

KHANTHALGURI ECO DEVELOPMENT COMMITTEE

BANSBARI FOREST RANGE

MANAS NATIONAL PARK

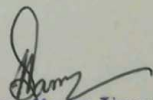
MICRO-PLAN (2017-18 to 2026-27)

**Prepared by
Khanthalguri Eco Development Committee Assisted by**

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

May 2017

Approved


Field Director, Manas Tiger Project
Barpeta Road, 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
BTC	Bodoland Territorial Council
COMPELO	Consortium for Micro Planning and Enhancing Livelihood Opportunities
EPA	Entry Point Activities
GIS	Geographical Information System
Ha	Hectare
IIE	Indian Institute of Entrepreneurship
EDC	Eco Development Committee
Kg	Kilogram
Km	Kilometer
Manas NP	Manas National Park
Manas TP	Manas Tiger Project
NGO	Non-Governmental Organization
NTFP	Non Timber Forest Product
PDS	Public Distribution System
PRA	Participatory Rural Appraisal
Rs.	Indian Rupees
SHG	Self Help Group
VCDC	Village Council Development Committee

KHANTHALGURI ECO DEVELOPMENT COMMITTEE

[Livelihood Development Plan]

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1. Introduction

<p>About the Project</p>	<p>The vision of the Assam Project on Forest and Biodiversity Conservation (APFBC) is ‘to enable sustainable forest and biodiversity conservation and management in Assam through multi-scale integrative planning and involvement of forest dependent communities in target areas and giving fillip to their livelihood activities through sustainable use of forest and non-forest resources’. The project’s objective has been stated as: ‘In collaboration with the forest dependent communities, to restore forest eco-systems to enhance the forest dependent community’s livelihoods and ensure conservation and sustainable use of biodiversity’.</p> <p>The above project is being mainly funded by the <i>Agence France de Développement</i> (AFD) - i.e. the French Development Agency, with co-funding from the Government of Assam. The Assam Project on Forest and Biodiversity Conservation Society (APFBC Society) has the mandate for planning, implementation, monitoring, coordination and management of all the activities under the above mentioned project.</p>
<p>Micro-Planning & Livelihood Development</p>	<p>In order to promote livelihood activities through market potential based value addition; the present project intends to take up activities like entrepreneurship promotion, product processing value addition and marketing under this project. This has become necessary on account of the pressures on existing forest resources due to the growth of population. There is a need to explore value addition to the existing forest and biodiversity products and services, based on the market potential. In addition, non-forest based livelihoods need to be explored and the capacities of the community members need to be built-up through skills development initiatives.</p> <p>A consortium comprising of Indian Institute of Entrepreneurship (IIE) Guwahati and <i>Rashtriya Gramin Vikas Nidhi</i> (RGVN) has been formed to implement (<i>inter-alia</i>) the micro-planning and livelihood development under the above project. The above consortium has been titled as ‘Consortium for Micro Planning and Enhancing Livelihood Opportunities’ - COMPELO in short.</p> <p>As per project guidelines, this micro-plan includes ‘various operations of village and forest development livelihood support of forest dependent members and keeping sustainable forest management as the broad objective’. It includes <u>both</u> forest development and livelihood development.</p>
<p>Micro-Plan for the Khanthalguri EDC</p>	<p>This document gives the Micro-Plan for the Khanthalguri EDC, which is located in the Baksa district of Assam. The EDC falls under the jurisdiction of the FDTP division of the BTC Circle. 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 9th of 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 Khanthalguri EDC.</p>

2. Village Socio-Economic Profile

Location The Khanthalguri Eco Development Committee (EDC) has been formed to cover the existing community dwelling in Khanthalguri village. The area covered by the above EDC falls within the Ghoramara VCDC, BAKSA district of Assam.

Appendix-1 gives the Village Map.

Key Information The key information of the EDC is furnished below.

Table-A: Key Information of the EDC

Name of the EDC	Khanthalguri
Habitation	Khanthalguri
Name of Revenue Village	Kamalabari
Name of the Gram Panchayat / VCDC	Ghoramara
Revenue Circle	Jalah
District	Baksa
Forest Division	Manas Wildlife Division
Forest Range	Bansbari
Forest Beat	Bhatgali
Year Formed	2015
Description of Boundary of EDC	GPS Coordinates(Centre Point) 91°4'15 E 26°40'10 N North: Takmapara & Rajabil Village South: Kamlabari Village West: Manas National Park East: Paddy Fields

Source: EDC Records & Discussions during PRA Exercise in April, 2017
 Additional details are given at **Table-1** of Record-I. (Appendix-6)

Brief Details of the Executive Committee & General Body The brief details of Executive Committee & General Body of the EDC are contained in the table, which is given below.

Table-B: Brief Details of Executive Committee & general Body

Name of President	Khagen Swargiary
Name of Secretary	Dengkhw Narzary
Name of Treasurer	Ansuma Goyary
Registration Number	-
No. of Members in Executive Committee	Male: 17 Female: 04
No. of members in the General Body	One member from each household (114 Nos. HH)

Source: EDC Records

<p>Households & Population Structure</p>	<p>The village has 114 households. The number of female headed households is nil. Total population of the village is 560 of which 276 are males and the rest 284 are female members. All members of the households belong to ST Community.</p> <p>Table-2.1 and 2.2 of Record-I (Appendix-6) 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"> 1. The average number of persons in a household is 5. 2. The sex ratio is 1029 females per 1000 males in the village.
<p>Education & Skills Development</p>	<p>Over 49% of the total population is reported to be literate and 51% are illiterate. Almost half of the community members have received school level education. On the other hand, relatively fewer households have received college and higher education.</p> <p>Livelihood skills are usually acquired under various settings – formal & informal. In the EDC 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) Farming (b) Livestock rearing (c) Weaving (d) Handicraft <p>Government has been active in promoting formal skills development programmes in the country as well as in the state. While surveying, the village has reported of receiving only sanitation benefit but skill programmes has not been carried out in the habitation or in the nearby areas.</p>
<p>Soil</p>	<p>The soil is deep alluvial Himalayan wash. This type of soil can support different kinds of crops, as the soil is reported to be fertile on the whole.</p> <p>The fast flowing Manas river on entering the plains from the steep hills loses its speed and as a result deposits enormous quantities of boulders, stones, sand, silt and other debris that are carried down by the water and this leads to the formation of alluvial terraces, comprising deep layers of rocks and sands deposits.</p>
<p>Water</p>	<p>The Manas River flows through the west of the Park, where it splits into two separate rivers, the Beki and Bholkaduba, to join the River Brahmaputra some 64 km further south. These and five small rivers running through the Reserve carry enormous amounts of silt and rock from the foothills as a result of heavy rainfall, steep gradients and friable bedrock upstream.</p> <p>The area is drained by the Bhatgali stream which flows through the project area. This is a perennial stream.</p>

Climate: Temperature & Rainfall	<p>The maximum temperature during the summer is 27.3°C ± 4°C. The minimum temperature during the winter is 15.6°C ± 2°C.</p> <p>The climate of the EDC is moist tropical with an annual rainfall between 2900 mm to 3900 mm. About one-third of the rainfall usually occurs during the rainy season (May to September). The village has a high level of relative humidity (over 80 % ± 3 %) during the rainy season and has a low level in the winter (below 76 %).</p>
Forest & Biodiversity	<p>The main tree species are Sida, Ajar, Khokan, Gamari, Titasapa, etc found in Manas National Park. Lemon trees are grown in abundant in this EDC village. Some other species such as Jack Fruit, Bamboo, etc. are also grown in the village.</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 pattern in the village is as follows:</p> <p>Paddy field: 73.18% Road: 2.70% Settlement area: 18.17% Stream: 1.37% Tree clad area: 4.05%</p>
Land Holdings	<p>The type of households as per land-holding is given at Table-3 of Record-I (Appendix-6). From the same, it is seen that:</p> <ul style="list-style-type: none"> • 24.56% of households are landless (28 HH) • 71.93% of the households are marginal farmers (82 HH, < 2 ha.) • 3.51% of the households belong to small categories (4 HH, 2-10 ha.)
Livestock	<p>The total number of livestock in the village is 1401. The main types of livestock found in the households include:</p> <p>Cows: 197 Goats: 73 Buffaloes : 11 Poultry : 980 Pig: 140</p> <p>Table-4 of Record-I (Appendix-6) may be referred to for the details in the above connection.</p>
Village Infrastructure & Communication Facilities	<p>The availability of basic infrastructure enables the development of sustainable livelihood options in a community. The present condition of infrastructure in the village is not satisfactory. This is borne out by Table-5 of Record-I (Appendix-6), 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 people of the Khanthalguri EDC is deprived of basic physical infrastructure like transportation, water supply, Public Distribution System, mobile network etc.</p>

	<p>Education & Health Facilities: As per education facility is concern, there is one primary school and one Anganwadi Centre inside the village. Apart from the basic education facility the community people need to go outside the village for higher education. Regarding health facility, there is no Primary Health Centre and Veterinary Health Centre in the village.</p> <p>Govt. Offices: The government offices (such as Police station, Gram Panchayat office, Revenue office, Forest Beat office etc.) are located at a considerable distance.</p> <p>Financial Inclusion: The financial Facilities like bank and post office are 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 Table-6 of Record-I(appendix-6)</p> <p>The above shows that the following are the main crops grown in the village. Kharif Crops: Sali, Ranjit, Aijung Rabi Crops: Potato, Chilli, Radish, etc. Others: Lemon, Betel-nuts.</p> <p>Most of the above mentioned crops are rain-fed.</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 production and yield of these crops is given as follows:</p> <p>(a) Paddy: Production 1368 Quintal Yield 30 Quintal /ha. (b)Vegetables: Production 37.5 Quintals Yield 3.75 Quintal/ha. (c) Betel nuts: Production 150 Quintals Yield 10 Quintal/ha. (d) Lemon: Production 12 Quintals Yield 6 Quintal/ha.</p>
Fodder Availability	<p>The matter of fodder availability in the village is dealt with at Table-8 of Record-I. The table shows that the main sources of fodder in the village are as follows:</p> <p>(a) Crop residue- Yes (3 to 6 months) (b) Gazing in forest- Yes (3 to 6 months) (c) Household Wastage- Yes (> 6 months) (d) Green fodder- Yes (> 6 months)</p>
Markets	<p>Table-9 of Record-I shows the location of the different markets from the village. The main markets used by the community are as follows:</p> <p>(a) Grocery / PDS: Salbari at 5 km away (b) Weekly / Bi-weekly Market: : Salbari at 5 km away (c) Major Market: : Rupohi at 2 km away</p>

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> <p>(a) Ring Wells (Water Availability: Perennial / Seasonal) (b) Tube Wells (Water Availability: Perennial / Seasonal) (c) Stream (Water Availability: Perennial / Seasonal) (d) Hand Pump (Water Availability: Perennial / Seasonal)</p>
Energy Consumption	<p>Table-11 of Record-I shows the major sources of energy in the village. The same have been listed below.</p> <p>(a) Fuel wood: Households Depending: 114 Nos. Source: Homestead and forest area (b) Kerosene: Households Depending: 76 Nos. Source: Open Market (c) LPG: Households Depending: 12 Nos. Source: Agency</p>
Socio-economic status	<p>Social set-up: The village is populated by Bodo people and they all belong to the ST community. They are all Hindu religion.</p> <p>Economic Condition: The economic condition of the villagers is not satisfactory. The main livelihoods are Daily wages, Farming, Livestock rearing, weaving etc. Most households earn Rs.60000 to Rs.180000 per year.</p>
Impact of wild life area	<p>Positive impacts</p> <ul style="list-style-type: none"> • Economic benefits from tourism • Soil and water conservation • Environmental improvement <p>Negative impacts</p> <ul style="list-style-type: none"> • Human wild life conflict • Damage of property by wild animals • Cattle/crop residue
Maps	<p>Appendix-1 gives the following maps, based on GPS receiver and PRA exercise:</p> <ul style="list-style-type: none"> • Location map • Village Map • Village Social Map (with the names and particulars of members in PRA) • Village Resource Map • Venn Diagram • Chapatti Diagram • Land use map of GIS

3. Livelihood Development Plan

<p>Livelihood opportunity Analysis</p>	<p>Framework of livelihood Opportunity Analysis has been done with the help of the following criteria:</p> <p>A) Livelihood assets B) Livelihood context C) Priority ranking on potential livelihood</p> <p>The livelihood situation of Khanthalguri EDC has been analyzed during the PRA exercise using sustainable livelihood framework of DFDI (Department of Funding for International Development). The existing livelihood situation of EDC is outlined in terms of –</p> <ul style="list-style-type: none"> • Natural Capital • Physical Capital • Social Capital • Human Capital • Financial Capital
<p>Natural Capital</p>	<p>The Khanthalguri EDC is under the jurisdiction of Manas Reserve Forest. Major natural capitals are trees that includes Sida, Ajar, Gamari, Titasapa, etc.</p> <p>One stream that flows through the EDC which is Bhatgali river stream. The villagers use the stream water for farming purpose and for livestock rearing. Villagers use the ring well and hand pump for drinking water</p> <p>(Refer table 10 of Annexure-6)</p>
<p>Physical Capital</p>	<p>Most of the households in the Khanthalguri EDC are involved in farming of Paddy and Betel-nuts and are categorized as marginal farmers.</p> <p>(Detailed land holding pattern is described in the Table 3/Annexure 6.)</p> <p>The village has 98 numbers of semi pucca houses and remaining 16 houses are pucca houses. Among the various sources of energy consumption such as kerosene, electricity and LPG, villages depend on firewood and kerosene for household and other uses.(Refer Table 11 of appendix-6)</p> <p>There is one number of L.P. School and Anganwadi Centre available inside the village.(Refer Table 5 of appendix-6)</p> <p>In case of water sources, there are 3 numbers of Ring well, 01 number of Tube well, 01 number of hand pump, 01 number of pond and stream available inside the EDC.</p>
<p>Social Capital</p>	<p>Lack of participation is revealed during the awareness programme as the villagers are not fully aware about their roles, functions, and specific benefits they are going to receive.</p> <p>However five numbers of self-help groups (SHGs) function in the village</p> <p>There are three numbers of temples and library present in the village. The village has no community hall inside the EDC.</p>

Human Capital	<p>About 49 per cent of total population of the EDC is reported to be literate. Most of the people (about 31.61 per cent) have crossed the primary level education. Moreover 13.75 per cent have passed higher secondary education and 3.75 per cent population are completed graduation and above.</p> <p>(Refer table 3.2 of Appendix 3)</p>
Financial Capital	<p>There is no government bank available in the EDC area. One bank is available in Salbari area which is at a considerable distance (5 km away from the EDC). However, few number of villagers lend from informal lending groups such as SHGs, relatives etc.</p> <p>Nearly 60 per cent have bank account in commercial banks, but they are not aware of the benefits of financial inclusion.</p>
Livelihood Context	<p>Livelihood activities of the Khanthalguri EDC are identifies on the basis of following criteria:</p> <ol style="list-style-type: none"> Contribution of particular livelihood activity in the total income of the EDC Percentage involvement of income group in a particular livelihood activity. Priority ranking of the potential livelihood activities
Contribution of livelihood activity in the total income of the EDC	<ol style="list-style-type: none"> Betel nuts farming, farming of paddy Daily wage earning Livestock rearing Service Small Business
Involvement of income group in a particular livelihood activity	<p>By observing the household survey and analyzing the PRA activity it is found that all the households are involved in the above mentioned activities in some or other parts of the year.</p> <p>Primary livelihood : Farming of paddy, Daily wage labour</p> <p>Secondary livelihood: Betel nuts farming, livestock rearing, Small business.</p> <p>Some service sector employees are also there.</p>
Priority ranking of the potential livelihood activities	<p>Priority ranking of Livelihoods & Skills Development</p> <ol style="list-style-type: none"> Weaving Farming of Paddy Tailoring Carpentry Wage labour Horticulture Food processing

4. Livelihood Opportunity Analysis

<p>PRA Exercise</p>	<p>Team from Indian Institute of Entrepreneurship(IIE) Guwahati carried out PRA exercise in Khanthalguri EDC as follows:</p> <p>Date: 9thApril Location: Khanthalguri L.P. School. Numbers Present: 25 In Presence of: Village Headman, executive member of the EDC community members, Forest Department personnel, etc.</p>																								
<p>Objective of PRA</p>	<p>The objective was to understand the existing household conditions and obtain other primary data about the community for developing the livelihood options and the forest development plan.</p>																								
<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 Chapatti 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"> • Entry Point Activities (EPA) • Livelihoods & Skills Development <p>Ranking of EPA</p> <table border="1" data-bbox="485 1234 1437 1868"> <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>Community Hall</td> <td>For organizing community meetings</td> <td>Panchayat and Rural Development</td> </tr> <tr> <td>2.</td> <td>Handloom (Weaving)</td> <td>A center with training facilities which link to mass consumption</td> <td>APFBC</td> </tr> <tr> <td>3.</td> <td>Drinking Water</td> <td>For household consumption</td> <td>EPA/APFBC</td> </tr> <tr> <td>4.</td> <td>Irrigation</td> <td>For agriculture activities</td> <td>Irrigation Dept., Govt. of Assam</td> </tr> <tr> <td>5.</td> <td>Sanitation</td> <td>Providing HHL (House Hold Latrine)-low cost, septic and sanitary type.</td> <td>Swachh Bharat Mission/PHE</td> </tr> </tbody> </table>	Rank	Village EPA as ranked	Details (Appendix-3 has additional particulars)	Probable source of funding/deptt.	1.	Community Hall	For organizing community meetings	Panchayat and Rural Development	2.	Handloom (Weaving)	A center with training facilities which link to mass consumption	APFBC	3.	Drinking Water	For household consumption	EPA/APFBC	4.	Irrigation	For agriculture activities	Irrigation Dept., Govt. of Assam	5.	Sanitation	Providing HHL (House Hold Latrine)-low cost, septic and sanitary type.	Swachh Bharat Mission/PHE
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<p>Livelihood opportunities</p>	<p>Livelihood Opportunities were identified as follows:</p> <ol style="list-style-type: none"> 1. Weaving 2. Farming of Paddy 3. Tailoring 4. Carpentry 5. Wage labour 6. Horticulture 7. Food processing <p>Additional discussion about the above has been given below.</p>
<p>Agriculture</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:</p> <ol style="list-style-type: none"> (a) Lack of barrier for wild animals. (b) Inadequate irrigation facilities (c) It is found from the PRA exercise that the modern facilities used in agricultural farming is seen negligible i.e. tractors and other accessories are nil in the EDC. (d) There is no use of high yielding variety of seeds. <p>The opportunities are:</p> <ol style="list-style-type: none"> (a) Social fencing to protect agricultural land. (b) Provide irrigation facilities and establish link with irrigation department (c) Introduction to modern tools and equipments. (d) Application of HYV seeds <p>The suggested programmes are:</p> <ol style="list-style-type: none"> (a) Training on organic farming. (b) Linking up with govt. departments to avail different schemes. (c) Awareness programme related to various government schemes, like RKVY, NFSM and soon.

Weaving	<p>Table-13 Furnishes additional information about opportunities for weaving.</p> <p>The main constraints are:</p> <ul style="list-style-type: none"> (a) Lack of modern equipment like Jakart machine. (b) Lack of knowledge on using modern technology. <p>The opportunities are:</p> <ul style="list-style-type: none"> (a) Women folk are skilled with traditional weaving practice. Bulk collection of yarn and selling of finish product by EDC can enhance the village development fund. (b) As the weavers are equipped with traditional skill and introduction of new technology is not a problem. <p>The suggested programs are :</p> <ul style="list-style-type: none"> (a) Training on using modern equipment in weaving. (b)Convergence with weaver’s association etc.
NTFP	<p>All village is located adjacent to protected area, there is no scope for collecting NTFP.</p>
Specialized Skills	<p>For skills development, the opportunities are tabulated at Table-15 under Record-2</p> <p>The main constraints are:</p> <ul style="list-style-type: none"> (a) Lack of product diversification (b) Lack of research on product quality (c) Use of traditional machineries <p>The opportunities are:</p> <ul style="list-style-type: none"> a) Exploring new markets b) Developing demand based products as per the needs <p>The suggested programme are:</p> <ul style="list-style-type: none"> (a) Training on Modern Tools and Equipment. (b) Skill up-gradation& Training on New Product Development and Product Diversification (c) Providing a bulk buy arrangement of the finished product with institutional buyers

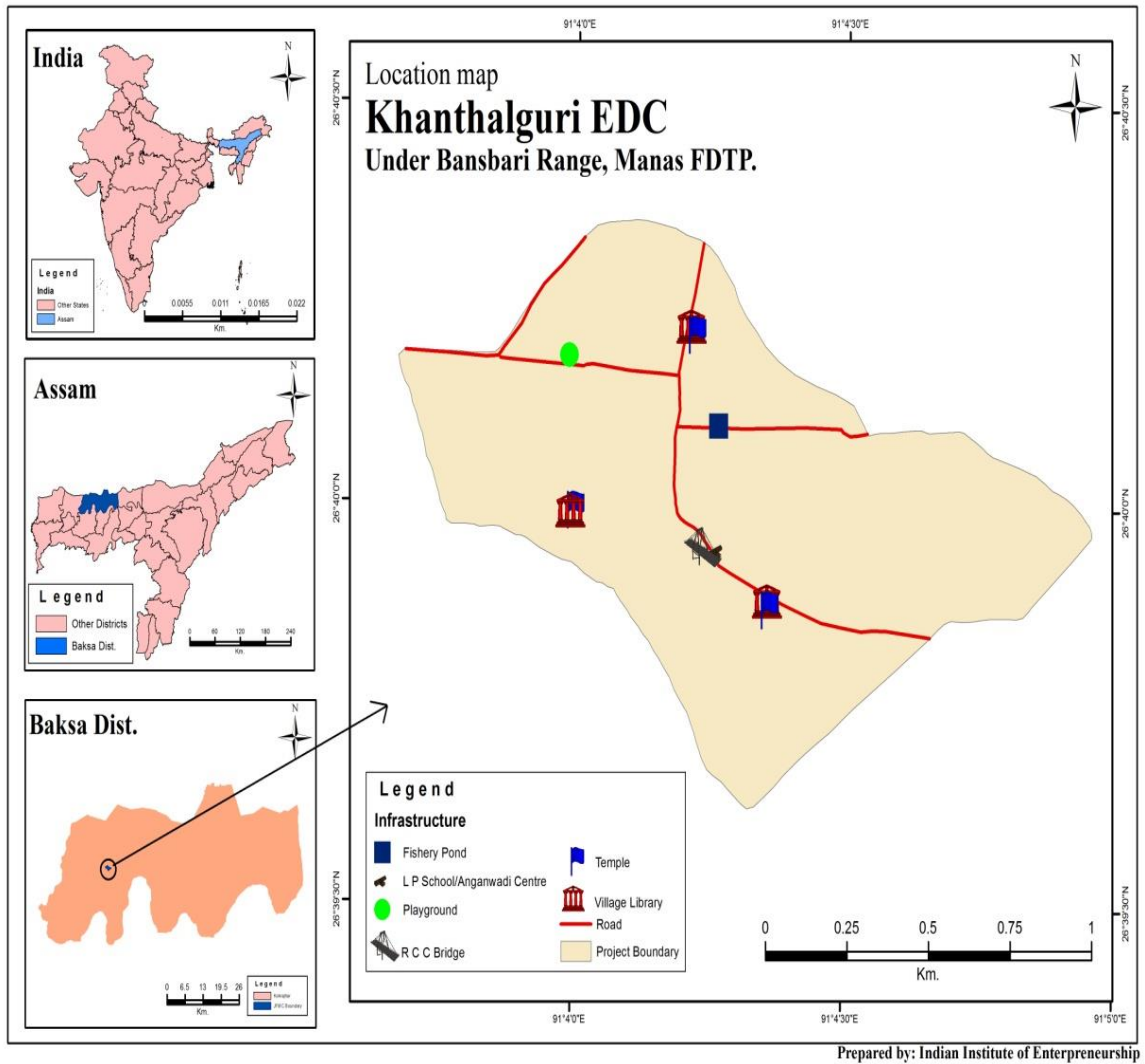
Credit Facility	<p>Table-16 under Record-2 discusses this aspect.</p> <p>The main constraints are: (a) Financial exclusion (b) Higher rate charged by the private money lender.</p> <p>The opportunities are: a) Setting up modern financial institution</p> <p>The suggested programme is: a) Awareness Programmes on various subsidized schemes of government</p>
Strategic intervention	<p>The strategic interventions for the Livelihood Development Plan are:</p> <ol style="list-style-type: none"> 1. Agriculture: Agri-skill development programme and tractor operation training. 2. Weaving: Training on using modern equipments in weaving, convergence with weaver's association. 3. NWFP: No scope 4. Specialized skills: Training on Modern Tools and Equipment 5. Credit facility: Setting up modern financial institution in the area

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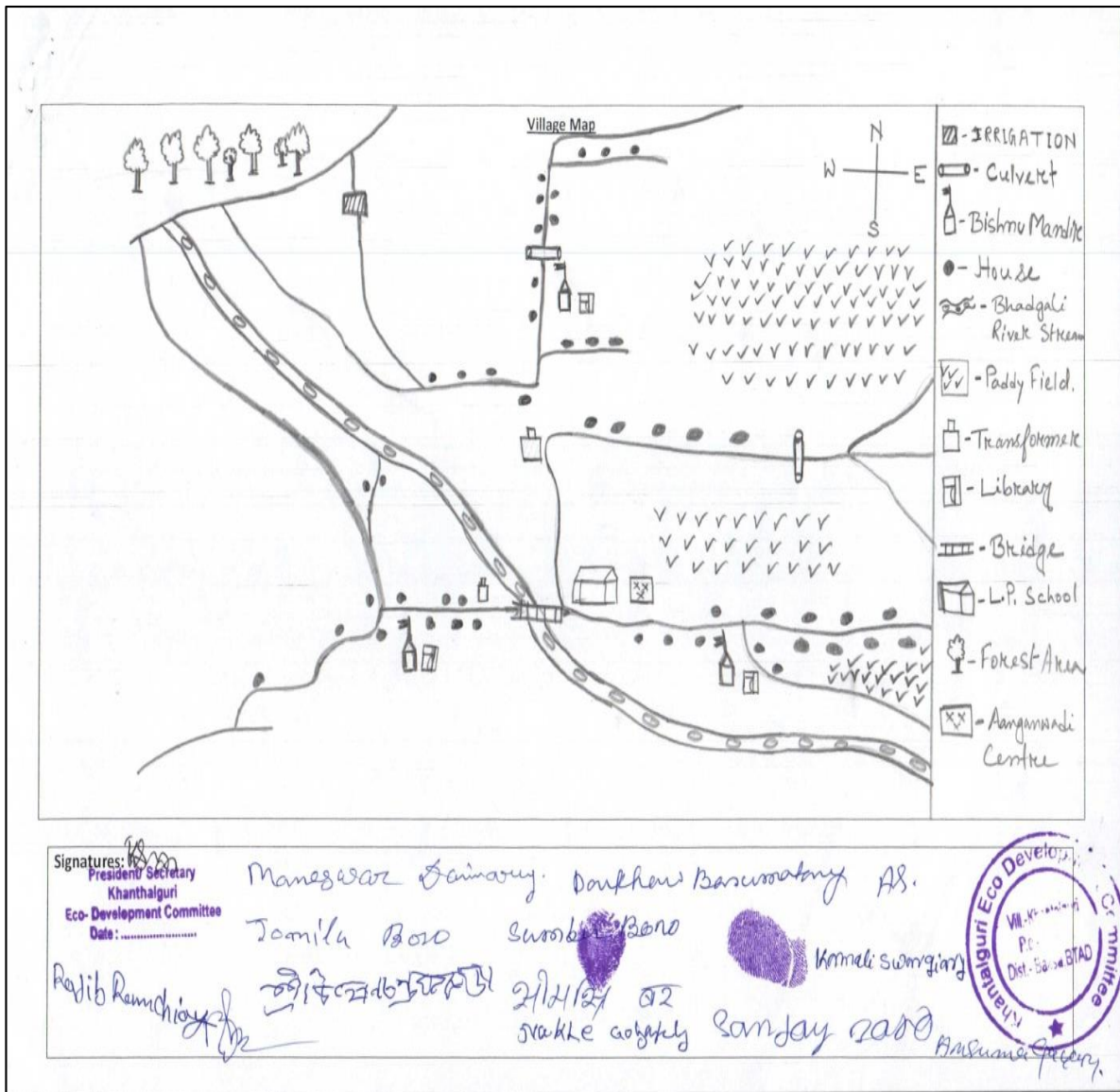
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Appendix 1

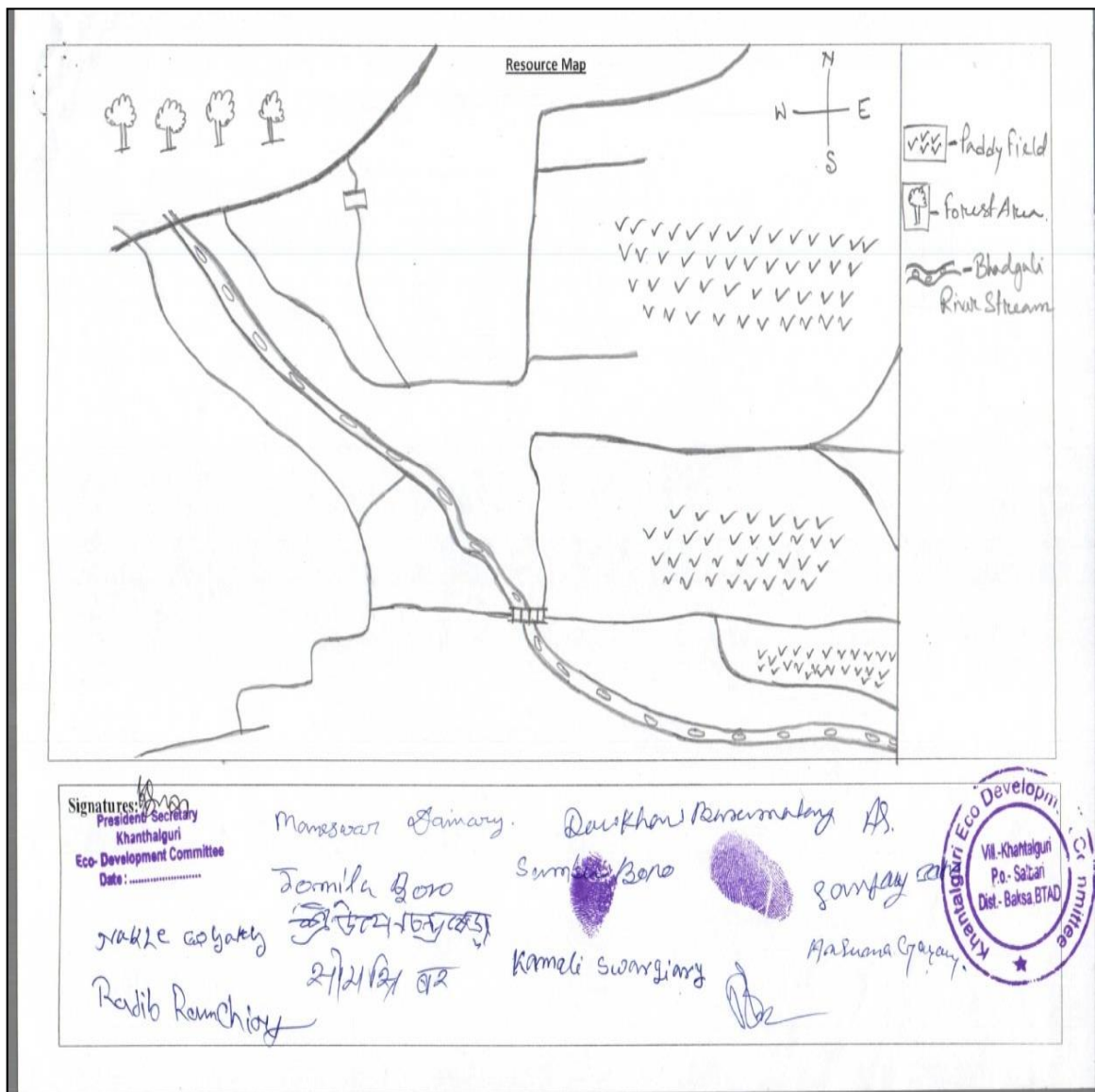
1. Location Map



2. Village Map:

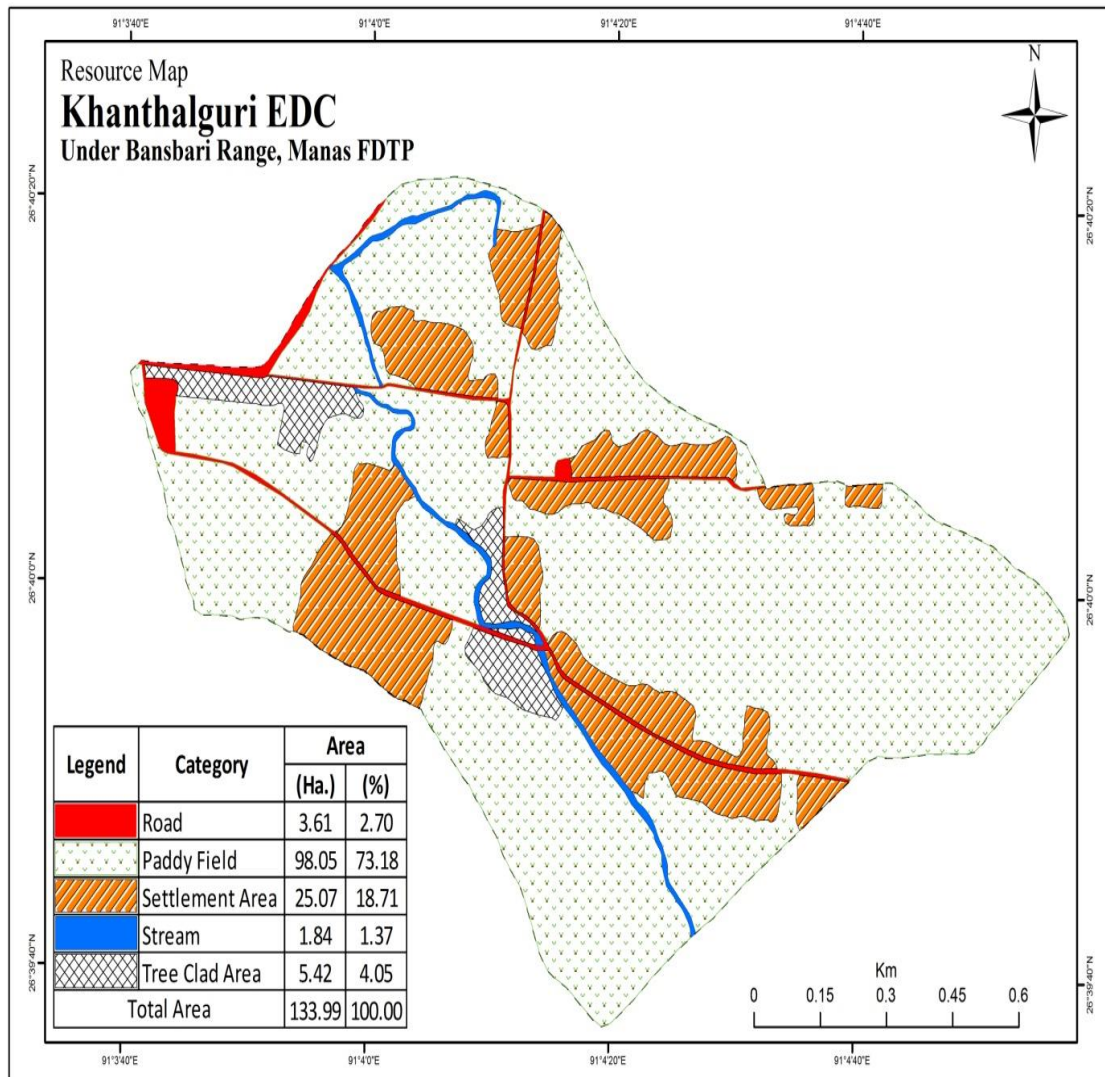


3. Resource Map of Khanthalguri EDC:



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:

Numbers of participants :	25
Time :	10.30 am, 9 th April 2017
Venue :	L.P. School (Khanthalguri EDC)

Table – 3.1: Brief about the villages under Khanthalguri EDC

Sl. No.	Name of the Village	No. of households	Population		
			Total	Male	Female
1.	Khanthalguri	114	560	276	284
	Total	114	560	276	284

Source: Field Survey

Table – 3.2: Education profile Khanthalguri EDC

Illiterate	Primary	Middle School	High School	Higher Secondary	Graduate and above	Total
285	85	40	52	77	21	560

Table – 3.3: Income category of Khanthalguri EDC

Income Category (in Rs.)Yearly	No. of Households
60000 - 80000	28
80000 – 100000	59
100000 – 120000	15
120000 – 150000	8
> 150000	4

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) Venn Diagram
- f) Chapatti Diagram

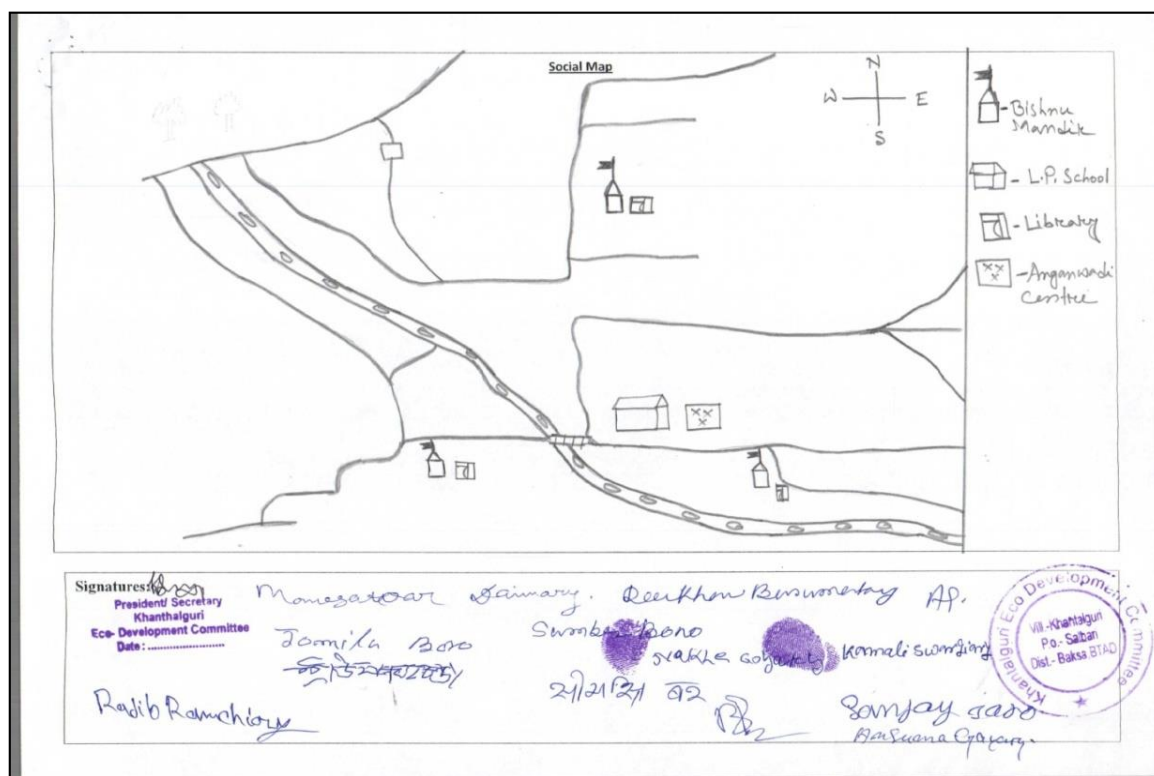
3.1 Social Mapping:

Social mapping is used to visualize the socio-economic aspects of the Khanthalguri EDC where the housing patterns of the households, the numbers of schools, social infrastructure, and religious beliefs among households. At first, we made the transect walk through the village and all the social institution were recorded using the GPS receiver. The villagers actively participated in the mapping process and provided required information about the village.

The villagers were asked to draw the village main roads and then they were asked to locate their houses and the important social places and institutions with help of the PRA team members. Three of them voluntarily came out to draw and they were assisted by other villagers and the team members. All the villagers spotted their households and social places in the map.

Table 3.1: Information about the villages

Social Information	Village	Khanthalguri
	Total population	560 nos.
	Male	276 nos.
	Female	284 nos.
	Total households	114 nos.
	Numbers of Pucca Houses	16 nos.
	No of thatch house/Kutch House	-
	No's of semi pucca house	98 nos.
Land Marks	Bridges	1 no.
	Stream	1 no.
	River	Nil
	PHED	Nil
	Community hall	Nil
	Community Hand pump	Nil
	Well	4 nos.
	Embankment	Nil
	Check Dam	Nil
	Play Ground cum Grazing filed	1 nos.
	Library	3 Nos.
	Transformer	1 no



Findings of Social Map:

- The participants of social mapping have identified all the 114 households out of which 98 households were semi pucca house and rest 16 households were pucca. There was no IAY household 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, Anganwadi centre, Temples, Library and playground, stream, community well, community tube well, hand pump and bridges were mapped out.
- Main sources of water for the villagers are the community Ring well and tube wells.
- Provision of Education facility is not satisfactory. There is only one primary LP school but no ME and High school within the village
- All the people belong to the Bodo community which is of schedule tribe caste.

Learning:

- Though electricity is available inside the villages but its presence is negligible due to continuous power failure for more than 4-5 hours per day.
- Though all the villagers used firewood as primary source for their cooking purposes, but few of the households have LPG connection. The villagers are not completely dependent on the forest resources for their daily livelihood activities.
- All other important institutions viz., ME school, High school, Primary Health Centre, Bank along with Post Office is located at Salbari which is at a distance of 5 km away from the village.
- There is also three village libraries available beside the L.P school in the EDC where various meetings are held.

- 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.
- The villagers of the Khanthalguri EDC have to move Salbari which is at a distance of 5 km for their weekly marketing activity.

3.2 Wealth Ranking:

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

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

- Land holding
- Occupation

The analysis revealed that about 24.56 percent people were poor, 71.93 percent were middle class family and the rest 3.51 percent were rich people. Poor people were mainly engaged in daily wage labour and sometimes they take lease (adhilua) others agricultural land.

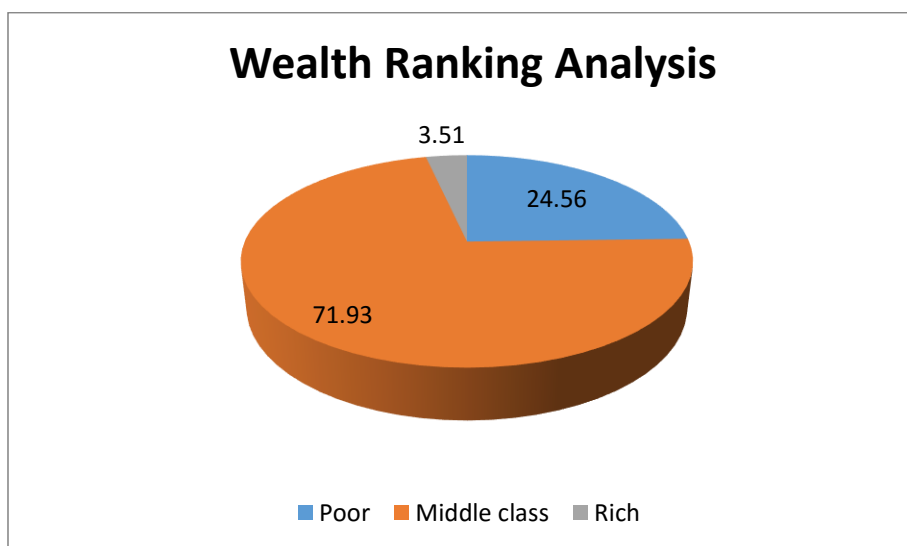


Figure 3.1: Wealth Ranking

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
1971	Primary School established	Construction
1976	1 st Matriculate	Achievement
1977	Man-animal conflict	Destruction
1981	1 st Graduate	
2010	Youth migrated in search of livelihood opportunity	Migration
2013	Construction of pucca road and RCC bridge	Construction

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

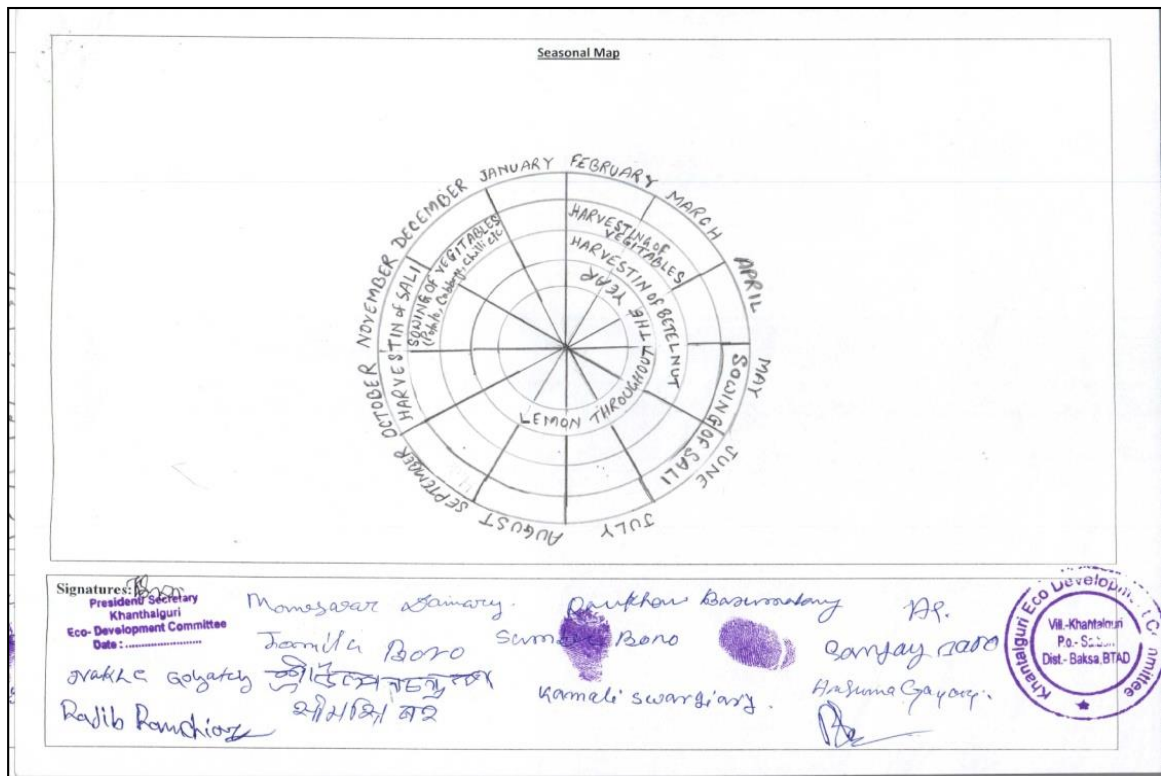
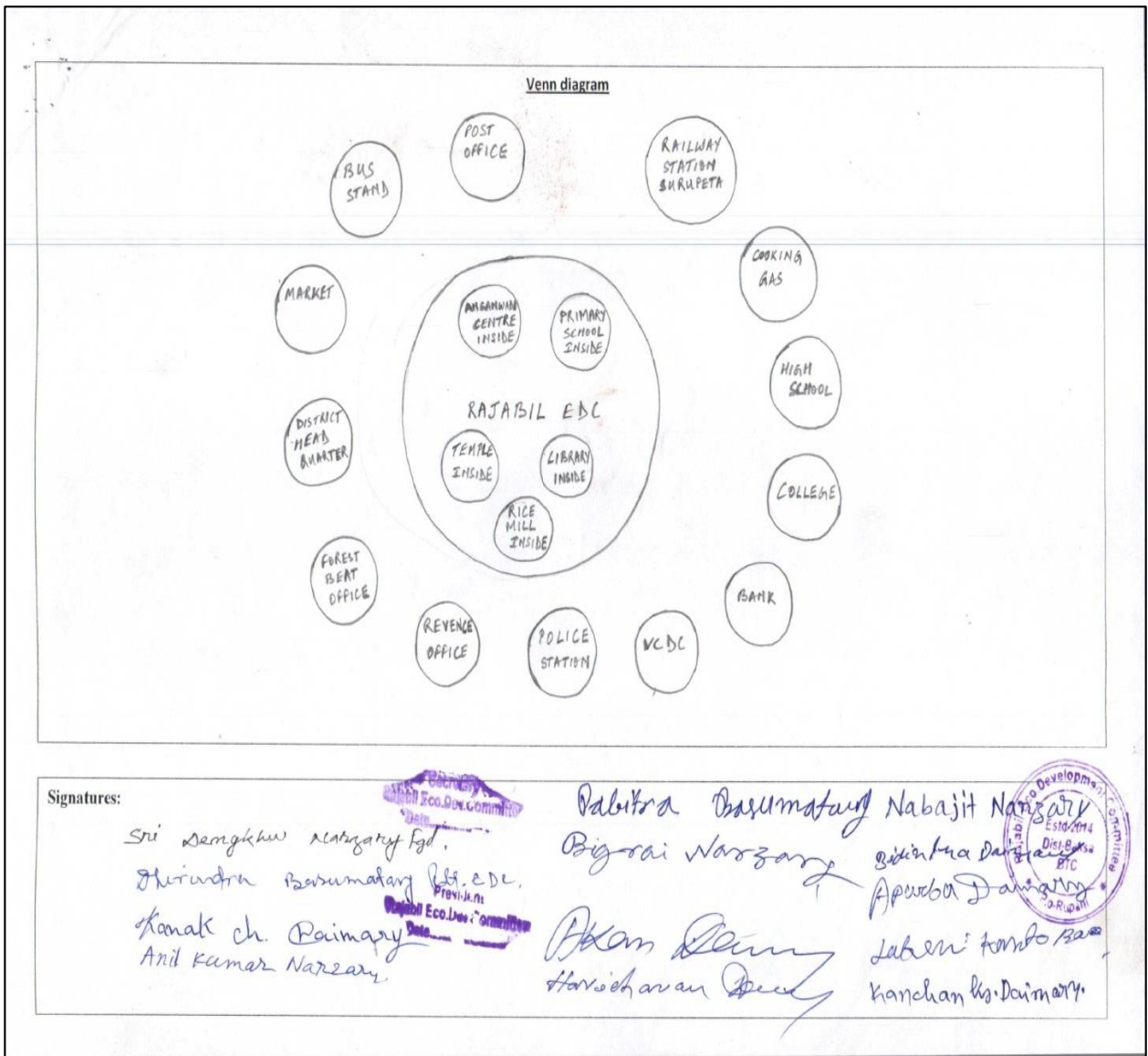


Figure 3.2: Seasonal Map of Khanthalguri EDC

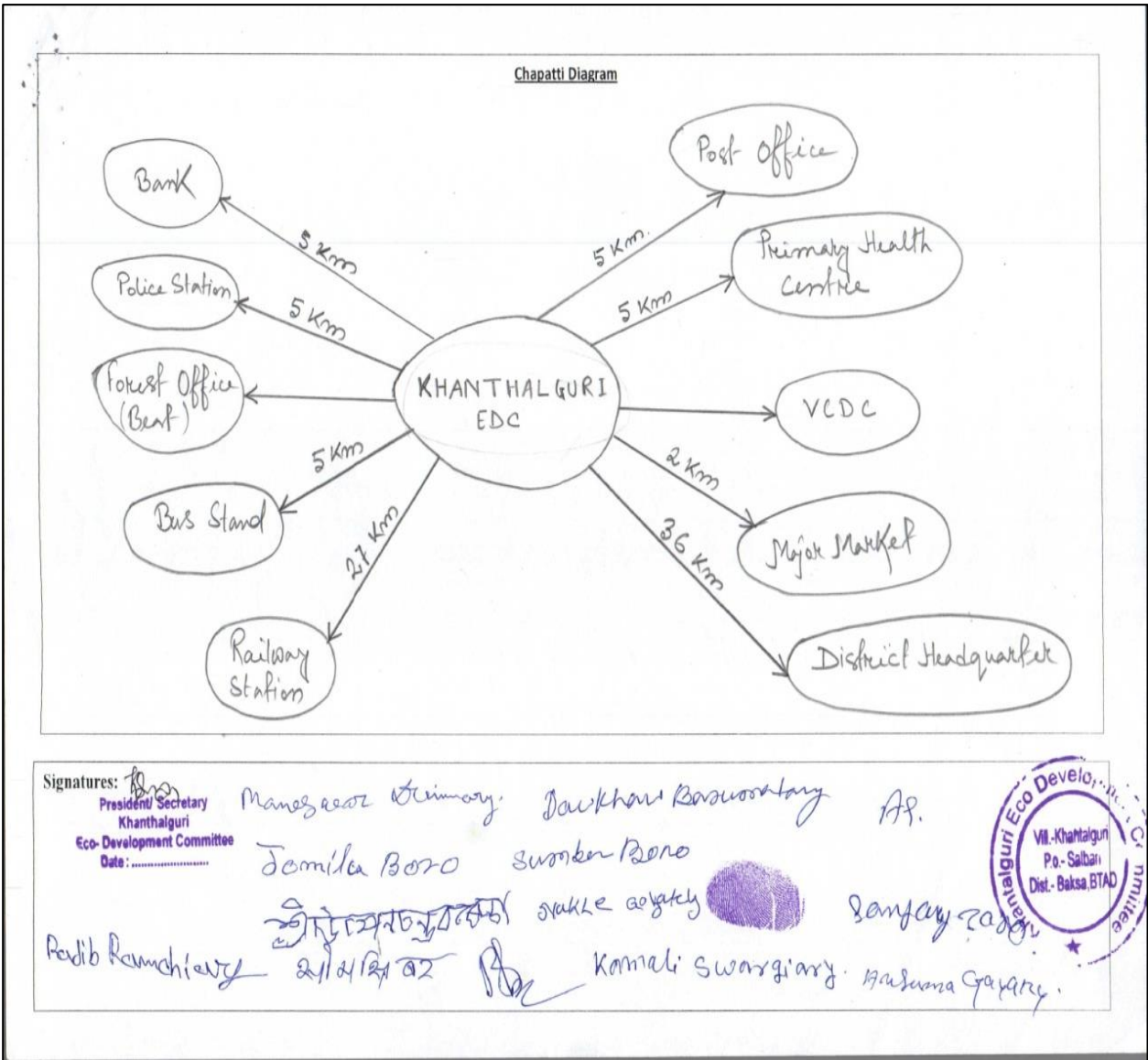
Table 3.4 Seasonal cropping pattern

Categories	Time of Activity			
		Sowing	Harvesting	Plucking
Farming	Sali	May-June	Oct-Nov	-
	Betel-Nut	July-Oct	Feb-May	-
	Vegetables	Nov-Dec	Feb-Mar	-
	Lemon	<i>Throughout the year</i>		
	Non-Farming	Throughout the year		
Weaving				
Livestock Rearing				
Daily Wage Earning				
Shop-keeper				
	Electrician			
	Masonry			

3.5 Venn Diagram



3.6. Chapatti Diagram



Priority Ranking- EPA

	Road	Drinking water	Electricity	Hospital	Veterinary	Community hall	Irrigation	Sanitation	Education	Market shed	Handloom	Marks	Position	
	A	B	C	D	E	F	G	H	I	J	K			
Road	A	*	C	A	A	F	G	H	A	A	K	4	1st	
Drinking water	B		*	B	B	F	B	B	B	B	K	8	3rd	
Electricity	C			*	C	F	G	H	C	C	K	5	6th	
Hospital	D				*	D	F	H	I	D	K	2	8th	
Veterinary	E					*	F	G	H	I	E	K	1	9th
Community hall	F						*	F	F	F	F	10	1st	
Irrigation	G							*	G	G	K	7	4th	
Sanitation	H								*	H	H	K	6	5th
Education	I									*	H	K	0	10th
Market shed	J										*	K	0	10th
Handloom	K											*	9	2nd

President/ Secretary
Khanthalguri
Eco-Development Committee
Date:

Prakle Gogate

Mangaswar Jainary. Dakshin Baswarthy AB.

Jamila Boro Sumbharo

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श्रीमती श्रीमती

Kamali Swargiary.
Bojras Mahilarey.

Somyaj 5000

Ansume Gayary.

Radib Ramchioray



Priority Ranking-Livelihood

Priority Ranking of Livelihood Activities

Livelihood Activities	Agri	weaving	Livestock	Wage labor	Carpentry	Tailoring	Horiculture	Masonry	Food processing	Marks	Rank	
	A	B	C	D	E	F	G	H	I			
Agri	A	*	A	A	D	E	A	G	H	A	2	2nd
weaving	B		*	B	B	B	B	B	B	B	7	1st
Livestock	C			*	C	E	F	G	H	J	1	5th
Wage labor	D				*	E	F	D	D	D	4	2nd
Carpentry	E					*	E	G	E	I	5	2nd
Tailoring	F						*	F	F	F	5	2nd
Horiculture	G							*	G	I	4	3rd
Masonry	H								*	H	2	4th
Food processing	I									*	4	3rd

Signatures: President/ Secretary
Khanthalguri
Eco-Development Committee
Date:

Prakle Gogate

Radib Ramchioray

Mangaswar Jainary. Dakshin Baswarthy AB.

Jamila Boro Sumbharo

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श्रीमती श्रीमती

Kamali Swargiary

Somyaj 5000



Appendix 4 PHOTOGRAPHS



PREPARING VILLAGE MAP THROUGH PRA EXERCISE



A SNAP WITH THE VILLAGERS

Appendix 5

List of EDC Executive Members

Sl. No.	Name	Designation	M/F
1	Khagen Swargiary	President	M
2	Dengkhw Narzary	Secretary	M
3	Moneswar Daimari	Member Secretary	M
4	Chiron Goyari	Treasurer	M
5	Rajib Mohilary	Member	M
6	Bani kt. Basumatary	Member	M
7	Bipin Swargiary	Member	M
8	Bharti Basumatary	Member	M
9	Amarsing Daimary	Member	M
10	Sobaram Narzary	Member	M
11	Monjuli Swargiary	Member	M
12	Sansuma Swargiary	Member	M
13	Anla Boro	Member	M
14	Kamal Wary	Member	M
15	Smt. Meena Goyary	Member	F
16	Smt. Jaysree Wary	Member	F
17	Gawhwm Boro	Member	M
18	Bujan Baumatary	Member	M
19	Smt. Panka Rani Mohilary	Member	F
20	Smt. Purnima Bassumatary	Member	F
21	Bipul Basumatary	Member	M

GOVT. OF ASSAM

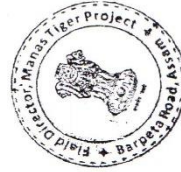


**BODOLAND TERRITORIAL COUNCIL
OFFICE OF THE FIELD DIRECTOR, MANAS TIGER PROJECT
Barpeta Road- 781315, Assam.**

Registration No. MTP/EDC/05, dated 10th April 2016

This is to certify that "KHANTHALGURI ECO-DEVELOPMENT COMMITTEE" under Bansbari Range of Manas Tiger Project, Barpeta Road which was Registered with the Office of the Field Director, Manas Tiger Project, Barpeta Road, Assam on 10th April 2016 has been renewed upto 10th April 2017

Signed under my hand & seal.



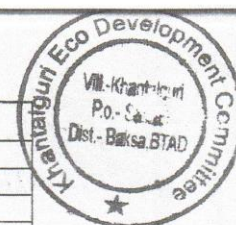

(H.K. Sharma, IFS)
Field Director, Manas Tiger Project
Barpeta Road, Assam.
Field Director, Manas Tiger Project
Barpeta Road, Assam.

Place: Barpeta Road.

Date: 10/04/2016..

List of Training Participants

Khantalguri EDC



List of Participants

Sl. No.	Name of Participant	Sex	Age	Qualification
1.	Mrs Lakshmi Swargiarj.	F	24	HSLC.
2.	Mrs Manjuli Swargiarj	F	23	HSLC.
3.	" Niroda Swargiarj	F	32	12
4.	" Amang Swargiarj (1)	F	35	Nil
5.	" Belori Swargiarj	do	30	do
6.	" Amang Swargiarj (2)	do	32	do
7.	Miss Sujuma Swargiarj	do	24	BASCm.
8.	Mrs. Karla Swargiarj	do	23	Viii
9.	" Kamali Swargiarj	do	30	8
10.	" Phelmati Swargiarj	do	22	8
11.	" Dipali Swargiarj	do	24	Viii
12.	" Joybri Babumatarj	do	23	8
13.	" Nakile Goyarj	do	32	12
14.	" Rami Boro	do	23	8
15.	" Sumbhor Boro	do	28	Nil
16.	" Monu Boro	do	29	Nil
17.	" Joybri Goyarj	do	24	xii
18.	" Bisoda Goyarj	do	32	Viii
19.	" Sautehli Boro	do	29	Nil
20.	" Songle Brahman	do	35	Nil
21.	" Haithusi Narzary	do	36	12
22.	" Golapi Daimarj	do	32	21
23.	" Parul Daimarj	do	47	8
24.	" Parani Babumatarj	do	27	HSLC.
25.	" Bhanu Swargiarj	do	28	8
26.	" Ajali Babumatarj	do	32	xii
27.	" Momena Babumatarj	do	28	8
28.	" Gaitanti Swargiarj	do	26	11
29.	" Sopna Babumatarj	do	34	HSLC.
30.	" Rajoni Babumatarj	do	35	Viii
31.	" Manbani Ramchiarj	do	36	Vii
32.	" Gitija Ramchiarj	do	38	Nil
33.	" Hemleta Daimarj	do	27	8
34.	" Haitu Daimarj	do	38	VI
35.	" Bijita Ramchiarj	do	21	HSLC
36.	" Abela Daimarj	do	32	Nil.
37.	" Kokila Boro	do	37	8
38.	" Pratima Mohilarj	do	36	HS
39.	" Champa Mohilarj	do	36	12
40.	" Sobita Mohilarj	do	35	HSLC
41.	" Rupoma Babumatarj	do	30	HSLC
42.	" Sauti Bala Narzary	do	37	12

Mrs. Manjuli
 President/Secretary
 Khantalguri
 Eco-Development Committee
 Date: 12.05.2021

Appendix 6 (Record I)

Table 1: Basic data of the EDC

Name of EDC	Date of Establishment of the EDC	No of members in executive committee	Name of president	Name of Secretary	Money in Village dev. Fund (VDF)	Contribution per family or per person	Social financing used Y/N	Remarks on special attainments	Grading %of success of EDC by RFO
Khanthalguri	09/04/2015	21	Khagen Swargiary	Denkhw Narzary	-	-	-	-	-

Table 2: Demographic status of the project village

Name of village	House holds (No.)	ST			OBC		SC		Sex ratio (per 1000 male)	Avg. HH Size (Approx.)
		Total	Male	Female	Male	Female	Male	Female		
Khanthalguri	114	560	276	284	-	--	--	--	1029	5
Total	114	560	276	284	-	--	--	--	1029	5

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

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
Khanthalguri	-	4	82	28	114
Total	-	4	82	28	114

Table 4: Livestock Population:**Table 4: Cattle Population of the EDC**

Sl No.	Name of the village	Village wise no of cattle's or type of animal						
		Cows	Buffaloes	Goat	Duck	Hen	Pig	Total
1	Khanthalguri	197	11	73	-	980	140	1401
Total		197	11	73	-	980	140	1401

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

Sl. No.	Infrastructure	Location	Distance from village
1	Bus Stand	Salbari	5 Km
2	Electricity	Salbari	5 Km
3	Gas connection	Salbari	5 Km
4	Primary Health Centre	Salbari	5 Km
5	Primary School	Khanthalguri	Inside the Village
6	Middle School	Salbari	5 Km
7	Post office	Salbari	5 Km
8	High school	Salbari	5 Km
9	Bank	Salbari (SBI)	5 Km
10	Anganwadi centre	Khanthalguri	Inside the Village
11	PostOffice	Salbari	5 Km
12	Forest Range Office	Bansbari	5 Km
13	Forest Beat Office	Bhatgali	1 Km
14	Railway Station	Sarupeta	23 Km
15	College	Salbari	5 Km
16	Police Outpost	Salbari	5 Km
17	Weekly Market	Salbari	5 Km
18	VCDC	Ghoramara	2 Km

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

Particulars	Rain Fed		Irrigation	
	Name of the crop	Area (in ha.)	Name of the crop	Area (in ha.)
Kharif	Aijung, Sali	45.60	-	-
Rabi	Chilli, Radish, Potato	10	-	-
Others	Lemon	2	-	-
	Betelnuts	15	-	-

Table 7: Crop Profile Production of Khanthalguri EDC*Table 7: Crop production profile of Khanthalguri EDC*

Type of crop	Total Production (approx.) in quintals	No of household growing	Average production (Quintal/ ha.) approx.	Area under crop (ha.) approx.
Paddy	1368	86	30	45.60
Vegetable	37.5	40	3.75	10
Lemon	12	35	6	2
Betel nuts	150	95	10	15

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

Types	1-3 month	3-6 month	>6 month
Crop residue		✓	
Household wastages			✓
Green Fodder			✓
Grazing in Forest		✓	

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

For Purchase	Location	Distance from village if in other village (in km)
Grocery shop	Salbari	5 Km
Weekly Market	Salbari	5 Km
Major Market	Rupohi	2 Km
Forest Corporation Sale Depot.	-	-
Tendu Patta PHAD	-	-
Fish Market	Rupohi	2 Km
Medicinal Plant collection Centre	-	-
Forest Corporation Medicinal plant Collection Centre	-	-

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

Water source	Number	Availability of water	Uses
Stream	1	Perennial	Irrigation, livestock rearing
Tube well	1	Perennial	Drinking, Domestic uses
Ring Well	3	Perennial	Drinking, Domestic uses
Pond	1	Perennial	Fishery

Table 11: Energy consumption**Table 11: Showing the Energy Consumption of the Khanthalguri EDC**

Type of Fuel	Number of household depending	Number of months dependent	Sources (local, village, forest, other sources)	Major/ Secondary
Fuel wood	114	Whole Year	Homestead/ Forest area	Major
Kerosene stove	76	Whole year	Open Market	Secondary
Gobar/Bio gas	-	-	-	-
LPG	12	Whole year	Agency	Secondary
Electric Heater	-	-	-	-

RECORD: II

LIVELIHOOD OPPORTUNITY ANALYSIS

Table 12: Agriculture and Horticulture:

Table 12: Showing the agricultural and horticultural status

Constraints	Reason	Opportunities	Programme
Low Production	<ul style="list-style-type: none"> • Lack of barrier for wild animals(social fencing) • Inadequate irrigation facility • Traditional method of cultivation (Lack of agricultural infrastructure, modern tools and equipment's viz, power tillers, tractors etc.) • Application of HYV seeds 	<ul style="list-style-type: none"> • Introduction to Bio fencing • Provide irrigation facilities and establish link with irrigation department • Introduction to modern tools and equipment • The villagers are inherited with the skill of cultivation. But an improvisation of skills is the need of the hour. Usage of high yielding seed program. 	<ul style="list-style-type: none"> • Linking up with govt. departments to avail schemes related to irrigation. • Tractor operation training • Agra-skill development programme Training on insecticides, pesticides, hybrid cultivation
Storage and Production	<ul style="list-style-type: none"> • Lack of common storing place • Lack of cold storage facility due to non-availability of electricity. 	<ul style="list-style-type: none"> • Helpful in preserving unsold products for a longer period of time. They can store their product and sell it when • There is a higher demand. 	<ul style="list-style-type: none"> • Packaging • Transportation and distribution.
Marketing	<ul style="list-style-type: none"> • Lack of transporting facilities for carrying 	<ul style="list-style-type: none"> • Smooth transportation facility will help the buyers meet sellers. 	

Table 13: Livestock

Table 13 Livestock

Constraints	Reasons	Opportunities	Programme
Less grazing land	Not Applicable	-	-
Availability of Fodder	Not Applicable	-	-
Veterinary care facility	No Veterinary care facility available	Training on minimum veterinary care facility	-
Production of milk and dairy products	No scientific knowledge on cattle rearing to increase milk production	Training on milk production	-
Milk market	No proper market facility	Suitable market for selling	-

Table 14: NWFP

Table 14: NWFP

Constraints	Reasons	Opportunities	Programme
Less collection	Not Applicable	Not Applicable	Not Applicable
Unsustainable extraction	Not Applicable	Not Applicable	Not Applicable
Low rates	Not Applicable	Not Applicable	Not Applicable
Value addition	Not Applicable	Not Applicable	Not Applicable

Table 15: Specialized skill

Table 15: Specialized skills: Weaving

Constraints	Reasons	Opportunities	Programme
Raw material availability	<ul style="list-style-type: none"> • Non-Availability of Raw Materials within reachable location • (market 25 km away) 	<ul style="list-style-type: none"> • Common place for setting a raw material storage 	<ul style="list-style-type: none"> • Setting up a raw material bank

<p>Product quality</p>	<ul style="list-style-type: none"> • Lack of using modern equipments like jakart machine. 	<ul style="list-style-type: none"> • As the weavers are equipped with traditional skill and introduction of new technology will help increasing both production and income. • Developing Quality Products for new market exploration. 	<ul style="list-style-type: none"> • Training on Modern Tools and Equipment. • Providing modern technology to the villagers
<p>Marketing potential</p>	<ul style="list-style-type: none"> • No standardized market • No pricing policy • No linkage with the institutional buyers • No Product 	<ul style="list-style-type: none"> • Exploring new markets with diversified products 	<ul style="list-style-type: none"> • Providing a bulk buy arrangement of the finished product with institutional buyers.
<p>Credit facilities</p>	<ul style="list-style-type: none"> • Avail credit facility through SHGs. • Unaware of the development schemes of banks and government 	<ul style="list-style-type: none"> • Make financial institutions in touch with the community people for building trust among the members to avail credit facility. • Financial assistance by the Govt. • Providing easy access to credit. 	<ul style="list-style-type: none"> • Linkage with customer service point by linking community people through financial institution. • Microfinance, Term Loans, Working Capital Arrangement
<p>Product Diversification</p>	<ul style="list-style-type: none"> • No Product • Diversification or New Product Development. Lack of concept for product diversification. 	<ul style="list-style-type: none"> • Developing Demand Based Products, as per the needs of the modern day market. 	<ul style="list-style-type: none"> • Skill Up gradation & Training on New Product Development and Product Diversification

Table 16: Credit facility

Table 16: Credit facility

Constraints	Reason	Opportunities
Ineptness	Nil	<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
Availability of loan	<ul style="list-style-type: none"> • Fear of risk taking lake of 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