





POTUPATHER JOINT FOREST MANAGEMENT COMMITTEE (JFMC)

LUMDING RANGE, NAGAON SOUTH DIVISION

NORTHERN ASSAM CIRCLE

MICRO-PLAN

(2016-17 to 2025-26)

Prepared by Potupather Joint Forest Management Committee

assisted by Assam Forest Department

> & COMPELO (IIE, RGVN and CML)

Approved.

Divisional Forest Officer Nagaon South Division

July 2016

List of Acronyms

| AFD | French Development Agency |
|----------|---|
| APFBC | Assam Project on Forest & Biodiversity Conservation |
| APL | Above Poverty Line |
| BPL | Below Poverty Line |
| CML | Centre for Microfinance and Livelihood |
| COMPELLO | 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 | GaonPanchayat |
| На | Hectare |
| IIE | Indian Institute of Entrepreneurship |

POTUPATHERJOINT FOREST MANAGEMENT COMMITTEE Nagaon South Forest Division, Lumding Forest Range

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

Table of Contents

| Section No | Heading | Page No |
|------------|--|---------|
| 1 | Introduction | 1 |
| 2 | Village Socio-Economic Profile | 3 |
| 3 | Livelihood Opportunity Analysis | 7 |
| 4 | Livelihood Development Plan | 11 |
| 5 | Forest Development Plan | 14 |
| 6 | Annexure-1- List of Beneficiaries Identified for Livelihood Generation activities: | 57 |
| | (1) Bee Keeping. | |

1. Introduction

| About the Project | The vision of the Assam Project on Forest and Biodiversity Conservation (APFBC) is 'to enable sustainable forest and biodiversity conservation and management in Assam through multi-scale integrative planning and involvement of forest dependent communities in target areas and giving fillip to their livelihood activities through sustainable use of forest and non-forest resources'. The project's objective has been stated as: 'In collaboration with the forest dependent communities, to restore forest eco-systems to enhance the forest dependent community's livelihoods and ensure conservation and sustainable use of biodiversity'. The above project is being mainly funded by the <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. |
|---|--|
| Micro-Planning & Livelihood Development | In order to promote livelihood activities through market potential based value addition; the present project intends to take up activities like entrepreneurship promotion, product processing value addition and marketing under this project. This has become necessary on account of the pressures on existing forest resources due to the growth of population. There is a need to explore value addition to the existing forest and biodiversity products and services, based on the market potential. In addition, non-forest based livelihoods need to be explored and the capacities of the community members need to be built-up through skills development initiatives. A consortium comprising of Indian Institute of Entrepreneurship (IIE) Guwahati, <i>RashtriyaGraminVikasNidhi</i> (RGVN) and Centre for Microfinance and Livelihood (CML) has been formed to implement (<i>inter</i> -alia) the micro-planning and livelihood development under the above project. The above consortium has been titled as 'Consortium for Micro Planning and Enhancing Livelihood Opportunities' - COMPELO in short. As per project guidelines, this micro-plan includes 'various operations of village and forest development livelihood support of forest dependent members and keeping sustainable forest management as the broad objective'. It includes both forest development and livelihood development. |
| Micro-Plan for the PotupatherJFMC | This document gives the Micro-Plan for the Potupather JFMC, which is located in the Hojai district of Assam. The JFMC falls under the jurisdiction of the Nagaon South Forest Division of the Lumding ForestRange. The profile of the community is given in the next section. The present micro-plan has been prepared by members of the community, including both male and female members. This document has emerged as an outcome of a Participatory Rural Appraisal (PRA) process undertaken by the community and personnel of Indian Institute of Entrepreneurship (IIE) Guwahati in June 2016. The micro-plan has been compiled by IIE based on the project guidelines. The document has been discussed and finalized for adoption in July 2016. |

Village Socio-Economic Profile

| Location Key Information | The Potupather Joint Forest Management Committee (JFMC) has been formed to cover the existing community dwelling in Potupather, a village located on the Lumding Reserve Forest. The area covered by the above JFMC falls within theLumdingDevelopment Block of Hojai District of Assam. Appendix-1 gives the Village Map. The key information of the JFMC is furnished below. Table-A: Key Information of the JFMC | | |
|--|--|--|--|
| | Name of the JFMC | Potupather | |
| | Habitation | Potupather | |
| | Name of Revenue Village | Potupather | |
| | Name of the Gram Panchayat / VCDC | Pub Lumding GP | |
| | Revenue Circle | Lanka | |
| | District | Hojai | |
| | District Hojan Forest Division Nagaon South | | |
| | Forest Range | Lumding | |
| | Forest Range Luniding Forest Beat Borlongphur | | |
| | Year Formed | 2007-2008 | |
| | Description of Boundary As below : | | |
| | of JFMC | North:Lumding Reserve Forest South:ChristanBasti West:Murabasti East:Borlongphur River and Karbi- Anglong Border | |
| | Source: JFMC Records & Discussions during PRA Exercise in June 2016 Additional details are given at Table-1 of Record-I. (Given at Annexure) | | |
| Brief Details of the Executive Committee & General Body | The brief details of Executive Committee & General Body of the JFMC are contained in the table, which is given below. Table-B: Brief Details of Executive Committee & general Body | | |
| | Name of President | Hira Das | |
| | Name of Member Secretary | Dilip Bora, Forester - I | |
| | Name of Treasurer | Arabinda Das | |
| | No. of Members in | Male:7 | |
| | Executive Committee | Female:3 | |
| | No. of Members in the | 70 | |
| | General Body | | |
| | Source: JFMC Records | | |
| Households & Population Structure | The village has 70 households. The number of female headed households is 0. | | |
| | members. All the village peop | of which 231 are male and 156 are female le are of Hindu religion and they belong to dule caste and comprised of Bengali and | |

| | BihariCommunity. |
|---------------------------------------|---|
| | Table-2 of Record-I may be referred for further details in the above regard. |
| | From this, it is inferred that:(1) The average number of persons in a household is 5.(2) The sex ratio is 675 females per 1000 males in the village. |
| Education & Skills Development | Over 77 % of the population is reported to be literate. Most of the community members have received school level education. On the other hand, relatively fewer households have college educated members. |
| | Livelihood skills are usually acquired under various settings – formal & informal. In the JFMC area, informal means for skills development is the traditional norm. People have traditional skills in the following areas: (a) Food Processing (b) Farming (c) Carpentry (d) Tailoring |
| | Government has been active in promoting formal skills development programmes in the country as well as in the state. However, no such programme has been carried out in the habitation or in nearby areas. |
| Soil | The soil type of the project area includes: Alluvial soil in low lying (clayey soils) and plain areas (loamy soils). Red soils in hillocks and hilly parts |
| | Both types of soil can support different kinds of crops, as the soil is reported to be fertile on the whole. |
| Water | The area is drained by River Borlongphur, which flows from the adjoining hills of Karbi-Anglonginto the project area. |
| Climate: Temperature & Rainfall | The maximum temperature during the summer is 45° C. The minimum temperature during the winter is 7° C. |
| | The annual rainfall is about 60-125 mm. About one-thirds 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 rainfall |
| Forest & Bio- diversity | The local forests have been broadly classified as Reserve Forest. The main tree species areArjun, Xilikha, Bhomora, Ahat. The forests can yield a range of NTFP like spices, leafy vegetables, ferns, medicinal plants, cane, thatch, fodder, etc. |
| | Additional details in this regard are given at the 'Forest Development Plan'. |
| Land Use Pattern | Cultivable Wasteland: 22.4% Borlongphur River: 0.47 % Paddy Field: 29.68 % Firewood Plantation area: 18.82 % |

| | Pond: 3.06% |
|--------------------|--|
| | Road: 1.66 %. |
| | Settlement Area:20.31% |
| | Sugarcane Field:0.39% |
| | Wetland: 1.69% |
| | Medicinal Plantation: 1.48% |
| | |
| T ITTI | |
| Land Holdings | The type of households as per land-holding is given at Table-3 of Record-I. |
| | From the same, it is seen that: |
| | • 37 nos. of the households are landless. |
| | • 21 nos. of the households are marginal farmers. |
| | • None of the households belong to small farmers. |
| | |
| Livestock | The total number of livestock in the village is 387. The main types of livestock possessed by the households include: |
| | Cows:120 |
| | Goats:140 |
| | Pigs:Nil |
| | Poultry:127 |
| | |
| | Table-4 of Record-I may be referred to for the details in the above |
| | connection. |
| | |
| Village | In any community; the availability of basic infrastructure enables the |
| Infrastructure & | development of sustainable livelihood options. The present condition of |
| Communication | infrastructure in the village is not satisfactory. This is borne out by Table-5 |
| Facilities | of Record-I, which gives the present status of the village infrastructure. |
| | |
| | From the above table, the following have been noted with regard to village infrastructure: |
| | Physical Infrastructure: The habitation is deprived of basic physical infrastructure like paved roads, electricity, water supply, mobile network etc. |
| | Education & Health Facilities: There are minimal educational and health |
| | facilities. Public transport is not available, and the community members |
| | have to use bicycles to move around. |
| | |
| | Govt. Offices: The government offices (such as Police station, Gram |
| | Panchayat office, Revenue office, Forest Range Office, 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. |
| | Financial Inclusion: Facilities for financial inclusion like bank and post |
| | office are located at a considerable distance from the habitation. Hence, the |
| | community members do not have bank accounts or postal savings accounts. |
| | |
| Agricultural Crops | The details of the agricultural crops grown in the village is available at Table-6 of Record-I. |
| | |
| | The above shows that the following are the main crops grown in the village. |
| | Kharif Crops: Paddy(Aijong,Pankaj, Ranjit) |
| | Rabi Crops: Mustard |

| | Others: Mango, Jackfruit, Ladies Finger, Chilli, Drum stick, Cabbage, | | | |
|----------------------------|---|--|--|--|
| | Cauliflower, Sugarcane. | | | |
| | Most crops are rain-fed. | | | |
| Crop Production Profile | Table-7 of Record-I may be referred to for the production and yield detailsof the crops grown in the village. | | | |
| Tione | | | | |
| | The maximum numbers of households are involved in growing crops like Paddy, Chilli, Ladies Finger, Brinjal, Cabbage, Cauliflower. | | | |
| | The production and yield of these crops is given as follows: | | | |
| | (a) Paddy: Production 4465 quintal Yield 60.99 quintal /ha (b) Vegetables : Production 2436 quintal Yield 37.50quintal /ha (c) Mustard: Production 144 quintal Yield 9.38 quintal /ha (d) Sugarcane: Production 370 quintal Yield 370 quintal/ha | | | |
| Fodder Availability | The matter of fodder availability in the village is dealt with at Table-8 of Record-I. The above shows that the main sources of fodder in the village are as follows: | | | |
| | (a)Crop residue(b) Grazing in forest(c) Green fodder | | | |
| Markets | Table-9 of Record-I shows the location of the different markets from the | | | |
| | village. The main markets used by the community are as follows: (a) Grocery / PDS: Lumding at 14 km away | | | |
| | (b) Weekly / Bi-weekly Market: : Lumding at 14 km away(c) Major Market: : Lumding at 14 km away | | | |
| Water Resources | The water resources are tabulated at Table-10 of Record-I. The main water | | | |
| | resources with the water availability is as follows: (a) Ring well(Water Availability: Perennial / Seasonal) | | | |
| | (b) Tube well(Water Availability: Perennial / Seasonal) (c) River (Water Availability: Perennial / Seasonal) | | | |
| Energy | Table-11 of Record-I shows the major sources of energy in the village. The | | | |
| Consumption | same have been listed below.(a) Fuel wood- Households Depending: 70 Nos. Source: Forest, Market | | | |
| | (b) LPG -Households Depending: 21 Nos. Source: Government, Private(c) Kerosene- Households Depending: 65 Nos. Source: Market | | | |
| Socio-economic | Social set-up: The village is inhabited by general community. They do not | | | |
| status | have a caste system. The society is not marked by deep social divisions. The observed position of women is satisfactory. | | | |
| | Economic Condition: The economic position is not satisfactory. The main | | | |
| | livelihoods are farming, wage earning, and carpentry. Most households earn Rs. 30,000 to Rs. 70,000 per year. | | | |
| | There is / is no large-scale migration of the youth and others for livelihoods. Additional details are available at the next section. | | | |
| Maps | Appendix-1 gives the following maps, based on PRA exercise: | | | |
| | Village MapVillage Social Map (with the names and particulars of members in | | | |
| L | - mage social map (with the names and particulars of members in | | | |

| PRA) • Village Resource Map |
|--------------------------------|
| • Venn Diagram |
| Chapatti Diagram |

LIVELIHOOD OPPORTUNITY ANALYSIS

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

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

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

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

2. Natural Capital

In Potupather JFMC under Lumding Reserve Forest, major natural capital are Bamboo,Teak,Sal and various species of Bamboo and there is only one River namely Borlongphur.

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

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

3. Physical Capital

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

The village has 22 numbers of semi-pucca houses, 7 numbers of Pucca houses and the remaining houses are thatch. Among the various sources of energy consumption such as Biomass, kerosene, electricity and LPG, 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 10, 11)

There is three LP schools, one High school, three anganwadi centres present within the JFMC area. No other education institution is present. (Refer to table 5)

In case of water sources, most of the HH have access to tube well, river and ring well.

4. 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 no SHGS in the village. However, the village has one L.P school, one Anganwadi Centre and one community hall where social meetings of the villages are held.

5. Human Capital

77 per cent of total population of the JFMC are literate and 23 per cent are illiterate. (Refer to table 3.3)

6. 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.

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

7. Livelihood Context

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

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

8. Priority Ranking Through PRA Exercise

| PRA Exercise | Team from IIE Guwahati carried out PRA exercise in Potupather village as follows: | | |
|------------------|---|--|--|
| | Date: 18 th June, 2016 Location: Village Area Numbers Present: 22 | | |
| | In Presence of: JFMC office bearers, Village Headman, community members, Forest Department personnel, etc. | | |
| Objective of PRA | The objective was to study the existing household conditions and obtain other primary data about the community for developing the livelihood options and the forest development plan. | | |
| Tools Used & | Different tools were used and outcomes obtained. These include: | | |
| Outcomes of the | | | |

| PRA | Social Mapping Wealth Ranking Time Line review Seasonality of Livelihoods Venn Diagram | | | | |
|-----------------------------|---|--|--|------------------------------|--|
| | Appendix-3 furnishes detailed information of the above. | | | | |
| Ranking | Ranl | king exercise has be | en done for the following: | | |
| | | Livelihoods & Skills Development Entry Point Activities (EPA) | | | |
| | Арр | endix-3 elaborates | the above. From the same, i | it is stated that: | |
| | Ranl | king of Livelihoods | & Skills Development | | |
| | Food Processing Bee Keeping Driving Fishery | | | | |
| | Ranl | king of EPA | | | |
| | | Village EPA as rankedDetails (Appendix-3 has additional particulars)Probable source funding/deptt. | | | |
| | 1. | Drinking Water | Government supply water | EPA APFBC/ NRDWP | |
| | 2. | Sanitation | Providing HHL (House Hold Latrine) - Low cost,septic and sanitary type. | SwachBharart Mission/ PHE | |
| | 3. | Road Connectivity | Black Topping of road From Lumding to the village (12 KM) | PMGSY/PWD | |
| | 4. | Health Centre | Sub-Centre within the village | NHM/ H & FW | |
| | 5 | Community Hall | Well-built Community hall to help conducting village level meetings | APFBC | |
| | 6. School High school SSA | | | | |
| | An arrangement of working capital worth Rs 2 Lacs should be arranged from the EPA fund for promoting Livelihood activities. A low cost community work shed cum JFMC office to be setup within the JFMC boundaries for setting up and commissioning of Tool kits/Equipment/Machineries. | | | | |
| Livelihood opportunities | Agri Live NTF Skill | lihood Opportunitie culture & Horticultu stock | s were identified as follows | : | |

| | Additional discussion about the above has been given below. |
|-------------------------------|---|
| Agriculture & Horticulture | Table-12 under Record-2 may be seen in this connection for opportunities in the areas of agriculture and horticulture. |
| | The main constraints are: (a) Low production/collection (b) Storage & processing (c) Marketing |
| | The opportunities are: |
| | (a) Nearness to marketing hub(b) Availability of new technologies and farming practices(c) Rising demand for diversified agriculture product |
| | The suggested programme is: Agriculture developmental programme |
| Livestock | Table-13 furnishes additional information about opportunities for livestock rearing. |
| | The main constraints are: (a) Lack of monetary assistance (b) Insufficient knowledge (c) Remoteness of the producers from the supplier market |
| | The opportunities are: |
| | (a) Income generating activity(b) Good domestic market(c) Potential bee keepers |
| | The suggested programme is: Training on Bee Keeping |
| Specialized Skills | For skills development, the opportunities are tabulated at Table-15 under Record-2 |
| | The main constraints are: (a) Raw material availability (b) Product quality (c) Credit facility |
| | The opportunities are: |
| | (a) Abundance of mangoes, chillies in the JFMC(b) Nearness to marketing hub(c) Use of modern scientific method to compete with the outside market |
| | The suggested programme is: Training programmes on food processing |
| Credit Facility | Table-16 under Record-2 discusses this aspect. |
| | The main constraints with the reasons are: (a) Rate of interest (b) Availability of loan |

| | (c) Mortgage difficulty The opportunities are: (a) Creating SHG's (b) Setting up Micro finance institutions | | |
|----------------------------|--|--|--|
| | The suggested programme is: Education programme on SHG's | | |
| Strategic Interventions | Summarizing the suggested programmes at above as strategic interventions for the Livelihood Development Plan: 1. Agriculture & Horticulture: Tractor operation training, Agro-skill development programme ,Training on insecticides, pesticides, | | |
| | hybrid cultivation 2. Apiculture: Training on Bee-keeping 3. Specialized Skills: Training on Modern Tools and Equipment, Providing modern technology to the villagers, Skill Up gradation & Training on New Product Development and Product Diversification, Setting up a raw material bank, providing a bulk buy arrangement of the finished product with institutional buyers. | | |
| | 4. Credit facility: Setting up micro finance institutions in the nearby areas. | | |

9. Livelihood Development Plan

| Income Generating | The main income generating activities as planned at the village are: |
|-------------------|---|
| Activities | |
| | 1.Food Processing |
| | 2.Driving |
| | 3.Tailoring |
| | 5.1 unoning |
| | |
| | Sources Table 22 of Decord 4 |
| | Source: Table-32 of Record-4 |
| | CHC of the still of a second by the full second still it is a second state. |
| SHG Activities | SHGs of the village can plan the following activities: |
| | |
| | - No SHG formed within the JFMC area |
| | |
| | |
| | Source: Table-33 of Record-4 |
| | |
| Exposure Trips | The following exposure trips are planned: |
| | |
| | 1.Nil |
| | 2.Nil |
| | |
| | Source: Table-34 of Record-4 |
| | |
| Summary of Action | As attached in next page. |
| Plan | |
| 1 1411 | |
| | |

| Convergence | The planned initiatives may be converged with the following schemes of the Government of India: |
|-------------|--|
| | (a) National Rural Employment Guarantee Scheme - For rural employment (b) RashtriyaKrishiVikasYojana (RKVY) - For agricultural and allied development |
| | (c) SwarnaJayanti Gram SwarojgarYojana (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. The above convergence will yield synergies for the present plan, as well as |
| | help in sustaining the planned works in the post-project period. |
| | help in sustaining the plained works in the post project period. |

Forest Development Plan of Potupather 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 Potupather 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 Potupather 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 PotupatherJFMC have been summarized below.

| 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 | 50 Ha | 1km | Good Area: 50Ha | 3-6m |
| Beat:Borlongphur | | | Degraded Area: Nil | |
| Compartment: | | | | |
| (B) Other Planted Area | | | | |

 Table-1: Conditions of the Forests of PotupatherJFMC

| Location: | - | - | - | - |
|-----------------|-------|---|--------------------|---|
| Type of Forest: | | | | |
| VF / Other | | | | |
| TOTAL | 50 Ha | | Good Area: 50 Ha | |
| | | | Degraded Area: Nil | |

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

It is seen that the Potupather JFMC has 50 Ha under its forests, of which 50 Ha is 'Good' and none is 'Degraded'.

1.2. Forest Soil Type

The forests of PotupatherJFMC are located in sand dune type(s) of soil. Some salient points of the forest soil type have been given in the following table.

| Parameter | Status in Assigned Forests | Status in Other Planted Areas |
|-------------------------|--|----------------------------------|
| Fertility Level | 2.3 to2.94% organic. The available N, P205 and K20 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% | - |

Table-2: Forest Soil Type in Potupather JFMC

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

For the PotupatherJFMC; 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%)

Existing Composition of Flora

In the forests of the Potupather 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 PotupatherJFMC

| Parameter | Local Name(s) | Botanical Name(s) |
|----------------------|---------------|---------------------------------------|
| Major Forest Species | Arjun, | Terminalia arjuna, |
| | Hilikha, | Terminaliachebula, |
| | Ahat | Ficusreligiosa |
| Associates | Bhomora, | Terminaliabelerica, |
| Shrubs | BiriPata, | NicotianaTabacum, |
| | Broom | Genisteae |
| Medicinal Plants | Neem, | Azadirachtaindica, |
| | Bhomora, | Terminaliabelerica, |
| | Hilikha, | Terminaliachebula, Terminalia arjuna, |
| | Arjun, | Phyllanthusemblica |
| | Amla | |
| Produces | | |
| Others, if any Herbs | Doron | LeucasCephalites |

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

2. Other Inputs for the Forest Development Plan

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

2.1. Past Protection Measures of the JFMC

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

- (a) Number of households involved: 70 HH
- (b) Number of people involved: 65
- (c) Summary of the measures: Patrolling within the JFMC area
- (d) Any formal mechanism: NA

[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 |
|--|
| PotupatherJFMC |

| Name of Forest Produce | Average Household Requirement | | How met at Present | Source |
|------------------------|---|--|-----------------------|--------|
| | Frequency of Approx. Qty Requirement | | | |

| Firewood | High | 350 kg/yr | - | Forest |
|--------------------------------|--------|-------------|---|--------|
| Timber for House | Medium | 2 nos/ yr | - | Forest |
| Small timber for Implements | - | - | - | - |
| Pole / Bamboo | Low | 2 nos/ yr | - | Forest |
| Fodder from Forest | Low | 1.5kg/month | - | Forest |
| NTFP | - | - | - | - |
| Other | Nil | - | - | |

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

There are 70 households in the Potupather JFMC. From the above table and this number of households, it is inferred that the total annual requirements of the Potupather village for forest produce for own use is as follows:

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

| Name of Forest Produce | Community Requirement (Kg per annum) (*) | Remarks | |
|-----------------------------|---|---------|--|
| Firewood | 24500 | - | |
| Timber for House | 2 nos. | - | |
| Small Timber for Implements | - | - | |
| Pole / Bamboo | 2 nos. | - | |
| Fodder from Forest | 1260 | - | |
| 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 _____ Households

2.3. Collection & Marketing of Forest Produce by Villagers

It is observed that there is no sale and marketing of forest produce by the locals from the PotupatherJFMC.

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

| Name | of | Forest | Collection for Marketing | | | Location of |
|---------|----|--------|-----------------------------|--|--|-------------|
| Produce | | | Season / No of Average Qty. | | | Collection |
| | | | Months Households Collected | | | |

| | | Collecting | (Kg) | |
|--------------------------------|---|------------|------|---|
| Firewood | - | - | - | - |
| Timber for House | - | - | - | - |
| Small timber for Implements | - | - | - | - |
| Bamboo | - | - | - | - |
| Pole | - | - | - | - |
| Fodder from Forest | - | - | - | - |
| NTFP | - | - | - | - |

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

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

| 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 | - | - | - |

 Table-5 (B): Collection & Marketing of Forest Produce - Additional Information

 [Potupather JFMC]

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 Potupather JFMC have been summarized below - based on the information in the previous sub-sections.

| Table (Tatal Degrifterments of Ferrest Duadwas by | Villa gour of the Detune then IEMC |
|--|------------------------------------|
| Table-6: Total Requirements of Forest Produce by | v magers of the rotupather Jr MC |

| Name of Forest Produce | Community Requirement (Kg per annum) From Table-4(B) | Surplus Marketed (Kg) From Table- 5(B) | Total Requirements (Kg) |
|--------------------------------|--|--|-------------------------------|
| Firewood | 24500 | - | 24500 |
| Timber for House | 2 nos. | - | 2 nos. |
| Small timber for Implements | - | - | - |
| Bamboo | 2 nos. | _ | 2 nos. |
| Pole | | - | |
| Fodder from Forest | 1260 | - | 1260 |
| 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 Potupather JFMC have been summarized below.

| 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 | Yes | Yes |
| Encroachment of Forest Lands | No | No |
| Others | No | No |

Table-7: Protection Problems of the Potupather JFMC

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 by local and other animals

(b) Accidental forest fires.

4. Components of the Forest Development Plan

The following sub-sections discuss the main components of the Forest Development Plan of Potupather 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 PotupatherJFMC from the issues discussed earlier at Sub-section 3.1

| 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 | Reserve forest | 1 no | Morning- Evening | High |
| Fire Protection | Reserve forest | 2m plantation boundary | Dry season | High |
| Informers award | - | _ | - | - |
| Fencing/social fencing | - | - | - | - |
| Cattle proof trenches | - | - | - | - |
| Rotational grazing | - | - | - | - |
| Stall feeding | - | - | - | - |

Table-8: Protection Plan of thePotupatherJFMC

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

(a)Engagement of watcher

(b) Fire Protection

4.2. Types of Operations Proposed

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

Table-9: Types of Operations Proposed in the Potupather 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 | 2017 | |
| Watershed Treatment | Yes | Yes | 2017 | 200 metres |
| Water Reservoirs | Yes | Yes | 2017 | 200 metres |
| Grass &Silvi-pasture | No | - | - | - |
| Bamboo Plantation | No | - | - | - |
| Seed Sowing | No | - | - | - |
| Root & Shoot Cutting & Plantation | No | - | - | - |
| Cut Back & Coppice Treatment | No | - | - | - |
| Physical Fencing(Live hedge fencing) | Yes | Yes | 2017 | JFMC Boundary |
| Social Fencing | - | - | - | - |
| 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 Potupather JFMC:

(a) Protection to Cut Stumps of Trees

- (c) Watershed Treatment
- (d) Water Reservoirs
- (e) Live hedge fencing

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 thePotupatherJFMC

| 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 Neem, Amla, Mahua, Bahera (Medicinal Plants) | - | - | - | - |
| Enrichment Plantation | - | - | - | - |
| Direct Plantation | 25 Ha | - | Fuelwood | |
| Other | - | - | - | - |
| TOTAL AREA (in Ha) | 25 Ha | - | - | - |

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

4.4. Forest Improvement – Action Plan

Action Plan for Block Plantation of Saal Mixed with Associates

| Name of Plantation | : Block Plantation of Saal Mixed with Associates |
|----------------------------|--|
| Plantation Period | : 2016-17 to 2025-26 (10 Years) |
| Plantation Area | :- |
| Spacing | :- |
| No. of Plants to be Raised | :- |
| Number Blocks | :- |
| Species | :- |
| Rates | :- |

| Financial Year | Activities | Amount |
|-------------------|---|--------|
| | Identification of suitable site for regeneration-examine possibilities of natural seed fall-determine intensity and nature of biotic interference-Area Not Less | - |
| 2016-17 | 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 | - |
| 2019 10* | Block Plantation 3m x 3m, 1111 plants/ha-during the season of April-June ; GPS marking of the area | - |
| 2018-19* | 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 | - |
| 2019-20* | 2nd Weeding; Replacement of dead/struggling saplings raised in the previous | - |

| | year | |
|----------|---|---|
| | Block Plantation 3m x 3m, 1111 plants/ha-during the season of April-June ; | - |
| 2020-21* | 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 | - |
| 2023-24 | year | |
| 2024-25* | 7th Weeding | - |
| 2025-26* | 8th Weeding | - |
| | Total Budgetary Requirement | _ |

* Silvicutural 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 |
|----------------------------|---|
| | The wood and Danioso |
| Plantation Period | : 2016-17 to 2025-26 (10 Years) |
| Plantation Area | :- |
| Spacing | :- |
| No. of Plants to be Raised | :- |
| Number Blocks | :- |
| Species | :- |

| | 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 | - | | |
| 2018-19 | 1st Weeding; Replacement of dead/struggling saplings raised in the previous year | - | | |
| 2010 20* | Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June; GPS marking of the area | - | | |
| 2019-20* | 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 | - |

* Silvicutural 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 | : - |
| Spacing | : - |
| No. of Plants to be Raised | : - |
| Number Blocks | : - |
| Species | :- |

| 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 | - |
| 2018-19 | 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 | |
| 2019-20 | 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 | - |
| 2020-21** | 3rd Weeding &Prunning | - |
| 2021-22* | 4th Weeding &Prunning Replacement of dead/struggling saplings raised in the previous year | - |
| 2022-13* | 5th Weeding &Prunning Replacement of dead/struggling saplings raised in the previous year | - |
| 2023-24* | 6th Weeding & Prunning | - |
| 2024-25* | 7th Weeding | - |

| 2025-26* | 8th Weeding | - |
|----------|-----------------------------|---|
| | Total Budgetary Requirement | - |

4.5. Nursery Development Plan

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

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

JFMC Nurseries

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

| Location of Nursery | Species | Year of Development | Number of Seedlings | Remarks |
|------------------------|---------|------------------------|------------------------|---------|
| | - | | - | - |
| | - | 2016-17 | - | |
| | - | | - | |
| | - | | - | - |
| | - | 2017-18 | - | |
| _ | - | | - | |
| | - | | - | - |
| | - | 2018-19 | - | |
| | - | | - | |
| | - | | - | - |
| | - | 2019-20 | - | |
| | - | | - | |

Table-11 (A): JFMC Nurseries of the Potupather 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 Potupather JFMC is given below. This covers a period of ten years.

(A) Timber Species Saal, Teak, Associates

| Year(s) | Treatment |
|--------------------|-----------|
| 2016-17 to 2025-26 | - |
| 2016-17 to 2025-26 | - |

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

Source: Discussions with Forest Department personnel & Community member

(B) Bamboo

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

| Year(s) | Treatment |
|--------------------|-----------|
| 2016-17 to 2025-26 | - |

Source: Discussions with Forest Department personnel & Community members

(C) Fuel wood Plantation

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

| Year(s) | Treatment |
|--------------------|-----------|
| 2016-17 to 2025-26 | - |

Source: Discussions with Forest Department personnel & Community members

(D) NTFP / Medicinal Plantation

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

| Year(s) | Treatment |
|--------------------|-----------|
| 2016-17 to 2025-26 | - |

Source: Discussions with Forest Department personnel & Community members

5. Expected Benefits

This sub-section furnishes the benefits expected from the forests protected by members of the Potupather 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 Potupather 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 PotupatherJFMC

| 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

5.2. Sharing Mechanisms

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

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

Table-15: Sharing Mechanism for Potupather JFMC

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

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

To The Range Forcest Officer, Lunding Range, Lunding Sub: Unavailibility of area for creation of plantation under Potupathon JFMC area. Sin, I have the honour to inform you that no area is available for creation of plantation under Potupather JFMC. Since, the vacant 25 Hac. have already been couved by fuelwood plantation under APFBC scheme dwing 2015-16. This is for favour of your kind information & necessary action. your's faithfully. 1. APRAGATORY President A. W. M. C. Potupathan Launding on asded Silip Burn For (Member Secretary) Member & Secretary 1, P. M. C. Potupathar 28-59, Lumdino Lumding Confirmed. onm Ahman. AFS.) SFO. MS. Divn. Hojai.

5.3. Miscellaneous Operations Plan

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

| Operation | Required (Yes / No) | Responsibility | Month / Year | Area (Ha) |
|---------------------------------|------------------------|----------------|-----------------|-----------|
| Medical/Health camp | Yes | VSS | Rainy season | JFMC area |
| Centre for non-formal education | Yes | VSS | All year | JFMC area |

Table-13): Miscellaneous Operations in the PotupatherJFMC

| Operation | Required (Yes / No) | Responsibility | Month / Year | Area (Ha) |
|--|------------------------|----------------|-----------------|-----------|
| Promotion of fuel saving devices | Yes | VSS | All year | |
| Cattle improvement/health programmes | Yes | VSS | Monthly | JFMC area |

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

Marketing Operations

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

- (a) Marketing directly to private purchasers
- (b) Marketing individually
- (c) Marketing Collectively

List of Appendices

| Appendix No | Heading | Page No |
|----------------|---|---------|
| 1 | HOW TO REACH | 29 |
| 2 | Maps | |
| | Village Map | 31 |
| | Village Social Map | 32 |
| | Village Resources Map | 33 |
| 3 | Land Use Map of Village (GIS) | 34 |
| 4 | PRA Exercise | |
| | Social Mapping | 35 |
| | Wealth Ranking | 37 |
| | Time Line review | 37 |
| | Seasonality of Livelihoods | 37 |
| | Venn Diagram | 41 |
| | Chapatti Diagram | 42 |
| | Priority ranking and EPA | 43 |
| 5 | Photographs | 46 |
| 6 | List of JFMC Members | 47 |
| 7 | Filled Up Tables (Proforma-1 to Proforma-4) | 48-55 |
| | Table Nos. 1-18 | |

Appendix 1

HOW TO REACH:

Lumding to Guwahati distance, location, road map and direction

Lumding is located in **India** at the longitude of 93.17 and latitude of 25.75. Guwahati is located in **India** at the longitude of 91.75 and latitude of 26.19.

Distance between Lumding and Guwahati

The total straight line distance between Lumding and Guwahati is **150 KM** (kilometers) and 188.93 meters. The miles based distance from Lumding to Guwahati is **93.3**miles. This is a straight line distance and so most of the time the actual travel distance between Lumding and Guwahati may be higher or vary due to curvature of the road.

Lumding to Guwahati travel time

Lumding is located around 150 KM away from Guwahati so if you travel at the consistent speed of 50 KM per hour you can reach Guwahati in 3 hours. Your Guwahati travel time may vary due to your bus speed, train speed or depending upon the vehicle you use.

Lumding to Guwahati Bus

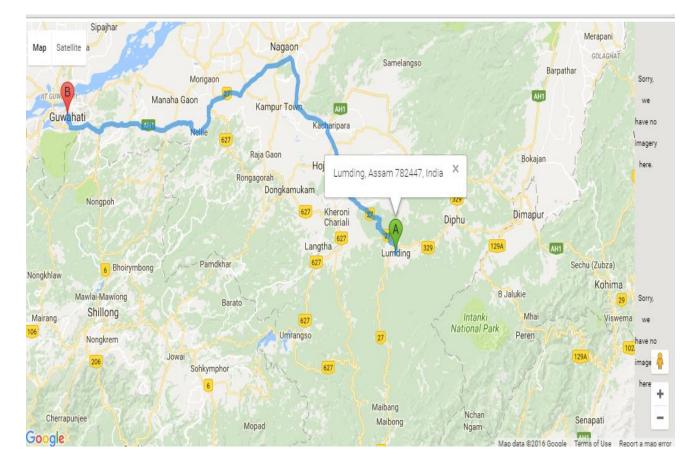
Bus timings from Lumding to Guwahati is around **2.5 hours** when your bus maintains an average speed of sixty kilometer per hour over the course of your journey. The estimated travel time from Lumding to Guwahati by bus may vary or it will take more time than the above mentioned time due to the road condition and different travel route. Travel time has been calculated based on crow fly distance so there may not be any road or bus connectivity also.

Bus fare from Lumding to Guwahati

May be around Rs.120.

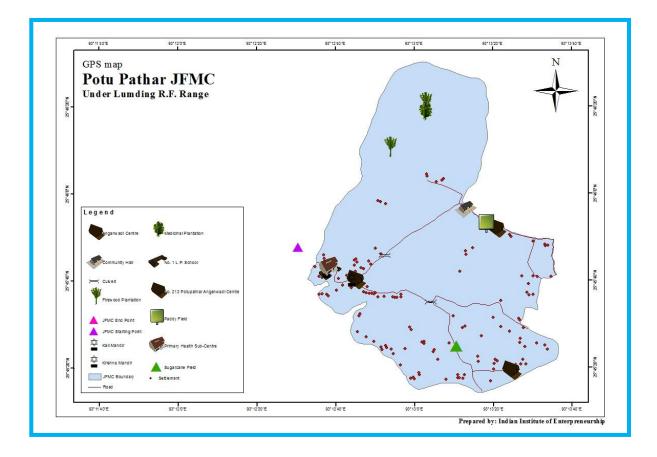
Lumding to Guwahati road map

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

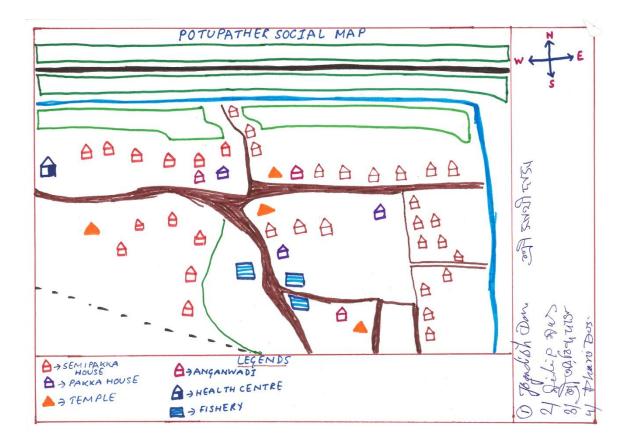


Appendix 2

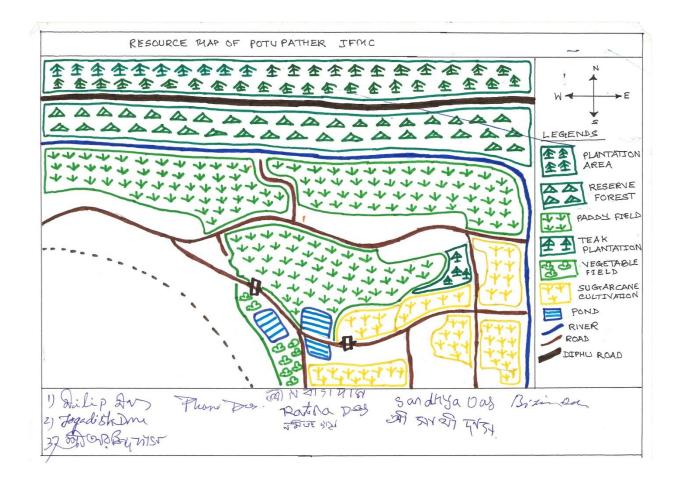
1) Village Map of Potupather JFMC



2) SOCIAL MAP OF POTUPATHERJFMC

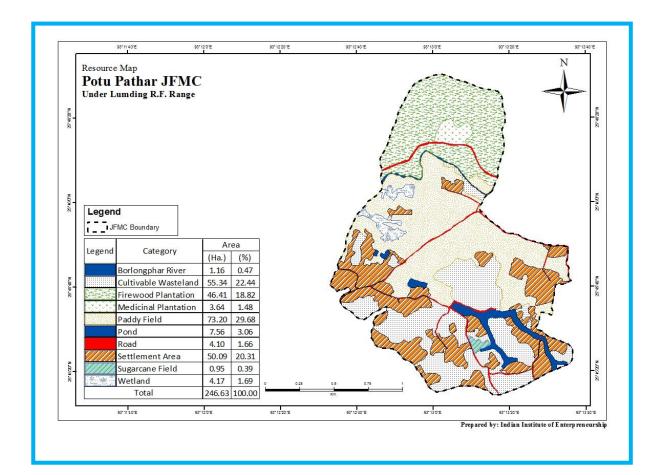


3. **RESOURCE MAP OF POTUPATHER JFMC**



Appendix 3

Land Use Map of GIS



Appendix 4

PRA Activity

Location and timing of PRA activity

| Numbers of participants : | 22 |
|---------------------------|--------------------------------------|
| Time : | 10.30 am, 18 th June 2016 |
| Venue : | Village |

Table – 3.1Brief about the villages under Potupather JFMC

| Sl. No. | Name of the Village | No. of households | Population | | | |
|---------|---------------------|-------------------|------------|------|--------|--|
| | | | Total | Male | Female | |
| 1 | Potupather | 70 | 387 | 231 | 156 | |
| | Total | 70 | 387 | 231 | 156 | |

Source: Field Survey

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

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

3.1 Social Mapping:

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

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 households namely pukka, semi pukka, IAY and thatch house.

Table4.1: Information about the villages

| | Village | Potupather |
|--------------------|------------------------------|------------|
| | | |
| | Total Population | 387 |
| | Male | 231 |
| Social information | Female | 156 |
| | Total households | 70 |
| | Numbers of semi pakka Houses | 22 |
| | Numbers of Pakka Houses | 7 |
| | Numbers of Thatch Houses | 41 |
| | Primary School | 1 |
| | Culvert | 4 |
| Landmarks | River | 1 |
| | Temple | 3 |
| | Fishery Pond | 3 |
| | Primary Health Centre | 1 |

- The participants of social mapping have identified 70 households out of which 22 households have semi pakka houses, 41 HHs have thatch houses and 7have pakka houses. This signifies that the IAY scheme of Government has not achieved considerable coverage of poor people residing in rural area yet.
- Other than the class based division of the households, important places like community hall, schools, and culvert, stream, Ringwell, hand pump and River are mapped.
- Main sources of water for the villagers are the limited number of tube wells and the Ring Well which is used by villagers for their day to day use.
- Provision of Education facility is not satisfactory in the villages as there is oneL.P school within the JFMC which results is maximum number of school drop outs. There is two Anganawadi centres in the entire village
- > Majority of the population belongs to the Bengali and Bihari community and are of General caste.

Learnings:

- The Households are still dependent on forest and use firewood for their cooking purposes which is still a concern for the forest department for degradation of the forest.
- The primary health center along with post office is located in Lumding, which is 7KM away from the JFMC. The villagers have to cover a long distance for their health check-up.
- 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 two 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 Potupather JFMC have to move Lumding, a distance covered with 7km, for their weekly marketing activity.

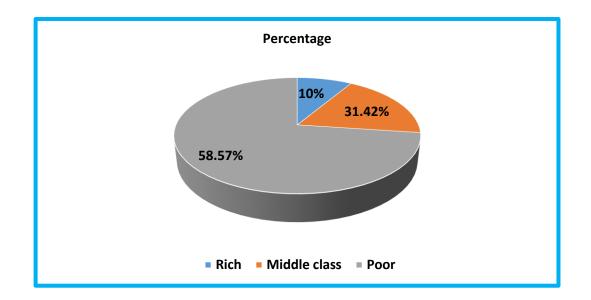
4.3 Wealth Ranking:

Wealth ranking or well-being ranking, involves community members identifying and analyzing 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

- Occupation
- Land holding
- Types of living houses

As such about 58.57% people are poor, about 31.42% belong to middle class and about 10% are categorised to be rich. Poor people are mainly irregular wage earners, farmers, shopkeepers, doing farming on (adhilua) others land. Rich people have more than 10 bighas of land,RCC and semi RCC house,service,adequate no of cattle,TV and CD, Motor Cycle, And Rice Mill, Irrigation Facilities and earning More than 100 quintals of rice are listed as rich people.



4.4 Time Line Review:

| Year | Event | Туре |
|------------------|-------------------------------|-------------|
| Pre independence | The village was named after a | Recognition |
| | GaonBuranamed Potu. | |

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. But there was no such remarkable events as described by the villagers only the naming of the village after the GaonBura.

4.5 Seasonal Mapping of livelihood activities:

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

Seasonal mapping mainly covers the seasonal variation of crops. In seasonal mapping, we considered agricultural crops and the timing of three activities viz. showing, cropping and harvesting criteria and collected the details throughout the year. From the seasonal mapping, it has been noticed that the main crops grown in the village are Aijong, Pankaj, Ranjit rice, chilli, cabbage, cauliflower, mangoetc. The FGD conducted revealed that other major livelihood options available in the JFMC are Food processing, bee keeping, shop-keeping, daily wage labourers, mason, tailoring, carpentry which are not seasonal in nature but is showed in the seasonal mapping.

Seasonal Map

SEASONAL MAPPING OF POTUPATHER

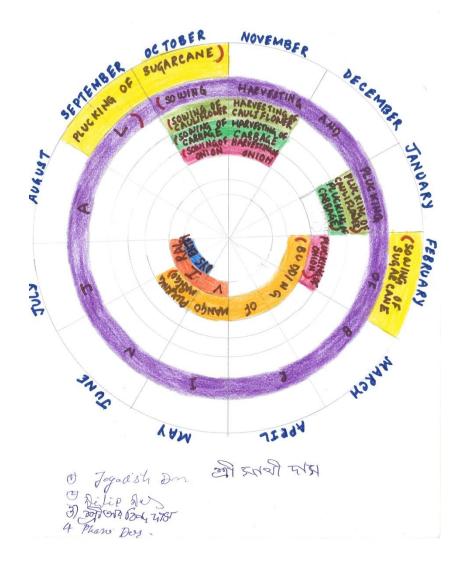
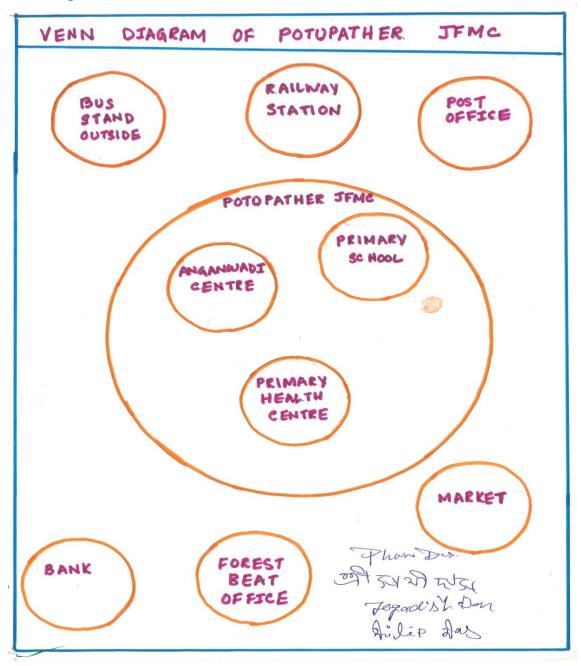


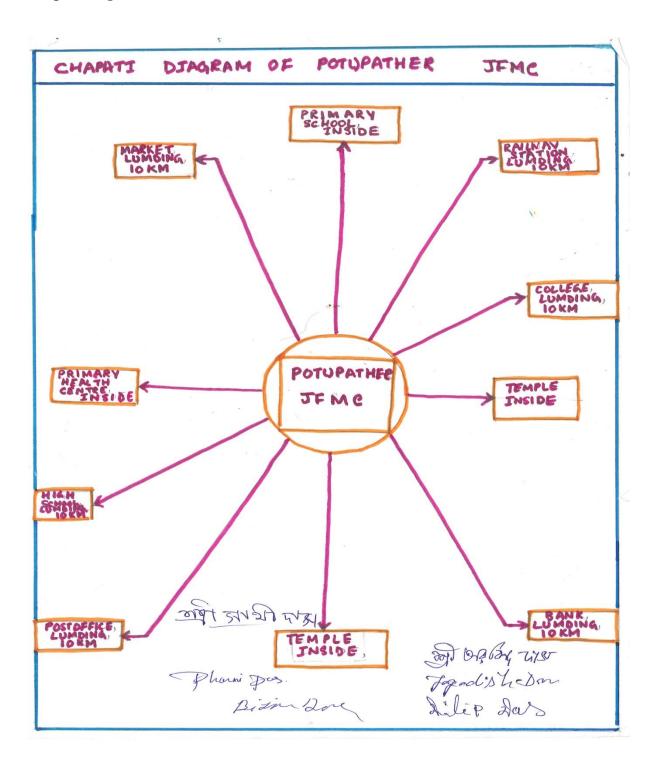
Table 3.4 Seasonal cropping pattern

| Categories | | Time o | of Activity | |
|-------------|-------------|-------------|---------------------|----------|
| | | Sowing | Harvesting | Plucking |
| | Cabbage | July | August | Nov-Dec |
| | Cauliflower | July | August | Nov-Dec |
| | Chilli | | Throughout the year | r |
| | Pumpkin | Jan-Mar | | May-June |
| | Mustard | October | | Nov-Dec |
| | Mango | March-April | | May-June |
| Farming | Jackfruit | April-May | May-June | |
| | Weaving | | 1 | |
| | Livestock | | | |
| | Rearing | | | |
| | Daily Wage | | | |
| | Earning | | Throughout the year | r |
| | Shop-keeper | | | |
| | Masonary | 1 | | |
| | Electrician | 1 | | |
| Non-Farming | Tailoring | 1 | | |

Venn Diagram



Chapatti diagram



Priority Ranking – EPA and Livelihood

| | Drinkin g Water (A) | Sanitatio n (B) | Roa d (C) | Healt h Centr e (D) | Communit y Hall (E) | Schoo l (F) | Mark Scorin g | Positio n |
|---------------------------|---------------------------|-----------------------|-----------------|---------------------------------|---------------------------|-------------------|---------------------|--------------|
| Drinking Water (A) | X | В | С | A | A | A | 3 | 3 |
| Sanitation (B) | А | Х | С | В | В | В | 4 | 2 |
| Road (C) | A | В | X | С | С | С | 5 | 1 |
| Health Centre (D) | A | В | С | X | С | D | 1++ | 4 |
| Communit y Hall (E) | A | В | С | D | X | Е | 1 | 6 |
| School (F) | A | В | С | D | F | Х | 1+ | 5 |

Priority Ranking – Livelihood

| | Food | Bee | Driving | Tailo | Carpe | Electr | Mark | Position |
|--------------|------------|-------------|--------------|-------------|-------|--------------|---------|----------|
| | Processing | Keepin | (C) | ring | ntry | icity | scoring | |
| | (A) | g | (C) | (D) | (E) | (F) | | |
| | | (B) | | | | | | |
| Food | Х | А | А | А | А | А | 5 | 1 |
| Processing | | | | | | | | |
| (A) | | | | | | | | |
| Bee | Α | Х | В | В | В | В | 4 | 2 |
| Keeping | | | | | | | | |
| (B) | | | | | | | | |
| Driving | А | В | Х | С | С | C | 3 | 3 |
| (C) | | | | | | | | |
| Tailoring | А | В | D | Х | D | D | 3 | 4 |
| (D) | | | | | | | | |
| Carpentry | А | В | С | D | Х | E | 1 | 6 |
| (E) | | | | | | | | |
| Electricia | А | В | С | D | F | Х | 1 | 5 |
| n | | | | | | | | |
| (F) | | | | | | | | |

| EPA Activities | Duinking Water (A) | Roan Con | nechivity | | Chuicily | Scl (L | 1001 | Sawitation (E) | | μ | auks | Rank |
|---|------------------------------------|---------------|----------------|-----|------------------------|------------------------|-------------------|-------------------|-----------------------------|----|----------------|------|
| Duinking Waten (A) | × | | A | | A | A | | ŀ | 4 | ł | 4 | 1 |
| Rood Connectivity (B) | | | × | - | B | ß |) | | - | | 3 | 2 |
| Electricity (c) | | | | | × | Ĩ |) | | E | | 2 | 4 |
| School (P) | | | | | |) | × | | E | | 1 | 5 |
| Samilation (E) | | | | | | | | | X | | 2 ⁺ | 3 |
| ivelihood | Activity | 0 | | 4 | | | | | , | | | |
| Livelihood Activities | Agnicult and Houticus (A) | име Томе | Livesta (B) | ock | Food Process (C) | ing | Bee Keej (D | ping | Cane and Bambo (E) | 00 | Manks | Rand |
| Agnicenture and Howficenture (A) | × | | A | | A | | P | | A | | 4 | 1 |
| Livestock (B) | X | | × | | в | 3 | | B B | | | 3 | 2 |
| Food Publicsing (C) | Х | | Х | | X | $\boldsymbol{\lambda}$ | | С | | | 2 | 3 |
| Bee keeping (P) | X | | × | | > | < | | \times | E | | 7 | 01 |
| Cane and Bamboo (E) | Х | | X | | > | < | | × | × | | 2+ | 4 |
| Jahue : Jeg Jahi A Flor | hip & | Jac 757 St | ~ ~ | 6 | थो इ | 2) | 51 | 21 | | | | |

Annexure 4

Photographs



During the PRA activity



Annexure 5

LIST OF JFMC MEMBERS

| | | RECO | RD 7 : MEMBI | ERSHIP REGIST | ER | |
|-----------|---------------------|---------------------------------|--------------|------------------|-----------|---|
| Name of J | | suth | Range Lon | rding | | |
| Sr. No. | Name | Father's / Husband's name | Age | Male / Female | Education | SC/ST / BC/OBC |
| 1 | Hirza Das. | Elecandra Kumer Der. | 50 | M | 8 | SC |
| 2 | ARALINDA | | 50 | n. | 8 | SC |
| 3 | Paro. Agilat ya | Li Hemon- | 50 | M | - | SC |
| 4 | Darol Blion Daro | 1. Binon | 35 | M | フ | se |
| 5 | Bijoy Das. | Das. Lo Nanendra | 35 | M | 9 | sic |
| 67 | Arrati Dep | KumanDas. Ananta Da | | 1 | - | SC |
| 7) | | h Analinda | | F | 8 | SC |
| 80 | Namila D | PS. Adatya Das. | 30 | F | 8 | SC. |
| 9) | Dilip Born | DAS. | 30 | PA | | SC. |
| (0) | | L. Homend | M 55 | D/ | 8 | SC. |
| | | | * | | | |
| | | | | | Nellep | Bosta Fil |
| | | | | | Member | & Secretary C. Potupathan Lumding |
| | | | | | | |
| | | | | | | |
| | | | 97 | | | |
| | | | | | | |

Annexure 6 (Record I)

TABLE-1: BASIC DATA OF VILLAGE/JFMC

Name of the Forest Division :Nagaon South

<u>Name of the Forest Range</u>:Lumding

| Sl. No | Name of JFMC/Vil lage | Date of Esta blish ment | No. of Member s In Executi ve Comtt. | Name of Preside nt | Name of Memb er Secret ary | Mon ey in villa ge Dev. Fun d (VD F | Contrib ution per family or per person | Socia l fenci ng used Yes/ No | Remark s on special attainme nts | Gradi ng % of Succe ss of JFMC by RFO |
|-----------|-----------------------------|-------------------------------------|--|-----------------------------|---|--|--|---|--|---|
| 1 | Potupather | 2007 | 10 | Hira Das | Dilip Bora, | - | - | - | - | 80% |
| | | 2008 | | | Foreste r-I | | | | | |

TABLE-2: VILLAGE WISE POPULATION DATA

| Name of | No. of | SC | | ST OBC | | | BC | BC | | Total- |
|------------|---------------|------|--------|--------|--------|------|------------|----------|--------|-----------------|
| Village | House hold | Male | Female | Male | Female | Male | Femal e | Mal e | Female | all category |
| Potupather | 70 | 63 | 52 | - | - | - | - | 168 | 104 | 387 |

TABLE-3: VILLAGE WISE AGE PROFILE

| Age Class | <5 years | 5-18 years | 18-45 years | 45-60 years | >60 years |
|-----------|----------|------------|-------------|-------------|-----------|
| Male | 16 | 55 | 82 | 68 | 5 |
| Female | 12 | 53 | 65 | 43 | 6 |
| Total | 28 | 108 | 147 | 111 | 11 |

TABLE-4: VILLAGE WISE EDUCATION PROFILE

| Age Class | KG/Nursery | Up to IV | V-VII | VIII-X | X-XII | Graduate | Masters | Illiterate |
|-----------|------------|----------|-------|--------|-------|----------|---------|------------|
| <25 years | 6 | 63 | 48 | 42 | 16 | - | - | 12 |
| >25 years | - | 78 | 23 | 17 | - | - | - | 78 |
| Total | 6 | 141 | 71 | 59 | 16 | - | - | 90 |

TABLE-4: VILLAGE WISE INCOME DISTRIBUTION

| No of HHs |
|-----------|
| - |
| - |
| - |
| - |
| - |
| 28 |
| 42 |
| |

TABLE-5: VILLAGE WISE FARMERS CATEGORY ON THE

BASIS OF LAND HOLDING

| Sl. No | Name of Village | Тур | Total | | | |
|-----------|--------------------|-----------------|----------------------------|--------------------|--------------|--|
| | | Large Farmer | Small Farmer 2 – 10 ha. | Marginal Farmer | Land Less | |
| | | > 10ha. | | <2 ha. | | |

| 1 | Potupather | - | - | 21 | 37 | 58 |
|---|------------|---|---|----|----|----|
| | | | | | | |

TABLE-6: CATTLE POPULATION

| Sl.No | Name of Village | Village Wise No. of cattles or Type of animals | | | | | | | Fotal | |
|-------|--------------------|--|---------------|-------|-------|------------------|------------|----------------------|------------|-----|
| | , muge | Cows | Buffalo es | Goats | Sheep | Bulls/ Oxeing | Came ls | He n/ Co ck | Other s | |
| 1 | Potupather | 120 | - | 140 | - | - | - | 127 | - | 387 |

TABLE-7: VILLAGE WISE INFRASTRUCTURE

| S.No | Infrastructure | Location | Distance from village, if in another location (in Kilometers) | Condition and status of present use |
|------|--------------------------|--------------------------------------|--|---|
| 1 | Main Road | Inside | 0km | Good |
| 2 | Electricity | Lumding | 7 Km | Poor |
| 3 | Gas connection | Inside | 0km | Poor |
| 4 | Transport | Lumding | 7 km | Good |
| 5 | Primary Health Centre | Lumding | 7Km | Poor |
| 6 | School (LP) | Inside | 0km | Good |
| 7 | Post Office | Lumding | 7Km | Good |
| 8 | Bank | SBI, UBI,ICICI,AGVB,CBI,(Lumding) | 7Km | Good |
| 9 | Phone | | | |
| 10 | AnganwadiCetre | Inside | 0km | Good |
| 11 | Gram Panchayat | Inside | 0km | Good |

| Office | | |
|--------|--|--|
| Office | | |
| | | |
| | | |

| 12 | Revenue Office | Lanka | 41 km | Good |
|----|---|----------------------|--------------------|---------|
| 13 | Police Office | Lumding | 14 Km | Good |
| 14 | Forest Office (Beat) | Borlongphur | 7 Km | Good |
| 15 | Post Office | Lumding | 14 Km | Poor |
| 16 | Bus facility | Lumding | Under Village area | Poor |
| 17 | Railway Station | Lumding | 2.50Km | Good |
| 18 | Drinking Water | Ring well (15Nos) | Under Village area | Average |
| 19 | JFMC assets community hall petromax loudspeaker utensils etc. | Inside | 0km | Poor |
| 20 | District Head Quarter | Hojai | 54.6Km | Good |

TABLE-8: AGRICULTURAL CROP

| | Rain f | ed | Irrig | gation |
|--------|--|-------------|--------------|-------------|
| | Name of Crop | Area in ha. | Name of Crop | Area in ha. |
| Kharif | Paddy(Aijong,Pankaj) | 73.20 Ha | - | - |
| Rabi | Mustard | 15.36 Ha | - | - |
| Others | Horticulture (Ladies Finger, Chilli, Brinjal, etc) | 64.96 Ha | - | - |
| | Sugarcane | 0.95 Ha | - | - |

| Сгор | Total production (approx) | Number of households growing | Average production(quintal per/ha) |
|------------|------------------------------|---------------------------------|---|
| Paddy | 4465Quintal | 58 | 60.99 |
| Mustard | 144 Quintal | 32 | 9.38 |
| Vegetables | 2436 Quintal | 58 | 37.50 |
| Sugarcane | 370 Quintal | 10 | 370 (As per Land Use Map of GIS Sugarcane cultivation area is 0.95 Ha) |

TABLE-9: CROP PRODUCTION PROFILE OF THE VILLAGE

TABLE-10: FODDER AVAILABILITY

| ` | 1-3 months | 3 – 6 months | > 6 months |
|-------------------|--------------|--------------|--------------|
| Crop residue | Х | \checkmark | Х |
| Trees fodder | Х | \checkmark | Х |
| Grasses | \checkmark | ~ | \checkmark |
| Green fodder | \checkmark | ✓ | ✓ |
| Grazing in forest | Х | \checkmark | Х |

TABLE-11: LOCATION OF MARKET FROM THE VILLAGE

| For purchase | Location | Distance from village if in other village kilometer |
|-------------------------|----------|--|
| Grocery Shop/PDS center | Lumding | 7 Km |
| Weekly Market | Lumding | 7Km |
| Major Market | Lumding | 7Km |
| Other Specify | - | - |

| Water Source | Number | Water Availability (Adequacy, seasonality) | Uses (drinking, irrigation, livestock bathing) |
|------------------------------|-------------------------------------|--|---|
| Water Harvesting Structure | - | - | - |
| Check dam | - | - | - |
| Tube well | 10 | Adequacy | Drinking, bathing |
| River/Nala | 1 | Seasonality | Bathing |
| Spring | - | - | - |
| Canal | - | - | - |
| Water Reservoir | - | - | - |
| Other, plsspecify, Ring well | 15(Individual),1(Go vt.) Source) | Adequacy | Drinking |

TABLE-12: WATER RESOURCES FACILITIES

TABLE 13: ENERGY CONSUMPTION

| Type of fuel | Number of household | Number of months | Source (local village forest, | Major/Secondary |
|-----------------|------------------------|---------------------|-------------------------------|-----------------|
| Fuel wood | 70HHs | 12 month | Forest | Major |
| Kerosene stove | 50HHs | 12 month | Market | Secondary |
| Gobar/Bio Gas | - | - | - | - |
| Cow dung cake | - | - | - | - |
| LPG | 21HHs | 12 month | Govt. | Secondary |
| Electric Healer | - | - | - | - |
| Solar | - | - | - | - |

RECORD 2 - LIVELIHOOD OPPORTUNITY ANALYSIS

TABLE- 14: AGRICULTURE AND HORTICULTURE

| Constraints | Reasons | Opportunities | Programme |
|----------------------------------|--|--|---|
| Low production/co llection | Traditional way of cultivation. Lack of agricultural infrastructure, modern tools and equipment's viz, power tillers, tractors etc. | Nearness to marketing hub i.e. Guwahati | Agro-skill development programme. Training on insecticides, pesticides, hybrid cultivation |
| Storage & processing | Lack of common storing place Lack of cold storage facility due to non-availability of electricity | Availability of new technologies and farming practices | Training programme |
| Marketing | Lack of cold storage facility due to non-availability of electricity Lack of transporting facilities for carrying products | Rising demand for diversified agriculture product | Awareness programme on marketing know how |
| | carrying products | | |

TABLE- 15: Bee Keeping

| Constraints | Reasons | Opportunities | Programme |
|-----------------------------|--|---|---|
| Lack of monetary assistance | No SHG's within the JFMC | Income generating activity | Training programmes |
| Insufficient knowledge | Lack of appropriately skilled trainers | Good domestic market | Awareness programmes on the demand of honey in the domestic market |
| Production of honey | No scientific knowledge on bee keeping to produce quality honey | Identification of the potential bee keepers | |
| Honey Market | Remoteness of the producers from the supplier market | | |
| | Unaware of the market demand of different honey made products. | | |

TABLE- 17: SPECIALIZED SKILLS (Food Processing)

| Constraints | Reasons | Opportunities | Programme |
|---------------------------|--|---|--|
| Raw material availability | Ineffective use of the available raw materials | Abundance of mangoes, chillies in the JFMC | Training programmes on food processing |
| Product quality | Lack of scientific knowledge | Use of modern scientific method to compete with the outside market | Training on Modern Tools and Equipment. |
| Marketing potential | Lack of marketing knowledge | Nearness to marketing hub | EDP's within the JFMC |
| Credit facility | No SHG's within the JFMC | Low interest facility by SHG's | Education programme on SHG's |

| Constraints | Reasons | Opportunities | Programme |
|----------------------|---|--|--|
| Rate of interest | Higher lending rates charged by the public and private money lender | Creating SHG's | Education programme on SHG's |
| Availability of loan | Fear of risk taking No SHG's formed in the JFMC | Setting up Micro finance institutions | Education programme on the benefits of micro finance |
| Mortgage difficulty | Unavailability of proper documentation of mortgaged property. | | |

TABLE- 18: CREDIT FACILITY

Annexure 5

Man Animal Conflict List

Man-animal conflict list Division Nagaon South Division Hojei Range Lumding Pange JFMC Potupathar IFMC

| SI No | Name of the villager | Male/ Female | Age | Village | Reason |
|----------|---|-----------------|-----|-------------|--|
| 1 | Prabhat Dae | m | 45 | Potupathas | The man mal |
| | 1 acaster and | | | 101- Januar | trampled to death |
| | | | | | by a wild elephant |
| | | | | | which had entered |
| | | | | | |
| | | | | | |
| | | | | | night 82 05-02-2016 |
| | | | | | 0 0 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | 1 |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | the second s | - | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | - | | | |
| | | | | | |
| | | | | C | |
| | A . | lin nor | - | 11 | and an |
| 173 | | ip Baza | n/ | An | y |
| Signa | ature Sign | ature | | Signat | ure Signature |
| | the second se | r & Secret | ary | -/ 8.4 7 | ure Signature (S: Rahmen, s Divisional Forest Office |
| Presi | dentMer | nber societ | acy | Range | orrest Officer, ange, Lumding |
| 8. 0 | Potupair | Lumding | | Range Fo | ange Lumding |
| Au | nding | | | Lumaing Ra | ange, cumung |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |