

**TORAJAN ECO DEVELOPMENT COMMITTEE**

**Nameri Wildlife Range**

**Western Assam Wildlife Division**

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

**Prepared by**

**Torajan Eco Development Committee**

**Assisted by**

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

*approved*

**Divisional Forest Officer  
Western Assam Wildlife Division  
Dolabari, Tezpur-784021, Assam**

**May 2017**



### **List of Acronyms**

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

**TORAJAN ECO DEVELOPMENT COMMITTEE  
FIELD DIRECTOR, Micro-Plan for 10 Years**

**[Livelihood Development Plan]**

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## 1. Introduction

<p><b>About the Project</b></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 ecosystems 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 cofunding 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><b>Micro-Planning &amp; Livelihood Development</b></p>	<p>In order to promote livelihood activities through market potential based value addition; the present project intends to take up activities like entrepreneurship promotion, product processing value addition and marketing under this project. This has become necessary on account of the pressures on existing forest resources due to the growth of population. There is a need to explore value addition to the existing forest and biodiversity products and services, based on the market potential. In addition, non-forest based livelihoods need to be explored and the capacities of the community members need to be built-up through skills development initiatives.</p> <p>A consortium comprising of Indian Institute of Entrepreneurship (IIE) Guwahati, <i>Rashtriya Gramin Vikas Nidhi</i> (RGVN) 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 <b>‘various operations of village and forest development livelihood support of forest dependent members and keeping sustainable forest management as the broad objective’</b>. It includes <u>both</u> forest development and livelihood development.</p>
<p><b>Micro-Plan for The Torajan EDC</b></p>	<p>This document gives the Micro-Plan for Torajan Eco Development Committee (EDC) which is located in Nameri Wildlife Range, Potasali, under Western Assam Wildlife Division, Dolabari, Tezpur. 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, 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 30<sup>th</sup> 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 Torajan EDC.</p>

## 2. Village Socio-Economic Profile

<b>Location</b>	The Torajan Eco Development Committee (EDC) has been formed to cover the existing community dwelling in Torajan, a village located on the fringe of the Nameri Reserve Forest. The area covered by the above EDC falls within the Bhalukmari Gaon Panchayat of Sonitpur District of Assam. <b>Appendix-1</b> Gives the Village Map.																						
<b>Key Information</b>	<p>The key information of the EDC is furnished below.</p> <p style="text-align: center;"><b>Table-A: Key Information of the EDC</b></p> <table border="1"> <tr> <td><b>Name of the EDC</b></td> <td>Torajan</td> </tr> <tr> <td><b>Habitation</b></td> <td>Torajan</td> </tr> <tr> <td><b>Name of Revenue Village</b></td> <td>Forest Village</td> </tr> <tr> <td><b>Name of the Gram Panchayat / VCDC</b></td> <td>Bhalukmari</td> </tr> <tr> <td><b>Revenue Circle</b></td> <td>Balipara RF / Chariduar</td> </tr> <tr> <td><b>District</b></td> <td>Sonitpur</td> </tr> <tr> <td><b>Forest Division</b></td> <td>Western Assam Wildlife Division</td> </tr> <tr> <td><b>Forest Range</b></td> <td>Nameri Wildlife Range, Potasali</td> </tr> <tr> <td><b>Forest Beat</b></td> <td>Potasali</td> </tr> <tr> <td><b>Year Formed</b></td> <td>2016</td> </tr> <tr> <td><b>Description of Boundary of EDC</b></td> <td>GPS Coordinates (Centre Point)  <b>N 26°55'30"</b>  <b>E 92°49'20"</b>                      North: Mekahi Sotaipahal                      South: Darikati                      West: Salbagan                      East: Bharalu</td> </tr> </table> <p><b>Source:</b> EDC Records &amp; Discussions during PRA Exercise in April 2017</p> <p>Additional details are given at <b>Table-1</b> of Record-I. (Given at Appendix)</p>	<b>Name of the EDC</b>	Torajan	<b>Habitation</b>	Torajan	<b>Name of Revenue Village</b>	Forest Village	<b>Name of the Gram Panchayat / VCDC</b>	Bhalukmari	<b>Revenue Circle</b>	Balipara RF / Chariduar	<b>District</b>	Sonitpur	<b>Forest Division</b>	Western Assam Wildlife Division	<b>Forest Range</b>	Nameri Wildlife Range, Potasali	<b>Forest Beat</b>	Potasali	<b>Year Formed</b>	2016	<b>Description of Boundary of EDC</b>	GPS Coordinates (Centre Point) <b>N 26°55'30"</b> <b>E 92°49'20"</b> North: Mekahi Sotaipahal South: Darikati West: Salbagan East: Bharalu
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<b>Brief Details of the Executive Committee &amp; General Body</b>	<p>The brief details of Executive Committee &amp; General Body of the EDC are contained in the table, which is given below.</p> <p style="text-align: center;"><b>Table-B: Brief Details of Executive Committee &amp; General Body</b></p> <table border="1"> <tr> <td><b>Name of President</b></td> <td><b>Shyam Tamuli</b></td> </tr> <tr> <td><b>Name of Secretary</b></td> <td><b>N.A.</b></td> </tr> <tr> <td><b>Name of Treasurer</b></td> <td><b>Gokul Bora</b></td> </tr> <tr> <td><b>Registration Number</b></td> <td><b>KNP/FG.761/EDC/RC/WAWL/2016-17/03</b></td> </tr> <tr> <td><b>No. of Members in the Executive Committee</b></td> <td><b>Male: 9</b> <b>Female: 3</b> <b>Total: 12</b></td> </tr> <tr> <td><b>No. of Members in the General Body</b></td> <td><b>80 Nos.</b></td> </tr> </table> <p><b>Source:</b> EDC Records</p>	<b>Name of President</b>	<b>Shyam Tamuli</b>	<b>Name of Secretary</b>	<b>N.A.</b>	<b>Name of Treasurer</b>	<b>Gokul Bora</b>	<b>Registration Number</b>	<b>KNP/FG.761/EDC/RC/WAWL/2016-17/03</b>	<b>No. of Members in the Executive Committee</b>	<b>Male: 9</b> <b>Female: 3</b> <b>Total: 12</b>	<b>No. of Members in the General Body</b>	<b>80 Nos.</b>
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<p><b>Households &amp; Population Structure</b></p>	<p>The village has 80 households, out of which 14 households are BPL (Below Poverty Line) households. The total population is 363 of which 171 are male and the rest 192 are female members. All the population belongs to OBC category.</p> <p><b>Table-2</b> of Record-I may be referred for further details in the above regard.</p> <p>From this, it is inferred that:</p> <ol style="list-style-type: none"> <li>1. The average number of persons in a household is 5.</li> <li>2. The sex ratio is 1123 females per 1000 males in the village.</li> </ol>								
<p><b>Education &amp; Skills Development</b></p>	<p>Over 60 percent of the population of the EDC area is reported to be literate. Most of the community members have received school level education. On the other hand, relatively fewer households have college educated members.</p> <p>Livelihood skills are usually acquired under various settings – formal &amp; informal. In the EDC area, informal means for skills development is the traditional norm. People have traditional skills in the following areas:</p> <p>Livelihood skills are usually acquired under various settings – formal &amp; informal. In the EDC area, informal means for skills development is the traditional norm. People have skills in the following areas:</p> <ol style="list-style-type: none"> <li>(a) Farming.</li> <li>(b) Livestock rearing.</li> <li>(c) Weaving</li> </ol>								
	<p style="text-align: center;"><b>Table E: Work Force</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Cultivator</th> <th>Livestock</th> <th>Service</th> <th>Wage-Labour</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">110</td> <td style="text-align: center;">80</td> <td style="text-align: center;">2</td> <td style="text-align: center;">20</td> </tr> </tbody> </table> <p>Government has been active in promoting formal skills development programmes in the country as well as in the state. The village has not reported receipt of benefits of any such programme has been carried out in the habitation or in nearby areas.</p>	Cultivator	Livestock	Service	Wage-Labour	110	80	2	20
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<p><b>Soil</b></p>	<p>The soil type of the project area includes:</p> <ul style="list-style-type: none"> <li>• Alluvial soil (clayey soils) in low lying areas while the plain areas is loamy in nature.</li> <li>• The area also has red soils in hillocks, hilly parts and forests areas.</li> </ul> <p>Both types of soil can support different kinds of crops, as the soil is reported to be fertile on the whole.</p>								
<p><b>Climate: Temperature &amp; Rainfall</b></p>	<p>The maximum <b>temperature</b> during the summer is 40° C. The minimum temperature during the winter is 8°-10° C. The annual <b>rainfall</b> is about 300 mm. About two-thirds of the rainfall usually occurs during the rainy season (June-September).</p> <p>The village has high levels of <b>humidity</b> (over 95%) during the rainy months and low levels in the winter (Below 25%).</p>								

<b>Forest &amp; Biodiversity</b>	<p>Forest type:</p> <p>The formation of forest falls under the foothills of the eastern Himalayas in the Sonitpur District of Assam, India, about 35 km from Tezpur.</p> <p>The vegetation type of Nameri is of semi-evergreen, moist deciduous forests with cane and bamboo brakes and narrow strips of open grassland along rivers. The forests are rich in epiphytes, lianas, and creepers and clump-forming bamboo.</p> <p>This forest has over 600 species. Some notable species are Gmelina arborea, Michelia champaca, Amari, Chukrasia tabularis, Ajar, Urium poma, Bhelou, Agar, Rudraksha, Bonjolokia, Hatipolia akhakan, hollock, Nahor. It is home for orchids like Dendrobium, Cymbidium and Cyripedioideae.</p> <p>This is excellent elephant country and was considered to be an elephant reserve. It is an ideal habitat for a host of other animals including the tiger, leopard, sambar, dhole (the Asiatic wild dog), pygmy hog, Indian wild bison, clouded leopard, leopard cat, muntjac, gaur, wild boar, sloth bear, Himalayan black bear, capped langur and Indian giant squirrel.</p> <p>Nameri is a birdwatcher's paradise with over 300 species. The white winged wood duck, great pied hornbill, wreathed hornbill, rufous necked hornbill, black stork, ibisbill, blue-bearded bee-eaters, babblers, plovers and many other birds make Nameri their home.</p>
<b>Land Use Pattern</b>	<p><b>Appendix-2</b> gives the land-use pattern of the Torajan EDC.</p> <p>Paddy Field: 52.51%</p> <p>Road: 1.81%</p> <p>Settlement Area: 45.68%</p>
<b>Land Holdings</b>	<p>The type of households as per land-holding is given at <b>Table-3</b> of Record-I. From the same, it is seen that:</p> <ul style="list-style-type: none"> <li>• 5 households are large farmers (<math>\geq 10</math> bigha)</li> <li>• 64 households are marginal farmers (between 5 to 10 bigha)</li> <li>• 10 households belong to small Farmer (less than 5 bigha).</li> <li>• 1 household is landless</li> </ul>
<b>Livestock</b>	<p>The total number of livestock in the village is 1800 (approx.). The main types of livestock possessed by the households include:</p> <p>Cows: 180</p> <p>Goats: 134</p> <p>Poultry: 1460</p> <p><b>Table-4</b> of Record-I may be referred to for the details in the above connection.</p>
<b>Village Infrastructure &amp; Communication Facilities</b>	<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 <b>Table-5</b> 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</p>

village infrastructure:

- A major thrust of the micro plan is to understand the village level infrastructure of the surveyed EDC. As we already have an idea of the EDC. The EDC road is connected to the Nameri range office and with the National Highway which is found Kutcha motorable.
- The main road is connected to the village with National Highway is found pucca motorable while the roads within the villages are kutcha motorable.
- Electricity is available to all the household of the communities of the EDC. However, there is a lack of LPG gas connections of the villagers of the EDC. The Household still dependent on forest and use firewood for their cooking purposes. They used to go to the forest for collecting the firewood which is still a concern for the forest department for degradation of the forest.
- The primary health center along with post office is located in Hatigate, which is 2.3 KM away from the EDC. The villagers have to cover a long distance for their health check-up.
- There is only one LP School present in the EDC area. There is also an Anganwadi Centre present where Basic health care activities include contraceptive counselling and supply, nutrition education and supplementation, as well as pre-school activities are done.
- 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 villagers of the EDC are fully dependent on crop residue, trees fodder, grasses, and green fodder. Field residues are materials left in an agricultural field after the crop has been harvested. These residues include stalks and stubble (stems), leaves, and seed pods.
- There are some grazing field where villagers use for their cattle rearing. These fields are available for a maximum of six months. As the EDC communities produce vegetables throughout the year, scarcity of food grains seems to be nil for the livestock's
- The villagers of the Torajan EDC have to move Chariduar weekly market at 10 km away. The weekly market mainly occupies food grains such as rice, dal, wheat, etc. are sold in one row. Vegetables are sold in another row. Fish, meat and dried fish are sold in a different row. Domestic materials, utensils, bangles, cloths and stationeries are sold in different stalls.
- In the Torajan EDC, all the households have their own dug well which is used for daily use along with drinking purpose. There is a river (Sonai) present which is used for agriculture farming. But the picture of irrigation is not adequate.
- Energy is one of the most important ingredients required to alleviate poverty and realize socio-economic and human development, which is directly interconnected to the prominence of life in rural areas. There are various source of energy consumption such as Biomass, kerosene, electricity, LPG and candle. In the Torajan EDC, all the household are fully dependent on firewood for cooking. People collect Bamboo, branches, firewood, rice husk, leaves & twigs for household energy use. There are only 03 household who uses LPG for cooking purpose.



<b>Agricultural Crops</b>	<p>The details of the agricultural crops grown in the village is available at <b>Table-6</b> of Record-I.</p> <p>The above shows that the following are the main crops grown in the village.</p> <p><b>Kharif Crops:</b> Paddy (Boro, Aijong, Ranjeet, Joha, etc.)  <b>Rabi Crops:</b> Mustard, Cabbage, Brinjal, Chilli, Cauliflower, Tomato, Pumpkin, Gourd, etc.  <b>Others:</b> Pineapple, Mango, Jackfruit  All the crops are rain fed.</p>
<b>Crop Production Profile</b>	<p><b>Table-7</b> of Record-I may be referred to for the production and yield details of the crops grown in the village.</p> <p>The production and yield of these crops is given as follows:</p> <p>(a) Paddy: Production 1825 Quintal  (b) Horticulture: Production 1105 Quintals  (c) Fruits: Production 220 Quintals</p>
<b>Fodder Availability</b>	<p>The matter of fodder availability in the village is dealt with at <b>Table-8</b> of Record-I. The table 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>
<b>Markets</b>	<p><b>Table-9</b> 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: Inside the village.  (b) Weekly / Bi-weekly Market: Chariduar at 10 km away.  (c) Major Market: Lokhara at 15 km away.</p>
<b>Water Resources</b>	<p>The water resources are tabulated at <b>Table-10</b> of Record-I. The main water resources with the water availability is as follows:</p> <p>(a) Ring well (Water Availability: Perennial-/ <del>Seasonal</del>)  (b) River (Water Availability: Perennial-/ <del>Seasonal</del>)</p>
<b>Energy Consumption</b>	<p><b>Table-11</b> of Record-I shows the major sources of energy in the village.</p> <p>The same have been listed below:</p> <p>(a) Fuel wood - Households Depending 80 Nos. Source: Forest.  (b) LPG- Households Depending 03 Nos. Source: Govt.</p>
<b>Socio-economic status</b>	<p><b>Social set-up:</b> The village is inhabited by Assamese community and all the inhabitants are classified as OBC Category. The society is not marked by deep social divisions. The observed position of women is satisfactory.</p> <p><b>Economic Condition:</b> The economic position is not satisfactory. The main livelihoods are Farming, Weaving, Daily wages, Livestock rearing, Selling Vegetables etc. Most households (66 HH) earn in the range of</p>

	Rs. 96,000 /- to Rs. 1,20,000/- . 5 HH have income range above Rs. 1,40,000/-
<b>Impact of wild life area</b>	<p>Positive impacts</p> <ul style="list-style-type: none"> <li>• Soil and water conservation</li> <li>• Economic benefits from tourism</li> <li>• Environmental improvement</li> </ul> <p>Negative impacts</p> <ul style="list-style-type: none"> <li>• Human wild life conflict</li> <li>• Cattle/crop residue</li> <li>• Damage of property by wild animals</li> </ul>
<b>Maps</b>	<p><b>Appendix-1</b> gives the following maps, based on PRA exercise:</p> <ul style="list-style-type: none"> <li>• Location Map</li> <li>• Village Social Map</li> <li>• Village Resource Map</li> </ul>

### 3. Livelihood Opportunity Analysis

<b>PRA Exercise</b>	<p>Team from IIE Guwahati carried out PRA exercise in TORAJAN village as follows:</p> <p><b>Date: 30<sup>th</sup> April, 2017</b>  <b>Location:</b> Household premises of a villager  <b>Numbers Present: 35</b>  <b>In Presence of:</b> EDC office bearers, Village Headman, community members, Forest Department personnel, etc.</p>
<b>Objective of PRA</b>	<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>
<b>Tools Used &amp; Outcomes of the PRA</b>	<p>Different tools were used and outcomes obtained. These include:</p> <p>Social Mapping  Wealth Ranking  Time Line review  Seasonality of Livelihoods  Venn Diagram  Chapatti Diagram</p> <p><b>Appendix-3</b> furnishes detailed information of the above</p>

<p><b>Ranking</b></p>	<p>Ranking exercise has been done for the following:</p> <ul style="list-style-type: none"> <li>• <b>Livelihoods &amp; Skills Development</b></li> <li>• <b>Entry Point Activities (EPA)</b></li> </ul> <p>Ranking of EPA</p> <table border="1" data-bbox="547 327 1482 1122"> <thead> <tr> <th>Rank</th> <th>Village EPA as ranked</th> <th>Details (Appendix-3 has additional particulars)</th> <th>Probable source of funding/ deptt.</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Handloom</td> <td>A center with training facilities which link to mass consumption</td> <td>APFBC Fund</td> </tr> <tr> <td>2</td> <td>Solar Fencing</td> <td>Fencing un the boundary of the EDC</td> <td>APFBC Fund</td> </tr> <tr> <td>3</td> <td>Home Stay</td> <td>Providing Tent that is usable for tourist.</td> <td>APFBC fund</td> </tr> <tr> <td>4</td> <td>Community Hall along with a production center</td> <td>Construction of Community Hall</td> <td>APFBC Fund</td> </tr> <tr> <td>5</td> <td>Drinking Water</td> <td>RO plant installation</td> <td>APFBC fund</td> </tr> </tbody> </table> <p>Source: PRA</p> <p>A low cost community Hall along with work-shed cum EDC office to be set up within the EDC boundaries for setting up and commissioning of tool kits/equipment/machineries.</p>	Rank	Village EPA as ranked	Details (Appendix-3 has additional particulars)	Probable source of funding/ deptt.	1	Handloom	A center with training facilities which link to mass consumption	APFBC Fund	2	Solar Fencing	Fencing un the boundary of the EDC	APFBC Fund	3	Home Stay	Providing Tent that is usable for tourist.	APFBC fund	4	Community Hall along with a production center	Construction of Community Hall	APFBC Fund	5	Drinking Water	RO plant installation	APFBC fund																							
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<p><b>Livelihood opportunities</b></p>	<p>Keeping the view of the present livelihood of the villagers, an overall assessment of skill needs/ skill preferences of EDC have been analyzed. The categorization has been divided into farm sector and non-farm sector. The responses towards preference towards skill development training programmes have been presented in the following chart.</p> <p>Table H: Livelihood Opportunities ranking</p> <table border="1" data-bbox="547 1585 1433 1901"> <thead> <tr> <th rowspan="2">Type of training programme</th> <th colspan="5">Mark the preferred option</th> </tr> <tr> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> </tr> </thead> <tbody> <tr> <td>Agricultural and allied activities related</td> <td>1</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Horticultural related</td> <td>-</td> <td>2</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Livestock related</td> <td>-</td> <td>2</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Handicraft related</td> <td>-</td> <td>-</td> <td>3</td> <td>-</td> <td>-</td> </tr> <tr> <td>Handloom related</td> <td>1</td> <td>-</td> <td>-</td> <td>4</td> <td>-</td> </tr> <tr> <td>Others (NTFP)</td> <td>-</td> <td>-</td> <td>-</td> <td>4</td> <td>-</td> </tr> </tbody> </table> <p>Source: PRA Exercise</p> <p>It is observed during the PRA that preference for agriculture and allied activities like bee keeping, sericulture related training programmes is</p>	Type of training programme	Mark the preferred option					1	2	3	4	5	Agricultural and allied activities related	1	-	-	-	-	Horticultural related	-	2	-	-	-	Livestock related	-	2	-	-	-	Handicraft related	-	-	3	-	-	Handloom related	1	-	-	4	-	Others (NTFP)	-	-	-	4	-
Type of training programme	Mark the preferred option																																															
	1	2	3	4	5																																											
Agricultural and allied activities related	1	-	-	-	-																																											
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Handloom related	1	-	-	4	-																																											
Others (NTFP)	-	-	-	4	-																																											

	<p>highest. This is because of the available resource present in the EDC area. The second and third preference is given to Horticulture and livestock rearing. Handicraft sector like skill development on cane and bamboo products and handloom where tailoring and weaving activities are coming less into focus.</p>
<b>Forest Development Opportunities</b>	<p>In Torajan EDC, ranking has been done in order to understand how people are aware regarding opportunities lead to forest development. The following details provide the rank wise forest development opportunities in the project area. (Matrix ranking is given in Appendix)</p> <ol style="list-style-type: none"> <li>1. Plantation of firewood.</li> <li>2. Development of degraded forest</li> <li>3. Forest protection Plantation on medicinal NTFP, etc.</li> <li>4. Raising of nursery</li> <li>5. Demarcation of land</li> <li>6. Plantation of bamboo</li> <li>7. Plantation of tree.</li> <li>8. Natural regeneration</li> <li>9. Fodder cultivation</li> </ol>
<b>Agriculture &amp; Horticulture</b>	<p><b>Table-12</b> Under Record-2 may be seen in this connection for opportunities in the areas of agriculture and horticulture. The main constraints are:</p> <ol style="list-style-type: none"> <li>(a) Very negligible use of fertilizers and pesticides, insecticides.</li> <li>(b) Lack of irrigation facilities</li> <li>(c) Lack of agricultural infrastructure, modern tools and equipment's viz. power tillers, tractors etc.</li> <li>(d) Non usages of high yielding seeds etc.</li> </ol> <p>The opportunities are:</p> <ol style="list-style-type: none"> <li>(a) Application of proper and controlled pesticides and insecticides.</li> <li>(b) Introduction of new and advance technology</li> <li>(c) Well-structured training programme.</li> </ol> <p>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"> <li>• Tractor operation training</li> <li>• Agri.-skill development programme.</li> <li>• Training on insecticides, pesticides, hybrid cultivation etc.</li> </ul>
<b>Livestock</b>	<p><b>Table-13</b> Furnishes additional information about opportunities for livestock rearing.</p> <p>The main constraints are:</p> <ol style="list-style-type: none"> <li>(a) Unable to buy fodder from market due to poor financial condition.</li> <li>(b) Trees fodder and crop residue are available only for 3-6 months.</li> </ol>

	<p>Green fodder is also not available for the whole year.</p> <p>(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) Majority of the workforce is engaged in this activity.</p> <p>The suggested Skill Development Programme is:</p> <p>(a) Goatery (b) Poultry (c) Cattle rearing</p>
<b>NTFP</b>	<p>The opportunities for NTFP are tabulated at <b>Table-14</b> under Record-2.</p> <p>The main constraints are:</p> <p>(a) Lack of proper utilization of NTFP due to inadequate knowledge. (b) Lack of research on development of high yielding varieties, domestication etc. (c) No technical know-how (d) No processing units (e) Lack of trained personnel and equipment (f) Lack of facilities to fabricate equipment locally</p> <p>The opportunities are:</p> <p>(a) Availability of fertile fallow land (b) A ready market for the finished products.</p> <p>The suggested programmes are:</p> <p>(a) Plantation of Food plants, (b) Medicinal Plant etc.</p>
<b>Specialized Skills</b>	<p>For skills development, the opportunities are tabulated at <b>Table-15</b> under Record-2</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.</p> <p>The suggested programmes are:</p> <ul style="list-style-type: none"> <li>• Training on Modern Tools and Equipment</li> <li>• Providing modern technology to the villagers</li> <li>• Skill Up gradation &amp; Training on New Product Development and Product</li> </ul>



	<p>Diversification</p> <ul style="list-style-type: none"> <li>• Setting up a raw material bank</li> <li>• Providing a bulk buy arrangement of the finished product with institutional buyers.</li> </ul>
<b>Credit Facility</b>	<p><b>Table-16</b> under Record-2 discusses this aspect.</p> <p>The main constraints are:</p> <ol style="list-style-type: none"> <li>(a) Financial exclusion</li> <li>(b) Higher rate charged by the private money lender.</li> </ol> <p>The opportunities are:</p> <ol style="list-style-type: none"> <li>(a) Setting up modern financial institution</li> <li>(b) Adequate awareness.</li> <li>(c) To provide credit facilities for modern equipment (tractors etc.)</li> </ol> <p>The suggested programme is:</p> <ol style="list-style-type: none"> <li>(a) Setting up modern financial institution in the nearby areas.</li> </ol>
<b>Strategic Interventions</b>	<p>Summarizing the suggested programmes mentioned above as strategic interventions for the Livelihood Development Plan:</p> <ol style="list-style-type: none"> <li>1. <b>Agriculture &amp; Horticulture:</b> Tractor operation training, Agri-skill development programme, Training on insecticides, pesticides, hybrid cultivation.</li> <li>2. <b>Weaving and Tailoring:</b> Providing improved machineries like jacquard loom.</li> <li>3. <b>Livestock:</b> Cattle rearing, Goatery, Poultry.</li> <li>4. <b>NWFP:</b> Plantation of Food plants, Medicinal Plant etc.</li> <li>5. <b>Specialized Skills:</b> Training on Modern Tools and Equipment, providing modern technology to the villagers, Skill Up gradation &amp; 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.</li> <li>6. <b>Credit facility:</b> Setting up customer service center of financial institutions in the nearby areas.</li> </ol>

#### 4. Livelihood Assessment of the EDC:

<b>1. Human Capital</b>	<p><b>1.1. Skill profile:</b> In the project area, as far as human capital is concern, the people are traditionally skills in the farming sector. All the household reported to be farmer in nature and do subsistence agriculture for self-sufficiency. The farmers focus on growing enough food to feed themselves and their families. The output is mostly for local requirements with little or no surplus for trade.</p>
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Although it is also seen from the survey that there is an immense potentiality of sericulture, weaving and cane and bamboo industry in the area.

**1.2. Occupational profile:** In the project area, it is seen that majority of the households are small farmers. It is found that the relationship between land holding and livelihood strategies that larger landholding did not imply higher income after a particular class or stage. Having higher land holdings did not suggest a greater dependence on land in terms of higher agricultural income (in cash or food) from their lands.

This suggest need for building skills like cane and bamboo, tailoring and other non-farm based activities so as to enable household to diversify their basket of livelihood option.

**1.3. Level of Education:** Sustainable livelihood is the capability of people to make their living comfortable and improve their quality of life without endangering the livelihood options of others and education plays an important role to achieve this. The provision of educational opportunities to all people must be facilitate to alleviate poverty and social empowerment.

In the project area, it is seen that the education profile is not satisfactory as there is only one LP School present in the EDC.

**1.4. Source of Information:** Source of information always a factor for successful society. Perhaps the reason for backward in the forest area is the lack of access to information. People of the project area are fully aware of outer world information by TV, Radio and Forest Department.

**1.5. Culture and tradition:** The culture and tradition of a community shows a communities civilisation. The project area all are belong to Assamese communities and is highly cultured and their traditional way of living brought immense potentially of tourism in the area.

**1.6. Gender Participation in day to day life:** In the project area, Males are largely engaged in farm activities such as land preparation, sowing, weeding, inter culture and harvesting. Where females are involve in cooking, child care, livestock rearing etc. in addition, it is also observed that that female also participate in agriculture farming along with the male counterparts. It is important to analyse gender participation to see how value addition can be provided based on their skills which they perform in day to day life.

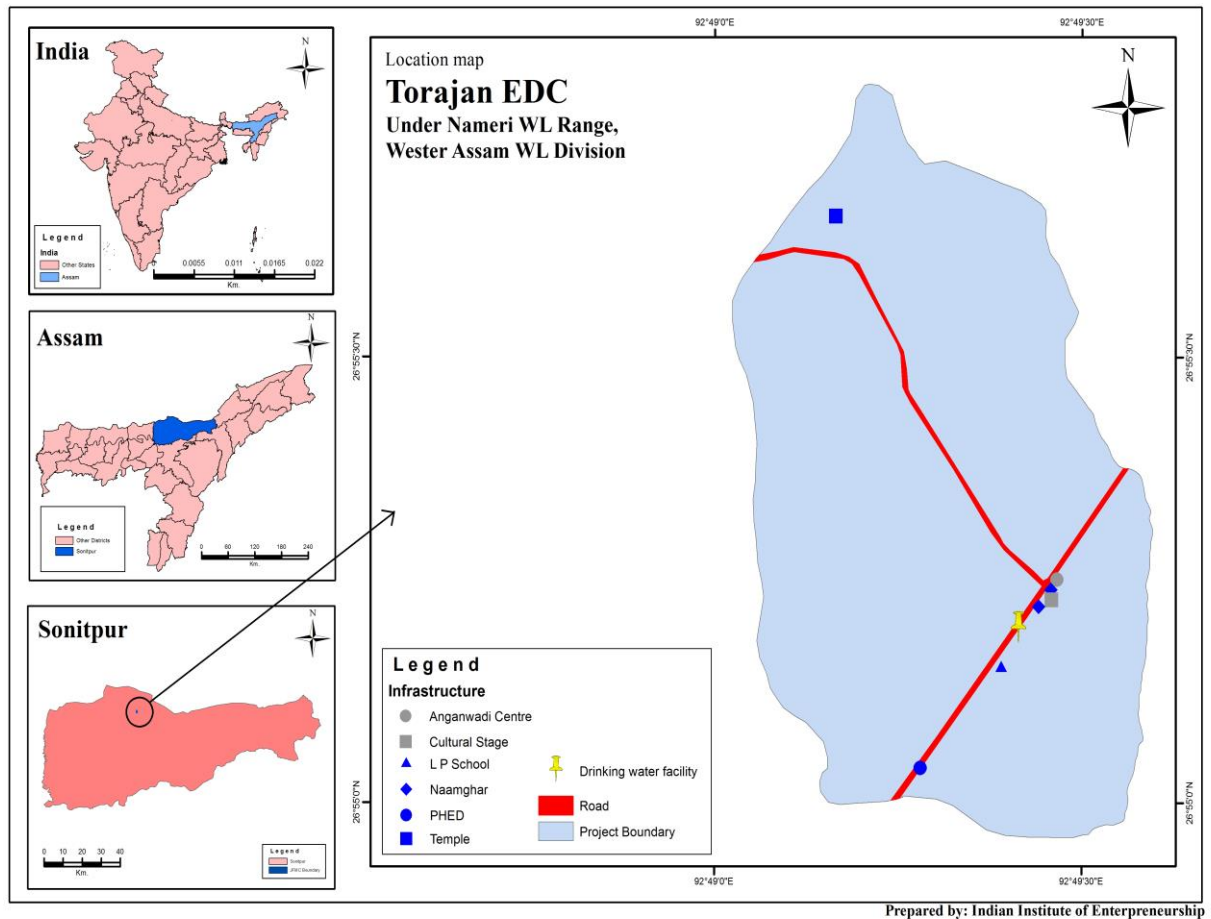
<p><b>2. Social Capital</b></p>	<p>Social capital has been used to explain the improved performance of diverse groups, the growth of entrepreneurial firms, superior managerial performance, enhanced supply chain relations, the value derived from strategic alliances, and the evolution of communities.</p> <p>In the project area, SHG groups are available. They take the credit facilities from the SHGs and micro financial institutions like <b>Bandhan</b>.</p> <p>According to community members the delivery of government schemes are yet to receive. Recently they have availed the benefit of Sanitation facilities from government under Swachh Bharat Mission.</p>
<p><b>3. Natural Capital</b></p>	<p>Refer to Forest &amp; Bio-diversity part.</p>
<p><b>4. Physical Capital</b></p>	<p>Refer to Village Infrastructure &amp; Communication Facilities part.</p>
<p><b>5. Economic &amp; Financial Capital</b></p>	<p>Refer to Village Infrastructure &amp; Communication Facilities part</p>

## List of Appendices

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# Appendix 1


## 1. Location map of Torajan EDC





2. Village map of Torajan EDC

**Signatures:**

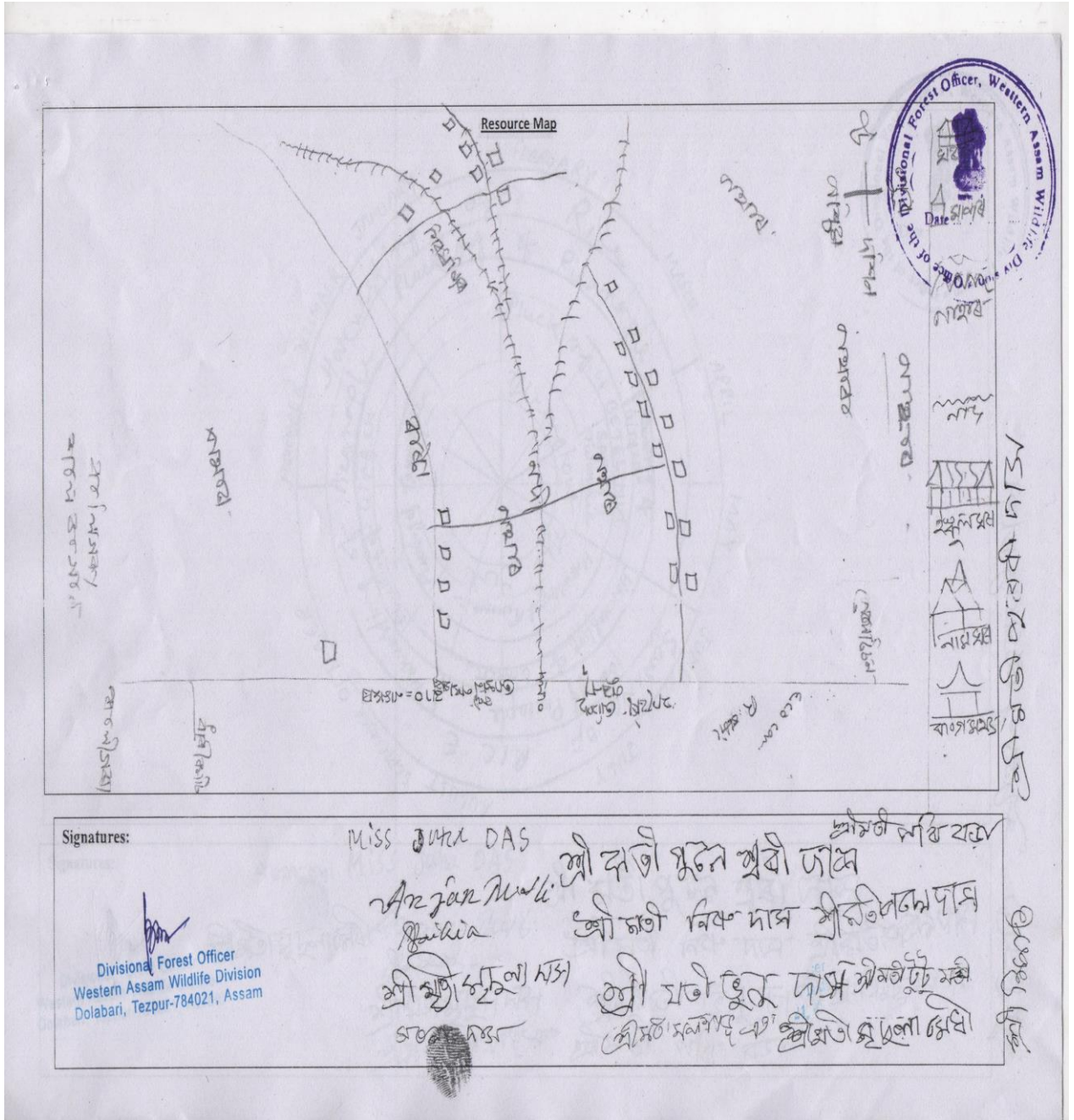
 MIS Suman DAS  
Anjan Malik  
Anita Das

**Divisional Forest Officer  
Western Assam Wildlife Division  
Dolabari, Tezpur-784021, Assam**

**Divisional Forest Office, Western Assam Wildlife Division, Dolabari, Tezpur-784021, Assam**  
Date: 12/01/2018  
Office: [Signature]

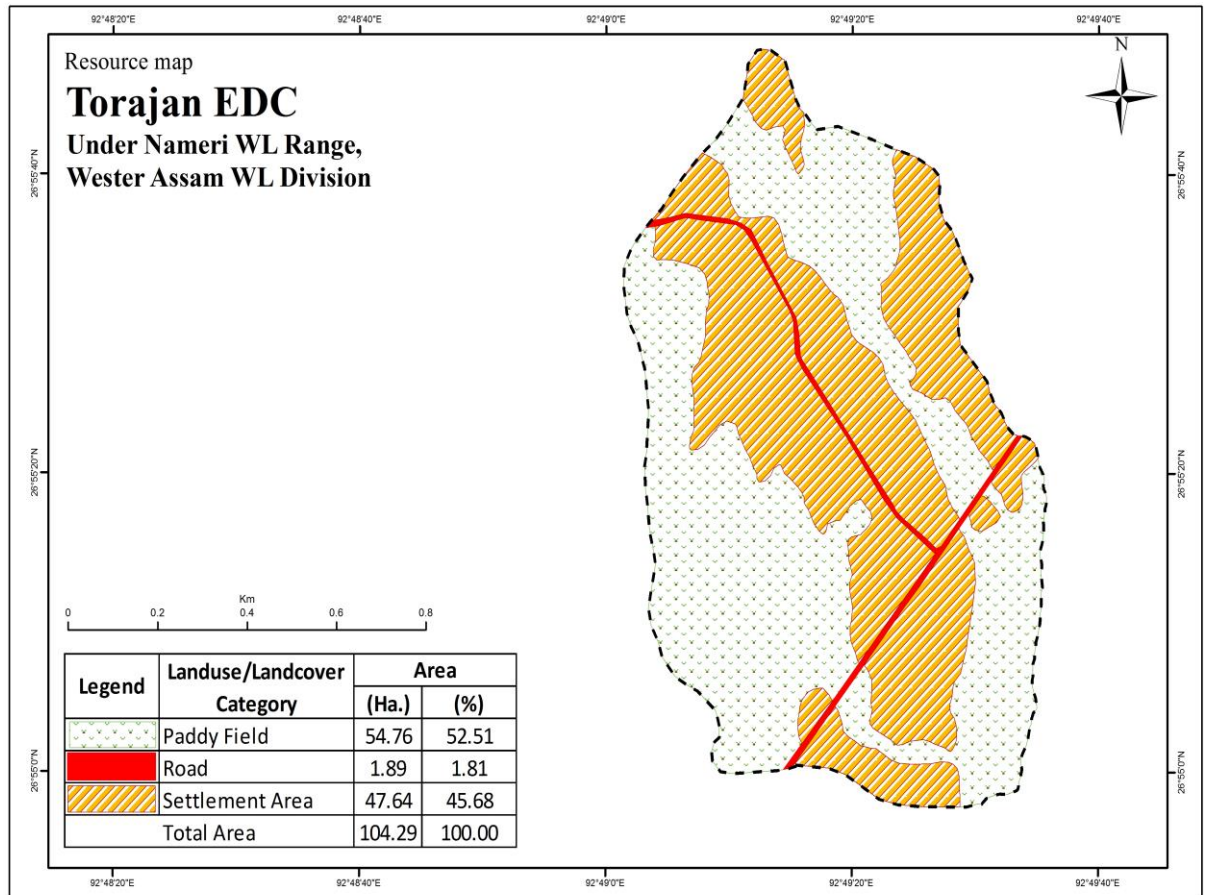
স্বাক্ষৰিত  
শ্রী শ্রী মিস সুমন দাস  
শ্রী অনান মালিক  
শ্রী অনিতা দাস  
শ্রী মিস সুনীতা দাস  
শ্রী মিস পৰী বড়ো

### 3. Resource Map of Torajan EDC:



## Appendix 2

### Land Use Map of GIS



Source: Google earth Imagery

Prepared by: Indian Institute of Entrepreneurship



## Appendix 3

### PRA ACTIVITY

#### Location and Timing of Participatory Rural Appraisal:

<b>Numbers of participants :</b>	30
<b>Time :</b>	10.30 am, 30 <sup>th</sup> April 2017
<b>Venue :</b>	Household Premises of a villager

**Table – 3.1. Brief about the villages under Torajan EDC**

Sl. No.	Name of the Village	No. of households	Population		
			Total	Male	Female
1	Torajan	80	363	171	192
	<b>Total</b>	<b>80</b>	363	171	192

Source: Field Survey

**Table – 3.2. Education profile TORAJAN EDC**

	Illiterate	Up-to IV	V-X	X-XII	Graduate
M	68	14	38	39	4
F	77	18	46	55	4
Total	145	32	84	94	8

Source: PRA Exercise

**Table – 3.3 Income category of TORAJAN EDC**

Income Category (in Rs.) Yearly	No. of Households
120000-140000	5
100000-120000	55
80000-100000	11
60000-80000	9

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 Torajan EDC where the housing patterns of the households, the numbers of schools, social infrastructure, and religious

beliefs among households. Due to time constraint and bad weather we have to skip the transect walk. The villagers were enthusiastic about the mapping process and they actively participated in the process.

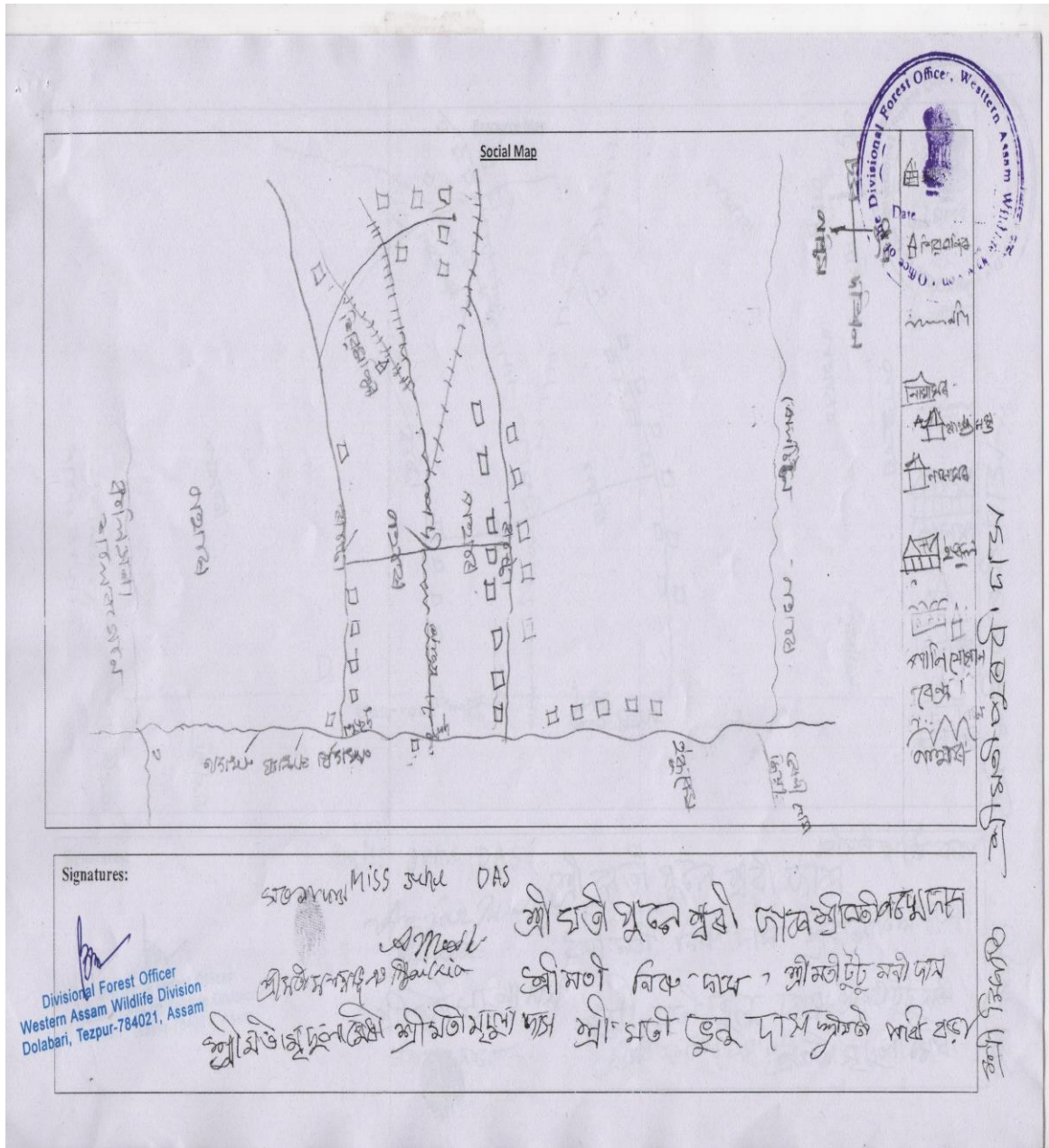
At first, the people of villagers were asked to draw the main roads of the village and then asked them to locate their houses and locate the important social places and government offices with the help of the PRA team members. Two of them voluntarily came out to draw and they were assisted by other villagers and the team members. All the villagers spotted their households in the map.

***Table 3.4. Information about the village***

<b>Social Information</b>	<b>Village</b>	<b>Torajan</b>
	Total population	363
	Male	171
	Female	192
	Total households	80
	Numbers of Pucca Houses	12
	No's of semi pucca house	68
<b>Land Marks</b>	Bridges	1
	Stream	3
	River	1
	PHE	1
	Community hall	1
	Well	2



Social Map of Torajan EDC



## Findings of Social Map:

- The participants of social mapping have identified that there are 80 households out of which 68 households have semi pucca house and rest 12 households have pucca house. There are a few numbers of household who get benefited from IAY within the village that came under the BPL category. This signifies that the IAY scheme of Government has not achieved considerable coverage of poor people residing in the village.
- Apart from the individual households, important places like LP school, Namghar, Temples, stream, community well, community tube well, hand pump were mapped out.
- Main sources of water for the villagers are individual ring wells.
- Provision of Education facility is not satisfactory. There is only one primary LP school but no ME and High school within the village
- The whole population is belonging to OBC category.
- The electricity facility is available in the EDC, but continuous power failure is the main problem in the village.
- The villagers mainly dependent on firewood for cooking and a very few household use LPG for the same.
- All the important institutions like High School, Post Office, Bank, Police Station, etc. are located at a considerable distance from the village.
- The villagers of the EDC are fully dependent on crop residue, household wastages, grasses, and green fodder.
- Agricultural and livestock are partly damaged by the wild animals that come from the national park as there were no social fencing constructed throughout the area.
- There is no market facility in the EDC area. People have to move Gamani (2.3 KM) for weekly Marketing.

## 3.2 Wealth Ranking:

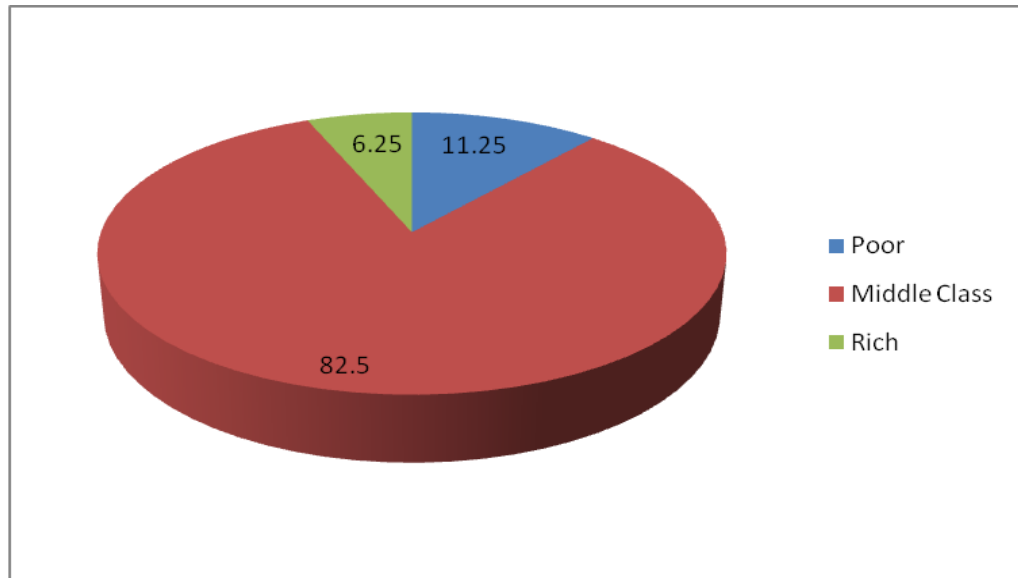
Wealth ranking, or well-being ranking, involves community members identifying and analysing the different wealth groups in a community. It enables evaluators to learn about the socioeconomic stratification of project beneficiaries and local people's definitions and indicators of wealth/wellbeing.

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

- a) Land holding
- b) Occupation

As such about 82 per cent people are poor, about 11 per cent are belong to middle class. Poor people are mainly irregular wage earners, sometimes they lease (adhilua) others land. They also have good amount of agricultural land.

**Figure 3.1: Wealth Ranking**



**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
1960	Namghar Established In the EDC	Construction
2013	Heavy flood caused by the overflow of Jiya Bharali river damaged agricultural crops in large extend.	Destruction
2012 & 2015	In 2012 One person was killed by Wild Elephant and in the year 2015 a two months baby and his mother were killed by Wild elephant.	Destruction

**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.

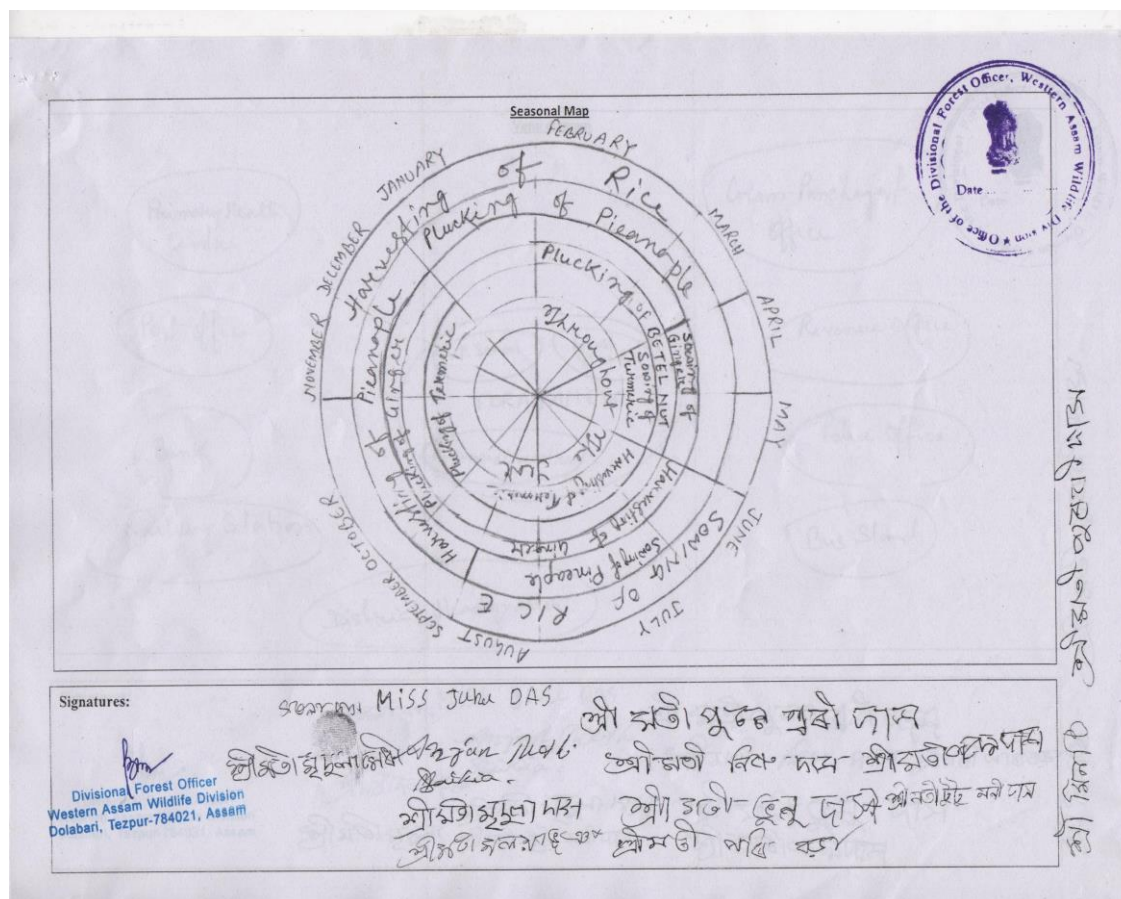
Best undertaken in the context of a group discussion (to help verify the information obtained), seasonal calendars are often drawn on the ground with the relative trends depicted using stones or seeds, as in a preference-ranking matrix.

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, Mustard, Jute, Betel-nut, Ginger, etc. The FGD conducted revealed that other major livelihood options available in the EDC are Livestock rearing (Piggery, poultry), shop-keeping, weaving, daily wage laborers, mason, tailoring, carpentry which are not seasonal in nature but is showed in the seasonal mapping.

**Figure 3.2: Seasonal Map of Torajan EDC**



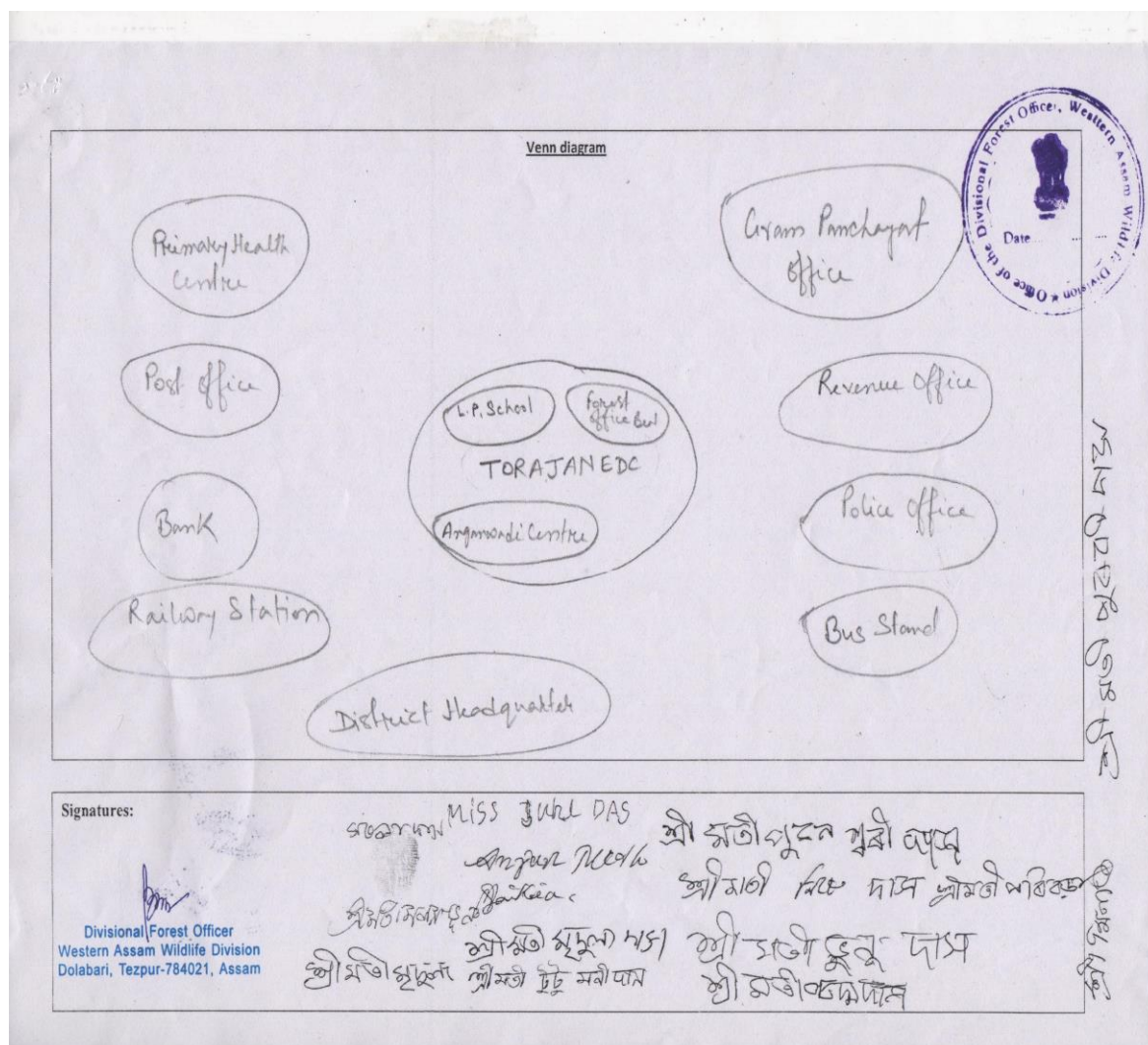


**Table 3.4 Seasonal cropping pattern**

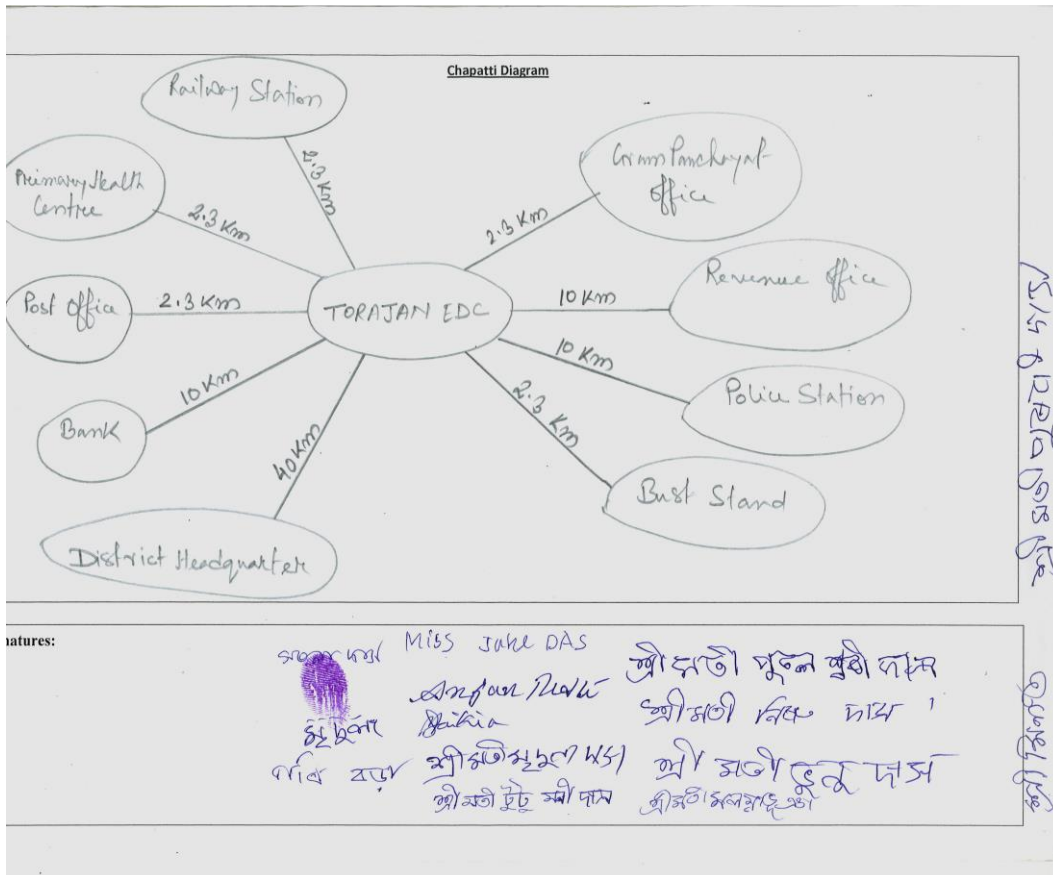
Agricultural crop	Sowing/Planting	Plucking	Harvesting
Paddy	May-July	-	Oct-Dec
Betel Nut	-	Feb-May	-
Fruits (Pineapple, Mango,	July – Aug	Jan- June	Sept- Dec
Vegetables (Cabbage, Brinjal, Tomato, cauliflower etc.)	Nov-Dec		Feb-may

Source: PRA Exercise

**3.5 Venn Diagram**



### 3.6 Chapatti Diagram



**Priority Ranking: EPA**

	Road	Drinking water	Electricity	Hospital	veterinary	Community hall	irrigation	sanitation	Home Stay	Solar Fencing	Handloom	Marks scoring	Position
	A	B	C	D	E	F	G	H	I	J	K		
Road	A	x	B	A	A	F	G	A	I	J	K	4	6th
Drinking water	B		x	B	B	F	B	B	I	J	K	6	4th
Electricity	C			x	D	E	F	G	H	I	J	0	9th
Hospital	D				x	D	F	D	I	J	K	4	6th
Veterinary	E					x	F	G	H	I	J	1	9th
Community hall	F						x	F	F	F	J	8	3rd
Irrigation	G							x	G	G	J	5	5th
Sanitation	H								x	I	J	2	7th
Home Stay	I									x	J	6	4th
Solar Fencing	J										x	9	2nd
Handloom	K											x	10 - 1st

MISS JUNA DAS      শ্রীমতী জুনা দাস

শ্রীমতী মৃগালা দাস      শ্রীমতী মৃগালা দাস      শ্রীমতী টুটু মনী দাস      শ্রীমতী লুচনী দাস

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Divisional Forest Officer  
Western Assam Wildlife Division  
Dolabari, Tezpur-784021, Assam



**Priority ranking of Livelihood opportunity analysis:**

Livelihood  
Priority Ranking of Entry Point Activity

Entry Point Activities		Agriculture	Weaving	Livestock	Wage Labour	Carpentry	Tailoring	Horticulture	Masonry	Food Processing			Marks	Rank
		A	B	C	D	E	F	G	H	I	J	K		
Agriculture	A	<	A	A	D	A	A	G	A	A			5	2 <sup>nd</sup>
Weaving	B		<	C	D	B	B	B	B	B			5	2 <sup>nd</sup>
Livestock	C			<	C	C	C	C	C	C			7	1 <sup>st</sup>
Wage Labour	D				<	D	D	D	D	D			7	1 <sup>st</sup>
Carpentry	E					<	E	G	E	E			3	4 <sup>th</sup>
Tailoring	F						<	G	H	F			1	6 <sup>th</sup>
Horticulture	G							<	G	H			4	3 <sup>rd</sup>
Masonry	H								<	I			2	5 <sup>th</sup>
Food Processing	I									<			1	6 <sup>th</sup>
	J											<		
	K												<	

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Signatures:   
 শ্রীমতী সন্ধ্যা কুমারী Miss Juhu DAS  
 শ্রীমতী সন্ধ্যা কুমারী শ্রীমতী সন্ধ্যা কুমারী  
 শ্রীমতী সন্ধ্যা কুমারী শ্রীমতী সন্ধ্যা কুমারী  
 শ্রীমতী সন্ধ্যা কুমারী শ্রীমতী সন্ধ্যা কুমারী

**PHOTOGRAPHS:**

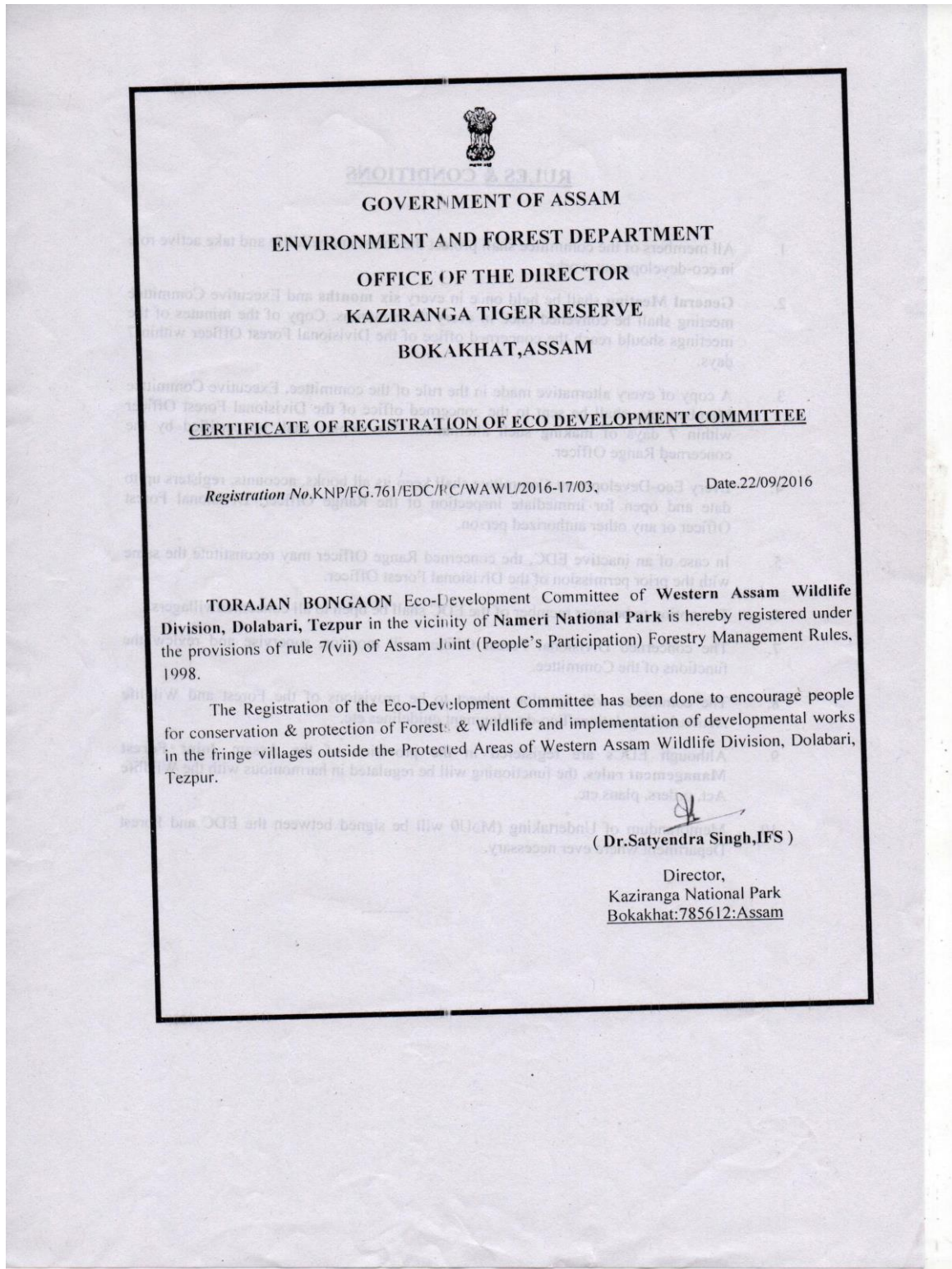


## Appendix 5

### LIST OF EDC EXECUTIVE MEMBERS

<b>Sl. No.</b>	<b>Name</b>	<b>Designation</b>
1	Shyam Tamuli	President
2	Gunadhar Das	Vice-President
3	Dilip Kr. Das	Member Secretary
4	Gokul Bora	Treasurer
5	Mukut Saikia	Member
6	Dulal Roy	Member
7	Arun Koch	Member
8	Muhidhar Bhuyan	Member
9	Anjan Medhi	Member
10	Rupalli Das	Member
11	Ghanakanti Bora	Member
12	Sewali Bhuyan	Member







## Appendix 6 (Record I)

**Table 1: Basic Data of the Village:**

*Table 1: Basic data of the EDC*

Name of the JFMC	Date of establishment	No. of members in executive	Name of the president	Name of the Member secretary	Money in VDF	Contribution per family /per person	Social fencing used Yes / No	Remarks on special attainment	Grading %of success by RFO
Torajan	2016	13	Shyam Tamuli	NA	Nil	Nil	No	--	--

**Table 2: Village wise population data:**

*Table -2: Demographic status of the project villages*

Population	Below-14	Between 15-30	Between 31-45	Between 46-60	Above-60	Total
M	45	26	31	31	38	171
F	40	31	37	36	48	192
Total	85	57	68	67	86	363

Source: - Field survey report.

**Table 3: Village wise farmer category on the basis of landholding:**

*Table3 Village wise farmer category on the basis of land holding*

Large farmer >10 Bigha	small farmer 5-10 Bigha	Marginal farmer (household) <5 Bigha	Land less (household)	Total
5	64	10	1	80

**Table 4: Livestock Population:**

*Table 4: Cattle Population of the EDC*

Cows	Goat	Poultry	Total
180	134	1460	1774



**Table 5: Village wise Infrastructure:****Table 5: Infrastructure of the EDC**

Sl. No.	Infrastructure	Location	Distance from village
1	Electricity	100% of the HH	Average
2	Gas connection	3 HH	Poor
3	Transport	Semi Pucca Road	-
4	PHE	Inside	0 km
5	LP school	Inside	0 KM
6	High school	Hatigate	2.3 km
7	Post office	Gamani	23. km
8	Bank	Chariduwar	10 km
9	Anganawadi centre	Inside	0 Km
10	VCDC	Gamani	2.3 km
11	Revenue Office	Chariduwar	10 km
12	Police station	Chariduwar	10 km
13	Forest Office	Nameri Range office	500 m
14	Bus facility	Hatigate	2.3 km
15	Railway Station	Gamani	2.3 km
16	District head quarter	Tezpur	40 km

**Table 6: Agricultural crops****Table 6 Agriculture Crops**

Particulars	Rain Fed	
	Name of the crop	Area (in ha.)
Kharif	Sali rice , orange, ginger, turmeric	54
Rabi	Mustard , Pineapple	11
Others	Vegetable, Fruits	12



**Table 7: Crop production profile of Torajan EDC:***Table 7 Crop production profile of Torajan EDC*

<b>Type of crop</b>	<b>Total Production (approx) in QT</b>
Paddy	1125
Oil seeds	41.25
Horticulture	250
Fruits	210

**Table 8: Fodder Availability (animal)***Table 8 Fodder availability of the EDC*

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*

<b>For Purchase</b>	<b>Location</b>	<b>Distance from village if in other village (in km)</b>
Grocery shop	Gamani	2.3 Km
Weekly Market	Gamani	2.3 Km
Major Market	Chariduwar	10 Km
Tendu Patta PHAD	--	--
Fish Market	Gamani	2.3 Km

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

<b>Water source</b>	<b>Number</b>	<b>Availability of water</b>	<b>uses</b>
<b>Well</b>	80	Perennial	Domestic use
<b>River</b>	1	Seasonal	All type of use
<b>Community ring well</b>	2	Perennial	Domestic use

**Table 11: Energy consumption:***Table 11 showing the Energy Consumption of the EDC*

<b>Type of Fuel</b>	<b>Number of household depending</b>	<b>Number of months dependent</b>	<b>Sources (local, village, forest, other sources)</b>	<b>Major/ Secondary</b>
<b>Fuel wood</b>	80	12	Forest	Major
<b>Kerosene stove</b>	NA	-	-	-
<b>Gobar/Bio gas</b>	NA	-	-	-
<b>LPG</b>	3	12	-	Secondary
<b>Electric Heater</b>	NA	-	-	-

**RECORD: II**

**LIVELIHOOD OPPORTUNITY ANALYSIS**

**Table 12: Agriculture and Horticulture:**

*Table 12: Showing the agricultural and horticultural status*

<b>Constraints</b>	<b>Reason</b>	<b>Opportunities</b>	<b>Programme</b>
<b>Low Production</b>	<ul style="list-style-type: none"> <li>• Traditional way of cultivation.</li> <li>• Only one crop undertaken annually (Sali)</li> <li>• Very negligible use of fertilizers and pesticides, insecticides.</li> <li>• Lack of irrigation facilities.</li> <li>• Lack of agricultural infrastructure, modern tools and equipment's viz, power tillers, tractors etc.</li> <li>• Non usages of high yielding seeds.</li> </ul>	<ul style="list-style-type: none"> <li>• Application of proper and controlled pesticides and insecticides.</li> <li>• Introduction of new and advance technology.</li> <li>• Well-structured training programme. The villagers are inherited with the skill of cultivation. But an improvisation of skills is the need of the hour.</li> <li>• Usage of high yielding seed programme.</li> </ul>	<ul style="list-style-type: none"> <li>• Tractor operation training</li> <li>• Agri-skill development programme.</li> <li>• Training on insecticides, pesticides, hybrid cultivation</li> </ul>
<b>Storage and Production</b>	<ul style="list-style-type: none"> <li>• Lack of common storing place</li> <li>• Lack of cold storage facility due to non-availability of electricity</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Packaging</li> <li>• Transportation and distribution.</li> </ul>
<b>Marketing</b>	<ul style="list-style-type: none"> <li>• Lack of transporting facilities for carrying products</li> <li>• Less contact with the direct market; much dependency upon middle man</li> <li>• No knowledge on marketing know-how, dependence on traditional system of selling.</li> </ul>	<ul style="list-style-type: none"> <li>• Smooth transportation facility will help the farmers to carry their products to the nearby markets.</li> <li>• Generate highest market price by removing middle men.</li> <li>• More knowledge about the current market situation as well as the current value of their products.</li> <li>• They can sell their products outside of the state, as the JFMC is located in Assam West Bengal border and Bhutan border is also not far from it.</li> </ul>	<ul style="list-style-type: none"> <li><input type="checkbox"/> Buyers sellers meet</li> </ul>

**Table 13: Livestock****Table 13 Livestock**

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

**Table 14: NWFP****Table 14 NWFP**

Constraints	Reasons	Opportunities	Programme
Less collection	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Not Applicable
Unsustainable extraction	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Not Applicable

<b>Low rates</b>	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Not Applicable
<b>Value addition</b>	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Not Applicable	<input type="checkbox"/> Not Applicable

**Table 15: Specialised skill**

*Table 15: Specialised skills: Handloom*

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

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

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