


**BALIJAN MILIJULI JOINT FOREST MANAGEMENT COMMITTEE (JFMC)
DIGBOI FOREST DIVISION**

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

**Prepared by
Balijan Milijuli Joint Forest Management Committee**

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

July 2017


**Divisional Forest Officer
Digboi Division, Digboi
Tinsukia, Assam**

List of Acronyms

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

Balijan Milijuli Joint Forest Management Committee (JFMC), Digboi Division
BALIJAN MILIJULI JOINT FOREST MANAGEMENT COMMITTEE
DIGBOI Forest Division

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

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1. Introduction	
About the Project	<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 Development</i> (AFD) - i.e. the French Development Agency, with cofounding 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>
Micro-Planning & Livelihood Development	<p>In order to promote livelihood activities through market potential based value addition; the present project intends to take up activities like entrepreneurship promotion, product processing value addition and marketing under this project. This has become necessary on account of the pressures on existing forest resources due to the growth of population. There is a need to explore value addition to the existing forest and biodiversity products and services, based on the market potential. In addition, non-forest based livelihoods need to be explored and the capacities of the community members need to be built-up through skills development initiatives.</p> <p>A consortium comprising of Indian Institute of Entrepreneurship (IIE) Guwahati, <i>Rashtriya Gramin Vikas Nidhi</i> (RGVN) 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>
Micro-Plan for the BalijanMilijuli JFMC	<p>This document gives the Micro-Plan for the BalijanMilijuli JFMC, which is located in the Tinsukia district of Assam. The JFMC falls under the jurisdiction of the Digboi Forest Division of the Eastern Assam Circle, Jorhat. The profile of the community is given in the next section.</p> <p>The present micro-plan has been prepared by members of the community within the JFMC, 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. The document has been discussed and finalized for adoption in 20.04. 2017 (Minutes of PRA exercise enclosed as Annexure-I).</p>

2. Village Socio-Economic Profile																							
Location	The BalijanMilijuli Joint Forest Management Committee (JFMC) has been formed to cover the existing community dwelling in BalijanMilijuli Village located on the fringe of Upper Dehing Reserved Forest (West Block), Digboi Forest Range, and Digboi Forest Division. The area covered by the above JFMC falls within the Margherita Revenue Circle of Tinsukia District of Assam.																						
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"> <tr> <td>Name of the JFMC</td> <td>BalijanMilijuli</td> </tr> <tr> <td>Habitation</td> <td>Mainly farmer, daily labour, service holder</td> </tr> <tr> <td>Name of Revenue Village</td> <td></td> </tr> <tr> <td>Name of the Gram Panchayat / VCDC</td> <td>Borbil</td> </tr> <tr> <td>Revenue Circle</td> <td>Margherita</td> </tr> <tr> <td>District</td> <td>Tinsukia</td> </tr> <tr> <td>Forest Division</td> <td>Digboi</td> </tr> <tr> <td>Forest Range</td> <td>Digboi</td> </tr> <tr> <td>Forest Beat</td> <td>Borjan</td> </tr> <tr> <td>Year Formed</td> <td>2016</td> </tr> <tr> <td>Description of Boundary of JFMC</td> <td>As below North: New Colony South: Forest Reserve (UDRF,WB) West : Kosujan East: Shiv Mandir and Thermal</td> </tr> </table> <p>Source: JFMC Records & Discussions during PRA Exercise in 20.04.2017 Additional details are given at Table-1 of Record-I.</p>	Name of the JFMC	BalijanMilijuli	Habitation	Mainly farmer, daily labour, service holder	Name of Revenue Village		Name of the Gram Panchayat / VCDC	Borbil	Revenue Circle	Margherita	District	Tinsukia	Forest Division	Digboi	Forest Range	Digboi	Forest Beat	Borjan	Year Formed	2016	Description of Boundary of JFMC	As below North: New Colony South: Forest Reserve (UDRF,WB) West : Kosujan East: Shiv Mandir and Thermal
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Brief Details of the Executive Committee & General Body	<p>The brief details of Executive Committee & General Body of the JFMC are contained in the table, which is given below.</p> <p>Table-B: Brief Details of Executive Committee & general Body</p> <table border="1"> <tr> <td>Name of President</td> <td>Mrs. ToruprabhaSonowal</td> </tr> <tr> <td>Name of Member Secretary</td> <td>Miss. Parineeta Singh, Range Forest Officer, Digboi Range</td> </tr> <tr> <td>No. of Members in Executive Committee</td> <td>Female:10 Total- 10</td> </tr> <tr> <td>No. of Members in the General Body</td> <td>100 families, (Each family is the member of the GB, which may represent by head of the each family)</td> </tr> </table> <p>Source: JFMC Records</p>	Name of President	Mrs. ToruprabhaSonowal	Name of Member Secretary	Miss. Parineeta Singh, Range Forest Officer, Digboi Range	No. of Members in Executive Committee	Female:10 Total- 10	No. of Members in the General Body	100 families, (Each family is the member of the GB, which may represent by head of the each family)														
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Households & Population Structure	<p>The JFMC has 100 households. The total population is 650, of which 370 are males and 280 are female members. Majority of the village population belongs to SC community and few households belong to OBC and ST community.</p> <p>The details with respect to the above has been referred in Table-2 of Record-I</p>																						




Balijan Milijuli Joint Forest Management Committee (JFMC), Digboi Division

	<p>From this, it is inferred that:</p> <p>(1) The average number of persons in a household is 4.95</p> <p>(2)The sex ratio is 736 females per 1000 males in the village.</p>
Education & Skills Development	<p>Over 90 % of the population is reported to be literate. Most of the community members have received school and college level education.</p> <p>Livelihood skills are usually acquired under various settings – formal & informal. In the JFMC area, informal means for skills development is the traditional norm. People have traditional skills in the following areas:</p> <ol style="list-style-type: none"> a) Livestock b) Weaving c) Cane and Bamboo <p>Government has been active in promoting formal skills development programmes in the country as well as in the State. However, no such programmes have been carried out in the habitation or in nearby areas.</p>
Soil	<p>The soil type of the project area includes:</p> <p>The area situated on a layer of clay soil of light yellowish and dark grayish colour up to a depth of about 2.5 m, then a layer of sand (Quartz) up to about 16 m and an under layer of clay, grayish m colour hard and sticky. The soil is found usually acidic in reaction. The major soil groups are (i) new alluvial soil (ii) old alluvial soil, (iii) piedmont soils and (iv) red loamy soil.</p> <p>The soil is reported to be fertile and support various types of crops and different vegetation.</p>
Water	<p>The MilijuliBalijan villages has access to few water resources and area is drained by Tell jan Rivulet.</p>
Climate: Temperature & Rainfall	<p>The maximum temperature during the summer reaches 34° C. The minimum temperature during the winter is 8-12 ° C.</p> <p>The annual rainfall is about 59-160 cm. About two-thirds of the rainfall usually occurs during the rainy season (June). The village has high levels of humidity (over 90%) during the rainy months and low levels in the winter (Below 30%).</p>
Forest & Biodiversity	<p>The local forests have been broadly classified as Upper Assam Tropical Wet Evergreen Forest which falls under Champion’s classification No. IB/. The main tree species are Hollong, Titasopa, Holokh, Ajar, Uriam, Bonbogori, Khokon, Nahor etc. The forests can yield a range of NTFP like leafy vegetables, ferns, medicinal plants, bamboo, thatch, fodder, etc.</p> <p>Additional details in this regard are given at the ‘Forest Development Plan.</p>
Land Use Pattern	<p>Appendix-2 gives the land-use pattern of the village. From the same, it is seen that the land-use in the village is as follows:</p> <p>Paddy: 36%</p> <p>Plantation: 20%</p> <p>Road: 1.96%</p> <p>Settlement: 40%</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"> • 100 % of the households are marginal farmers (less than 2 Ha)

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Livestock	<p>The total number of livestock in the village is 1405. The main types of livestock possessed by the households include: Cows: 400 Goats: 800 Bulls: 200 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>From the above table, the following have been noted with regard to village infrastructure:</p> <p>Physical Infrastructure: The peoples are deprived of basic physical infrastructure. There is absence of good basic physical infrastructure like paved roads, Bank under the JFMC etc.</p> <p>Education & Health Facilities: The education system of this village is not so satisfactory. There are minimal educational facilities. There is only one primary school and an Anganwadi Centre present inside the JFMC area. Public transport is available but it cannot be said as much as good and the community members have to use bike and bicycles to move around.</p> <p>Govt. Offices: The government offices (such as Police station, Revenue office, Forest Range office etc.) are not located at a considerable distance, which gets augmented as the villagers do not have access to regular public transport from either the habitation or from nearby areas.</p> <p>Financial Inclusion: Facilities for financial inclusion like one bank is located at a considerable distance from the habitation.</p>
Agricultural Crops	<p>The details of the agricultural crops grown in the village is available at Table6 of Record-I.</p> <p>The above shows that the following are the main crops grown in the village.</p> <ol style="list-style-type: none"> a) Kharif Crops: Paddy-Sali b) Rabi Crops: Seasonal Vegetables- Potato, Mustard, Brinjal, Pumpkin, Radish, Tomato, Ladies finger etc. <p>Therefore all the crops are depended on rainfall</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 65. The production and yield of these crops is given as follows:</p> <ol style="list-style-type: none"> (a) Paddy: 25ha. (b) Vegetable: 10ha. (c) Tea: 30ha.
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> <ol style="list-style-type: none"> a) Paddy Waste b) Household Kitchen Waste c) Surplus Vegetables d) Forest

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Markets	<p>Table-9 of Record-I shows the location of the different markets from the village.</p> <p>The main markets used by the community are as follows:</p> <ol style="list-style-type: none"> a) Grocery / PDS: Within Village b) Weekly / Bi-weekly Market: Tingrai at 15Km c) Major Market: Digboi at 3Km
Water Resources	<p>The water resources are tabulated at Table-10 of Record-I. The main water resources with the water availability is as follows:</p> <ol style="list-style-type: none"> (a) River Water (Water Availability: Perennial / Seasonal) (b) Tube well (Water Availability: Perennial / Seasonal) (c) Ring Well (Water Availability: Perennial / Seasonal)
Energy Consumption	<p>Table-11 of Record-I shows the major sources of energy in the village. The same have been listed below.</p> <ol style="list-style-type: none"> a) Fuel Wood- 80Nos. Source: Forest / Plantation b) LPG- 40 Nos. c) Kerosene- 20 Nos.
Socio-economic status	<p>Social set-up: The village is inhabited by tribal and Non tribal community and is comprised of OBC, Schedule Caste and Schedule Tribe. The society is not marked by deep social divisions. The observed position of women in society is satisfactory.</p> <p>Economic Condition: The economic position is / is not satisfactory. The main livelihood is paddy cultivation and daily wage labour. The household earn from a minimum of Rs. 50,000 to a maximum 60,000 per year.</p> <p>Additional details are available at the next section.</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

3. Livelihood Opportunity Analysis

PRA Exercise	<p>Team from IIE Guwahati carried out PRA exercise in BalijanMilijuli village as follows:</p> <p>Date: 20th of April, 2017 Location: Panchayat Office ,BalijanMilijuli Village, Numbers Present: 30</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>

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<p>Tools Used & Outcomes of the PRA</p>	<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>																												
<p>Ranking</p>	<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 was observed that: The ranking of EPA is as stated below.</p> <table border="1" data-bbox="568 819 1318 1451"> <thead> <tr> <th></th> <th>Village EPA as ranked</th> <th>Details (Appendix-3 has additional particulars)</th> <th>Probable source of funding/dept</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Community Hall</td> <td>Community hall with infrastructure facility and sanitation facility nearby</td> <td>APFBC</td> </tr> <tr> <td>2.</td> <td>Drinking Water</td> <td>50 numbers of tube well to 50 numbers of BPL families</td> <td>APFBC</td> </tr> <tr> <td>3.</td> <td>LPG connection with cylinder</td> <td>To 50 BPL families</td> <td>APFBC / UJJWALA</td> </tr> <tr> <td>4.</td> <td>Solar home light system</td> <td>To 20 BPL families</td> <td>APFBC / MNRE/NBARD</td> </tr> <tr> <td>5.</td> <td>Sanitation</td> <td>Providing HHL (House Hold Latrine) - Low cost, septic and sanitary type.</td> <td>APFBC/SwachBharart Mission/ PHED</td> </tr> <tr> <td>6.</td> <td>Community Tent House</td> <td>A tent house along with Chairs and Utensils to be run and functioned by the committee from community Hall</td> <td>APFBC</td> </tr> </tbody> </table>		Village EPA as ranked	Details (Appendix-3 has additional particulars)	Probable source of funding/dept	1.	Community Hall	Community hall with infrastructure facility and sanitation facility nearby	APFBC	2.	Drinking Water	50 numbers of tube well to 50 numbers of BPL families	APFBC	3.	LPG connection with cylinder	To 50 BPL families	APFBC / UJJWALA	4.	Solar home light system	To 20 BPL families	APFBC / MNRE/NBARD	5.	Sanitation	Providing HHL (House Hold Latrine) - Low cost, septic and sanitary type.	APFBC/SwachBharart Mission/ PHED	6.	Community Tent House	A tent house along with Chairs and Utensils to be run and functioned by the committee from community Hall	APFBC
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<p>Livelihood opportunities</p>	<p>Livelihood Opportunities were identified as follows:</p> <ul style="list-style-type: none"> • Skills Development • Agriculture & Horticulture • Livestock • NTFP • Credit Facility <p>Additional discussion about the above has been given below.</p>																												

<p>Skill Development</p>	<p>Livelihood Opportunities were identified as follows:</p> <ol style="list-style-type: none"> 1. Handloom. 2. Tailoring. 3. Livestock 4. Cane and Bamboo. <p>Additional discussion about the above has been given below.</p>
<p>Agriculture & Horticulture</p>	<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: Nil The opportunities are:</p> <ol style="list-style-type: none"> a) Increase annual crop cycle b) Collection Unit, Packaging c) Institutional linkage for marketable outputs <p>The suggested programme is:</p> <ul style="list-style-type: none"> • Agri-skill development programme. • Training on insecticides, pesticides, hybrid cultivation etc. • Irrigation <p>Credit facilities.</p>
<p>Livestock</p>	<p>Table-13 furnishes additional information about opportunities for livestock rearing.</p> <p>The main constraints are:</p> <ol style="list-style-type: none"> (a) Trees fodder and crop residue are available only for 3-6 months. Green fodder is also not available for the whole year. (b) No veterinary care clinic (c) Lack of knowledge about the proper rearing of live stock <p>The opportunities are:</p> <ol style="list-style-type: none"> (a) Higher income from livestock rearing. <p>A huge demand for livestock products like pork, chicken, eggs, etc in the nearby markets.</p>

<p>NTFP</p>	<p>The opportunities for NTFP are tabulated at Table-14 under Record-2</p> <p>The main constraints are:</p> <ul style="list-style-type: none"> (a) Less availability of NWFP (b) No technical know-how (c) No processing units <p>The opportunities is:</p> <ul style="list-style-type: none"> (a) Availability of fertile fallow land (b) Generation of Livelihood from collection <p>The suggested programme are:</p> <ul style="list-style-type: none"> (a) Plantation of Food plants, Fodder, Etc (b) Medicinal Plants and aromatic plants <p>Herbal plants</p>
<p>Credit Facility</p>	<p>Table-16 under Record-2 discusses this aspect.</p> <p>The main constraints with the reasons are:</p> <ul style="list-style-type: none"> (a) Financial exclusion (b) Involvement of unorganized money lender (c) Lack of Credit Appraisal <p>The opportunities are:</p> <ul style="list-style-type: none"> (a) Setting up modern financial institution (b) Adequate awareness. <p>The suggested programmes are:</p> <ul style="list-style-type: none"> (a) Setting up modern financial institution in the nearby areas. <ul style="list-style-type: none"> • Financial Inclusion Initiatives
<p>Strategic Interventions</p>	<p>Summarizing the suggested programme at above as strategic interventions for the Livelihood Development Plan:</p> <ol style="list-style-type: none"> 1. Skill Development: 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. 2. Agriculture & Horticulture: Tractor operation training, Agri-skill development programme, Training on insecticides, pesticides, hybrid cultivation 3. Livestock: Piggery, Poultry 4. NWFP : Plantation of Food plants, Medicinal Plant etc <ul style="list-style-type: none"> (b) Credit facility: Setting up modern financial institution in the nearby areas

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 3. Fishery <p>Non-Farm sector:</p> <ol style="list-style-type: none"> 1. Handloom/ Weaving. 2. Bamboo products. 3. Masonry. <p>Source: Table-32 of Record-4</p>
SHG Activities	<p>SHGs of the village can plan the following activities:</p> <ol style="list-style-type: none"> 1. To generate entrepreneurial awareness 2. To organize and form Joint Liability Groups(JLG) 3. To involve the villagers in Livelihood Activities collectively. <p>Source: Table-33 of Record-4</p>
Exposure Trips	<p>The following exposure trips are planned:</p> <ol style="list-style-type: none"> 1. Two Exposure tips to Successful JFMC, within Assam and other States. <p>Source: Table-34 of Record-4</p>
Summary of Action Plan	<p>As attached in next page.</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) RashtriyaKrishiVikasYojana (RKVY) - for agricultural and allied development (c) RashtriyaKrishiSinchayYojana (RKSY) - for irrigation, including watershed development (d) National Rural Livelihoods Mission (e) Skills Development Programme (f) Help from departments of education, Sericulture, Veterinary, Irrigation, Industrial and Fishery. (g) 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

This Forest Development Plan has been prepared after a detailed PRA exercise at the village level as a part of the Micro-Plan of BalijanMilijuli 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 BalijanMilijuli 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 BalijanMilijuli JFMC have been summarized below.

Table-1: Conditions of the Forests of BalijanMilijuli 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 / PRF Name: UDRF (WB) Beat Name- Borjan	300 Ha	500mtr	Good Area: 250 Ha Degraded Area:50 Ha	Over 9 m
(B) Other Planted Area (UDRF West Block)	20 Ha	Within 100 mtr	Good Area: 10 Ha Degraded Area:10 Ha	Nil
TOTAL	320 Ha		Good Area:260 Ha Degraded Area: 60 Ha	

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

It is seen that the BalijanMilijuli JFMC has 320 Ha forests assigned to them, of which 260 Ha is 'Good' and 60 Ha 'Degraded'.

1.2. Forest Soil Type

The forests of BalijanMilijuli JFMC are located in old alluvial soil, (iii) piedmont soils and (iv) red loamy soil (Source: Google)

Table-2: Forest Soil Type in BalijanMilijuli JFMC

Parameter	Status in Assigned Forests	Status in Other Planted Areas
Fertility Level	High	High
Soil Erosion Status	No Soil Erosion	No Soil Erosion
Presence of:		
(a) Silt	Nil	Nil
(b) Mud-flat	Nil	Nil
(c) Newly accreted land	Nil	Nil
(d) Sand dune	Nil	Nil

1.3. Existing Composition of Flora

In the forests of the BalijanMilijuli JFMC, the existing composition of the flora has been given as follows. It may be noted that the local forests are classified as Upper Assam Wet Tropical Evergreen Forests.

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

Parameter	Local Name(s)	Botanical Name(s)
Major Forest Species	Hollong	<i>Dipterocarpusmacrocarpus</i>
Associates	Hollock	<i>Terminaliamyriocarpa</i>
	Ajar	<i>LagrsroomiaSpeciosa</i>
	Arjun	<i>Terminaliaarjuna</i>
	Udal	<i>SterculiaVillosa</i>
	Simul	<i>Bombaxceiba</i>
	Bakul	<i>Mimusopselengi</i>
	Siris	<i>Albizialebbeck</i>
	Dhuna	<i>Canariumbengalenses</i>
	Sam	<i>Artocarpuschapasha</i>
	Nahar	<i>Mesuaferrea</i>
	Sassi	<i>Aqeilatiaagallecha</i>
Shrubs	Betibah	<i>Bambusamastersii</i>
	Bhekuri	<i>Solanumindicum</i>
	Bajal bah	<i>Pseudostachyumpolymorphum</i>

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	Bor-manmani	<i>Centellaasiatica</i>
	Ekra, bata	<i>Sclerostachyafusca (Syn:-Saccharum</i>
Medicinal Plants	Hilikha	<i>Terminaliachebula</i>
	Bhomora, Bahera	<i>Terminaliabelerica</i>
	Thutmala	<i>Garugapinnata</i>
	Dalchini	<i>Cinnamomumzeylanicum</i>
Produces	Bamboo- Jati bah Kakobah	<i>Bambusa</i> <i>Dendrocalamushamiltonii</i> <i>tulda</i>
	Bet- Jati bet Lejai bet	<i>Rangi</i> <i>bet</i> <i>CalamusfloribundusCalamusfloribundus</i>
Others, if any	-	-

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 BalijanMilijuli JFMC.

2.1. Past Protection Measures of the JFMC

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

- (a) Number of households involved: 100
- (b) Number of people involved: 650
- (c) Summary of the measures: There is no such record of protection measures taken by the members of the JFMC before formation of the JFMC.
- (d) Any formal mechanism: Nil

[Source: 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 BalijanMilijuli JFMC

Name of Forest Produce	Average Household Requirement		How met at Present	Source
	Frequency of Requirement	Approx. Qty/year		
Firewood	100%	550 kg to 730 kg	Cutting poles & Branches of	Reserved Forest Area

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			trees	
Timber for House (pole size)	60%	4 to 5 numbers	Do	Do
Small timber for Implements	100%	0.3 m ³ to 0.45 m ³	Do	Do
Bamboo	60% to 70%	50 to 60 numbers	Cutting of culms	Do
Fodder from Forest	100%	2190 kg	Cutting of grass, leaves and straying of cattle	Do
NTFP	100%	182 to 200 kg	Collecting manually	Do
Other				

Source: Discussions with Forest Department personnel & Community members

There are 100 households in the BalijanMilijuli JFMC. From the above table it is inferred that the total annual requirements of the BalijanMilijuli village for forest produce for their own use is as follows:

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

Name of Forest Produce	Community Requirement (Kg per annum) (*)	Remarks
Firewood	55000 to 73000 kg	The villages use firewood besides LPG @ 1.5 kg to 2 kg per day
Timber for House (Pole size)	240 to 300 numbers	
Small Timber for Implements	30 to 45 m ³	
Pole / Bamboo	3000 to 4200 bamboo	Used for Fencing, construction of houses and articles
Fodder from Forest	219000 kg	
NTFP	18200 kg to 20000 kg	
Other		

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 BalijanMilijuli JFMC is given in the following table.

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

Name of Forest Produce	Collection for Marketing			Location of Collection
	Season / Months	No of Households Collecting	Average Qty. Collected (Kg) / year	
Firewood	Oct to March	10% to 20 %	4800 kg to 9600 kg	Forest
Timber for House	-	-	-	-
Small timber for Implements	-	-	-	-
Bamboo	Oct to March	10%	4800 numbers	Forest Area
Pole	-	-	-	-
Fodder from Forest	-	-	-	-
NTFP	Throughout the Year	40%	480 kg	Forest
Other	-	-	-	-

Source: 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 -

Name of Forest Produce	Surplus Marketed	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	-	-	-

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

The total requirements of forest produce by the community members of the BalijanMilijuli 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 BalijanMilijuli JFMC

Name of Forest Produce	Community Requirement (Kg per annum) From Table-4(B)	Surplus Marketed (Kg) From Table-5(B)	Total Requirements (Kg)
Firewood	-	--	-
Timber for House	-	-	-
Small timber for Implements	-	-	-
Bamboo	-	-	-
Pole	-	-	-
Fodder from Forest	-	-	-
NTFP	-	-	-
Other	-	-	-

3.Forest Protection Issues

3.1. Protection Problems

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

Table-7: Protection Problems of the BalijanMilijuli JFMC

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

Source: Discussions with Forest Department personnel & Community members

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

(a) Grazing of Domestic Local Animals

3.2. Reasons for Degradation of the Forest

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

(a) Over Grazing of Domestic Local Animals

4.Components of the Forest Development Plan

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

Table-8: Protection Plan of the BalijanMilijuliJFMC

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	UDRF (WB), GPS Co-ordinates	Length= Breath= Area=	Grazing Season	High
Fire Protection	Nil	Nil	Nil	Nil

Source:Discussions with Forest Department personnel & Community members

Thus, it is seen that the significant protection measures planned to be undertaken in the BalijanMilijuli JFMC (with high / medium priority) are as follows:

(a) Only Social Fencing

4.2.Types of Operations Proposed

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

Table-9: Types of Operations Proposed in the BalijanMilijuliJFMC

Treatment	Required (Yes/ No)	Responsibility of JFMC (Yes / No)	Month / Year when can be done	Extent of Area proposed for Treatment (Ha)
Restoration of Degraded Forests	Yes	Yes	March- July	50 Ha
Protection to Cut Stumps of Trees	No	No	No	No
Watershed Treatment	No	No	No	No

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Water Reservoirs	No	No	No	No
Grass & Silvi-pasture	Yes	Yes	No	10Ha
Bamboo Plantation	No	No	No	No
Seed Sowing	Yes	Yes	April to June	10Ha
Root & Shoot Cutting & Plantation	Yes	Yes	June-July	
Cut Back & Coppice Treatment	No	No	No	No
Physical Fencing	Yes	Yes	November-February	50 Ha
Social Fencing	Yes	Yes	June-July	100 Ha
Other Activities	No	No	No	No

Source: 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 BalijanMilijuli JFMC:

- (a) Seed Sowing
- (b) Root & Shoot Cutting & Plantation
- (c) Physical Fencing
- (d) Social 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 the BalijanMilijuliJFMC

Treatment	Area in Ha under Plantation Module	Priority for Block Plantation	Species	Spacing (meter x meter)
Assisted Natural Regeneration (with plantation in gap)	20 Ha / year for five year	20 Ha Block of ANR	Holong, Halokh, Azaretc	2m x 2 m
Block Plantation	20 (Fire wood) Ha / Year for five year	20 Ha Block of Fire wood	Maz,	2m x 2 m
Plantation of Neem, Amla, (Medicinal Plants)	20 Ha / year for five year	20 Ha Block of Medicinal plantation		2m x 2 m
Enrichment Plantation	0			
Direct Plantation	0			
Other	0			
TOTAL AREA (in Ha)	60 Ha / year			

Source: Discussions with Forest Department personnel & Community members

4.4. Forest Improvement – (Action Plan Enclosed as annexure)

1.1. Nursery Development Plan

The Nursery Development Plan for the BalijanMilijuli JFMC are taken as follows with due consultation of the Committee and Forest Department Personnel.

SL	Particulars	Location	Area	Remarks
1	Central Nursery / people nursery for plantation, free distribution on various occasions, sale to earn income of JFMC	Within the JFMC boundary	3 Ha	400 beds to produce 3 lakhs stump, direct and tall planting seedlings; 50 mother beds to produce 2 lakhs poly pot seedlings with estimated cost of Rs. 19,91,541.00 (Enclosed as annexure-II)
1	Central Nursery / people nursery for plantation, free distribution on various occasions, sale to earn income of JFMC	Within the JFMC boundary	Ha	135 beds to produce 1 lakhs stump, direct and tall planting seedlings; 25 mother beds to produce 1 lakhs poly pot seedlings with estimated cost of Rs. 17,68,015 (Enclosed as annexure-III)

1.2 Nursery Action Plan

Nursery Action Plan for BalijanMilijuli JFMC

SL	Particulars	2015-2016 Rs	2016-2017 Rs	2017-2018 Rs	2018-2019 Rs	2019-2020 Rs
1	3 Ha Nursery (Cr + Maint.)	0	19,91,541.00	0	0	0
	Maint. (60% of Cr.)	0		11,94,925.00	11,94,925.00	So on if it is continued
2	1 Ha Nursery (Cr + Maint.)	0	17,68,015.00	0	0	0
	Maint. (60% of Cr.)	0	0	10,60,809.00	10,60,809.00	Do

1.2. Maintenance Plan - 10 Years (As stated above in action plan of plantation)

2. Expected Benefits

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

2.1. Expected Benefits Related to Wood & Grass

The above has been tabulated below for the BalijanMilijuliJFMC. 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 BalijanMilijuliJFMC

Balijan Milijuli Joint Forest Management Committee (JFMC), Digboi Division

Item	Month	Year (Indicative)	Quantity
Firewood	Throughout the year	2026-27 onwards	
Timber for House	Throughout the year	2040 Onwards	
Small timber for Implements	-	-	
Bamboo	Throughout the year	2030 Onwards	
Pole	-	-	
Fodder from Forest Trees & Grass	Throughout the year	2026-27 onwards	
NTFP	Throughout the year	2035 onwards	
Wages	Throughout the year	2016-17 onwards	
Other	-	-	

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

2.2. Sharing Mechanisms

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

Table-15: Sharing Mechanism for BalijanMilijuli JFMC

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

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

6. List of Appendices

Appendix No	Heading
1	Maps Location Map Village Map Village Social Map Village Resources Map
2	Land Use Map of Village (GIS)
3	PRA Exercise Social Mapping Wealth Ranking Time Line review Seasonality of Livelihoods Venn Diagram Chapatti Diagram Priority Ranking- Potential Livelihoods and EPA
4	Photographs
5	List of JFMC Members
6	Filled Up Tables (Proforma-1 to Proforma-4) Table Nos. 1-37

Appendix 1

HOW TO REACH

Digboi to Guwahati distance, location, road map and direction:

Digboi is located in Assam, India at the longitude of 95.61 and latitude of 27.4. Guwahati is located in Assam, India at the longitude of 91.75 and latitude of 26.19.

Distance between Digboi and Guwahati:

Balijan Milijuli Joint Forest Management Committee (JFMC), Digboi Division

The total straight line distance between Digboi and Guwahati is 503 KM. This is a straight line distance and so most of the time the actual travel distance between Digboi and Guwahati may be higher or vary due to curvature of the road.

Digboi to Guwahati Travel Time:

Digboi is located around 503 KM away from Guwahati so if you travel at the consistent speed of 50 KM per hour you can reach Guwahati in 8.12 hours. The Guwahati travel time may vary due to the bus speed, train speed or depending upon the vehicle use.

Digboi to Guwahati Bus:

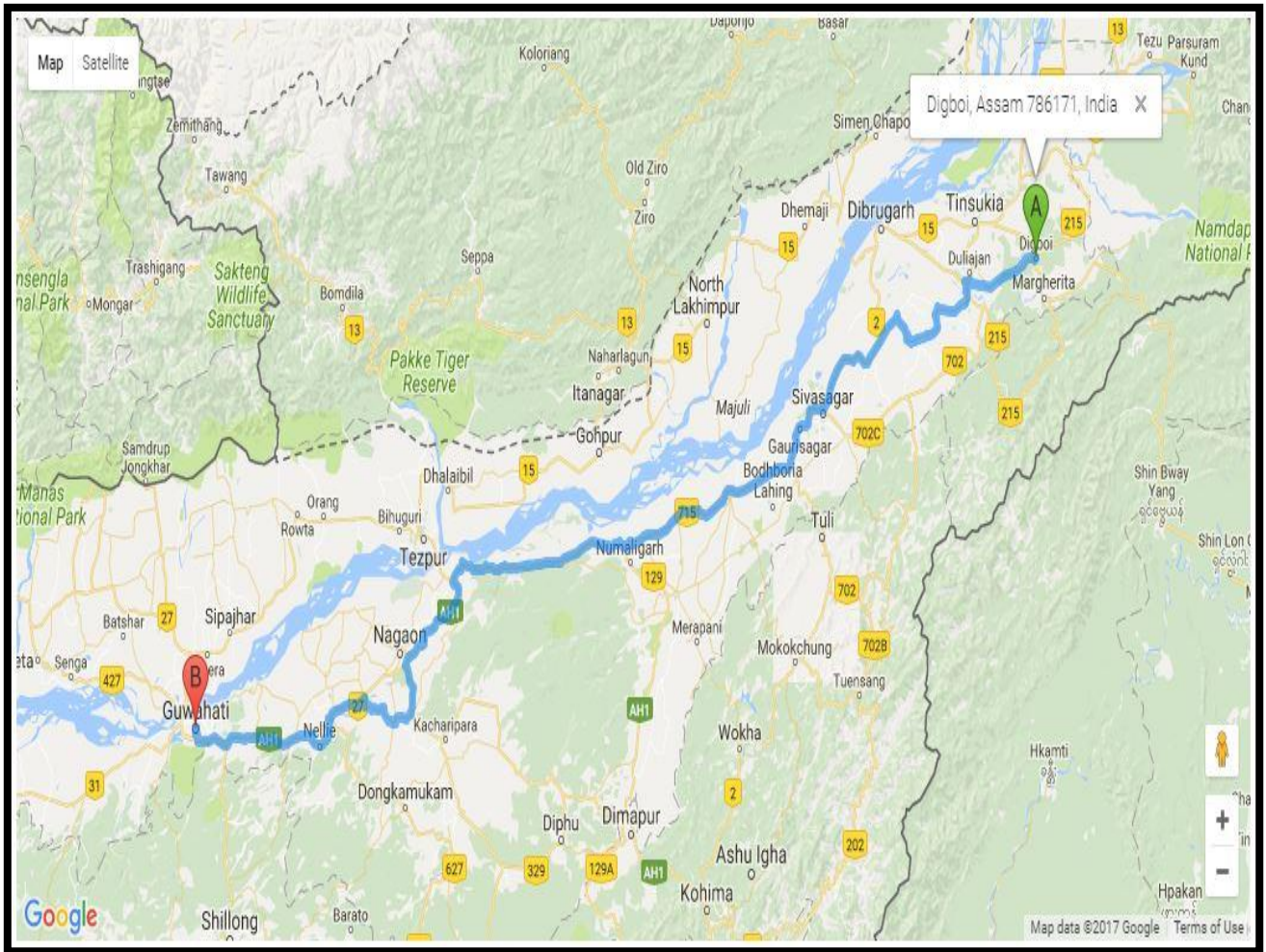
Bus timings from Digboi to Guwahati are around 11 hours when bus maintains an average speed of 60 KM per hour over the course of journey. The estimated travel time from Digboi to Guwahati by bus may vary or it will take more time than the above mentioned time due to the road condition and different travel route.

Bus fare from Digboi to Guwahati may be around Rs.550/-aprox.

Digboi to Guwahati Road Map:

Digboi is located nearly east side to Guwahati. The given east direction from Digboi 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 enrooted hotels, tourist spots, picnic spots, petrol pumps and various religious places. The given Google map shows the travel road map of Digboi to Guwahati.

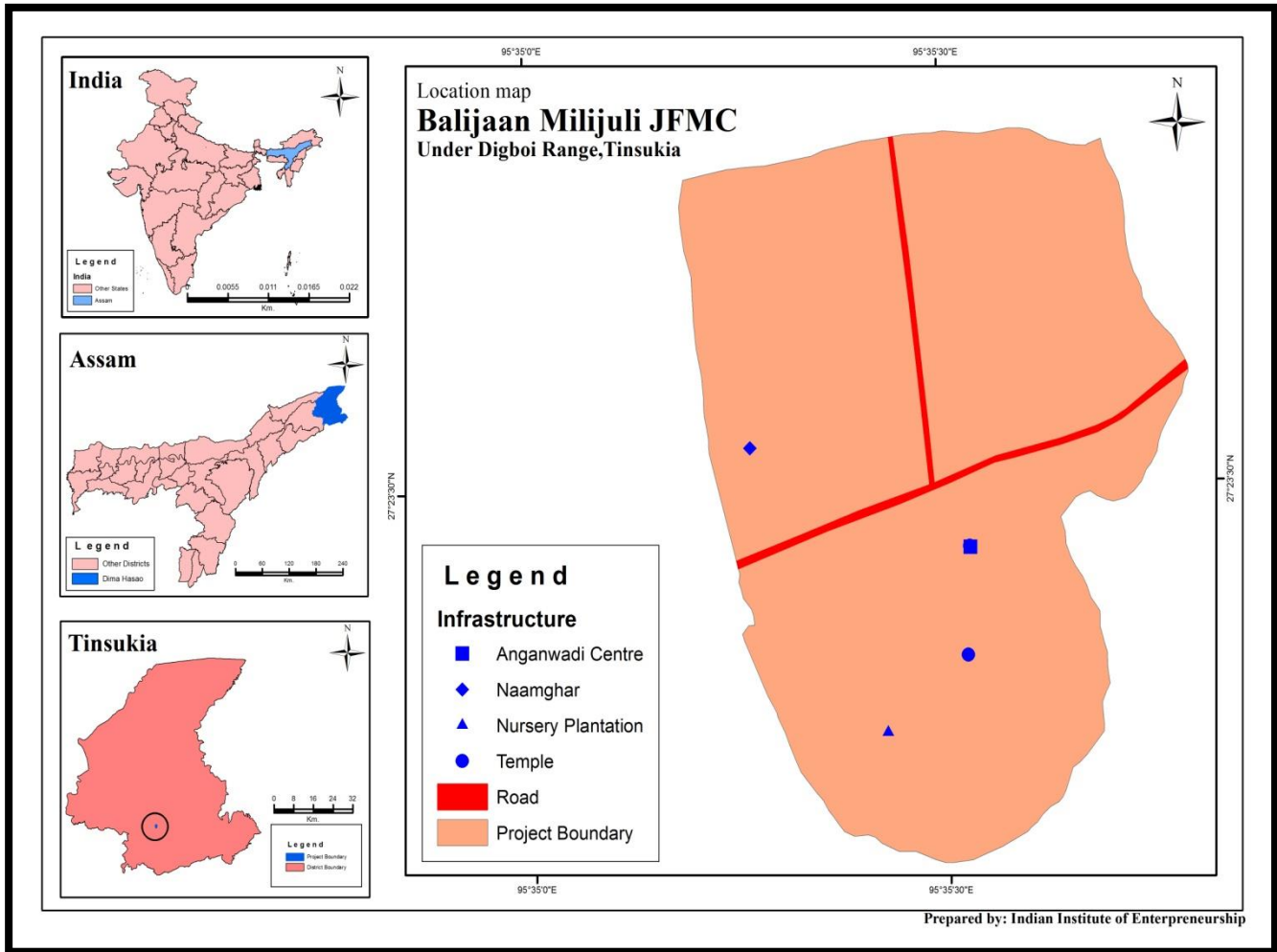
Balijan Milijuli Joint Forest Management Committee (JFMC), Digboi Division



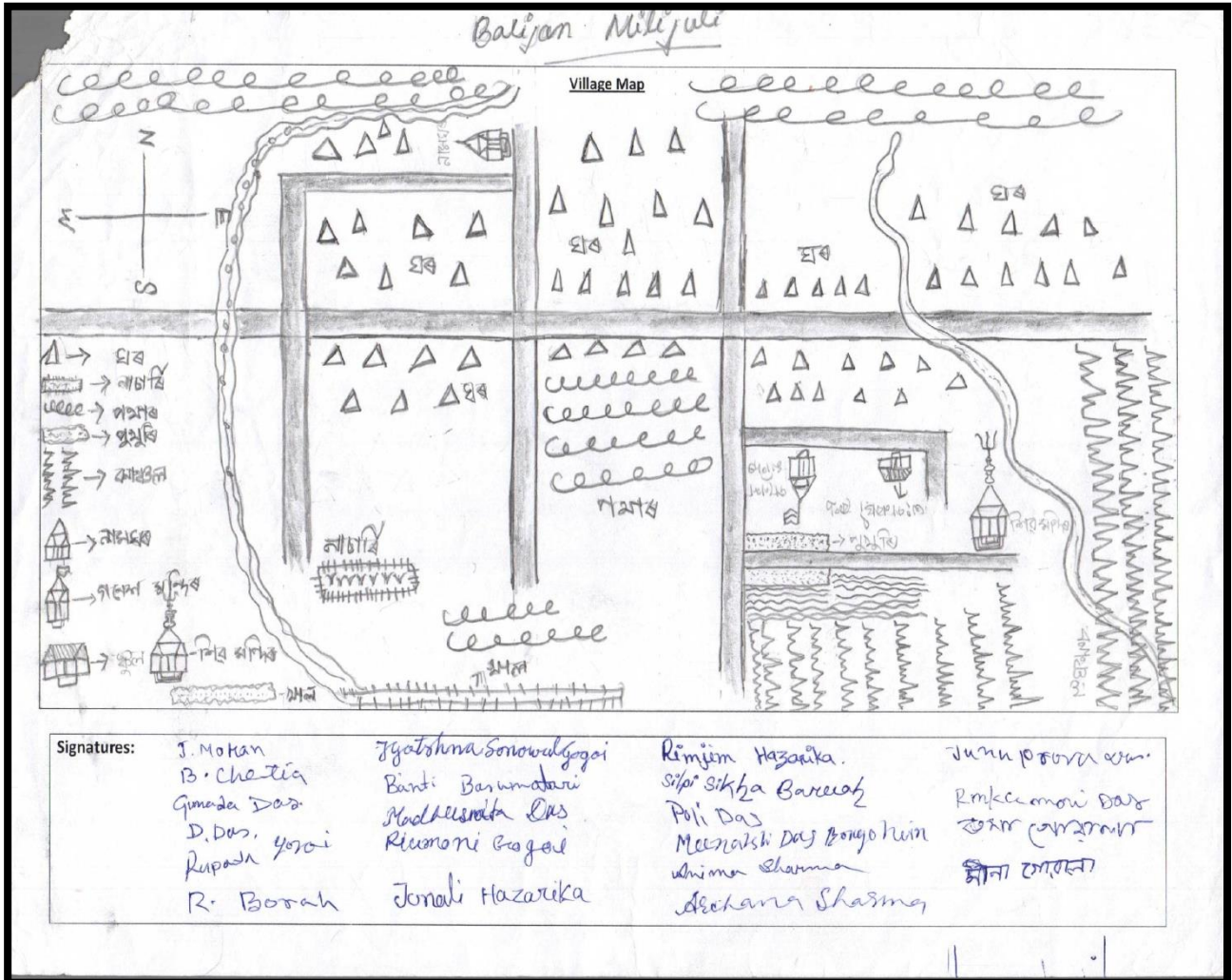
Source: Google Maps

Appendix 1

Location Map



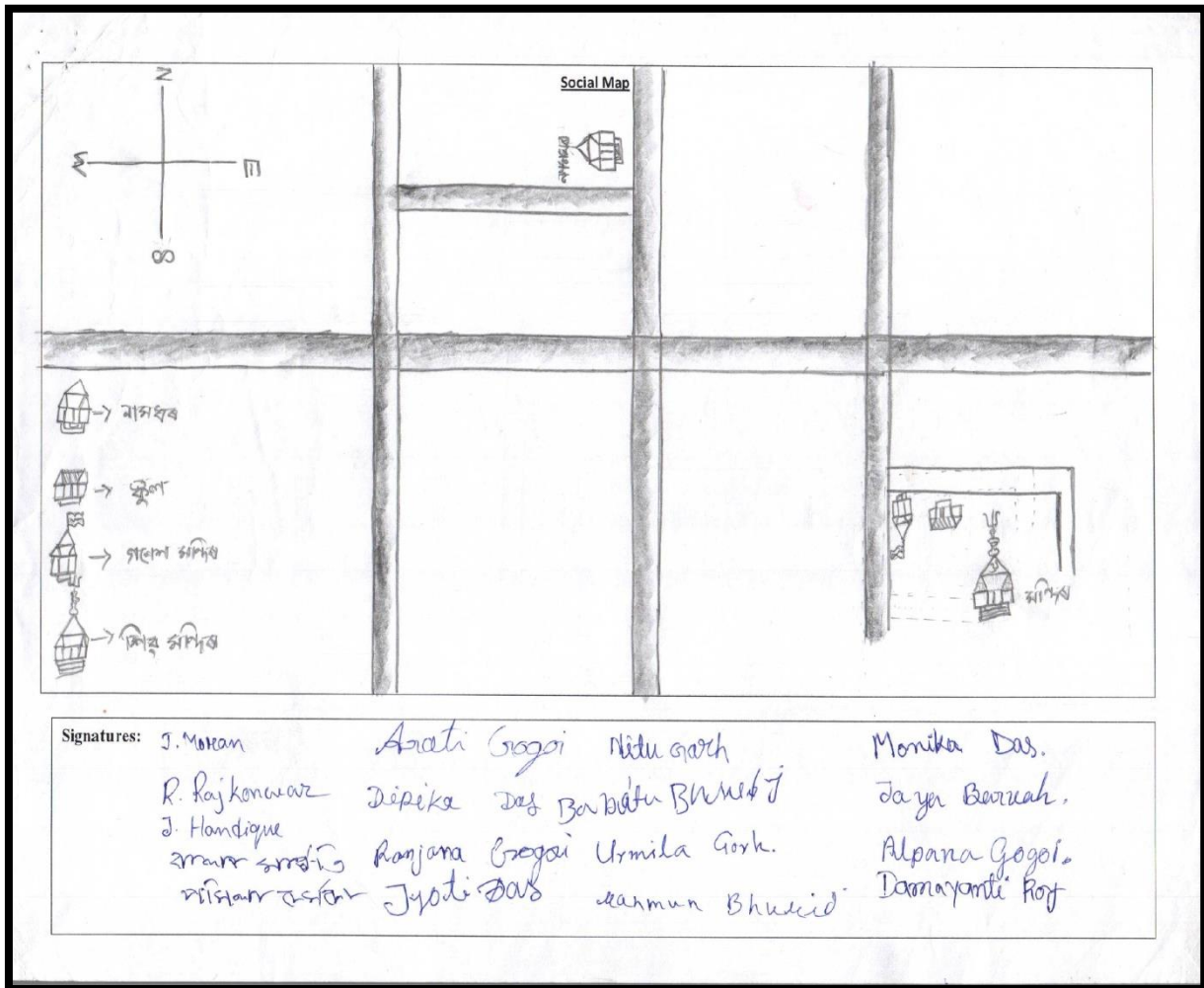
Village Map of the BalijanMilijuli JFMC



Signatures:

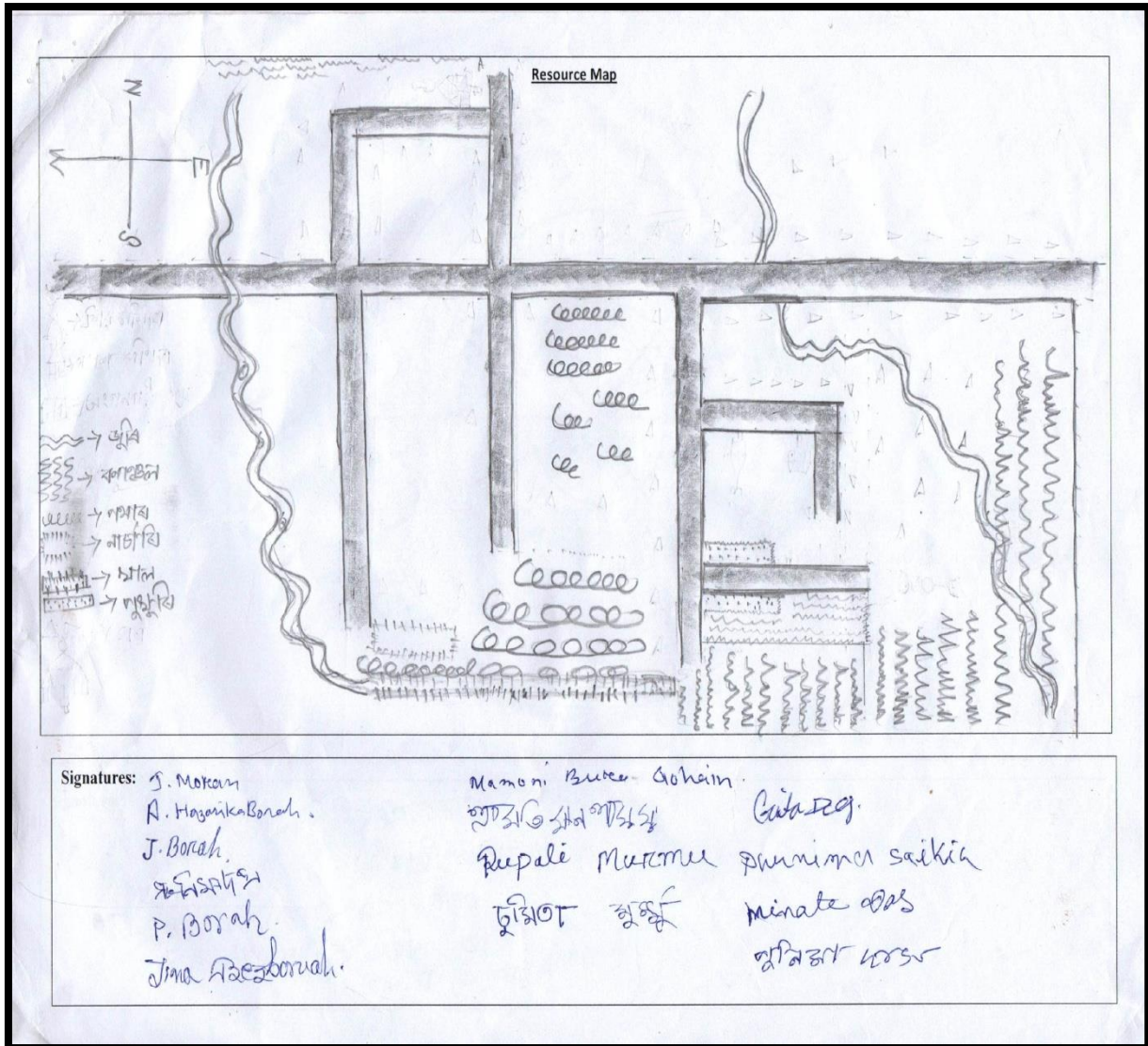
J. Mohan	Jyotshna Sonowal Gogoi	Rimjim Hazarika.	Juni Borah
B. Chetia	Banti Barman	Siba Siba Baruah	Rukman Das
Gmada Das	Madhusmita Das	Poli Das	Shrima Sharma
D. Das	Rishoni Gogoi	Manabasi Das Bongo Him	Anikanta Sharma
Rupa Das	Jonali Hazarika	Shrima Sharma	
R. Borah			

Village Social Map



Village Social Map of the JFMC being drawn by the villagers

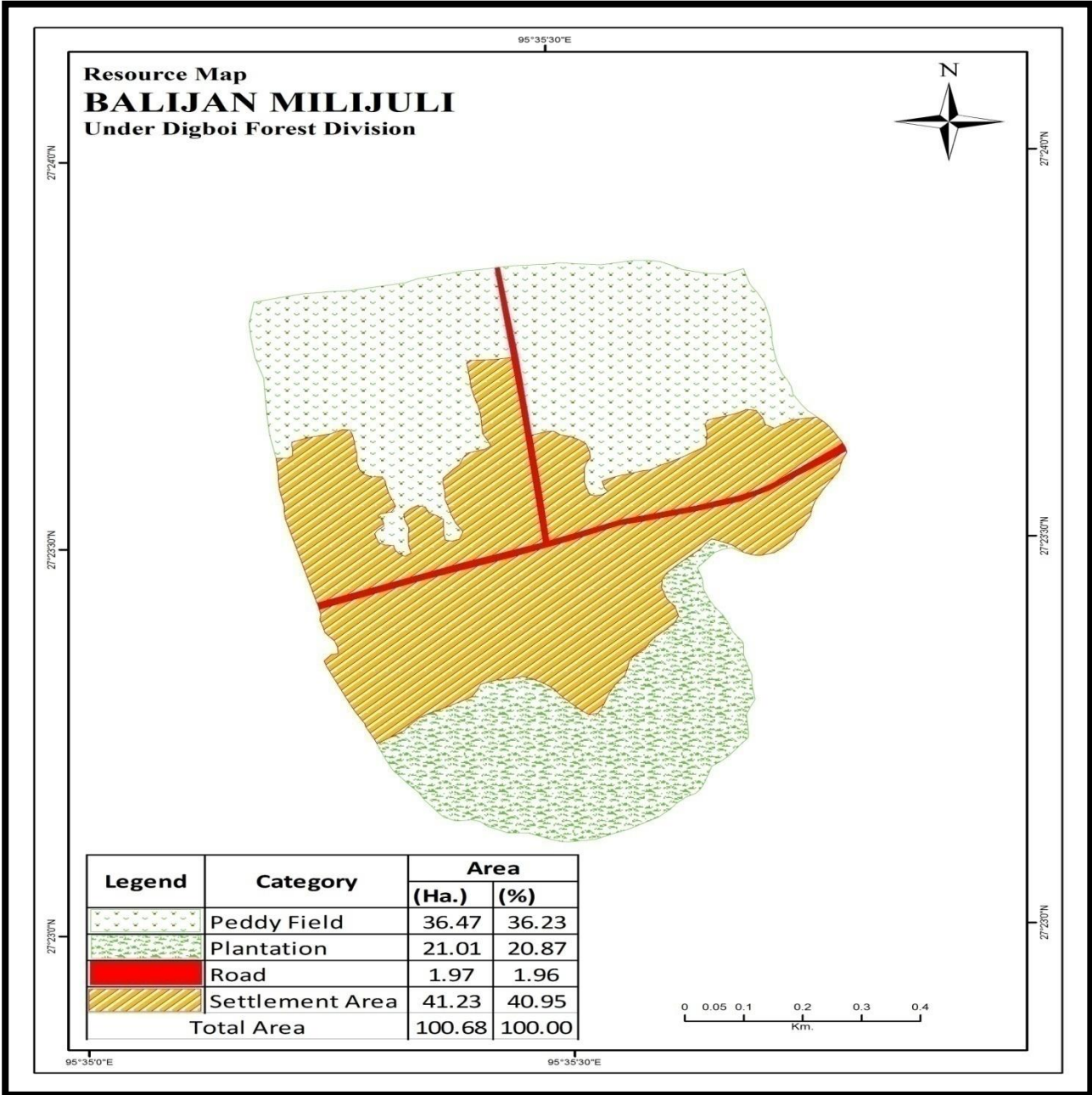
Resource Map



Resource Map of the JFMC being drawn by the villagers

Appendix 2

Land Use Map/ Resource Map of the JFMC (GIS)



Appendix 3

PRA ACTIVITY

Location and Timing of Participatory Rural Appraisal:

Numbers of participants :	30
Time :	10:30 am, 20 th April, 2017
Venue :	Panchayat Office (BalijanMilijuliVillage)

Table – 3.1 Brief about the villages under BalijanMilijuli JFMC

Sl. No.	Name of Village	Households (No.)	Population (No.)		
			Total	Male	Female
1.	BalijanMilijuli	100	650	370	280

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

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

Table 3.2: Information about the BalijanMilijuli Village

Social Information	Details	Numbers
	Total population	650
	Male	370
	Female	280
	Total households	100
	Pucca House(Nos.)	70
	Semi-Pucca House(Nos.)	20
	Tin Roof Kutcha House (Nos.)	10
	Rivelute (Nos.)	1
	PHC(Nos.)	1
	Community hall(Nos.)	0
	Tube Wells(Nos.)	100
	Ring Well (Nos.)	1

Source: - Field survey report.

Findings of social map:

- The participants of social mapping have identified all 100 households out of which 70 households have pucca house; 20 households have semi pucca house, and 10 households have Kutcha house with Tin Roof.
Other than the class based division of the households, important places like community hall, schools, and Tube well, PHC, Namghar, and Church are mapped.
- Main sources of water for the villagers are the Hand pump. There is only a Public Ring Well inside the JFMC area which many household used for their day to day purpose. Some villagers are used their own private motor water pump for water. The water from hand-pumps are used for day to day purposes. The agricultural land of the village is rain-fed.
- The primary education facility is available in the village which includes a L.P. School and 1 Anganwadi Centre.
- There is not any community hall available in the village.
- Majority of the people belong to the SC, OBC and General Caste only few people are belong to schedule tribe caste. There is also peoples who belong to the Christian community. The religion of the villagers is Hindu and Christian.

Learning's:

- Electricity is available in 100 homes of the BalijanMilijuli Village. There is LPG gas connections in 80 homes. The 20 households still dependent on forest and use firewood for their cooking purposes.They used to go to the forest for collecting the firewood, which includes branches and snags. Occasionally, villagers cut down trees from the forest, for their personal use which is a concern for forest department as it is leading to degradation for the forest.
- The one LP school and one Anganwadi school are located inside the JFMC area. Primary Health Centre, Post Office, Bank, Police Station and Railway Station is located in outside of the JFMC accordingly at Kacharigaon, balijan, Thermal and Digboi which is 1km,2km and 13 km, 4km away from the JFMC area. High schools are located outside the JFMC area in Digboi which is 1 KM away from the JFMC.
- There is not any community hall in the village. Therefore villagers have to face much trouble during the time of organizing any social functions and official meetings.

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- 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 BalijanMilijuli Village is 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.
- There are some grazing fields where villagers use for their cattle rearing. These fields are available for a maximum of six months. Seasonal grazing incorporates “grazing animals on a particular area allows the land that is not being grazed to rest and allow for new forage to grow.
- The villagers of the BalijanMilijuli JFMC have to go Tingrai, a distance covered with 15 km, for their weekly marketing activity.

3.2 Wealth Ranking

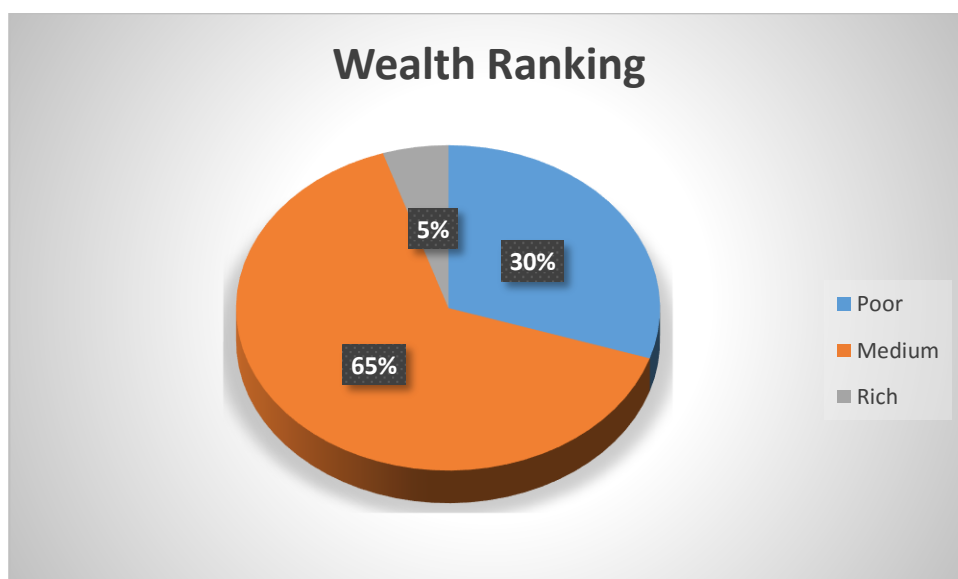
Wealth ranking contains community members identifying and analysing the different wealth groups in a community. It allows us to evaluate various socio-economic stratification of project beneficiaries and local people's classifications and thought of wealth/well-being.

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

- a) Land holding
- b) Occupation

As such about 30% people are poor, about 65% belong to middle class and about 5% are considered to be rich. Poor people are mainly irregular wage earners and marginal farmers and Manual Labour.

Figure 3.1: Wealth Ranking



Source: - Field survey report.

3.3 Timeline Review

Balijan Milijuli Joint Forest Management Committee (JFMC), Digboi Division

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
1950	The village was formed	Constructive
2008	There was a flood occurred which has a great impact on the people	Destructive
2011	The Statue of Dr. BhupenHazarika and Dr. B. R Ambedkar was build	Constructive
2016	The JFMC was formed	Constructive

Source: - Field survey report.

The BalijanMilijuli Village has a history behind as the village has gone through many phases.

In 1950 the BalijanMilijuli village was established.

Duing the year 2008 there was a flood occurred in the JFMC area which had a very bad effect among the people.

In the year 2011 the statue of Dr. BhupenHazarika and Dr. B. R Ambedkar was built to establish a cultural harmony among the people

During the year 2016 with the establishment of the JFMC there is a major impact in the JFMC for prevented the illegal activities and promoted conservation of the forest and it take along awareness among the villager how it is very important to protect the forest for seek of their next generation and it help in the progress of the concerned project. The JFMC has undertaken various plantation initiatives in the past years in regenerating of forest area.

Learning:

- The villagers are aware of the fact that cutting down of the trees lead to the less down the number of animals in the forest which indicates the forest preserving awareness of the people.
- From the discussion with the villagers it was noticed that people are now become aware about the conservation of the forestry, we can say that after the formation of the JFMC they are also engaged in plantation process.

3.4 Seasonal Mapping of Livelihood Activities

Seasonal calendars drawn by the local people are very useful means of generating information about seasonal leanings within the community and identifying periods of particular anxiety 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.

Balijan Milijuli Joint Forest Management Committee (JFMC), Digboi Division

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, Tea, Cabbage, Brinjal, Chilli, Potato, Pulses etc. The other major livelihood options available in the JFMC are Livestock rearing (poultry, Piggery), Weaving, Tailoring etc. which are not seasonal in nature but is showed in the seasonal mapping.

Categories	Time of Activity			
		Sowing	Harvesting	Plucking
Farming	Paddy	June- July	Nov- Dec	-----
	Potato	June-Aug	-----	Jan-Feb
	Cabbage	Jan-March	-----	Sept-Dec
	Brinjal	March-April	Sept-Oct	-----
	Chilli	Throughout the year		
	Non- farming	Weaving	Throughout the year	
Livestock Rearing				
Tailoring				

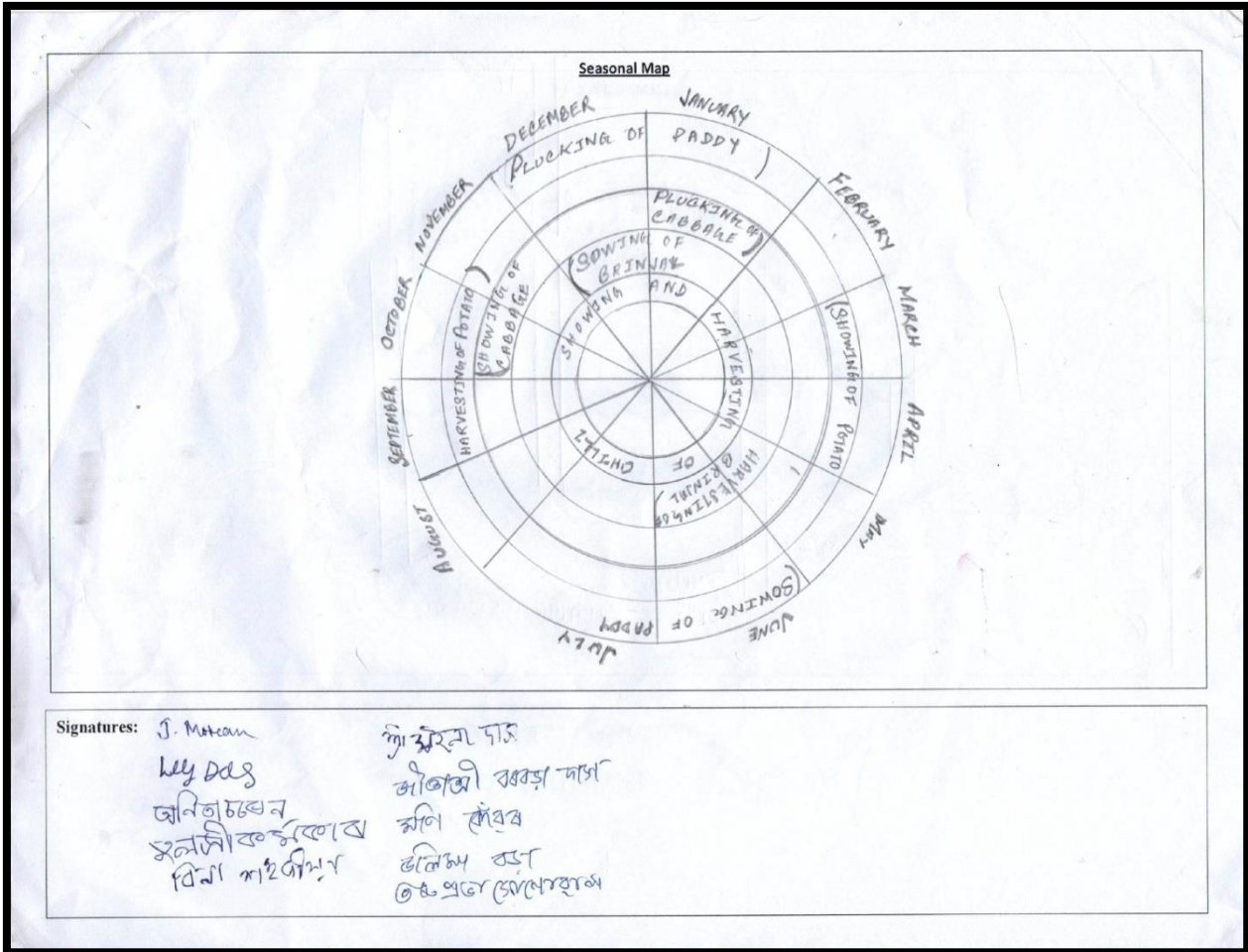
Table 3.4 Seasonal cropping pattern of the JFMC

Source: - Field survey report.

Learning's:

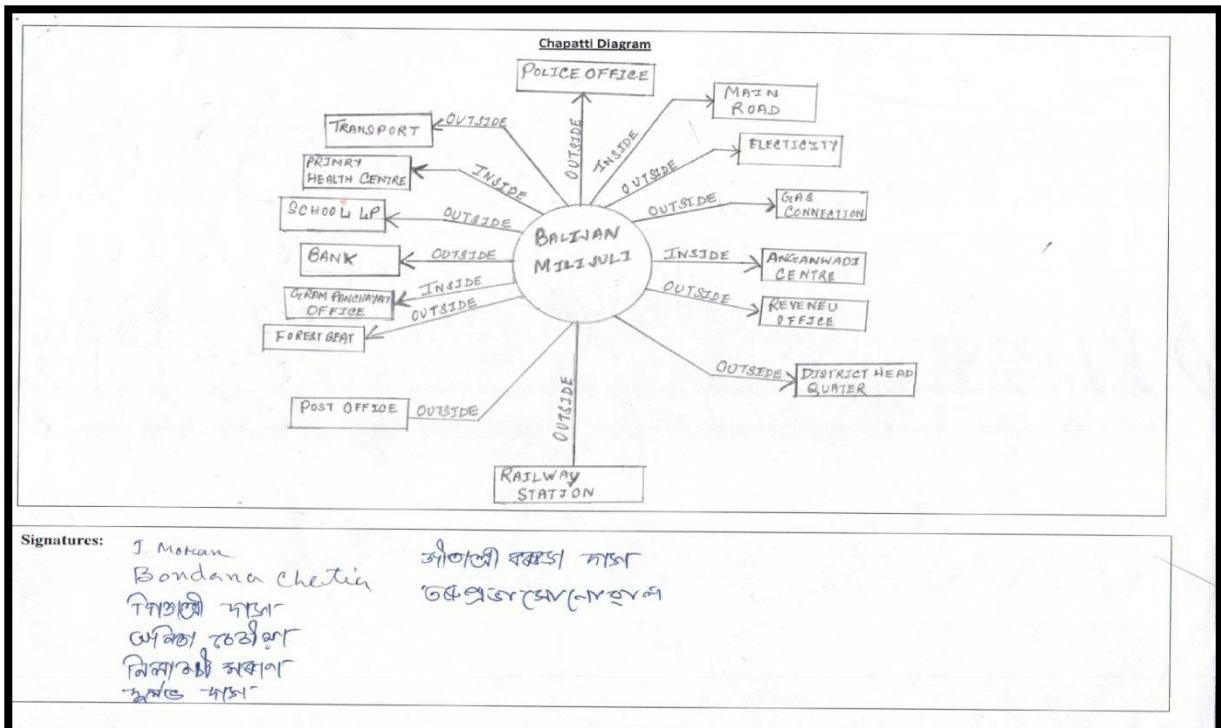
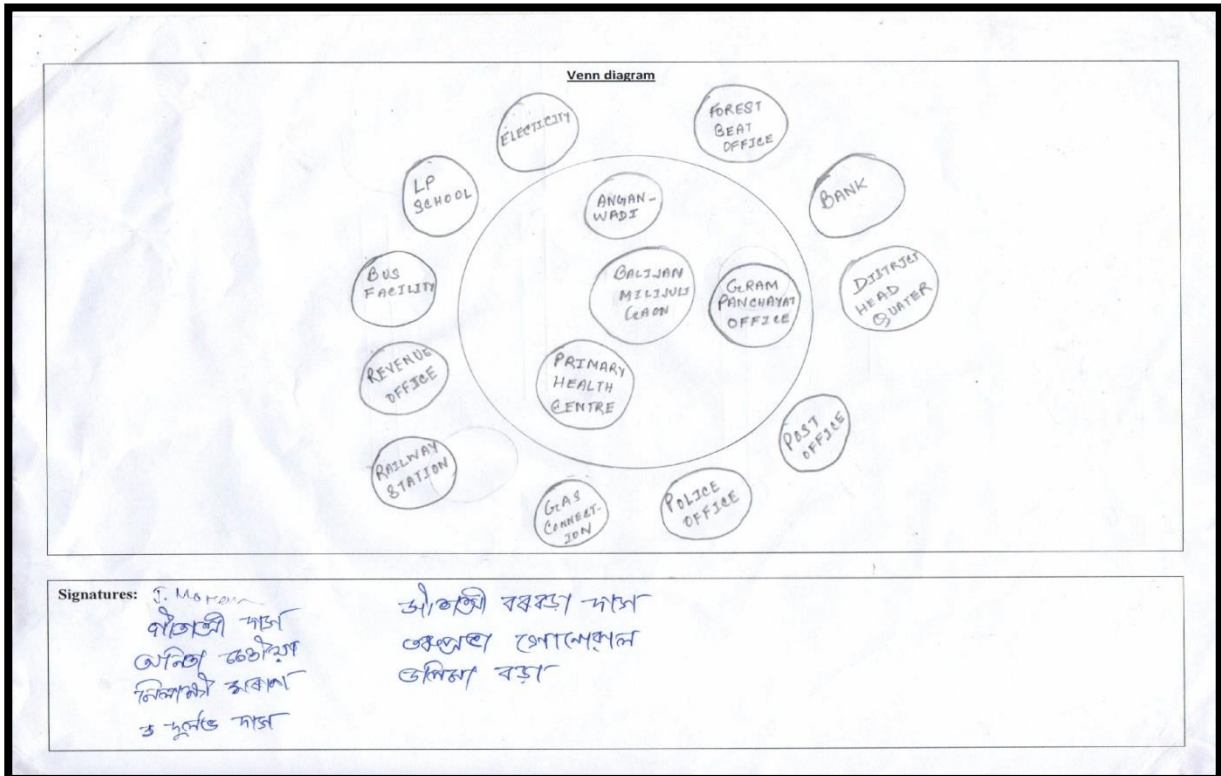
- Water availability is less during the period October to March, so agricultural productivity becomes less in this period.

Seasonal Map



Seasonal Map being drawn by the JFMC people

Venn /Chapatti diagram



Venn/ Chapatti diagram being drawn by the JFMC people

Priority Rankings: Potential Livelihoods and PRA

Priority Ranking of Livelihood Activities

Livelihood Activities		Weaving	Beauty Powder	Bamboo Products	Poultry	Piggery	Masonry				Marks	Rank
		A	B	C	D	E	F	G	H	I		
Weaving	A	X	A	A	A	A	A				5	1
Beauty powder	B		X	B	B	B	B				4	2
Bambooproducts	C			X	C	C	C				3	3
Poultry	D				X	D	D				2	4
Piggery	E					X	E				1	5
Masonry	F						X				0	6
	G											
	H											
	I											

Signatures: J. Mohan *ଅନନ୍ତ ବସନ୍ତ ନାଥ*
ନିତ୍ୟା ନାଥ *ଡକ୍ଟର ସତ୍ୟ ସାମଲ*

Priority Ranking of Livelihood by the Villagers

Appendix 4

Photographs



Awareness Programme



Group Photo

Appendix 5 List of JFMC Members

Appendix 6 (Record I)

Table 1: Basic data of the village:

Table 1: Basic data of the JFMC

Sl no	Name of the JFMC	Date Of Establishment	Name of Members in executive	Name of the President	Name of the secretary	Money in VDF	Contribution per family/per person	Social fencing used Yes/No	Remarks on special	Grading % of success by RFO
	BalijanMilijuli	2016	10	Mrs. Toru prabhaSonowal	Miss. Parineeta Singh					

Source: - Field survey report.

Table 2: Village wise population data:

Table -2.1: Demographic status of the project villages

Name of Village	No. of House Hold	SC		ST		OBC		General		Total- category all
		Male	Female	Male	Female	Male	Female	Male	Female	
BalijanMilijuli	100	300	200	30	40	20	30	20	10	650

Source: Field Survey Report

Table -2.2: Age Profile of the population

Age Classification	Below-14	Between 15-30	Between 31-45	Between 46-60	Above-60	Total
Male	48	287	160	58	17	570
Female	43	148	133	71	25	420

Source: Field Survey Report

Table 3: Village wise farmer category on the basis of land holding

Table 3: Village wise farmer category on the basis of land holding

Sl No	Name of the village	Type of famer according to land holding				
		Large farmer >10 ha.	small farmer 2-10 ha.	Marginal farmer (household) <2ha.	Land less (household)	Total
1	BalijanMilijuli	-	-	100	-	100

Source: Field Survey Report

Table 4: Cattle Population

Table 4: Cattle Population of the JFMC

Sl No	Name Of The Village	Village Wise No Of Cattles Or Type Of Animal			
		Cows	Goat	Bulls	Total
1	BalijanMilijuli	400	800	200	1,400

Source: Field Survey Report

Table 5: Village wise Infrastructure

Table 5 showing village wise infrastructure

Sl No	Infrastructure	Location	Distance from village
1.	Main Road	DigboiDuliajan	1km
2.	Electricity	Thermal Project	2km
3.	Gas connection	New market	5km
3.	Transport	DigboiItabhata	3km
4.	PHE	Kacharigaon	1km
5.	LP school	Inside	-
6.	High school	Digboi	6Km
7.	Bank	Tharmel	2km
8.	Anganawadicentre	BalijanShillongBasti	Inside
9.	Police station	Digboi	6km
10.	Forest Office	Borjan	5km
11.	Post office	Balijan	1km
12.	Bus facility	DigboiDuliajan	1km
13.	Railway Station	Digboi	6km
14.	District head quarter	Tinsukia	35km

Source: Field Survey Report

Table 6: Agricultural crops

Table 6: Agriculture Crops

Type of Crop	Rain Fed		Irrigation	
	Name of the crop	Area (in ha.)	Name of the crop	Area (in hac)
Kharif	Paddy (Aijong, Pankaj, Sali ,Ranjit)	36 ha.	-	-
Rabi	Cabbage, Potato, Brinjal, Chilli	10 ha.	-	-
Others	Tea	20 ha.	-	-

Source: Field Survey Report

Table 7: Crop production profile

Table 7 Crop production profile of JFMC

Type of crop	Total Production (approx) in Quintals	No of household growing	Average production (Quintals / hac) approx.	Area under crop (hac) approx
Paddy	1,000q	200	5q	36
Vegetable	1,000q	200	5q	10
Tea	5,700q	150	38.86q	20

Source: Field Survey Report

Table 7: Fodder Availability

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			✓

Source: Field Survey Report

Table 9: Location of market from the village

For purchase	Location	Distance from village if in other village kilometre
Grocery Shop/PDS centre	Inside	2km
Weekly Market	Tingrai	15km
Major Market	Digboi	3km

Source: Field Survey Report

Table 10: Water Resources Facility:

Table 10: showing the water resource facility available in the village

Water source	Number	Availability of water	uses
Tube well	100 (HH)	Adequacy	Drinking, bathing
Ring Well	1(Community)	Adequacy	Drinking, bathing
River/Nala	1	Seasonality	Bathing

Source: Field Survey Report

Table 11: Energy consumption:

Table 11: 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	40HH	12 month	Forest	Secondary
LPG	60HH	12 month	Pvt.	Major
Kerosene	-	-	-	-

Source: Field Survey Report

Table 11 (A): Education Status

Sl No	Categories	Number
1	Up to ME	247
2	Class VIII to class X	79
3	Class X to XII	50
4	Graduate	495
5	Masters	20
6	Illiterate	99

Record II : LIVELIHOOD OPPORTUNITY ANALYSIS

Table 12: Agriculture and Horticulture:

Table 12: showing the agricultural and horticultural status

	Reason	Opportunities	Programme
Low Production	<ul style="list-style-type: none"> • Lack of proper knowledge about cultivation • Traditional way of cultivation. • Very insignificant use of fertilizers and other pesticides, insecticides. • Non availability of irrigation facilities. • Unavailability of agricultural infrastructure, modern tools and equipment's. • Unaware about use of high yielding seeds. 	<ul style="list-style-type: none"> • Giving proper training on agriculture. Agriculture is a culture of Assamese people. Proper training can give them knowledge about modern techniques. • Application of pesticides and insecticides in a scientific way. • Introduction of modern technologies. • Introduction of organic Cultivation. • Usage of high yielding seed programme. 	
Storage and Production	<ul style="list-style-type: none"> • Lack of awareness about preservation system. • Unavailability of storing place 	<ul style="list-style-type: none"> • It will help in preserving the unsold products for a longer period of time. • They can store their products without facing any damaging and sell it when there is a higher demand in market. 	
Marketing	<ul style="list-style-type: none"> • Presence of middleman for which they didn't setup any contact with the direct market. • Transportation system is very poor. • No knowledge on marketing know-how, dependence on traditional system of selling. 	<ul style="list-style-type: none"> • Proper road connectivity facility will help them to carry their products to the nearby markets. • Generating suitable 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 by introducing exporting system.	
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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 is 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 	Disease control Increases the life span of cattle.	

Table 14: NWFP

Table 14 NWFP

Constraints	Reasons	Opportunities	Programme
Less collection	Less availability of NWFP	<ul style="list-style-type: none"> • Availability of fertile fallow land 	
Unsustainable extraction	-	<ul style="list-style-type: none"> • Availability of fertile fallow land 	
Low rates	-	-	
Value addition	<ul style="list-style-type: none"> • No processing units • Non availability of required resources • No technical knowhow 	-	
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. 	
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. 	

BalijanMilijuliJoint Forest Management Committee (JFMC),Digboi Division

Table 15: Credit facility

Table 15 Credit facility

Constraints	Reason	Opportunities	Programme
Indebtedness	<ul style="list-style-type: none"> No Access to organized lending source 	<ul style="list-style-type: none"> Setting up modern financial institution in the nearby areas. 	
Rate of interest	<ul style="list-style-type: none"> Higher lending rates charged by the private money lender 	<ul style="list-style-type: none"> Subsidized credit arrangement through SHG or JFMC 	
Availability of loan	<ul style="list-style-type: none"> Fear of risk taking No knowledge of documentation 	<ul style="list-style-type: none"> Start-ups entrepreneurial venture 	
Mortgage difficulty	<ul style="list-style-type: none"> Unavailability of proper documentation of mortgaged property. 	<ul style="list-style-type: none"> Proper awareness about documentation in the area 	



[Signature]
 Divisional Forest Officer
 Digboi Division, Digboi