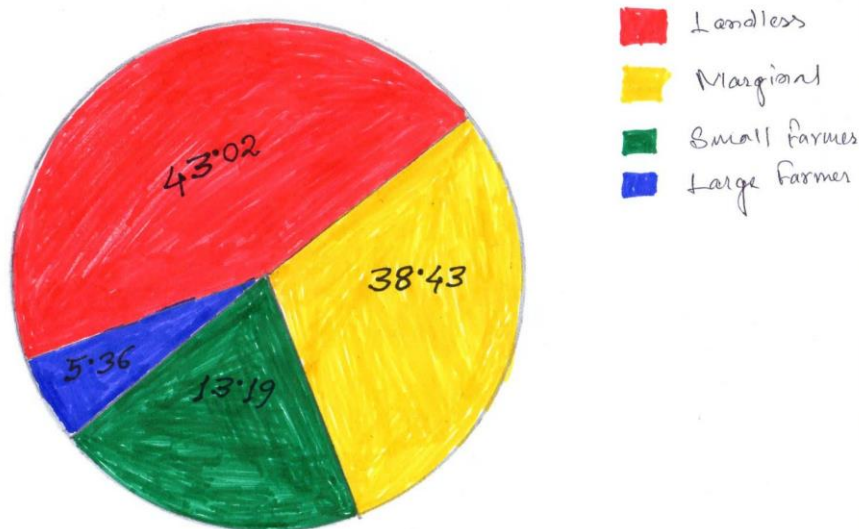
Wealth Ranking :

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 socio-economic 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 information about the households

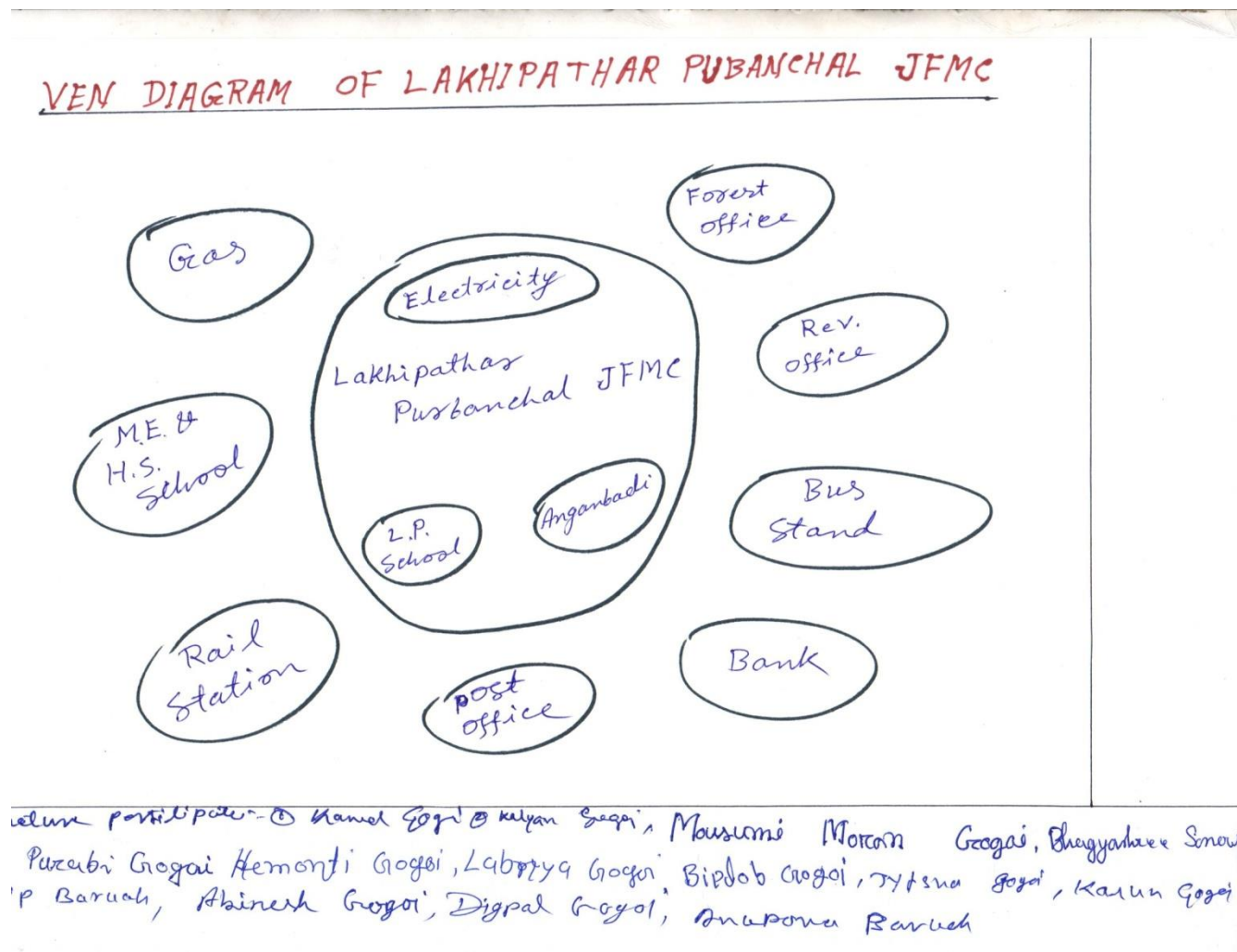
- Occupation/livelihood
- Land holding
- Types of living house
- Ownership of assets

As such it is found that about 43.02 % per cent people are poor, about 38.43% per cent are belonging to middle class and about 18.55% per cent are categorized to be rich. Poor people are mainly irregular wage earners and mostly mortgage land for the paddy cultivation. Rich people are mainly involving in tea cultivators and paddy cultivators with good amount of agricultural land. They also have televisions sets, two wheelers, and four wheeler etc. Middle class people are doing cultivation of Tea, horticulture products as well as of paddy with own agriculture land along with mortgage lands.



Area participale - D Kanch Gogoi & Kalyan Gogoi, Masumi Maran Gogoi, Bhugyanhee Sonowal Gogoi, Abi Gogoi, Hemonti Gogoi, Labyna Gogoi, Biplob Gogoi, Dytina Gogoi, Karun Gogoi, P. Duvah Abinash Gogoi, Dypal Gogoi, Anurama Baruah

Venn Diagram



Chapatti Diagram



Ranking of Entry Point Activities

Priority Matrix Ranking of Lakhipathar Purbanchal JPMC.

Entry Point Activity	Road (A)	Drinking Water (B)	High School (C)	LPG (D)	Sanitation (E)		Mark	Priority
Road (A)	X	X	X	A	A		2	3rd
Drinking Water (B)	X	X	B	B	B		3	1st
High School (C)	X	X	X	X	C		1	5th
LPG (D)	X	D	D	A	B		2	4th
Sanitation (E)	X	X	E	E	E		3	2nd

where participate - Kamal Gogoi, Kalyan Gogoi, Mausumi Moram Gogoi, Bhagyashree Sonowal, Purnabi Gogoi, Hemonti Gogoi, Labyna Gogoi, Biplob Gogoi, Jyoti Gogoi, Anu Gogoi, Uddip Baruah, Abinash Gogoi, Digpal Gogoi, Anupama Baruah

Priority Matrix Ranking

Priority Matrix Ranking of Lakhipathar Purbanchal.

Potential Livelihood	Tailoring (A)	Driving (B)	Live Stock (C)	Cane & Bamboo (D)	Electrician		Rank	Position
Tailoring (A)	A	A	A	A	A		5	1st
Driving (B)	X	B	B	B	B		4	2nd
Live Stock (C)	X	X	C	C	C		3	3rd
Cane & Bamboo (D)	X	X	X	D	D		2	4th
Electrician (E)	X	X	X	X	E		1	5th

Live participants - ① Karan Gogoi & Kalyan Gogoi, Mausumi Maran Gogoi, Bhagyanthi Senowal Gogoi, Abi Gogoi, Hemanti Gogoi, Labyna Gogoi, Biplob Gogoi, Nysna Gogoi, Karun Gogoi, P. Anush Abinash Gogoi, Dipal Gogoi, Anurupa Baruah

Annexure 3

Photographs







Annexure 4

Record I

Table- 1: Basic data of the JFMC

Sl. No	Name of the JFMC	Date of Establishment	No. of Members in Executive Committee	Name of the President	Name of the Secretary
1	Lakhipathar Purbanchal	18 th June, 2015	11	Kamal Gogoi	Arun Kr. Hazarika

Table- 2: Demographic Status of the JFMC villages

Sl. No	Village Name	Total Population	Total Male	Total Female	Total Households	Sex Ratio	Avg. HH size
1	1 No Lakhipathar	345	180	165	62	948	6
2	Lakhipathar	215	109	106	25		8
3	Dhunda	186	97	89	42		5
4	Gondhia	123	59	64	24		5
5	Pandhowa	405	206	199	95		4
6	Laopati	109	59	50	33		3
Total		1383	710	673	281	948	5

Source: Field Survey Report

Caste Profile:

The caste profile of JFMC from the two villages in the area is:

Sl. No	Caste	Number of HHs	Percentage of HH
1	OBC	161	80.5%
2	ST	21	10.5%

Table -3: villages wise farmer category the basis of land holding

SL.NO	NAME OF THE VILLAGE	TYPE OF FARMERS ACCORDING TO LAND HOLDING				TOTAL
		Large Farmers	Small Farmers	Marginal Farmers	Landless	

Microplan for Lakhipathar Purbanchal JFMC (2015-16 to 2025-26)

		>10 Hact.	2 to 10 hact.	< 2 Hact.		
1	1 No Lakhipathar	2	9	22	29	62
2	Lakhipathar	1	3	10	11	25
3	Dhunda	2	4	18	18	42
4	Gondhia		2	10	12	24
5	Pandhowa	8	11	37	39	95
6	Laopati	2	8	11	12	33
	Total	15	37	108	121	281

Table- 4: Literacy status of the JFMC villages

Education	1 No Lakhipathar	Lakhipathar	Dhunda	Gondhia	Pandhowa	Laopati	Total
Illiterate	90	81	60	55	133	27	446
I-IV	142	92	55	44	88	22	443
V-VII	80	22	40	11	102	36	291
VIII-X	17	3	10	4	45	4	83
XI-XII	0	0	0	2	0	6	8
Graduate	2	0	2	1	7	2	14
Post Graduate	0	0	0	0	0	0	0
Total	331	198	167	117	375	97	1285

Sl. No.	Name of village	Households (No.)	Population (No.)			Total Literates	Literacy Rate (In %)
			Total	Age group (0 – 6 yrs)	Excluding Age group		
1	1 No Lakhipathar	62	345	14		241	69.86
2	Lakhipathar	25	215	17		117	54.42
3	Dhunda	42	186	19		107	57.53
4	Gondhia	24	123	6		62	50.41
5	Pandhowa	95	405	30		242	59.75
6	Laopati	33	109	12		70	64.22
	Total	281	1383	98		839	

Source: Field survey

If we refer to **table 3**, we see that the literacy status of 1 No Lakhipathar village which is 69.86% is better than all the other villages under the JFMC. Altogether, there are 14 graduates in the JFMC. Most of the population have attained education upto class IV.

Table- 5: Village wise farmer category on the basis of land holding

Land Type	Total Households	Possession/Use (in %)	Average holding (in acre)
Homestead	200	100	0.367
Farm	173	36.5	1.198
Mortgage Land	19	8.5	0.77
Share-cropping	8	4	1.588

Table- 6: Details on Cattle population of the JFMC

Type of livestock	Total number possessed	% of HH rearing it	Average herd size
Cow	149	47.5	1.56
Bull	273	58.5	2.3
Buffalo	24	4	3
Duck	319	40.5	3.93
Local Poultry	740	58.5	6.32
Pig	43	43	1
Goats	230	40	2.87

Table- 7: JFMC Village Infrastructure

Sl. No	Infrastructure	Location	Distance from villages
1.	Electricity	Within the village	-
2.	Gas connection	Tengrai	6 km
3.	Transport	Digboi	8 km

4.	PHC	Tengrai	6 km
5.	LP school	Kopopuwa	0.5 km
6.	High school	Lakhipathar	4 km
7.	Bank	Digboi	8 km
8.	Anganwadi centre	Gondhia	1 km
9.	VCDC	-	
10.	Revenue Office	Digboi	12 km
11.	Police station	Digboi	8 km
12.	Forest Office	Lakhipathar	1 km
13.	Post office	Lakhipathar	1 km
14.	Bus facility	Gondia	0.5 km
15.	Railway Station	Digboi	10 km
16.	District head quarter	Tinsukia	40 km

Table- 8: Details on agricultural crop/s

Crop Season	Rain Fed					Irrigation	
	Name of the Crop	Households cultivating (in %)	Avg. Area in cultivation (in acres)	Avg. harvest quantity (in kg)	Avg. investment (in INR)	Name of the crop	Area (in ha)
Kharif	Paddy (Sali)	42%	4.7	1233.54	3475	NA	NA
	Bettlenut	2.5%	-	280	400	NA	NA
	Tea	2.5%	-	320	833	NA	NA

Table- 9: Details on Fodder availability for livestock

Types	1-3month	3-6month	>6month
Crop Residue			
Trees Fodder			
Grasses			
Green Fodder			
Grazing in Forest			

Table- 10: Details on Market availability

For Purchase	Location	Distance from village if in other village (in km)
Grocery Shop	Tengrai	6kms
Weekly Market	Tengrai	6kms
Major Market	Digboi	12 km
Forest Corporation Sale Depot.	-	-
Tendu Patta PHAD	-	-
Fish Market	Tengrai	6kms
Medicinal Plant collection Centre	-	-
Forest Corporation Medicinal plant Collection Centre	-	-

Table- 11: Water resource availability

Source of Water	Ownership households (in %)	Availability	Average depth of water source (in feet)	Purpose
Tube well	31.5	Perennial	N/A	Household use
Ring well	2	Perennial	NA	Household use
Pond	0.5	Perennial	NA	Household use and fish rearing

Table 12: Energy Consumption

Energy form	Availability in HHs	Source	Average monthly consumption of HHs	Purpose
Fuel Wood	199	Forest area	286.8 kgs	Household consumption
Kerosene	160	Local market	3.46 litres	Household consumption

Record II

Livelihood Opportunities Analysis

Table- 13: Tailoring and Embroidery

Constraints	Reasons	Opportunities	Programme
Product quality and diversification	<ul style="list-style-type: none"> *Shortage of Highly skilled craftsmen *Use of Traditional tools and implements *Lack of strategies for product diversification. 	<ul style="list-style-type: none"> * Good market potential * Scope for collaboration with established players * Established production cluster within the JFMC 	*Skill Up-gradation & Training on New Product Development and Product Diversification
Marketing potential	<ul style="list-style-type: none"> *No pricing policy *No linkage with the institutional buyers *No Product Diversification 	Exploring new markets	*Providing a bulk buy arrangement of the finished product with institutional buyers.
Credit facilities-Seed funding	<ul style="list-style-type: none"> *No linkage with the banks and other FIs *Unaware of the development schemes * Inadequate initial investment capacity *Lack of sound business orientation 	<ul style="list-style-type: none"> *Financial assistance by the Govt. or MFI players Providing easy access to credit. 	*Financial Literacy is an important area of intervention along with entrepreneurship development programmes for emerging entrepreneurs in this sub-sector

Table- 14: Livestock Rearing (Goat rearing & local poultry)

Constraints	Reasons	Opportunities	Programme
Veterinary care facility	<ul style="list-style-type: none"> *Inadequate support services related to veterinary care *Lack of knowledge about scientific rearing of livestock 	<ul style="list-style-type: none"> *Enhancing income from livestock rearing *Healthy breed of livestock 	<ul style="list-style-type: none"> * Training on para-veterinary professional * Setting up community own and run agro-vet are centre in the JFMC villages

Marketing Potential	<ul style="list-style-type: none"> *Inadequate supply of marketable livestock *Lack of proper roads to JFMC villages 	<ul style="list-style-type: none"> *Prospect of developing clusters for goat and local poultry 	<ul style="list-style-type: none"> *Setting up of JFMC run butchering centre in the nearby town
----------------------------	--	---	--

Table- 15: Promotion of backyard kitchen gardening

Constraints	Reasons	Opportunities	Programme
Technical know-how and willingness	<ul style="list-style-type: none"> *Unawareness on the part of the villagers on the prospects of backyard kitchen gardening *Lack of irrigation facility *Availability of quality farm inputs and implements on time 	<ul style="list-style-type: none"> *Promotion of organic vegetable production belt *Employment opportunity for the youth *Proper utilization of the homestead land *Increase in supplementary income *Replication of the model in the nearby areas as well 	<ul style="list-style-type: none"> *Training on seasonal vegetable cultivation in the backyard homestead garden *Development of specialized PoP for the farmers

Microplan for Lakhipathar Purbanchal JFMC (2015-16 to 2025-26)

Marketing and Branding	<ul style="list-style-type: none"> *No successful demonstration of backyard gardening prototype close to JFMC area *Agriculture is mostly subsistence in nature 	<ul style="list-style-type: none"> *Increase sale of organic vegetables to the nearby townships viz. IOCL, OIL, CIL etc. *Revenue generation for the as the JFMC run agro-vet care centre 	<ul style="list-style-type: none"> *Vibrant and effective promotion on the benefits of consuming organic vegetables
Credit facilities-Seed funding	<ul style="list-style-type: none"> *No linkage with the banks and other FIs *Unaware of the development schemes * Inadequate initial investment capacity *Lack of sound business orientation 	<ul style="list-style-type: none"> *Financial assistance by the Govt. or MFI players Providing easy access to credit. 	<ul style="list-style-type: none"> *Financial Literacy is an important area of intervention along with entrepreneurship development programmes for emerging entrepreneurs in this sub-sector

Table 16: Credit Facility

Constraints	Reason	Opportunities	Programme
Rate of interest	Higher rates charged by the private money lender	Penetration of MFIs into the JFMC area	*Financial literacy
Availability of loan	<ul style="list-style-type: none"> *Lack of proper documentation/proof on the part of the borrowers *Lesser interest shown by banks and other financial institutions 	<ul style="list-style-type: none"> * Fostering the enterprise eco-system * Promotion of village level institutions 	*Facilitating the bank linkage programme

Approved

Lahit
Divisional Forest Officer
 Digboi Division, Digboi
 Tinsukia, Assam