

**HATIGAON JOINT FOREST MANAGEMENT COMMITTEE (JFMC)
CENTRAL RANGE KRISHNAI, GOALPARA FOREST DIVISION
GOALPARA, ASSAM**

**MICRO-PLAN
(2017-18 to 2026-27)**

**Prepared by
Hatigaon Joint Forest Management Committee**

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

May 2017

Approved.

**Divisional Forest Officer
Goalpara Division**

List of Acronyms

Acronym	Full Form
APFBC	Assam Project on Forest and Biodiversity Conservation
AFD	<i>Agence France de Development</i>
BPL	Below Poverty Line
COMPELO	Consortium for Micro Planning and Enhancing Livelihood Opportunities
EPA	Entry Point Activities
GIS	Geographical Information System
Ha	Hectare
IIE	Indian Institute of Entrepreneurship
JFMC	Joint Forest Management Committee
Kg	Kilogram
Km	Kilometre
NGO	Non-Governmental Organization
NTFP	Non Timber Forest Product
PDS	Public Distribution System
PRA	Participatory Rural Appraisal
Rs.	Indian Rupees
SHG	Self Help Group
VCDC	Village Council Development Committee

HATIGAON JOINT FOREST MANAGEMENT COMMITTEE
Goalpara Forest Division

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

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1. Introduction

<p>About the Project</p>	<p>The vision of the Assam Project on Forest and Biodiversity Conservation (APFBC) is ‘to enable sustainable forest and biodiversity conservation and management in Assam through multi-scale integrative planning and involvement of forest dependent communities in target areas and giving fillip to their livelihood activities through sustainable use of forest and non-forest resources’. The project’s objective has been stated as: ‘In collaboration with the forest dependent communities, to restore forest eco-systems to enhance the forest dependent community’s livelihoods and ensure conservation and sustainable use of biodiversity’.</p> <p>The above project is being mainly funded by the <i>Agence France de Développement</i> (AFD) - i.e. the French Development Agency, with co-funding from the Government of Assam. The Assam Project on Forest and Biodiversity Conservation Society (APFBC Society) has the mandate for planning, implementation, monitoring, coordination and management of all the activities under the above mentioned project.</p>
<p>Micro-Planning & Livelihood Development</p>	<p>In order to promote livelihood activities through market potential based value addition; the present project intends to take up activities like entrepreneurship promotion, product processing value addition and marketing under this project. This has become necessary on account of the pressures on existing forest resources due to the growth of population. There is a need to explore value addition to the existing forest and biodiversity products and services, based on the market potential. In addition, non-forest based livelihoods need to be explored and the capacities of the community members need to be built-up through skills development initiatives.</p> <p>A consortium comprising of Indian Institute of Entrepreneurship (IIE) Guwahati and <i>Rashtriya Gramin Vikas Nidhi</i> (RGVN) has been formed to implement (<i>inter-alia</i>) the micro-planning and livelihood development under the above project. The above consortium has been titled as ‘Consortium for Micro Planning and Enhancing Livelihood Opportunities’ - COMPELO in short.</p> <p>As per project guidelines, this micro-plan includes ‘various operations of village and forest development ... livelihood support of forest dependent members and keeping sustainable forest management as the broad objective’. It includes both forest development and livelihood development.</p>
<p>Micro-Plan for the Hatigaon JFMC</p>	<p>This document gives the Micro-Plan for the Hatigaon JFMC, which is located in the Goalpara of Assam. The JFMC falls under the jurisdiction of Range of Goalpara Forest Division. 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 April 2017. The micro-plan has been compiled by IIE based on the project guidelines.</p>

2. Village Socio- Economic Profile

Location	<p>The Hatigaon Joint Forest Management Committee (JFMC) has been formed to cover the existing community dwelling in Hatigaon Village located on the fringe of the Krishnai Reserve Forest. The area covered by the above JFMC falls within the Hatigaon Revenue Circle of Goalpara District of Assam.</p> <p>Appendix-1 gives the Village Map.</p>																						
Key Information	<p>The key information of the JFMC is furnished below.</p> <p>Table-A: Key Information of the JFMC</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Name of the JFMC</td> <td>Hatigaon</td> </tr> <tr> <td>Habitation</td> <td>Rabha community</td> </tr> <tr> <td>Name of Revenue Village</td> <td>Hatigaon</td> </tr> <tr> <td>Name of the Gram Panchayat / VCDC</td> <td>Badahapu GP</td> </tr> <tr> <td>Revenue Circle</td> <td>Balijana</td> </tr> <tr> <td>District</td> <td>Goalpara</td> </tr> <tr> <td>Forest Division</td> <td>Goalpara</td> </tr> <tr> <td>Forest Range</td> <td>Krishnai</td> </tr> <tr> <td>Forest Beat</td> <td>Badahapur</td> </tr> <tr> <td>Year Formed</td> <td>2004-05</td> </tr> <tr> <td>Description of Boundary of JFMC</td> <td> North: Watehgiri East: Hatigaon West: Ketkibari South : Meghalaya hills N- 25⁰59'0" - 26⁰0'0" E- 90⁰30'0" - 90⁰31'30" </td> </tr> </table> <p>Source: JFMC Records & Discussions during PRA Exercise in February 2017</p> <p>Additional details are given at Table-1 of Record-I.</p>	Name of the JFMC	Hatigaon	Habitation	Rabha community	Name of Revenue Village	Hatigaon	Name of the Gram Panchayat / VCDC	Badahapu GP	Revenue Circle	Balijana	District	Goalpara	Forest Division	Goalpara	Forest Range	Krishnai	Forest Beat	Badahapur	Year Formed	2004-05	Description of Boundary of JFMC	North: Watehgiri East: Hatigaon West: Ketkibari South : Meghalaya hills N- 25 ⁰ 59'0" - 26 ⁰ 0'0" E- 90 ⁰ 30'0" - 90 ⁰ 31'30"
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Brief Details of the Executive Committee & General Body	<p>The brief details of Executive Committee & General Body of the JFMC are contained in the table, which is given below.</p> <p>Table-B: Brief Details of Executive Committee & general Body</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Name of President</td> <td>Rathin Rabha, (ph. Num. 9854778369)</td> </tr> <tr> <td>Name of Member Secretary</td> <td>Pradip Baruah</td> </tr> <tr> <td>Name of Treasurer</td> <td>Kamal Rabha</td> </tr> <tr> <td>No. of Members in Executive Committee</td> <td>Male: 10 Female:1, Total- 11</td> </tr> <tr> <td>No. of Members in the General Body</td> <td>276 (one male and one female members in each household)</td> </tr> </table>	Name of President	Rathin Rabha, (ph. Num. 9854778369)	Name of Member Secretary	Pradip Baruah	Name of Treasurer	Kamal Rabha	No. of Members in Executive Committee	Male: 10 Female:1, Total- 11	No. of Members in the General Body	276 (one male and one female members in each household)												
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Households & Population Structure	<p>As per the primary data collected through questionnaires and PRA, population of the village is 1856 with a 276 nos. of households.</p> <p>Table-2 of Record-I may be referred for further details in the above regard.</p> <p>From this, it is inferred that:</p> <p>(1) The average number of persons in a household is 6.</p> <table border="1" data-bbox="483 457 1412 569"> <thead> <tr> <th>Village</th> <th colspan="2">Male</th> <th colspan="2">Female</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td rowspan="2">Hatigaon</td> <td>Adult</td> <td>Child</td> <td>Adult</td> <td>Child</td> <td rowspan="2">1856</td> </tr> <tr> <td>494</td> <td>350</td> <td>567</td> <td>445</td> </tr> </tbody> </table>	Village	Male		Female		Total	Hatigaon	Adult	Child	Adult	Child	1856	494	350	567	445
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Education & Skills Development	<p>About 55.9% of the total population are literate. Out of this 90.4 % completed primary education, 5.03 % secondary level education and 0.86% are graduates. There are two nos. of Govt. L.P School. There is one ME School and one High School in the JFMC area. The students received their college education from Goalpara & Krishnai at a distance of about 33 km and 21 km respectively from the JFMC area.</p> <table border="1" data-bbox="483 863 1412 940"> <thead> <tr> <th>Village</th> <th>Primary</th> <th>Secondary</th> <th>Graduate</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>Hatigaon</td> <td>973</td> <td>55</td> <td>9</td> <td>1037</td> </tr> </tbody> </table>	Village	Primary	Secondary	Graduate	Total	Hatigaon	973	55	9	1037						
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Soil	<p>The soil type of the project area includes:</p> <ul style="list-style-type: none"> Alluvial soil comprising mostly of silt, sand and clay low lying (clayey soils) and plain areas (loamy soils). <p>The soil is very fertile. The Sal bearing areas of forest have handy loam soil.</p>																
Water	<p>The forest areas with undulating topography are intercepted with numbers of nullahs and seasonal streams. The water table is considerably high. The area has one stream and one river known as Rongkhati (Jinari no-1)</p>																
Forest & Bio-diversity	<p>The local forests have been broadly classified as Wet plain Sal type under Moist Tropical Seral Type. The main tree species are <i>Sal</i>, <i>Segun</i>, <i>Gomari</i> (<i>Gmelina arborea</i>), <i>Azar</i>, <i>Bhelkor</i>, <i>Arjun</i> (<i>Terminalia arjuna</i>), <i>Ghora Neem</i> etc. The forests can yield a range of NTFP like leafy vegetables, ferns, medicinal plants, bamboo, thatch etc.</p>																
Land Use Pattern	<p>Appendix-2 gives the land-use pattern of the village. From the same, it is seen that the land-use in the village is as follows:</p> <p>JFMC Plantation Area: 9.34% Mixed Plantation by Villagers: 18.17% Paddy Field: 37.02% Road: 1.73% Settlement Area: 31.60% Stream: 2.14%</p> <hr/> <p>Total Area: 260.12 Ha</p>																

Land Holdings	<p>The type of households as per land-holding is given at Table-3 of Record-I. From the same, it is seen that:</p> <ul style="list-style-type: none"> • 6 % of the households are landless • 64% of the households are marginal farmers • 30% of the households are small farmer • None of the households belong to large categories.
Livestock	<p>The total number of livestock in the village is 802. The main types of livestock possessed by the households include:</p> <p>Cows: 546 Goats: 40 Pigs : 216</p> <p>Table-4 of Record-I may be referred to for the details in the above connection.</p>
Village Infrastructure & Communication Facilities	<p>In any community; the availability of basic infrastructure enables the development of sustainable livelihood options. The present condition of infrastructure in the village is not satisfactory. This is borne out by Table-5 of Record-I, which gives the present status of the village infrastructure.</p> <p>Physical Infrastructure: One PWD Road from NH-37(Bolbola Bazar) to Meghalaya border passes through the JFMC area. The said road is used by the villagers for communication with rest of the district. The length of the road is around 12km. At present other road of the village is Kutch Road.</p> <p>Education & Health Facilities: Educational institutions like schools and colleges are within the JFMC and easily accessible throughout the village. Public Health Centre is within the village but health facilities is not satisfactory one. One Sub-center is at Meghadup in the JFMC area at a distance of 7km from the JFMC village. No Veterinary care is available in the JFMC area. Nearest is at the Budahpur.</p> <p>Govt. Offices: Few government offices (such as Police station, Village Council Development Committee, Forest Beat office etc. are within the village.)Revenue office is outside the village at a distance of 26km.</p> <p>Financial Institution: Facilities for financial institution like bank is outside the village at a distance of 7 km. Post office is inside the village.</p>
Agricultural Crops	<p>The details of the agricultural crops grown in the village is available at Table-6 of Record-I.</p> <p>The above shows that the following are the main crops grown in the village.</p> <p>Kharif Crops: Sali , Paddy, Yam Rabi crops: Leafy vegetables Vegetables/Fruits: Banana, Coconut, Bottle guard, white guard, bitter guard Others: Bamboo, Jack fruit, etc.</p>

Crop Production Profile	<p>Table-7 of Record-I may be referred to for the production and yield details of the crops grown in the village.</p> <p>The maximum numbers of households are involved in growing crops like rice and mustard.</p> <p>The production and yield of crops is given as follows:</p> <p>(a) Paddy : Production 750 Quintals Yield 18 q /ha</p>
Fodder Availability	<p>The matter of fodder availability in the village is dealt with at Table-8 of Record-I. The above shows that the main sources of fodder in the village are as follows:</p> <p>(a) Crop residue (b) Grazing in forest (c) Household wastage (d) Green fodder</p>
Markets	<p>Table-9 of Record-I shows the location of the different markets from the village. The main markets used by the community are as follows:</p> <p>(a) Grocery / PDS: Hatigaon, within the village (b) Weekly / Bi-weekly Market: : Hatigaon, within the village</p>
Water Resources	<p>The water resources are tabulated at Table-10 of Record-I. The main water resources with water availability is as follows: Katcha Ring well (Water Availability: Perennial/ Seasonal)</p>
Energy Consumption	<p>Table-11 of Record-I shows the major sources of energy in the village. The same have been listed below.</p> <p>(a) FUEL WOOD- Households Depending 100 % Source: forest (b) KEROSENE-Households Depending: 40%. Source: Open Market and PDS</p>
Socio-economic status	<p>Social set-up: The village is inhabited by ST community. The society is not marked by deep social divisions. The observed position of women is satisfactory.</p> <p>Economic Condition: Villager's main source of earning is daily wage earning with 62.50% (people uses to go Goalpara, Dhubri for wage earning). Very few are associated with service sector. Service sector comprises of school teacher, school helper (contractual as well as permanent).</p> <p>Non farming sector consist of carpentry, masonry, tailoring, business, animal husbandry etc. where 45.83% are associated.</p>

Maps	<p>Appendix-1 gives the following maps, based on PRA exercise:</p> <ul style="list-style-type: none"> • Village Map • Village Social Map (with the names and particulars of members in PRA) • Village Resource Map
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3. Livelihood Opportunity Analysis

PRA Exercise	<p>Team from IIE Guwahati carried out PRA exercise in Hatigaon JFMC as follows:</p> <p>Date: 5th June, 2016 Location: Forest Beat Office, Bodahapur Numbers Present: 40</p> <p>In Presence of: JFMC office bearers, Village Headman, community members, Forest Department personnel, etc.</p>
Objective of PRA	<p>The objective was to study the existing household conditions and obtain other primary data about the community for developing the livelihood options and the forest development plan.</p>
Tools Used & Outcomes of the PRA	<p>Different tools were used and outcomes obtained. These include:</p> <p>Social Mapping Wealth Ranking Time Line review Seasonality of Livelihoods Venn Diagram</p> <p>Appendix-3 furnishes detailed information of the above.</p>
Ranking	<p>Ranking exercise has been done for the following:</p> <ul style="list-style-type: none"> • Livelihoods & Skills Development • Entry Point Activities (EPA) <p>Appendix-3 Elaborates the above. From the same, it is stated that:</p> <p>Ranking of Livelihoods & Skills Development</p> <ol style="list-style-type: none"> 1. Livestock rearing 2. Weaving 3. Cane and bamboo 4. Tailoring 5. Carpentry 6. Masonry

Ranking of EPA			
Rank	Village EPA as ranked	Details (Appendix-3 has additional particulars)	Probable source of funding/Deptt.
1.	Community Hall	40ft X 35ft with platform and store house	EPA from APFBC
2.	Sanitation	Providing HHL (House Hold Latrine) - Low cost, septic and sanitary type.	Swach Bharart Mission/ PHE
3..	LPG Connection	LPG distribution centre in the forest range office/division office for better distribution of LPG for 70 numbers of households	EPA from APFBC
4.	Credit facility	Within the village	BANK, Micro Finance
<p>An arrangement of working capital worth Rs. 2 Lacs should be arranged from the EPA fund for promoting livelihood activities.</p> <p>A community work shed cum JFMC office to be set up within the JFMC boundaries.</p>			
Livelihood opportunities	<p>Livelihood Opportunities were identified as follows:</p> <p>Agriculture & Horticulture Livestock NTFP Skills Development Credit Facility</p>		
Agriculture & Horticulture	<p>Table-12 under Record-2 may be seen in this connection for opportunities in the areas of agriculture and horticulture.</p> <p>The main constraints are: (a) Very negligible use of fertilizers and pesticides, insecticides. (b) Lack of irrigation facilities (c) Lack of agricultural infrastructure, modern tools and equipment's viz, power tillers, tractors etc. (d) Non usages of high yielding seeds etc.</p> <p>The opportunities are: (a) Application of proper and controlled pesticides and insecticides. (b) Introduction of new and advance technology</p>		

	<p>(c) Well-structured training programme. The villagers are inherited with the skill of cultivation. All they need is improvisation of their skill level.</p> <p>The suggested programmes are:</p> <ul style="list-style-type: none"> • Tractor operation training • Agri-skill development programme. • Training on insecticides, pesticides, hybrid cultivation etc.
Livestock	<p>Table-13 Furnishes additional information about opportunities for livestock rearing.</p> <p>The main constraints are:</p> <p>(a) Unable to buy fodder from market due to poor financial condition. (b) Trees fodder and crop residue are available only for 3-6 months. Green fodder is also not available for the whole year. (c) No veterinary care clinic (d) Lack of knowledge about the proper rearing of live stock</p> <p>The opportunities are:</p> <p>(a) Higher income from livestock rearing. (b) A huge demanded market for milk is available as Goalpara head quarter and West Bengal state is not too far from the JFMC.</p> <p>The suggested programme is:</p> <p>(a)Piggery (b)Poultry</p>
NWFP	<p>The opportunities for NWFP are tabulated at Table-14 under Record-2</p> <p>The main constraints are:</p> <p>(a) Less availability of NWFP (b) No technical know-how (c) No processing units</p> <p>The opportunities is:</p> <p>(a) Availability of fertile fallow land</p> <p>The suggested programme are:</p> <p>(a)Plantation of fruit trees (b)Medicinal Plant / Medicinal and Aromatic plants etc.</p>
Specialized Skills	<p>For skills development, the opportunities are tabulated at Table-15 under Record-2 like i) livestock rearing, ii) weaving</p> <p>The main constraints are:</p> <p>(a) Lack of product diversification (b) Lack of research on product quality (c) Lack of TQM techniques.</p>

	<p>The opportunities are:</p> <p>(a) Providing good communication facility (b) Training of the skill holder (c) Financial assistance from govt. / or other sponsorship agencies.</p> <p>The suggested programme are:</p> <ul style="list-style-type: none"> • Training on Modern Tools and Equipment • Providing modern technology to the villagers • Skill Up gradation & Training on New Product Development and Product Diversification • Setting up a raw material bank • Providing a bulk buy arrangement of the finished product with institutional buyers.
Credit Facility	<p>Table-16 under Record-2 discusses this aspect.</p> <p>The main constraints with the reasons are:</p> <p>(a) Financial exclusion (b) Higher rate charged by the private money lender.</p> <p>The opportunities are:</p> <p>(a)Setting up modern financial institution (b)Adequate awareness.</p> <p>The suggested programme is:</p> <p>(a) Setting up modern financial institution in the nearby areas.</p>
Strategic Interventions	<p>Summarizing the suggested programmes at above as strategic interventions for the Livelihood Development Plan:</p> <p>1 Agriculture & Horticulture: Tractor operation training, Agri-skill development programme ,Training on insecticides, pesticides, hybrid cultivation</p> <p>2.Livestock: Piggery, Poultry</p> <p>3.NWFP : Plantation of fruit trees, Medicinal Plant etc</p> <p>4. Specialized Skills: Training on Modern Tools and Equipment in livestock rearing, weaving etc. Providing modern technology to the villagers, Skill Up gradation & Training on New Product Development and Product Diversification, Setting up a raw material bank, Providing a bulk buy arrangement of the finished product with institutional buyers.</p> <p>5. Credit facility: Setting up modern financial institution in the nearby areas</p>

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

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

NATURAL CAPITAL:

The major natural capital of Hatigaon JFMC is the Reserve Forest. 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)

PHYSICAL CAPITAL:

Majority of the households in the Hatigaon JFMC are involved in daily wage earning. Farming activities are very less as land holding is minimal in the JFMC. 30% of the household are marginal farmers. 55% are landless. Detailed land holding pattern is described in the table 3/annexure 6.

The village has 5 numbers of semi-pucca houses and 5 numbers of pucca houses and the remaining houses are thatched houses. Among the various sources of energy consumption such as Biomass, kerosene, electricity, LPG and candle, villagers depend on the firewood and kerosene for household and other uses. Although, some of the household have LPG, but reliability is very less. (Refer to table 10, 11)

There is two LP schools, one ME School, one High School present within the JFMC area.

The students received their college education from Goalpara and Krishnai at a distance of about 33km & 21 km from the JFMC area (Refer to table 5).

In case of water sources, 20 per cent HH have access to kutchra ring well.

SOCIAL CAPITAL:

The villagers are not fully involved in the JFMCs functioning due to lack of awareness on their roles, functions, and specific benefits they are going to receive. The whole population of the village belongs to S.T category.

HUMAN CAPITAL:

The villagers are mainly farmers (58.57% of the total households) and a few of them are either in government servants (11.43%). About 30% of the total households are daily labourers.

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.

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

Livelihood Context:

Livelihood activities of the Hatigaon 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

4. Livelihood Development Plan

Income Generating Activities	<p>The main income generating activities as planned at the village are:</p> <p>Farm Sector :</p> <ol style="list-style-type: none"> 1. Poultry and Piggery 2. Agriculture, Daily Wage 3. Horticulture <p>Non-Farm sector:</p> <ol style="list-style-type: none"> 1. Handloom/ Weaving 2. Driving 3. Electrician 4. Sericulture 5. Small Business
SHG Activities	<p>SHGs of the village can plan the following activities:</p> <ol style="list-style-type: none"> 1. To create awareness. 2. To organise and form group 3. To involve the villagers in Livelihood Activities collectively. 4. To involve themselves in earning activities.
Exposure Trips	<p>Some exposure trips may be planned: Source: Table-34 of Record-4</p>
Convergence	<p>The planned initiatives may be converged with the following schemes of the Government of India:</p> <ol style="list-style-type: none"> (a) National Rural Employment Guarantee Scheme - for rural employment (b) Rashtriya Krishi Vikas Yojana (RKVY) - for agricultural and allied development (c) Rashtriya Krishi Sinchay Yojana (RKSJ) - for irrigation, including watershed development (d) National Rural Livelihoods Mission (e) Skills Development schemes (f) MGNREGA/DRDA (g) PHE etc (h) Other schemes for rural development and livelihoods as found appropriate. <p>The above convergence will yield synergies for the present plan, as well as help in sustaining the planned works in the post-project period.</p>

5. Forest Development Plan of Hatigaon 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 Hatigaon 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 JFMC Forests of the Hatigaon 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 Hatigaon JFMC have been summarized below.

Table-1: Conditions of the Forests of Hatigaon JFMC

Identification	Area of JFMC Forest (Ha)	Distance from Village (Km)	Condition of Forest [Good - Forest with crown density of 40% of more Else 'Degraded']	Frequency of Use by Community [2-3 m / 3-6 m / 6-9 m / Over 9 m]
(A) Assigned Forest				
RF / PF Name: Hatigaon Beat: Hatigaon Compartment: Nil	180 Ha+50 Ha= 230 Ha	0 km	Good	6-9
(B) Other Planted Area	-	-	-	-
TOTAL	230 Ha			

1.2. Forest Soil Type:

The forests of Hatigaon JFMC are located in loamy type(s) of soil. Some salient points of the forest soil type have been given in the following table.

Table-2: Forest Soil Type in Hatigaon JFMC

Parameter	Status in Assigned Forests	Status in Other Planted Areas
Fertility Level	Less fertile	Nil
Soil Erosion Status	Low	Nil
Presence of:		
(a) Silt	Nil	Nil
(b) Mud-flat	Nil	Nil
(c) Newly accreted land	Low	Nil
(d) Sand dune	nil	Nil

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

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

- (a) Loam soil
- (b) Less fertile

1.3. Existing Composition of Flora

In the forests of the Hatigaon JFMC, the existing composition of the flora has been given as follows. It may be noted that the local forests are classified as Tropical Moist Deciduous Forests.

Table-3: Existing Composition of Flora in the Hatigaon JFMC

Parameter	Local Name(s)	Biological Name(s)
Major Forest Species	Segun	<i>Tectona grandis</i>
	Gomari	<i>Gmelina arborea</i>
	Arjun	<i>Terminalia arjuna</i>
	Bhelkor	<i>Trewia nudiflora</i>
	Ghora neem	<i>Melia azedarach</i>
Shrubs	Dhekia	<i>Ferns</i>
	Jharmoni bann	<i>Atropa bellodonna</i>
Medicinal Plants	Arjun,	<i>Terminalia arjuna</i>
	Hilikha	<i>Terminalia chebula</i>
	Neem	<i>Azadirachta indica</i>
	Amla	<i>Phyllanthus emblica</i>

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

2. Other Inputs for the Forest Development Plan

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

2.1. Past Protection Measures of the JFMC

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

- (a) Number of households involved: Randomly among the JFMC peoples
- (b) Number of people involved: Random
- (c) Summary of the measures: Patrolling but very rare
- (d) Any formal mechanism: Not available

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

2.2. Domestic Requirements of Forest Produce

The dependency of the local community on forest produce for household requirements is available in the table given at below.

Table-4 (A): Domestic Requirement of Forest Produce per Household of the Hatigaon JFMC

Name of Forest Produce	Average Household Requirement		How met at Present	Source
	Frequency of Requirement	Approx. Qty		
Firewood	Once in a week	40-50 kg	Forest	Tree
Timber for House	Once in a year	1-2 Qty/yr	Forest	
Small timber for Implements	Nil		Forest	
Pole / Bamboo	Once in a month	3-4 bamboo / per month	Forest/Self Planted	Forest
Fodder from Forest	Cattle grazing inside forest		Forest	Forest
NTFP	Rarely			
Other	-			

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

There are 276 households in the Hatigaon JFMC. From the above table and this number of households, it is inferred that the total annual requirements of the Hatigaon village for forest produce for own use is as follows:

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

Name of Forest Produce	Community Requirement (Kg per annum) (*)	Remarks
Firewood	140000	Throughout the year
Timber for House	110000	Dec – Jan
Small Timber for Implements	-	Occasional
Pole / Bamboo	1500 bamboo	
Fodder from Forest	-	
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

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 Hatigaon JFMC is given in the following table.

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

Name of Forest Produce	Collection for Marketing			Location of Collection
	Season / Months	No of Households Collecting	Average Qty. Collected (Kg)	
Firewood	Dec/ Jan	3-4	400-500	Forest
Timber for House				
Small timber for Implements	-			
Bamboo	Once a month	4-5	8-10 pc	Forest
Pole	-			
Fodder from Forest	-			
NTFP	-			
Other _____				

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

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

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

Name of Forest Produce	Surplus Marketed (Kg)	How marketed	Average Income per HH from sale of Forest Produce
Firewood	1300kg	Hatigaon	1600-2000/month
Timber for House	-	-	
Small timber for Implements	-	-	
Bamboo	32-40 pc/per month	Hatigaon market	800-1250/month
Pole	-	-	
Fodder from Forest	-	-	
NTFP	-	-	
Other _____			

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

2.4. Total Requirements of Forest Produce - Domestic Use & Marketing

The total requirements of forest produce by the community members of the Hatigaon 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 Hatigaon 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	180000 kg	1570	162575
Timber for House	110400 kg	-	110400
Small timber for Implements	-		
Bamboo	1656 pcs	384-600pcs	2040-2256pcs
Fodder from Forest	-		
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 Hatigaon JFMC have been summarized below.

Table-7: Protection Problems of the Hatigaon JFMC

Type of Problem	Relevant (Yes / No)	Significant (Yes / No)
Grazing - Local Animals	Yes	Yes(Elephants)
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- firewood collection	Yes	Yes

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

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

- (a) Grazing - Local Animals
- (b) Grazing - Animals from Other Area

3.2. Reasons for Degradation of the Forest

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

- (a) Cutting of trees
- (b) Grazing of cattle

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

4. Components of the Forest Development Plan

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

Table-8: Protection Plan of the Hatigaon 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]
Social Fencing	Boundary	Along the Demarcation of the Plantation Area	Grazing Season	High
Fire Protection	Within the Forest	-	Autumn- Winter	High
Illicit Felling	Within the forest	Within the forest	Summer	Low

Source: Proforma-3, Table-3.7 / Discussions with Forest Department personnel & Community members.
No fencing has been provided under APFBC, only have firewood plantation. I.e. for 50 Hectare

4.2. Types of Operations Proposed

There are no degraded area in the Hatigaon JFMC. There are more land that need to be utilized. Proposed has been made to build drainage system which will cover the plantation area and will also act as Social Fencing or bio fence.

4.3. Forest Improvement Plan - Advance Works & Creation

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

Table-10: Forest Improvement Planned in the Hatigaon JFMC

Treatment	Area in Ha under Plantation Module	Priority for Block Plantation	Species	Spacing (metre x metre)
Assisted Natural Regeneration (with plantation in gap)	25	High	Sal, Bohera, Arjun,	4m x 4m
Block Plantation (Firewood)	50	High	Teak, Gamari, Sissoo, Ghoraneem, Bohra, Bhelkor	2m x 2m
Sowing of Neem, Amla, Mahua, Bahera (Medicinal Plants)	Nil	Nil	NTFPs	2m x 2m
Other	-	-	-	-
TOTAL AREA (in Ha)	75	-	-	-

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

4.4. Forest Improvement- Annual Targets

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

Table-10 (A): Firewood Plantation- Annual Targets of Forest Improvement in Hatigaon JFMC (Year-1 to Year-5)

Name of Plantation	: Firewood Plantation
Plantation Period	: 2016-17 to 2020-21 (5Years)
Plantation Area	: 50 ha
Spacing	: 2m X 2m -2500 plants per ha
Number Blocks	: 1 block
Species	: Teak, Ajar, Khoroi, Arjun, Ghoraneem, Bamboo (Jaati, Kako, Bholoka, Bijili)

Financial Year	Activities
2016-17	Identification of suitable site for regeneration-examine possibilities of natural seed fall-determine intensity and nature of biotic interference. Demarcation of land. Land development, Soil Working. Block Plantation 2m x2m, 2500 plants/ha.
2017-18	Maintenance of plantation
2018-19	Maintenance of Plantation
2019-20	Maintenance of Plantation
2020-21	Maintenance of Plantation
2021-22	Felling of trees in the 1 st , 5 th , 9 th , 13 th , etc rows and planting/seed sowing in these felled rows.
2022-23	Felling of trees in the 2 nd , 6 th , 10 th , 14 th , etc rows and planting/seed sowing in these felled rows.
2023-24	Felling of trees in the 3 rd , 7 th , 11 th , 15 th , etc rows and planting/seed sowing in these felled rows
2024-25	Felling of trees in the 4 th , 8 th , 12 th , 16 th , etc rows and planting/seed sowing in these felled rows
2025 onwards	Repeat of activities of 20121-22 to 2024-25 continuously

Table-10 (B): Block Plantation of Sal Mixed with Associates-Annual Targets of Forest Improvement in Hatigaon JFMC (Year-1 to Year 10)

Name of Plantation	: Block Plantation of Sal Mixed with Associates
Plantation Period	: 2016-17 to 2026-27 (10 Years)
Plantation Area	: 25 ha
Spacing	: 4m X 5m -500 plants per ha
No. of Plants to be Raised	: 12,500+2500 (Vacancy Filling)
Species	: Sal; Associates- Bohera, Arjun, Sida, Haldu.
Rates	: As Approved by APFBCS (to be increased by 20% every two years)

Financial Year	Activities
1 st Year	Identification of suitable site for regeneration-examine possibilities of natural seed fall-determine intensity and nature of biotic interference- Demarcation of land during the month of December-January, Land development, Soil Working @ Rs 1000/ha
2 nd Year	Block Plantation 4m x 5m, 500 plants/ha-during the season of April-June ; GPS marking of the area
3 rd Year	Vacancy filling during the season of April-June
	Weeding; Cultural operation
4 th Year	Same as above
5 th Year	Same as above
6 th Year	Cultural operation
7 th Year	Jhuming and Cultural operation
8 th Year	Same as above
9 th Year	Same as above
10 th Year	Same as above

4.5 Nursery Development Plan

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

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

Location of Nursery	Sp. Planted	Year of Development	Number of Seedlings	Remarks
Within the Village	Gomari, Teak, Goraneem, Bhelkhor, Jamun, Arjun, Bohera, Bamboo etc.	2015-16	1,25,000	Provide sapling for vacancy filling to be under taken in the 2016-17.Saplings availed from both departmental and JFMC nursery.
		2016-17	25,000	Provide sapling for vacancy filling to be undertaken in the 2017-18

Location of Nursery	Sp. Planted	Year of Development	Number of Seedlings	Remarks
		2017-18	20,000	Provide sapling for vacancy filling to be undertaken in the 2018-19
		2018-19	10,000	Provide sapling for plantation to be undertaken in the 2020-21
		2020-21 onwards	32,000	Planting in the felled rows (1/4 th of area) every year

4.6 Maintenance Plan - 10 Years

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

(A) Fuel wood Plantation

Table-12 (A): Maintenance Plan of Fuel Wood Plantation in the Hatigaon JFMC

Year(s)	Treatment
2016-17 to 2025-26	As provided in Action Plan for Firewood Plantation

(B) Sal- ANR

Table-12 (B): Maintenance Plan of Sal ANR in the Hatigaon JFMC

Year(s)	Treatment
1 st to 10 th year	Action Plan for Sal-ANR; Sal with associates

4.7 Miscellaneous Operations Plan

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

Table-13): Miscellaneous Operations in the Hatigaon JFMC

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

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

5. Expected Benefits

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

Item	Month	Year (Indicative)	Quantity
Firewood	Throughout the year	2020-21	2 quintals annually /household
Timber for House	Throughout the year	2025-26	2-3 trunks per household annually
Small timber for Implements	Throughout the year	2025-26	6-7 pieces per household annually
Bamboo	Throughout the year	2017-18 onwards	100 pieces/household
Pole	-	-	-
Fodder from Forest Trees & Grass			
NTFP	June-July	2021-22 onwards	1 MT
Wages	Planation and its maintenance.	2016-17 onwards	-
Firewood final felling	120/ha in Nov-Dec annually	2021 onwards	-

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 Hatigaon JFMC.

Table-15: Sharing Mechanism for Hatigaon JFMC

Method	Items
To be shared equally	NTFP, Sal (as revenue sharing)
To be freely collected by the members	Firewood, NTFP
Other Methods	Processing of NTFPs

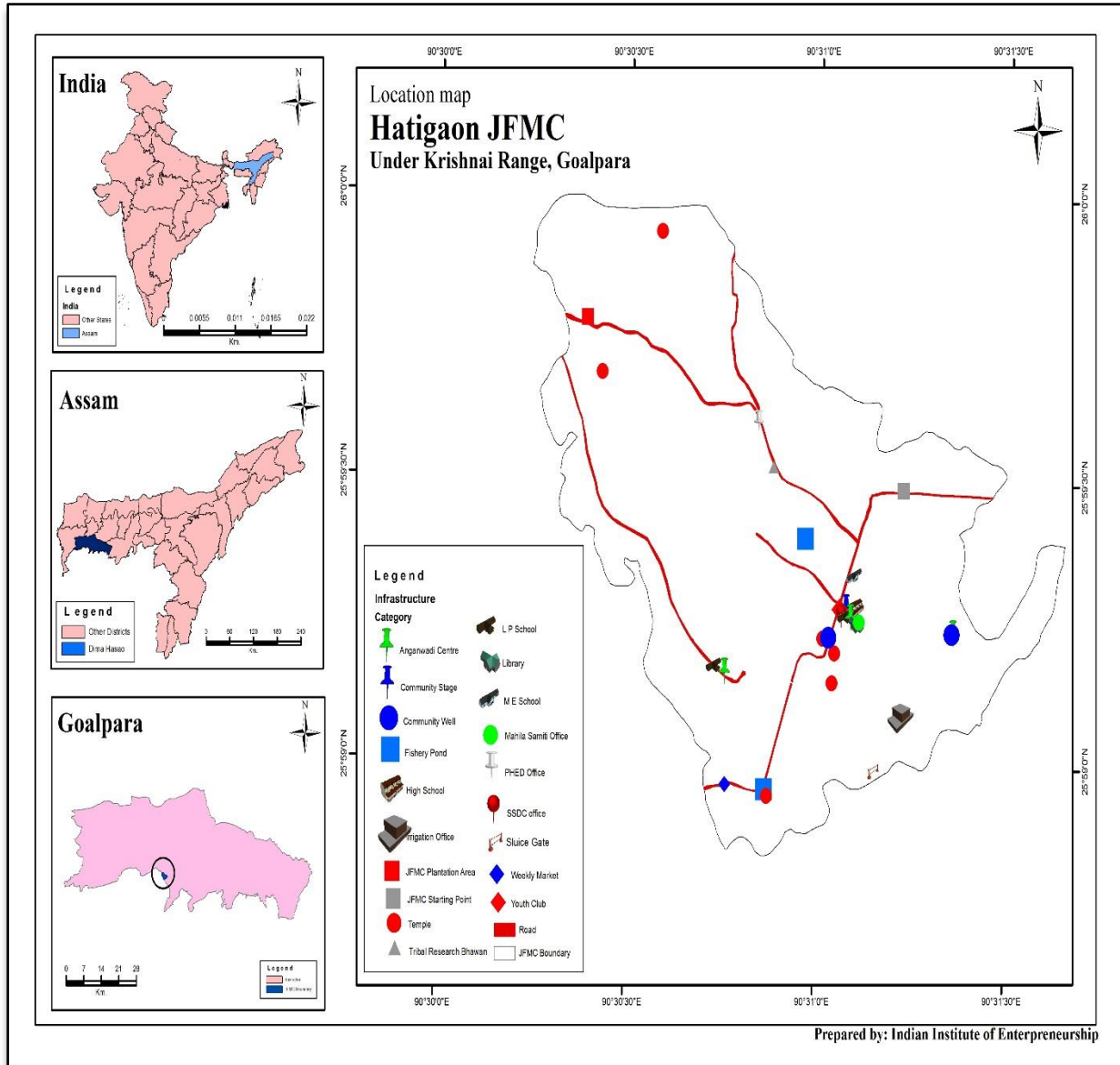
Source: Proforma-3, Table-3.15 / Discussions with Forest Department personnel & Community members

LIST OF APPENDICES

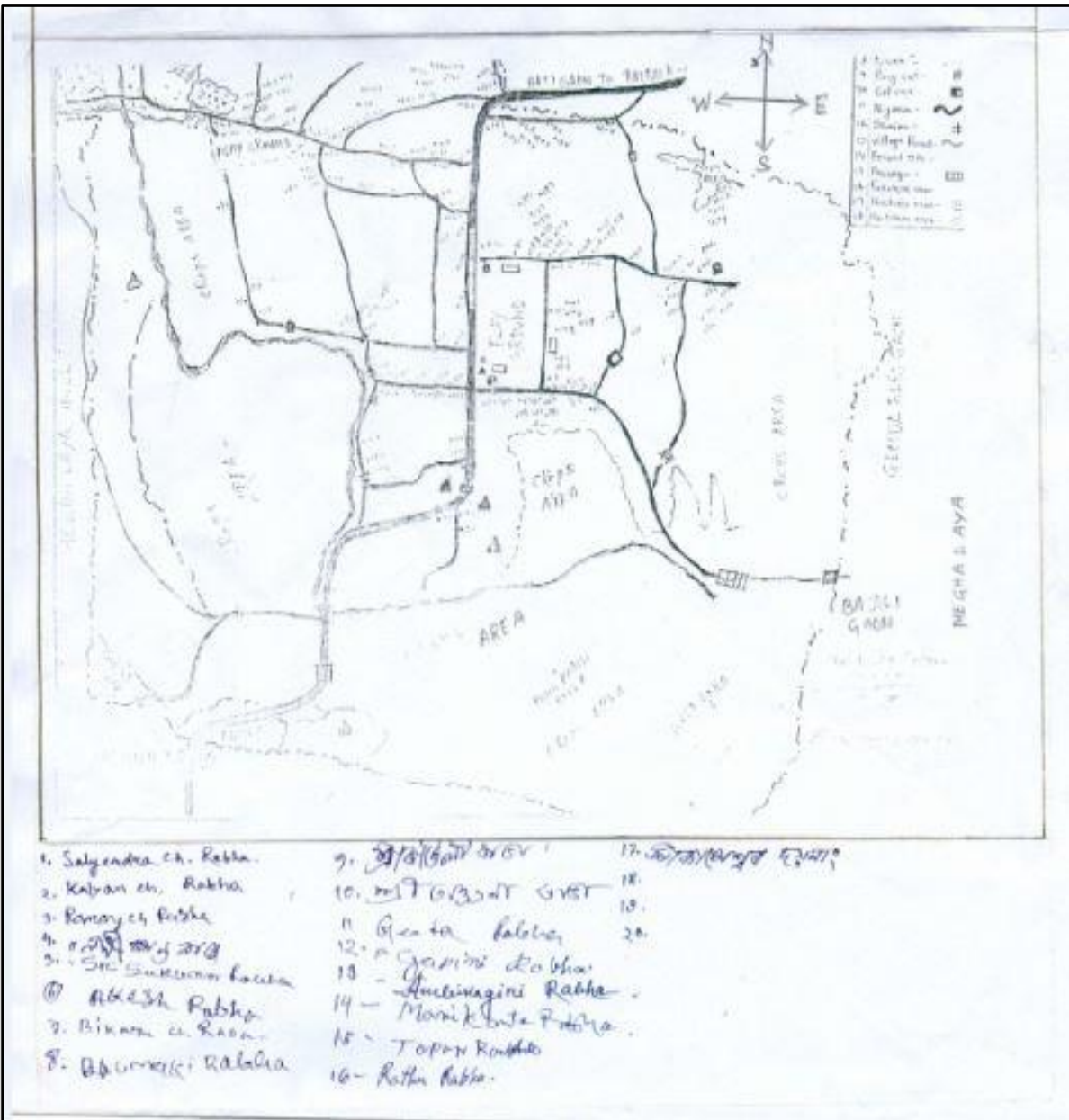
Appendix No	Heading	Page No.
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2	Land Use Map of Village (GIS)	28
3	PRA Activity	29 - 35
	Social Mapping Wealth Ranking Time Line review Seasonality of Livelihoods Venn Diagram Chapatti Diagram Priority ranking and EPA	
4	Photographs	36 - 37
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6	Filled Up Tables (Proforma-1 to Proforma-4)	39 - 48

Appendix-1

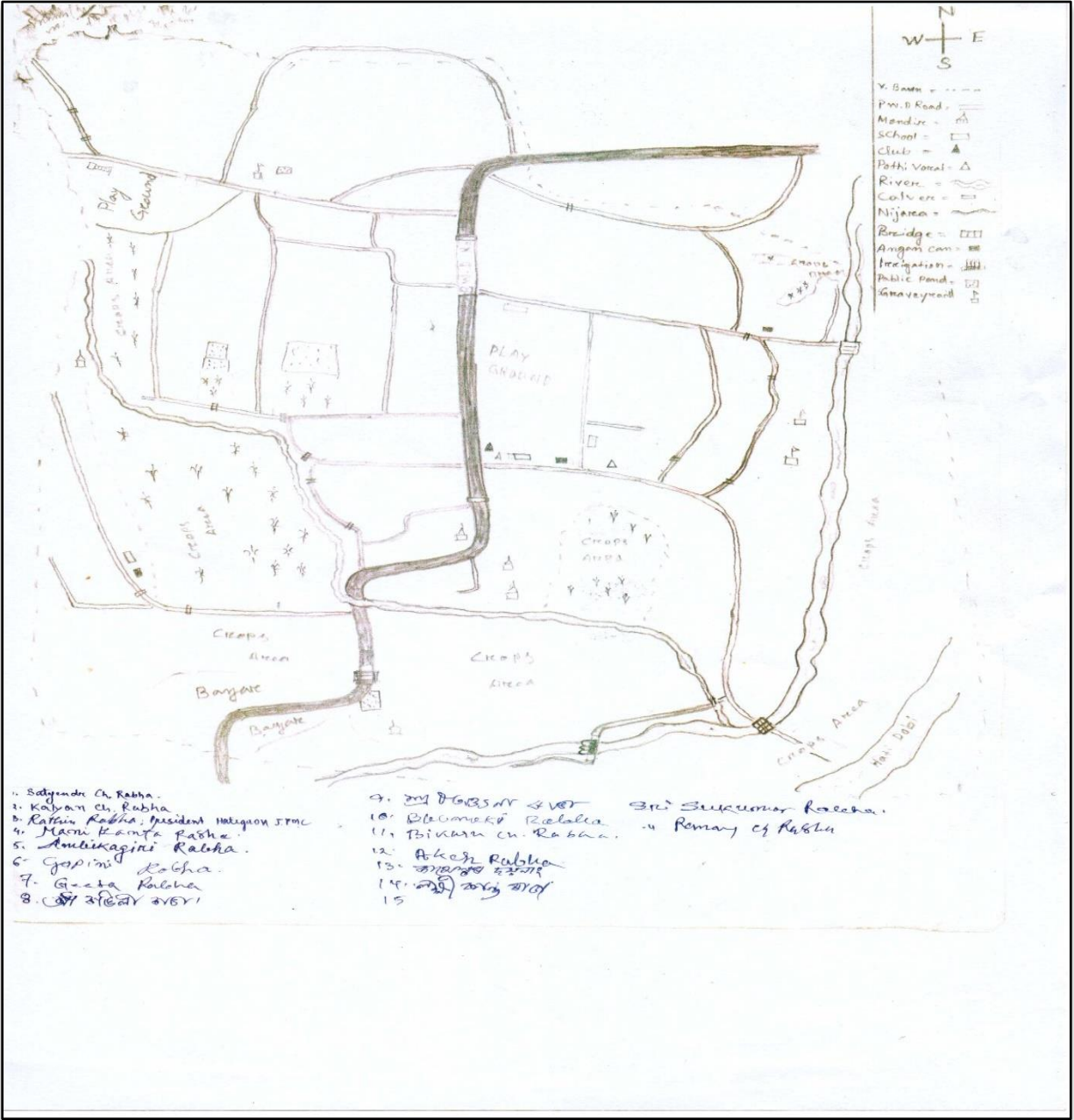
1. Location Map



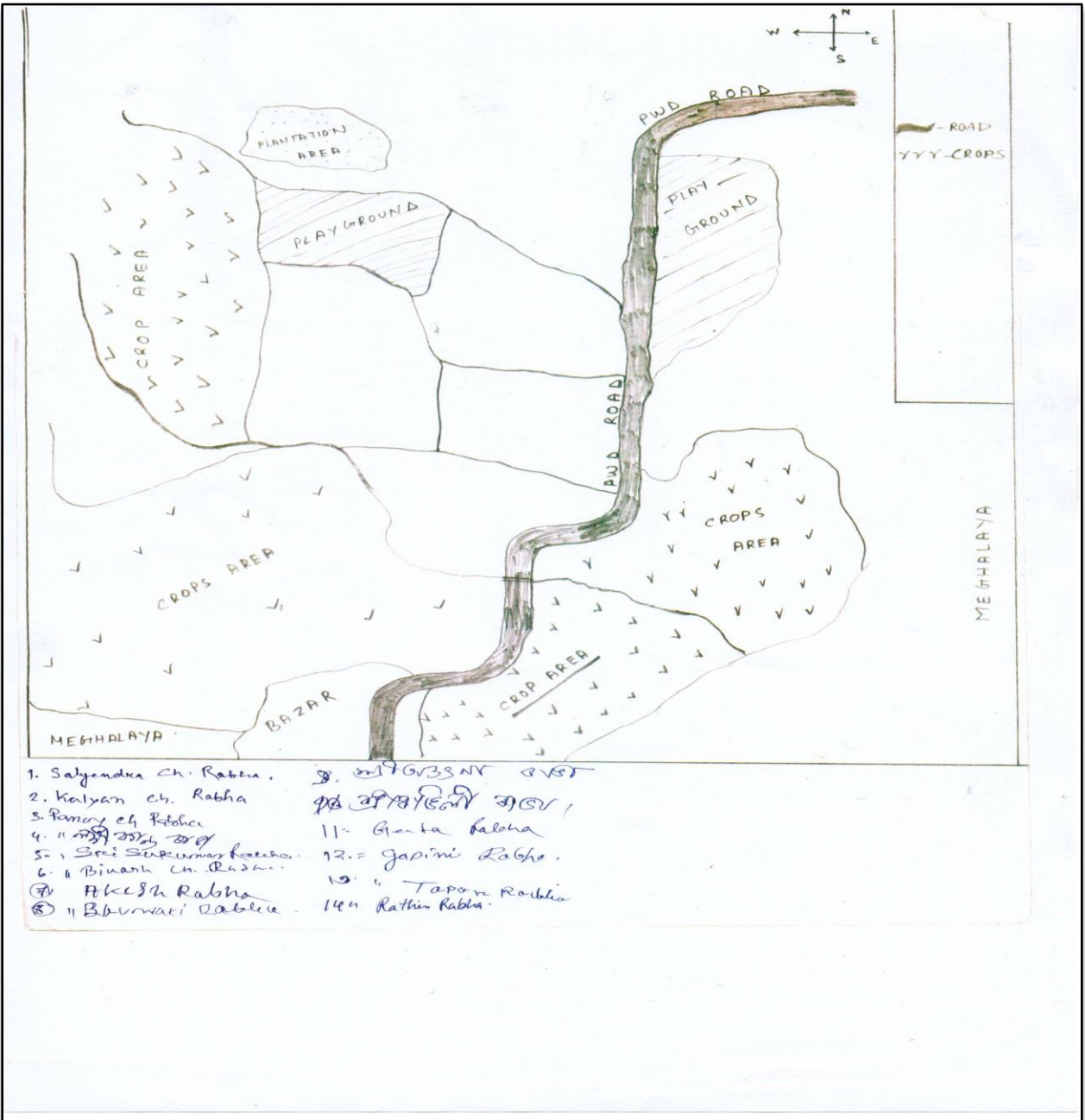
2. Village Map



3. Social Map

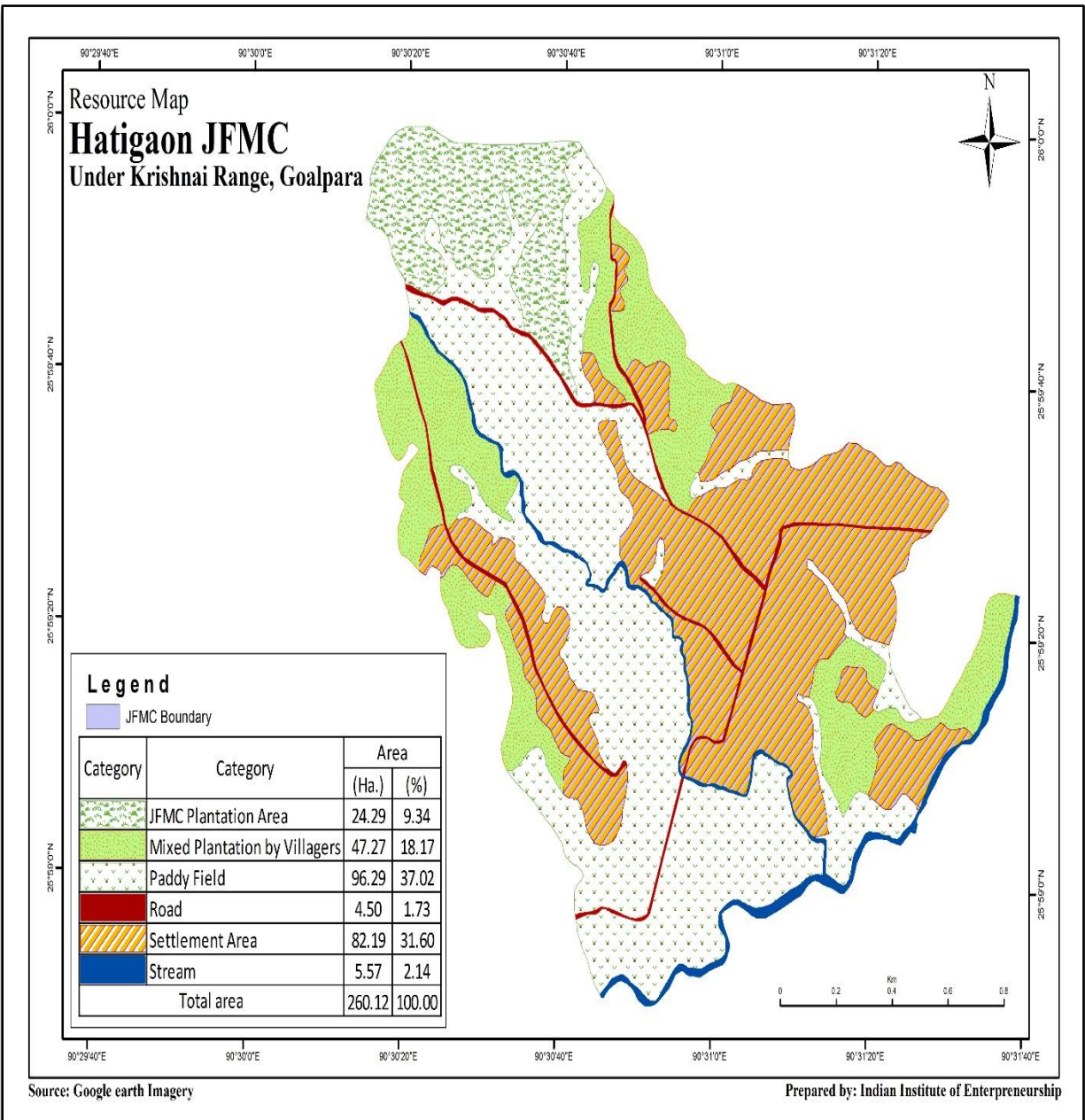


4. Resource Map



Appendix-2

Land Use Map of Village (GIS)



APPENDIX 3

PRA ACTIVITY

Numbers of participants:	60
Time:	11.30 AM April, 2017
Venue:	Hatigaon Forest Beat Office

Table – 3.1 Brief about the villages under Hatigaon JFMC

Sl. No.	Name of the Village	No. of households	Population		
			Total	Male	Female
1	Hatigaon	276	1856	844	1012

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 Hatigaon 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 pucca, semi pucca, IAY and thatch house.

Table 3.2: Information about the villages

	Village	Hatigaon
Social information	Total Population	1800
	Male	844
	Female	1012
	Total households	276
	Numbers of semi pucca Houses	144
	Numbers of pucca Houses	133
	Landmarks	Bridges
Stream		1
River		1
PHE(Under Construction)		1
Power Transformer		4
Community hall		0
LP School		2
ME School		1
High school		1
Junior College		1
Transformers		4
Anganawadi Center		3

Findings of Social Map:

- The participants of social mapping have identified all 276 households out of which 5 are pucca houses and 5 are semi pucca houses. There is no IAY houses through the entire village. This signifies that the IAY scheme of Government has not achieved considerable coverage of poor people residing in rural area yet.
- JFMC area have schools inside the village.
- There is one Public Health Engineering centre which is under construction.
- Three Anganwadi center is present inside the JFMC.
- All of the members belong to the ST caste.

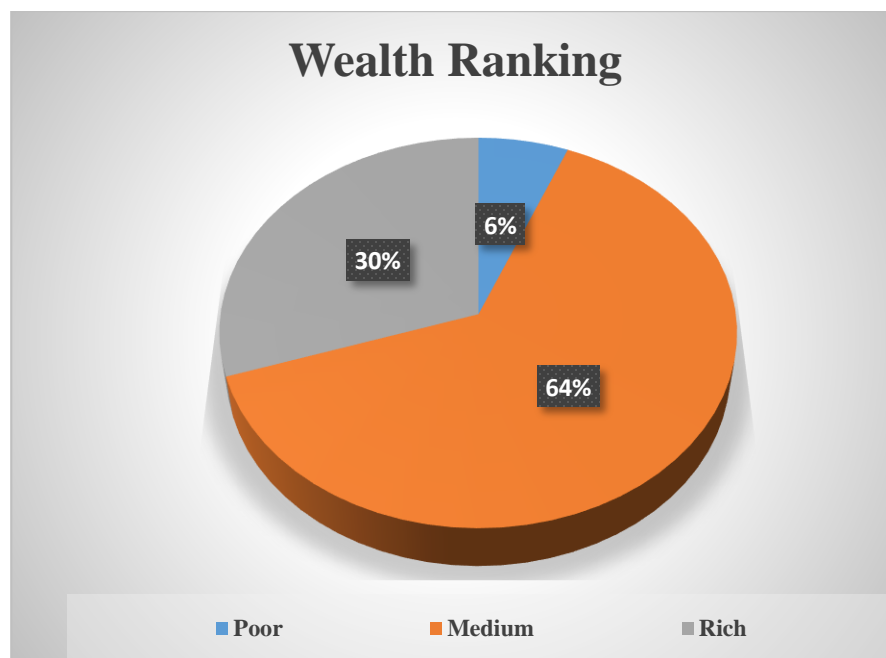
3.2 Wealth Ranking:

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

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

- a) Land holding
- b) Occupation

As such about 6 per cent people are poor, about 64 per cent are belong to middle class and about 30 per cent are categorised to be rich as based on land holding pattern of the people. Poor people are mainly irregular wage earners, sometimes they lease (adhi lua) others land.



3.3 Timeline Review

In order to know the past important cum historical events over time, the team has conducted the timeline analysis. The team members discussed about the local events to the village head, elderly persons and also to some young people to have an idea about how they dealt with those situations and what was the impact of those events on their lives as well as on the development of the village. Our time line illustrates the following events.

Table 3.3: Timeline review

Year	Event	Type
1964	Hatigaon HS was established	Establishment
1994	Weaving centre was established	Establishment
1996	People mainly tea tribes community were migrated	Migration
1996,1998,2012	Communal dispute between different communities.	Dispute
2008	Train line was reconstructed	Construction

In the year 1964, Hatigaon HS was established. In 1994 weaving centre was established. Most people in that area are migrated from other places. Major migration was occurred in the year 1996. History of that JFMC speaks about the communal dispute between different community in the years 1996, 1998 and 2012. Train line was reconstructed in the year 2008.

3.4 Seasonal Mapping of Livelihood Activities:

Seasonal calendars drawn by the local people are very useful means of generating information about seasonal trends within the community and identifying periods of particular stress and vulnerability. Best undertaken in the context of a group discussion (to help verify the information obtained), seasonal calendars are often drawn on the ground with the relative trends depicted using stones or seeds, as in a

preference-ranking matrix. In other instances, simple line graphs can be drawn to show seasonal increases or decreases. A whole series of seasonal variables can be included in one calendar to give an overview of the situation throughout the year. These variables can include: rainfall, crop sequences, labour demand, availability of paid employment, out-migration, incidence of human diseases, expenditure levels, and so on. Important periods, such as festivals, can also be shown.

Seasonal mapping mainly covers the seasonal variation of crops. In seasonal mapping, we considered agricultural crops and the timing of three activities viz. sowing, cropping and harvesting criteria and collected the details throughout the year. From the seasonal mapping, it has been noticed that the main crops grown in the village are Sali rice. Also people cultivate Taro, Turmeric, and Betelnut. Good amount of Bamboo are seen in the JFMC. The FGD conducted revealed that other major livelihood options available in the JFMC are daily wage labourer, Livestock rearing (Piggery), shop-keeping, weaving, masonry, tailoring, carpentry which are not seasonal in nature and also included in the table.

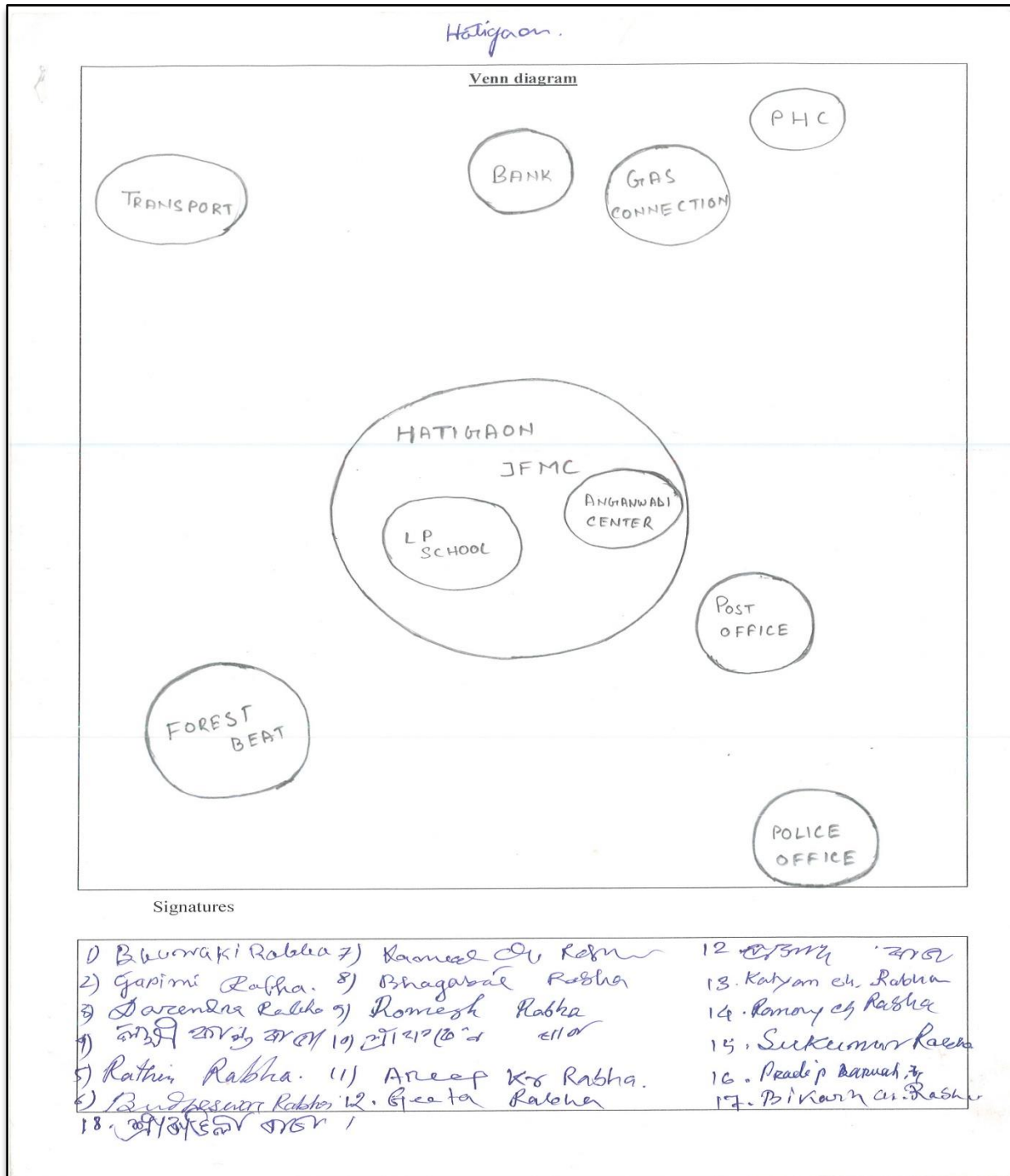
Table 3.4 Seasonal cropping pattern

Agricultural crop	Sowing/Planting	Harvesting	Plucking/Cutting/Collecting
Sali Rice	June-July	Aug-Oct	Nov-Dec
Taro	Feb-March	April-Aug	Sep-Oct
Turmeric	June-July	Aug-Nov	Dec-Jan
Bamboo	3-5 years of time will take for maturity		
Betel nut	June	July-Jan	Feb-March
Service Sector	Throughout the year		
Non Farming sector	Throughout the year		
Animal Husbandry			
Tailoring			
Masonry			
Pottery			
Electrician			
Businessman			
Weaving	Throughout the year		
Daily wage earner			

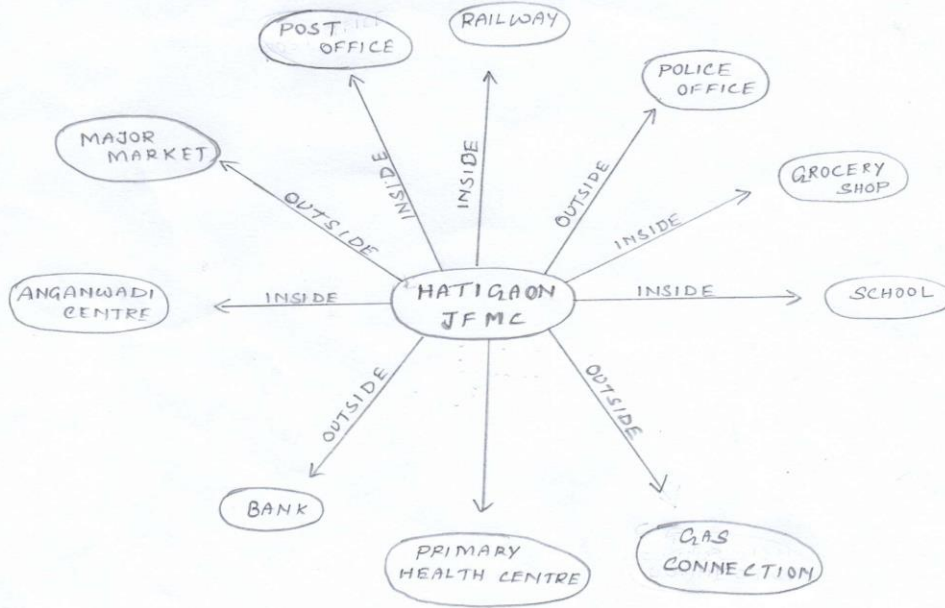
Learnings:

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

3.5 Venn Diagram



3.6 Chapatti Diagram



Signatures

- | | |
|--------------------|--------------------------|
| 1. Ramesh Ch. Raha | 7. Sukumar Raha. |
| 2. Bhogabati Raha | 8. Radip Maruah, D1 |
| 3. Ramesh Raha | 9. Rathi Raha. A.C. Raha |
| 4. Ananta Raha | 10. Ganga Raha |
| 5. Ananta Raha | 11. Arup K. Raha |
| 6. Kalyan Ch. Raha | 12. Ramoy Ch. Raha |

17

Priority Ranking- Livelihood and Entry Point Activity (EPA)

Availability of doc is ← 1) water facility drinking
 2) Health center (7 km away)
 3) electricity

Priority Ranking of Entry Point Activity

Entry Point Activities		Community Hall	Upper primary school	Fishery	Electricity	Drinking Water	Community Health Center	JFMC Office	Market Shed	Sanitation	Marks	Rank
		A	B	C	D	E	F	G	H	I		
Community Hall	A	X	A	A	A	E	A	A	A	A	7	1
Upper primary School	B		X	B	D	E	B	B	H	I	3	4
Fishery	C			X	D	E	F	G	H	I	0	5
Electricity	D				X	E	D	D	D	D	4	2
Drinking Water	E					X	E	E	E	E	4	3
Community Health Centre	F						X					
JFMC Office	G							X				
Market Shed	H								X			
Sanitation	I									X		

Signatures

- | | | |
|--------------------|---------------------|--------------------|
| 1. Kamal Chandra | 7. Maham ch. Rabha | 13. Ranoy Chandra |
| 2. Bhagabati Rabha | 8. Sukumar Kalaha | |
| 3. Romesh Rabha | 9. Madip Baruah, B. | 12. Anuraj Rabha |
| 4. Anuraj Rabha | 10. Rathi Rabha | 13. Anuraj Chandra |
| 5. Anuraj Rabha | 11. Anoop K. Rabha | 14. |
| 6. Anuraj Rabha | | |



Appendix
PHOTOGRAPHS



During the PRA mapping



Discussion with the Forest Official and JFMC people



Villagers after the PRA activity along with forest officials and IIE team.

Appendix 5

LIST OF JFMC MEMBERS

SR.NO	NAME	SEX	DESIGNATION
1	Rathin Rabha	Male	President
2	Pradip Baruah	Male	Forester
3	Kamal Rabha	Male	Treasurer
4	Jiten Rabha	Male	Member
5	Renuka Rabha	Female	Member
6	Tilok Rabha	Male	Member
7	Puneshwari Rabha	Male	Member
8	Satyen Rabha	Male	Member
9	Dwipen Rabha	Male	Member
10	Darendra Rabha	Male	Member
11	Mukul Rabha	Male	Member

Appendix 6 (Record I)

Table 1: Basic data of the village:

Table 1: Basic data of the JFMC

Sl.No	Name of JFMC/Village	Date of Establishment	No. of members in executive comtt.	Name of President	Name of Secretary	Money in village Dev. Fund.(VDF)	Social fencing used Yes/No	Remarks on special attainments	Grading % of Success of JFMC by RFO
1	Hatigaon	2004-2005	11	Rathin Rabha	Pradip Baruah		No		NA

Table 2: Village Wise Population Data:

Table -2: Demographic status of the project villages

Sl. No.	Name of village	Households (No.)	Population (No.)			Sex ratio	Avg. HH size
			Total	Male	Female		
1	Hatigaon	276	1856	844	1012	1199	7

Source: - Field survey report.

Table 3: Village Wise Farmer Category on the basis of Land Holding :

Table3 Village wise farmer category on the basis of land holding

Name of the JFMC	Types of Farmers according to land holding				
	Large Farmer (> 10 hectare)	Small Farmer (2-10hectare)	Marginal farmer (< 2 hectare)	Landless	Total
Hatigaon	Nil	82	164	30	276

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

JFMC	Cows	Goats	Sheep	Bulls/Oxeing	Pigs	Hens/Cocks	Duck	Total
Hatigaon	546	40	-	-	216	-	-	802

Table 5: Village Wise Infrastructure:*Table 5 Showing village wise infrastructure*

Sl.No	Infrastructure	Location	Distance from village, if in another location (in kilometres)	Condition and status of present use
1	Main Road	Bolbola	14Km	Good
2	Electricity	No Consumer		
3	Gas connection	Goalpara, Krishnai, Agia	31Km, 24Km and 18Km	Good
4	Transport	Local Taxi	14Km	Good
5	Primary health	Agia	18Km	-
6	School(LP)	2	Inside	-
7	Post Office	Suramari(meghalaya)	1KM	Poor
8	Bank	Krishnai, Agia	24Km	Poor
9	Anganwadi Centre	Hatigaon	Inside	-
10	Bank	Krishnai, Agia	24Km	-
11	Phone	Airtel, Aircel tw	Inside	-
12	Police Office	Agia		
13	Forest Office(Beat)	Badalpur		
14	Railway Station	Ananda bazar	31Km	
15	District	Goalpara	31Km	

Table 6: Agricultural Crops*Table 6 Agriculture Crops*

Type of Crop	Rain fed		Irrigation	
	Name of Crop	Area in ha	Name of Crop	Area in ha
Kharif	Sali Rice	45	NA	-
Rabi	Leafy vegetables	Household use	NA	-

Table 7: Crop production profile of HATIGAON JFMC:*Table 7 Crop production profile of Hatigaon JFMC*

Name of crop	Total production(approx.)in quintals	Number of households growing	Average production(quintal per/ha)
Paddy	20	30	3.12
Vegetables	0.07	80	0.35

Table 8: Fodder Availability (Animal)*Table 8 fodder availability of the JFMC*

Types	1-3 month	3-6 month	>6 month
Crop residue		✓	
Trees fodder		✓	
Grasses			✓
Green Fodder			✓
Grazing in Forest			✓

Table 9: Location of Market from the Village*Table 9: Location of market from the village*

For Purchase	Location	Distance from village if in other village (in km)
Grocery shop	Hatigaon	-
Weekly Market	Hatigaon	-
Major Market	Agia and Krishnai	22
Forest Corporation Sale Depo	NA	
Tendu Patta PHAD	NA	
Fish Market	Hatigaon	1
Medicinal Plant collection Center	NA	
Forest Corporation Medicinal plant Collection Center	NA	

Table 10: Water Resources Facility:*Table 10: showing the water resource facility available in the village*

Water Source	Number	Water Availability	Uses
Water Harvesting Structure	NA	-	-
Tube Well	NA	-	-
Canal	1	-	-
River/Nullah	Rongkhaiti	Adequate	
Spring	Dhiravati	Not adequate, water has iron.	Drinking

Table 11: Energy Consumption:*Table11 showing the Energy Consumption of the JFMC*

Type of Fuel	Number of household depending	Number of months dependent	Sources (local, village, forest, other sources)	Major/ Secondary
Fuel wood	100	Rainy Season	Forest	Major
Kerosene stove	10	3	Market	Secondary
Gobar/ Bio gas	NA	-	-	-
LPG	20%	-	Authorized agency	Secondary

RECORD: II

LIVELIHOOD OPPORTUNITY ANALYSIS

Table 12: Agriculture and Horticulture:

Table 12: showing the agricultural and horticultural status

Constraints	Reason	Opportunities	Programme
Low Production	<ul style="list-style-type: none"> • Traditional way of cultivation. • Only one crop undertaken annually (Sali) • Very negligible use of fertilizers and pesticides, insecticides. • Lack of irrigation facilities. • Lack of agricultural infrastructure, modern tools and equipment's viz, power tillers, tractors etc. • Non usages of high yielding seeds. 	<ul style="list-style-type: none"> • Application of proper and controlled pesticides and insecticides. • Introduction of new and advance technology. • Well-structured training programme. The villagers are inherited with the skill of cultivation. But an improvisation of skills is the need of the hour. • Usage of high yielding seed programme. 	<ul style="list-style-type: none"> • Tractor operation training • Agri-skill development programme. • Training on insecticides, pesticides, hybrid cultivation
Storage and Production	<ul style="list-style-type: none"> • Lack of common storing place • Lack of cold storage facility due to non-availability of electricity 	<ul style="list-style-type: none"> • Helpful in preserving unsold products for a longer period of time. • They can store their product and sell it when there is a higher demand. 	<ul style="list-style-type: none"> • Packaging • Transportation and distribution.
Marketing	<ul style="list-style-type: none"> • Lack of transporting facilities for carrying products • Less contact with the direct market; much dependency upon middle man • No knowledge on marketing know-how, dependence on traditional system of selling. 	<ul style="list-style-type: none"> • Smooth transportation facility will help the farmers to carry their products to the nearby markets. • Generate highest market price by removing middle men. • More knowledge about the current market situation as well as the current value of their products. • They can sell their products outside of the state 	<ul style="list-style-type: none"> • Buyers sellers meet

Table 13: Livestock*Table 13 Livestock*

Constraints	Reasons	Opportunities	Programme
Less grazing land	<ul style="list-style-type: none"> • Not Applicable 		
Availability of fodder	<ul style="list-style-type: none"> • Unable to buy fodder from market due to poor financial condition • Trees fodder n crop residue are available only for 3-6 months. Green fodder is also not available for the whole year. 	<ul style="list-style-type: none"> • Higher income from livestock rearing. • The villagers can make it as an alternative livelihood opportunity if they have the easy access of livestock fodder. 	
Veterinary care facility	<ul style="list-style-type: none"> • No veterinary care clinic • Lack of knowledge about the proper rearing of live stock 	<ul style="list-style-type: none"> • Disease control • Increases the life span of cattle. • It will also help to aware the villagers and will encourage them for livestock rearing. 	
Production of milk	<ul style="list-style-type: none"> • Less availability of fodder • No scientific knowledge on cattle rearing to increase the milk production. 	<ul style="list-style-type: none"> • Training on the milk production can enhance the skill of milk production. • Availability of supplements like cattle “Milk Booster, Milk Plus” etc. can increase the production of milk in the area. 	
Milk market	<ul style="list-style-type: none"> • Less contact with the direct market for milk • Unaware of the market demand of different milk made products. 	<ul style="list-style-type: none"> • A huge demanded market for milk is available as Goalpara head quarter and West Bengal state is too far from the JFMC. 	

Table 13: NWFP*Table 14 NWFP*

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

Table 15: Specialised skill*Table 15: Specialised skills: Handloom*

Constraints	Reasons	Opportunities	Programme
Raw material availability	<ul style="list-style-type: none"> • Non-Availability of Raw Materials within reachable location (market 7km away) • No Storage 	<ul style="list-style-type: none"> • Common place for setting a raw material storage 	<ul style="list-style-type: none"> • Setting up a raw material bank
Product quality	<ul style="list-style-type: none"> • Shortage of High Quality Materials • Use of Traditional machineries 	<ul style="list-style-type: none"> • Developing Quality Products for new market exploration. 	<ul style="list-style-type: none"> • Training on Modern Tools and Equipment. • Providing modern technology to the villagers
Credit facilities	<ul style="list-style-type: none"> • No linkage with the banks or post office saving banks. • Unaware of the development schemes of banks and government 	<ul style="list-style-type: none"> • Financial assistance by the Govt. • Providing easy access to credit. 	<ul style="list-style-type: none"> • Microfinance, Term Loans, Working Capital Arrangement
Product Diversification	<ul style="list-style-type: none"> • No Product Diversification or New Product Development. • Lack of concept for product diversification. 	<ul style="list-style-type: none"> • Developing Demand Based Products, as per the needs of the modern day market. 	<ul style="list-style-type: none"> • Skill Up gradation & Training on New Product Development and Product Diversification

Table 16: Credit facility*Table 16: Credit facility*

Constraints	Reason	Opportunities	Programme
Indebtness	Nil	Setting up modern financial institution in the nearby areas.	
Rate of interest	Higher lending rates charged by the private money lender	Subsidised credit arrangement	
Availability of loan	Fear of risk taking No knowledge of documentation	Start-ups entrepreneurial venture	
Mortgage difficulty	Unavailability of proper documentation of mortgaged property.	Proper awareness about documentation in the area	

List of Participants for Skill Development Programme

SKILL DEVELOPMENT PROGRAMME PARTICIPANTS LIST

Forest Division	JFMC/EDC	Skill (trade)	Sl. No.	Participant	Guardian/Father Name	Address	Qualification	Age	Gender	Category	Contact No	Signature
Goalpara Division	Hatigaon J.F.M.C	Tailoring	1	Bikash Ch. Rabha.	Subal Rabha.	Hatigaon	class X	45	Male	S.T.	96130 44333	Bikash Ch. Rabha.
		Tailoring	2	Kamal Rabha.	Gopin Rabha.	Hatigaon	class X	48	do	S.T.		Kamal Rabha.
		Tailoring	3	Balabhadra Rabha.	Nagan Rabha.	do	class X	38	Do	S.T.	76136 5809	Bala badra Rabha.
		Tailoring	4	Shapan Rabha.	Jhitan Rabha.	do	HS L.C	27	Do	S.T.	78765 93893	Shapan Rabha.
		Tailoring	5	Shantosh Rabha.	Bayan Rabha.	do	class X	34	Do	S.T.	73995 00153	Shantosh Rabha.
		Weaving	6	Akash Rabha.	Lalit Rabha.	do	class X	42	Do	S.T.	95770 10006	AKASH RABHA
		Weaving	7	Abhinam Rabha.	Rakulsha Rabha.	do	class X	35	Do	ST	98549 57360	ABHINAM RABHA
		Weaving	8	Kanungo Rabha.	Madan Rabha.		class X	21	Do	ST		Kanungo Rabha.
		Weaving	9	Ashiraj Rabha	Satyen Rabha	do	HISC	23	Do	ST.	96132 94344	Ashiraj Rabha
		Weaving	10	Prhupesh Rabha	Hansraj Rabha	do	X	38	Do	ST	95775 88141	Prhupesh Rabha

Rathin Rabha
President
Hatigaon Forest Protection
& Reg'n Committee.
(J.F.M.C.)

Pradip Boseeah, P.1
Member Secretary,
Hatigaon Forest Protection
& Reg'n Committee.
(J.F.M.C.)


Signature of Divisional Forest Officer.
Divisional Forest Officer
Goalpara Division

SKILL DEVELOPMENT PROGRAMME PARTICIPANTS LIST

Sl. No.	Division	Sub-Division	Name	Class	Age	Sex	Religion	Phone No.	Address
11	Genipang	Hatigaon J.F.M.C.	Bekitov Rukha	8	32	Male	S.T.	81359 68363	Bekitov Rukha
12									
13									
14									
15									
16									
17									
18									
19									
20									

Ratnin Rukha
 President
 Hatigaon Forest Protection
 & Reg'n Committee.
 (J.F.M.C.)

Preadip Saewah, 701
 Member Secretary,
 Hatigaon Forest Protection
 & Reg'n Committee.
 (J.F.M.C.)

[Signature]
 Signature of Divisional Forest Officer,
 Genipang Division

Approved
[Signature]
 Divisional Forest Officer
 Genipang Division