





LAHORIPARA LANGDANGPARA ECO DEVELOPMENT COMMITTEE (EDC)

MANAS TIGER PROJECT BANSBARI FOREST RANGE

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

Prepared by Lahoripara Langdangpara Eco- Development Committee

assisted by
Assam Forest Department
&
COMPELO
(IIE, RGVN and CML)

July 2016

Approved

Field Oliverton Mannis Tiger Project

List of Acronyms

Acronym Full Form

APFBC Assam Project on Forest and Biodiversity Conservation

AFD Agence France de Développement

BPL Below Poverty Line

COMPELO Consortium for Micro Planning and Enhancing Livelihood Opportunities

EPA Entry Point Activities

GIS Geographical Information System

Ha Hectare

IIE Indian Institute of Entrepreneurship

EDC Eco Development Committee

Kg KilogramKm Kilometre

NGO Non-Governmental Organization

NTFP Non Timber Forest Product
PDS Public Distribution System
PRA Participatory Rural Appraisal

Rs. Indian RupeesSHG Self Help Group

VCDC Village Council Development Committee

LAHORIPARA LANGDANGPARAECO DEVELOPMENT COMMITTEE Bansbari Forest Range

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

Table of Contents

Section No	Heading	Page No
1	Introduction	1
2	Village Socio-Economic Profile	2-7
3	Livelihood Opportunity Analysis	7-12
4	Livelihood Development Plan	12
5	Forest Development Plan	13-16
6	List of Appendices	17

1. Introduction

About the Project

The vision of the Assam Project on Forest and Biodiversity Conservation (APFBC) is 'to enable sustainable forest and biodiversity conservation and management in Assam through multi-scale integrative planning and involvement of forest dependent communities in target areas and giving fillip to their livelihood activities through sustainable use of forest and non-forest resources'. The project's objective has been stated as: 'In collaboration with the forest dependent communities, to restore forest eco-systems to enhance the forest dependent community's livelihoods and ensure conservation and sustainable use of biodiversity'.

The above project is being mainly funded by the Agence France de Développement (AFD) - i.e. the French Development Agency, with co-funding from the Government of Assam. The Assam Project on Forest and Biodiversity Conservation Society (APFBC Society) has the mandate for planning, implementation, monitoring, coordination and management of all the activities under the above mentioned project.

Micro-Planning Livelihood Development

In order to promote livelihood activities through market potential based value addition; the present project intends to take up activities like entrepreneurship promotion, product processing value addition and marketing under this project. This has become necessary on account of the pressures on existing forest resources due to the growth of population. There is a need to explore value addition to the existing forest and biodiversity products and services, based on the market potential. In addition, non-forest based livelihoods need to be explored and the capacities of the community members need to be built-up through skills development initiatives.

A consortium comprising of Indian Institute of Entrepreneurship (IIE) Guwahati, Rashtriya Gramin Vikas Nidhi (RGVN) and Centre for Microfinance and Livelihood (CML) has been formed to implement (inter-alia) the micro planning and livelihood development under the above project. The above consortium has been titled as 'Consortium for Micro Planning and Enhancing Livelihood Opportunities' - COMPELO in short.

As per project guidelines, this micro-plan includes 'various operations of village and forest development ... livelihood support of forest dependent members and keeping sustainable forest management as the broad objective'. It includes both forest development and livelihood development.

Micro-Plan for the Lahoripara Langdangpara EDC

theThis document gives the Micro-Plan for the Lahoripara Langdangpara EDC, which is located in the Baksa district of Assam. The EDC falls under the
C jurisdiction of the Social Forestry Division of the BTC Forest Circle. The profile of the community is given in the next section.

The present micro-plan has been prepared by members of the community, including both male and female members. This document has emerged as an outcome of a Participatory Rural Appraisal (PRA) process undertaken by the community and personnel of Indian Institute of Entrepreneurship (IIE) Guwahati in 1st July 2016. The micro-plan has been compiled by IIE based on the project guidelines. The document has been discussed and finalized for adoption in July 2016.

2. Village Socio-Economic Profile

Location

The Lahoripara Langdangpara Eco Development Committee (EDC) has been formed to cover the existing community dwelling in Lahoripara and Langdangpara villages. The area covered by the above EDC falls within the Bithorai 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

Tubic iii iicj miormation or the	
Name of the EDC	Lahoripara Langdangpara
Habitation	Lahoripara Langdangpara
Name of Revenue Village	Palsiguri
Name of the VCDC	Bithorai
District	Baksa
Forest Division	Field Director, Manas Tiger Project
Forest Range	Bansbari
Forest Beat	Kahibari
Year Formed	2015
Description of Boundary of	GPS Coordinates(Centre Point)
EDC	N 26 ⁰ 39'57.2"
	E 91°03°21.7"
	North: Manas National park
	South: Basbari Salbari Road ,NH 31
	West: Kahibari Village
	East: Salbari Village, NH 31

Source: Discussions during PRA Exercise in June 2016

Additional details are given at **Table-1** of Record-I (Given at Annexure)

Executive
Committee and
General Body

Brief Details of theThe 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	Mr. Baburam Boro	
Name of Secretary	Mr. Biren Rajbongshi	
Name of Treasurer	Mrs. Musahary	
Registration Number	MTP/EDC/03, Dated 10 th April, 2016	
No. of Members in	16 nos.	
Executive Committee		
No. of Members in the	110 members	
General Body		

Source: EDC Records

Households and Population Structure

The village has 110 households. The number of female headed households is nil. The total population is 432of which 210 are male and the rest 222are female members. People belong to ST-Plain and ethnically belonging to Bodo community.

Table-2 of Record-I may be referred for further details in the above regard.

From this, it is inferred that:

- (1) The average number of persons in a household is 5:1
- (2) The sex ratio is 1057 females per 1000 males in the village.

Development

Education & Skills Over 52% of the population is reported to be literate. Most of the community members have received school level education. On the other hand, relatively fewer households have college educated and graduated members.

> Livelihood skills are usually acquired under various settings - formal & informal. In the EDC area, informal means for skill development is the traditional norm. People have traditional skills in the following areas:

- (a) Horticulture
- (b) Farming
- (c) Livestock rearing
- (d) Handloom

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.

Soil

The soil type of the project area includes:

The river Manas, named Mangde Chu (in Bhutan) joined another stream Dagme Chu, flowing down through the Manas National Park and by splitting up into two major streams as Manas and Beki of which the Manas river was blocked in 2004. The fast flowing Beki 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. 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. The Beki 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 park carry enormous amounts of silt and rock from the foothills as a result of heavy rainfall, steep gradients and friable bedrock upstream.

Water

Over the limestone and sandstone bedrock, boulders and gravels of the Bhabarsavanna area to the north, flood waters have formed shifting channels and swamps and a soil of porous alluvial river terraces of coarse detritus under layers of sandy loam and humus where the water table is very low. The Terai grasslands in the south consist of deep deposits of fine alluvium with underlying pans where the water table lies very near the surface, making it potentially useful farmland. The Manas basin in the west of the Park is frequently flooded during the monsoon but never for very long due to the sloping relief. Drowning of wildlife is negligible as animals are able to take refuge on islands of high ground.

Climate: Temperature Rainfall

The climate of Manas is moist tropical with an annual rainfall between 3000 mm to 4000 mm.

Winter (December-February): Characterized by cool weather and fog. The temperature remains $20^{\circ}\text{C} + 5^{\circ}\text{C}$. January is the coldest month. Average total rainfall is 114 mm with relative humidity of 77% + 5.

Pre-monsoon (March-May): It is a transitional period between relatively dry winter and hot summer and is characterized by a rapid rise in temperature. As the season advances, the amount and frequency of rainfall increases due to frequent thundershowers with hailstorms. Average total rainfall during the season is 518.70 mm. The season is marked progressively by a greater number of cloudy days. Average temperature and humidity in this season are 23 °C + 5°C and 70% + 5 respectively.

Monsoon (June-September): It is the characteristic major rainy season of the year. The average monthly rainfall is 2860 mm. The average temperature during this season is 27.17° C with an average diurnal range of over 6° C. The humidity increases to 82% + 5. August is the hottest month.

Retreating monsoon (October-November): Towards the end of September, the monsoon weaken with an abrupt retreat followed by fair weather. With the advancing of the season the temperature falls and moving mist and fog appears. The average temperature is $27^{\circ}\text{C} + 2$. The average monthly rainfall is 1400 mm and the rainy days become fewer. Relative humidity is 82% + 5.

Forest & Bio-Diversity

The main tree species are Sida, Ajar, Khokan, Gamari etc. Lemon trees are abundantly grown in this EDC village. Some other species as Areca-nut Tree, Jack Fruit etc. are also grown. The most abundantly grown is lemon which also serves as bio fencing.

Additional details in this regard are given at the 'Forest Development Plan'.

Land Use Pattern

Appendix-2 gives the land-use pattern of the village. From the same, it is seen that the land-use in the village is as follows:

Cultivated wasteland (low line) Firewood Plantation

Irrigation canal

Paddy field

Road

Settlement with tree cover

Stream

Land Holdings

The type of households as per land-holding is given at **Table-3** of Record-I. From the same, it is seen that:

- 0 % of the households are landless (0 HH)
- 82.67% of the households are marginal farmers (93 HH)
- 17.33% of the households belong to small and large categories.

Livestock

The total number of livestock in the village is 1150. The main types of livestock possessed by the households include:

Cows: 260 Goats: 62 Duck: 44 Hens: 582 Pigs:202

Table-4 of Record-I may be referred to for the details in the above connection.

Village Infrastructure & Communication Facilities

In any community; the availability of basic infrastructure enables the development of sustainable livelihood options. The present condition of infrastructure in the village is not satisfactory. This is borne out by **Table-5** of **Record-I**, which gives the present status of the village infrastructure.

From the above table, the following have been noted with regard to village infrastructure:

Physical Infrastructure: The habitation is deprived of basic physical infrastructure like paved roads, electricity, water supply, mobile network etc.

Education & Health Facilities: There are minimal educational and no health facilities. Public transport is not available, and the community members have to use bicycles to move around.

Govt. Offices: The government offices (such as Police station, Gram Panchayat office, Revenue office, Forest Beat office etc.) are located at a considerable distance, which gets amplified as the villagers do not have access to regular public transport from either the habitation or from nearby areas.

Financial Inclusion: Facilities for financial inclusion like bank and post office are located at a considerable distance from the habitation. The community members have accounts in faraway places.

Agricultural Crops

The details of the agricultural crops grown in the village is available at **Table-6** of Record-I.

The above shows that the following are the main crops grown in the village.

Kharif Crops: Sali Paddy

Rabi Crops: Nil

Others: Lemon, Chilli, Jack fruit, Brinjal etc.

All the crops are rain fed.

Table-7 of Record-I may be referred to for the production and yield details of **Production** The crops grown in the village.

Crop Production Profile

The maximum numbers of households are involved in growing crops like rice and mustard.

The production and yield of these crops is given as follows:

(a)Paddy: Production 1600 Quintals Yield 21 q/ha

Fodder Availability

The matter of fodder availability in the village is dealt with at **Table-8** of Record-I. The above shows that the main sources of fodder in the village are as follows:

- (a) Crop residue
- (b) Household wastage
- (c) Green fodder

Markets

Table-9 of Record-I shows the location of the different markets from the village. The main markets used by the community are as follows:

- (a) Grocery / PDS: Inside Village
- (b) Weekly / Bi-weekly Market: : Bansbari at 5 km away
- (c) Major Market: : Bansbari at 5 km away

Water Resources

The water resources are tabulated at **Table-10** of Record-I. The main water resources with the water availability is as follows:

(a) Tube well
 (b) River
 (c) Water Availability: Perennial / Seasonal)
 (d) Water Availability: Perennial / Seasonal)

Energy Consumption

Table-11 of Record-I shows the major sources of energy in the village. The same have been listed below.

- (a) FUEL WOOD- Households Depending 110 Nos. Source: Outside forest trees near village
- (b) KEROSENE-Households Depending: 90 Nos. Source: Open Market
- (c) LPG- Households Depending 20Nos

Socio-economic status

Social set-up: The village is inhabited by Bodo community. They belong to ST. The society is not marked by deep social divisions. The observed position of women is satisfactory.

Economic Condition: The economic position is not satisfactory. The main livelihoods are Farming, Daily wages, Horticulture etc. Most households earn Rs. 20,000 to Rs. 35,000 per year. Agriculture is mostly destroyed by the wild animals mostly elephants, peacock etc.

There is some migration of the youth and others for livelihoods. Additional details are available at the next section.

Impacts

Positive Input:

- 1) Soil water conservation
- 2) Economic benefit from tourism
- 3) Environmental improvements.

Negative Inputs:

- 1) Human animal conflict
- 2) Cattle/crop destruction
- 3) Damage of property by wild elephants

Maps

Appendix-1 gives the following maps, based on PRA exercise:

- Village Map
- Village Social Map (with the names and particulars of members in PRA) and Village Resource Map

3. Livelihood Opportunity Analysis

PRA Exercise

Team from IIE Guwahati carried out PRA exercise in Lahoripara Langdangpara village as follows:

Date: 9th July, 2016 Location: Community Hall Numbers Present:

35

In Presence of: EDC office bearers, Village Headman, community members, Forest Department personnel, etc.

Objective of PRA

The objective was to study the existing household conditions and obtain other primary data about the community for developing the livelihood options and the forest development plan.

Tools Used Outcomes of the PRA

&Different tools were used and outcomes obtained. These include:

Social Mapping Wealth Ranking Time Line review

Seasonality of Livelihoods

Venn Diagram

Appendix-3 furnishes detailed information of the above.

Ranking

Ranking exercise has been done for the following:

Livelihoods & Skills Development

Entry Point Activities (EPA)

Appendix-3 elaborates the above. From the same, it is stated that:

Ranking of Livelihoods & Skills Development

- 1. Horticulture
- 2. Agriculture
- 3. Livestock
- 4. Weaving
- 5. Driving
- 6. Food processing training

Ranking of EPA

Rank	Village EPA as	Details	Probable source of
	ranked (Appendix-3 has		funding/deptt.
		additional particulars)	
1.	Health Centre	Sub-Centre within the village	NHM/ H & FW
2.	Electricity	Solar light facility to each HH	APFBC

3.	Road	Black Topping of road	PMGSY/PWD	
	Connectivity	From Bansbari to the village		
		(~4 KM)		
4.	School	Upper Primary School	SSA/ Elementary	
			Education Deptt.	

Livelihood opportunities

Livelihood Opportunities were identified as follows:

Agriculture & Horticulture (Lemon)

Livestock

Skills Development

Credit Facility

Additional discussion about the above has been given below.

Agriculture Horticulture

Table-12 Under Record-2 may be seen in this connection for opportunities in the areas of agriculture and horticulture.

The main constraints are:

- (a) Lack of barrier for wild animals.
- (b) Lack of irrigation facilities
- (c) Lack of agricultural infrastructure, modern tools and equipment's
- (d) Non usages of high yielding seeds etc.

The opportunities are:

- (a) Application of proper and controlled pesticides and insecticides.
- (b) Introduction of new and advance technology
- (c) Well-structured training programme. The villagers are inherited with the skill of cultivation. All they need is improvisation of their skill level.

The suggested programmes are:

- Tractor operation training
- Agri-skill development programme.
- Development of Fencing and solar lights.

Livestock

Table-13 Furnishes additional information about opportunities for livestock rearing.

The main constraints are:

- (a) Unable to buy fodder from market due to poor financial condition.
- (b) Threat from wild animals which destroys most of the livestock.
- (c) No veterinary care clinic.
- (d) Lack of knowledge about the proper rearing of livestock.

The opportunities are:

(a) Higher income from livestock rearing.

The suggested programme is:

(a) Piggery

NTFP

As the village is located adjacent to protected area there is no scope for collection of NTFP.

Specialized Skills For skills development, the opportunities are tabulated at **Table-15** under Record-The main constraints are: (a) Lack of product diversification (b) Lack of research on product quality (c) Lack of TQM techniques. The opportunities are: (a) Providing good communication facility (b) Training of the skill holder (c) Financial assistance from govt. The suggested programme are: Training on Modern Tools and Equipment Providing modern technology to the villagers Skill Up gradation & Training on New Product Development and Product Diversification Setting up a raw material bank Providing a bulk buy arrangement of the finished product with institutional buyers.

Credit Facility	Table-16 under Record-2 discusses this aspect.
	The main constraints with the reasons are:
	(a) Financial exclusion
	(b) Higher rate charged by the private money lender.
	The opportunities are:
	(a)Setting up modern financial institution
	(b) Adequate awareness.
	The suggested programme is:
	(a)Setting up modern financial institution in the nearby areas.
Eco tourism	The suggested programme is:
	(a)Training on Eco-tourism guide.
	(b) Guidance for eco-tourism facilities.
	The opportunities are
	a) Location near Manas NP
	b) Increase in eco-tourism in Manas
	Constraints
	a) Infrastructure
	b) Marketing
	c) Lack of trained guide
Strategic	Summarizing the suggested programmes at above as strategic interventions for the
Interventions	Livelihood Development Plan:

- 1. Agriculture & Horticulture: Tractor operation training, Agri-skill development programme, Training on insecticides, pesticides, hybrid cultivation and bio fencing
- 2. Livestock: Piggery, Poultry
- 3. **Specialized Skills:** Training on Modern Tools and Equipment, Providing modern technology to the villagers, Skill Up gradation & Training on New Product Development and Product Diversification, Setting up a raw material bank, providing a bulk buy arrangement of the finished product with institutional buyers.
- 4. **Credit facility:** Setting up modern financial institution in the nearby areas.

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

- A) Livelihood assets
- B) Livelihood context
- C) Priority ranking on potential livelihood

The livelihood situation of Lahoripara Langdangpara EDC has been analysed 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 -

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

NATURAL CAPITAL:

The major natural forest situated in the fringe of Lahoripara Langdangpara EDC is Manas National Park and two numbers of river namly Manas and Beki.

For farming purpose and for livestock rearing, the villagers use the river water.

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

PHYSICAL CAPITAL:

Majority of the households in the Lahoripara Langdangpara are involved in farming sector. Detailed land holding pattern is described in the table 3/annexure 6.

There is no pucca or semi pucca houses in the village, all are made of thatch. Among the various sources of energy consumption such as Biomass, kerosene, electricity, LPG and candle, villagers depend on the firewood, and kerosene collecting from the nearby markets for household and other uses. Although, some of the household have LPG, but reliability is very less. (Refer to table 10, 11)

There is one LP school within the EDC area. (Refer to table 5)

In case of water sources, households have their hand pumps.

SOCIAL CAPITAL:

The villagers are not fully involved in the EDCs functioning due to lack of awareness on their roles, functions, and specific benefits they are going to receive.

HUMAN CAPITAL:

70 per cent of total population of the EDC are educated. Education after middle school is gradually decreasing.

FINANCIAL CAPITAL:

There is no government bank or lending institution available in the EDC area or in the nearby areas. However, villagers lend from informal lending groups, relatives etc.

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

Livelihood Context:

Livelihood activities of the Lahoripara Langdangpara EDC are identifies on the basis of following criteria:

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

4. Livelihood	Development Plan
Income Generating	The main income generating activities as planned at the village are:
Activities	Farm Sector :
	1. Poultry and piggery
	2. Agriculture
	3. Horticulture
	Non-Farm sector:
	1. Driving
	2. Handloom/ Weaving
	3. Food processing
	4. Electrician
SHG Activities	SHGs of the village can plan the following activities:
	1. To create awareness.
	2. To organise and form group
	3. To involve the villagers in Livelihood Activities collectively.
Exposure Trips	The following exposure trips are planned:
	1. NIL
	2. NIL
	Source: Table-34 of Record-4
Summary of Action	As attached in next page.
Plan	
Convergence	The planned initiatives may be converged with the following schemes of the
	Government of India:

- o National Rural Employment Guarantee Scheme for rural employment
- o Rashtriya Krishi Vikas Yojana (RKVY) for agricultural and allied development
- Rashtriya Krishi Sinchay Yojana (RKSY) for irrigation, including watershed development
- National Rural Livelihoods Mission
- Skills Development schemes
- Other schemes for rural development and livelihoods as found appropriate.

The above convergence will yield synergies for the present plan, as well as help in sustaining the planned works in the post-project period.

5. Forest Development Plan of Lahoripara Langdangpara EDC

This Forest Development Plan has been prepared after a detailed PRA exercise at the village level as a part of the Micro-Plan of Lahoripara Langdangpara EDC. The objective of this plan is to provide for the sustenance of the conservation and bio-diversity values, environmental functions and productive potential of the forests assigned to the EDC; while meeting the consumption and livelihood needs of the community in a sustainable manner.

1. Status of the EDC Forests

1.1. Existing Composition of Flora

In the forests of the Lahoripara Langdangpara EDC, the existing composition of the flora has been given as follows. It may be noted that the local forests are classified as deciduous moist Forests.

Table-2: Existing trees in EDC area

Parameter	Local Name(s)	Scientific Name(s)
Major Forest Species		
Associates	Gamari	Gmelina Arborea
	Arjun	Terminalia arjuna
	Acacia	Racosperma
	Tora	Angiosperm
	Sonaru	Cassia fistula
Shrubs	Dhekia	Ferns
Medicinal Plants	Arjun	Terminalia arjuna
	Hilikha	Terminalia Chebula
	Neem	Azadirachta indica
	Amlakhi	Phyllanthus emblica
Others, if any	Jati Bah	Bambusa Tulda
	Bhuluka Bah	Bambusa Balcooa
	Amlakhi	Emblica officinalis
	Bijuli Bah	Bambusa Pallida
	Arjun	Terminalia arjuna
	Sachi	Aquillaria agallocha
		<u> </u>

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

1.2.Forest Soil Type

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

Table-3: Forest Soil Type in Lahoripara Langdangpara EDC

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

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

For the Lahoripara Langdangpara EDC; the salient points of the forest soil type are summarized below:

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

2.1. Past Protection Measures of the EDC

The measures taken by the Lahoripara Langdangpara EDC for forest protection in the past have been discussed as follows.

- (a) Number of households involved: 44
- (b) Number of people involved:80
- (c) Summary of the measures: Not available
- (d) Any formal mechanism: Not available

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

2.2. Domestic Requirements of Forest Produce

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

Table-4 (A): Domestic Requirement of Forest Produce per Household of the Lahoripara Langdangpara EDC

Name Of Forest	Average	Household	How met at	Source
Produce	Requirement		Present	
	Frequency of	Approx. Qty		
	Requirement			
Firewood	Frequent	15 kg	Purchased	From outside
				village
Timber for House	Once in a year	2-3 no's	Purchased	From outside
				village

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

From the above table and this number of households, it is inferred that the total annual requirements of the Lahoripara and Langdangpara village for forest produce for own use is as follows:

Table-4 (B): Total Domestic Requirement of Forest Produce - <u>All</u> Households of the Lahoripara Langdangpara EDC

Name of Forest Produce	Community Requirement	Remarks
	(Kg per annum) (*)	
Firewood	160000	Purchased
Timber for House	265 nos.	Purchased

Source: Table - 4(A) at above & Total Household Number from Community records

(*) = Approx. Qty. of Average Household Requirement (from Table-4 (A) x ______ Households

2.3. Collection & Marketing of Forest Produce by Villagers

Apart from use in the households, the community dependency on forest produces also includes the collection of such items for sale in local markets. The collection and marketing of forest produce by villagers of Lahoripara Langdangpara EDC is given in the following table.

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

EDC

Name of For Produce	Collection for N	Location of Collection		
Froduce	Season / Months	No of Households Collecting	Average Qty. Collected (Kg)	Conection
Firewood	-	-	-	-
Timber for House	-	-	-	-
Small timber for Implements	-	-	-	-
Bamboo	-	-	-	-

Pole	-	-	-	-
Fodder from Forest	-	-	-	-
NTFP	-	-	-	-
Other	-	-	-	-

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

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

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

The total requirements of forest produce by the community members of the Lahoripara Langdangpara EDC have been summarized below - based on the information in the previous sub-sections.

Table-6: Total Requirements of Forest Produce by Villagers of the Lahoripara Langdangpara EDC

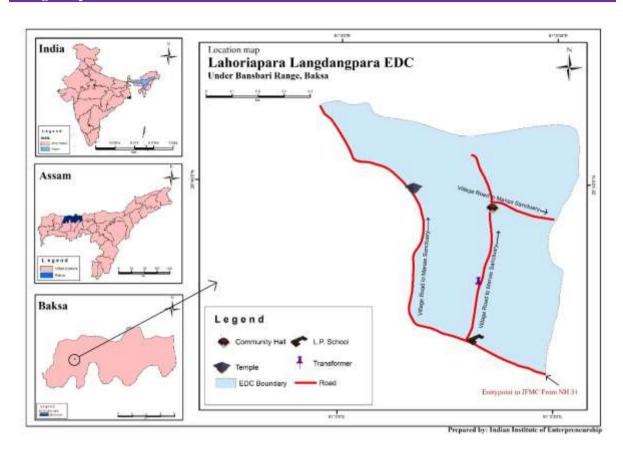
Name of For	Community	Surplus Marketed	Total
Produce	Requirement	(Kg) From	Requirements
	(Kg per annum)	Table5(B)	(Kg)
	From Table-4(B)		
Firewood	160000	-	160000
Timber for House	265 nos.	-	265 nos.
Small timber for	-	-	-
Implements			
Bamboo	-	-	-
Pole	-	-	-
Fodder from Forest	-	-	-
Other	-	-	-

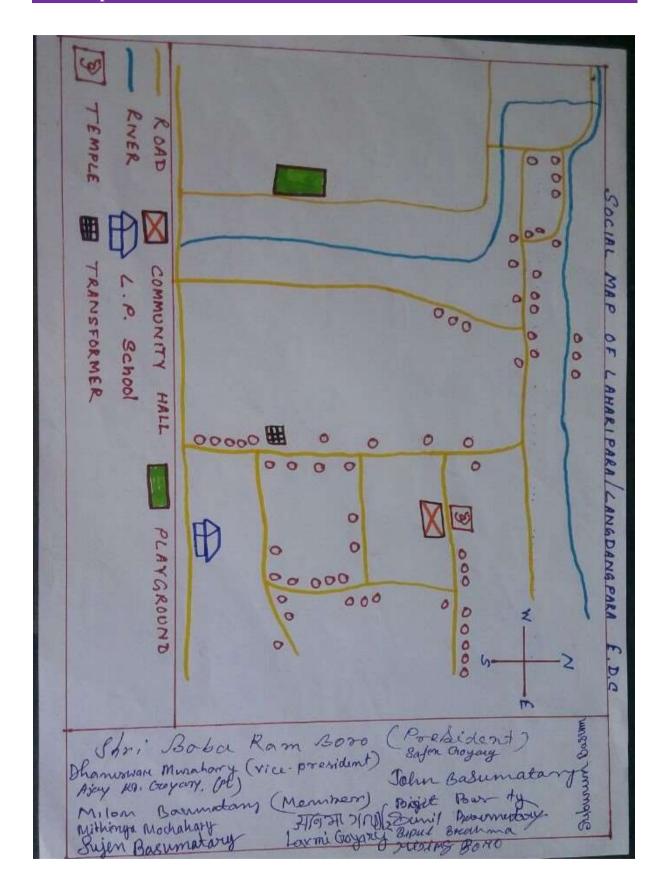
Source: Tables 4 (B) & 5 (B) of this Section, given at the previous pages

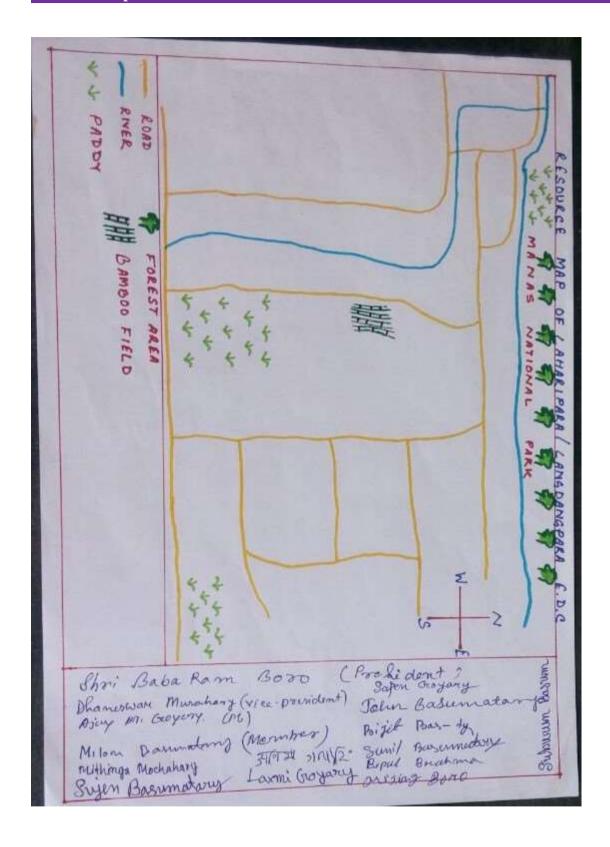
List of Appendices

Appendix No	Heading	Page No
1	Maps	18-20
	Location Map	18
	Village Social Map	19
	Village Resources Map	20
2	Land Use Map of Village (GIS)	21
3	PRA Exercise	22-32
	Social Mapping	22
	Wealth Ranking	22-24
	Time Line review	24
	Seasonality of Livelihoods	25
	Venn Diagram	26-27
	Chapatti Diagram	30
	Priority Rankings-EPA and Potential Livelihoods	31-32
4	Photographs	33
5	List of EDC Executive Members	34
	EDC Registration Certificate	35
6	Filled Up Tables (Proforma-1 to Proforma-4)	36-42
	Table Nos. 1-16	

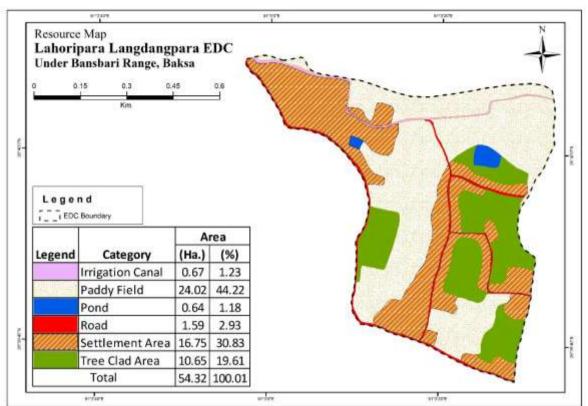
Village map







Land Use map of GIS



Source: Google earth Imagery

Prepared by: Indian Institute of Enterpreneurship

PRA ACTIVITY

Numbers of participants :	35
Time:	10.30 am, 9th July 2016
Venue:	Community Hall

Table – 3.1Brief about the villages under Lahoripara Langdangpara EDC

Sl. No.	Name of the Village	No. of households	Population		
			Total	Male	Female
1	Lahoripara	110	510	250	260
	Langdangpara				
	Total	110	510	250	260

Source: Field Survey

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

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

3.1 Social Mapping:

Social mapping is used to visualise the socio-economic aspects of the Lahoripara Langdangpara EDC where the housing patterns of the households, the numbers of schools, social infrastructure, and religious beliefs among households. Awareness camp about the project was carried out beforehand. So it was easy to gather people for the PRA process in the community hall. And due to time constraint 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 help of the PRA team members. Two of them voluntarily came out to draw and they were assisted by other villagers and the team members. All the villagers spotted their households in the map. After the mapping process the team members collected the information about the pattern of their household's namely pucca, semi pucca, and IAY and thatch house.

Table 3.2: Information about the villages

Social Information	Village →	Lahoripara Langdangpara		
	Total population	510 nos.		
	Male	250 nos.		
	Female	260 nos.		
	Total households	110 nos.		
	Numbers of Pucca Houses	0		
	No of thatch house/Kutcha House	110 nos.		
	No's of semi pucca house	Nil		
Land Marks	Bridges	Nil		
	Stream	Nil		
	River	Beki River		
	PHE	Nil		
	Community hall	1 nos.		
	Community Hand pump	Nil		
	Hand pumps	110 nos.		
	Transformer	1 nos.		
	Temple	1 nos.		
	Play Ground cum Grazing filed	1 nos.		

Findings of social map:

The participants of social mapping have identified all 110 households out of which 110 households are thatch house or kutcha house. No IAY household though the entire village come under BPL category. This signifies that the IAY scheme of Government has not achieved considerable coverage of poor people residing in rural area yet.

- Other than the class based division of the households, important places like community hall, schools, and playground, stream, well, embankment, check dam, hand pump and bridges are mapped.
- Main sources of water for the villagers are the community hand pump and the streams and the river which is used by villagers for their day to day use.
- Provision of Education facility is not satisfactory. There is one L.P.School inside the village. There is no ME and high school.
- Most of the people belong to the Bodo community which are of schedule tribe caste.

Learnings:

- Even though electricity is available inside the villages of the Lahoripara Langdangpara EDC but its presence is negligible due to continuous power failure for more than 19-21 hours per day.
 - Most of 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 centre along with post office is located in Salbari, which is 4 KM away from the EDC. The villagers have to cover a long distance for their health check-up.
- ➤ There is also one community hall available in the EDC where various meetings are held. Major meeting are Gram panchayat meeting, village head meetings, forest department meetings and other political meetings.
- ➤ The two villages 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. Seasonal grazing incorporates "grazing animals on a particular area allows the land that is not being grazed to rest and allow for new forage to grow.
- Agricultural and livestock are mostly damaged by the wild animals that come from the national park where very poor fencing is being constructed throughout.
- ➤ The villagers of the Lahoripara Langdangpara EDC have to move Bansbari, a distance covered with 5 km, for their weekly marketing activity. Domestic materials, utensils, bangles, cloths and stationeries are sold in different stalls.

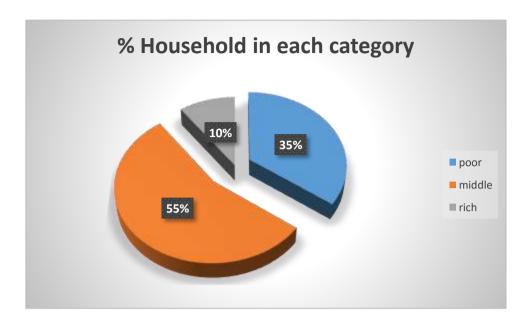
3.2 Wealth Ranking:

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 18 per cent people are poor, about 55 per cent are belonging to middle class and about 10 per cent are categorised to be rich. 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
1946	Severe flood destroyed the village agriculture and houses.	Environmental
1946	Animal human conflict where one person lost his life and most other injured.	Disaster and conflict
1947	First Primary School Constructed	Construction
1996	Severe Flood in the village.	Environmental
2015	Formation of EDC	Environmental

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. showing, cropping and harvesting criteria and collected the details throughout the year. From the seasonal mapping, it has been noticed that the main crops grown in the village are Sali rice, Mustard, Jute, Betel-nut, Ginger, and Maize 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 Lahoripara Langdangpara EDC

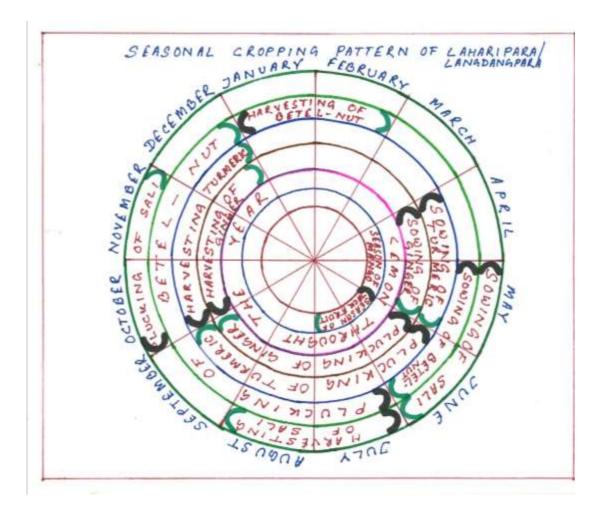
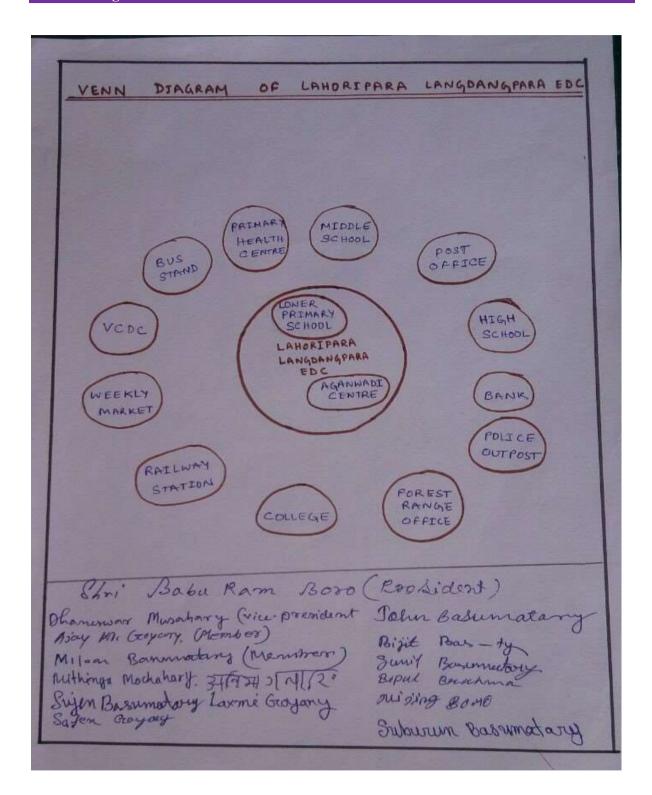
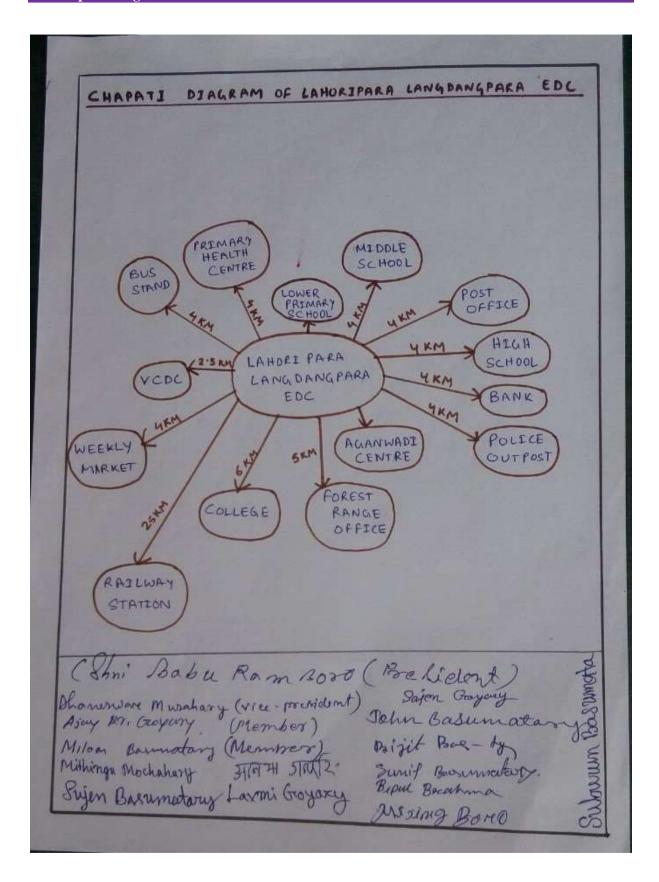


Table 3.4 Seasonal cropping pattern

Categories		Time of Activity				
Farming		Sowing Harvesting		Plucking		
	Sali	May-June	July-Aug	Oct-Nov		
	Betel-Nut	June	July-Jan	Feb-March		
	Turmeric	April-May	Oct-Dec	June-Sep		
	Ginger	April-May	Oct-Dec	June-Sep		
	Lemon	Throughout t	he year			
Non-Farming	Weaving					
	Livestock	-				
	Rearing					
	Daily Wage	=				
	Earning	Throughout t	he year			
	Shop-keeper	-				
	Electrician	-				
	Masonry					





Priority Ranking- Livelihood and Entry Point Activity

Priority Ranking of Livelihood

Priority Ranking of Entry Point Activity

Annexure 4

PHOTOGRAPHS



Youth of Lahoripara Langdangpara EDC during the awareness

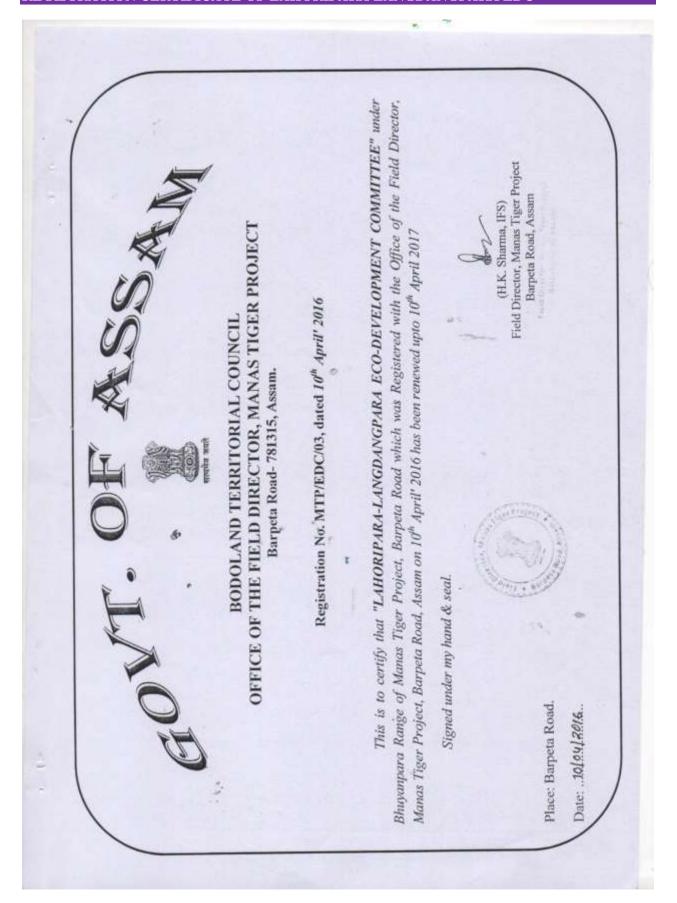


Village map from PRA activity

Annexure 5

LIST OF EDC EXECUTIVE COMMITTEE MEMBERS

Sl.No	Name	Designation	Category	
1	Mr. Babu Ram Boro	President	ST	
2	Mr. Dhaneswar Musahary	Vice-president	ST	
3	Mrs. Mithinga Muchahary	Treasurer	ST	
4	Biren Rajbongshi	Member Secretary	OBC	
5	Ajay Kr. Goyary	Member	ST	
6	Milon Basumatary	Member	ST	
7	Sujen Basumatary	Member	ST	
8	Salem Goyary	Member	ST	
9	John Basumatary	Member	ST	
10	Bijit Basumatary	Member	ST	
11	Sumit Basumatary	Member	ST	
12	Bipul Brahma	Member	ST	
13	Mising Boro	Member	ST	
14	Anima Goyary	Member	ST	
15	Laxmi Goyary	Member	ST	
16	Suburun Basumatary	Member	ST	



Annexure 6 (Record I)

Table 1: Basic data of the village:

Table 1: Basic data of the EDC

Sl no	Name of the EDC	Date of establishment	No. of members in executive	Name of the president	Name of the secretary	Name of Treasurer	Contribution per family /per person	Social fencing used	Remarks on special attainment	Grading %of success by RFO
1	Lahoripara Langdangpa ra	2015	16	Mr. Babura m Boro	Mr. Biren Rajbongs hi	Mrs. Mushahar y		No		

Table 2: Village wise population data:

Table -2: Demographic status of the project villages

Sl. No	Name of village	Households (No.)	ST			Sex ratio (per 1000	Avg. HH
	vinuge	(110.)	Total	Male	Female	male)	size
1	Lahoripara Langdangpara	110	510	250	260	1040	5.1
	Total	110	510	250	260	1040	5.1

Source: - Field survey report.

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

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

Sl no	Name of the village	Type of famer according to land holding				
		Large farmer >10 ha.	Small farmer 2-10 ha.	Marginal farmer (household) <2ha.	Land less (household)	Total
1	Lahoripara Langdangpara	-	10	100	-	110
Tota	al	-	10	100	-	110

Table 4: Cattle Population:

Table 4: Cattle Population of the EDC

Sl no	Name of the village	cows	buffaloes	goat	Duck	hens	pig	Total
1	Lahoripara Langdangpara	260	-	62	44	582	202	1150

Table 5: Village wise Infrastructure:

Table 5: showing village wise infrastructure

Sl no	Infrastructure	Location	Distance from village
1	Bus Stand	Salbari	4km
2	Primary Health Centre	Salbari	4km
3	Lower Primary School	Lahoripara Langdangpara	0km
4	Middle School	Salbari	4km
5	Post office	Salbari	4km
6	High school	Salbari	4km
7	Bank	Salbari	4km
8	Anganabadi centre	Lahoripara Langdangpara	0km
9	Police Outpost	Salbari	4km
10	Forest Range Office	Bansbari	5km
11	Railway Station	Barpeta Road	25km
12	College	Salbari	6km
13	Railway Station	Barpeta Road	25km
14	Weekly Market	Bansbari	4km
15	VCDC	Ghoramora	2.5km

Table 6: Agricultural crops

Table 6: Agriculture Crops

	Rain Fed		Irrigation	
Particulars	Name of the crop	Area (in ha.)	Name of the crop	Area (in hac)
Kharif	Sali paddy	30	NA	NA
Others	Vegetable, Fruits	47	NA	NA

Table 7: Crop production profile of BITHORAI EDC:

Table 7: Crop production profile of BITHORAI EDC

Type of crop	Total Production (approx.) in quintals	No of household growing	Average production (quintal/ hac) approx	Area under crop (hac) approx
Paddy	320	80	18-19	15.50
Vegetable/Lemon	16.7	110	55	13
Fruits	3.6	47	5	2.7

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

For Purchase	Location	Distance from village if in other village (in km)
Grocery shop	Bithorai	0km
Weekly Market	Bansbari	5km
Major Market	Bansbari	5 km
Forest Corporation Sale Depot.	NA	-
TenduPatta PHAD	NA	-
Fish Market	Bansbari	5km
Medicinal Plant collection Centre	NA	-
Forest Corporation Medicinal plant Collection Centre	NA	-

Table 10: Water Resources Facility:

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

I dote 10. Showing	Tubic 10. Showing the water resource facility available in the vittage					
Water source	number	Availability of water	uses			
Stream	1	Seasonal	Irrigation, livestock			
			rearing			
Tube well	110	Perennial	Domestic use			
River	1	Seasonal	All type of use			
Community ring well	-	-	-			

Table 11: Energy consumption:

Table 11: showing the Energy Consumption of the EDC

Type of Fuel	Number of household depending	Number of months dependent	Sources (local, village, forest, other sources)	Primary/ Secondary
Fuel wood	110	12	Purchased from nearby market	Primary
Kerosene stove		12	Market	Secondary
Gobar/Bio gas	-	-	-	-
LPG	25	-	Authorised Agency	Secondary
Electric Healer	-	-	-	-

RECORD: II LIVELIHOOD OPPORTUNITY ANALYSIS

Table 12: Agriculture and Horticulture:

Table 12: showing the agricultural and horticultural status

Constraints	Reason	Opportunities	Programme
Low Production	 Lack of fencing which is mostly important. Only one crop undertaken annually (Sali) Very negligible use of fertilizers and pesticides, insecticides. Lack of irrigation facilities. Lack of agricultural infrastructure, modern tools and equipment's viz, power tillers, tractors etc. Non usages of high yielding seeds. 	 Introduction of Bio-Fencing process. Introduction of new and advance technology. Well-structured training programme. The villagers are inherited with the skill of cultivation. But an improvisation of skills is the need of the hour. Usage of high yielding seed programme. 	 Tractor operation training Agri-skill development programme. Training on insecticides, pesticides, hybrid cultivation
Storage and Production	 Lack of common storing place Lack of cold storage facility due to non-availability of electricity 	 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. 	PackagingTransportation and distribution.
Marketing	 Lack of transporting facilities for carrying products Less contact with the direct market; much dependency upon middle man No knowledge on marketing know-how, dependence on traditional system of selling. 	 Smooth transportation facility will help the farmers to carry their products to the nearby markets. Generate highest market price by removing middle men. More knowledge about the current market situation as well as the current value of their products. They can sell their products outside of the state, as the EDC is located in Assam West Bengal border and Bhutan border is also not far from it. 	Buyers sellers meet

Table 13: Livestock

Table 13: Livestock

Constraints	Reasons	Opportunities	Programme
Less grazing land	Not Applicable		
Availability of fodder	 Unable to buy fodder from market due to poor financial condition Trees fodder n crop residue are available only for 3-6 months. Green fodder is also not available for the whole year. 	 Higher income from livestock rearing. The villagers can make it as an alternative livelihood opportunity if they have the easy access of livestock fodder. 	
Veterinary care facility	 No veterinary care clinic Lack of knowledge about the proper rearing of live stock 	 Disease control Increases the life span of cattle. It will also help to aware the villagers and will encourage them for livestock rearing. 	
Production of milk	 Less availability of fodder No scientific knowledge on cattle rearing to increase the milk production. 	 Training on the milk production can enhance the skill of milk production. Availability of supplements like cattle "Milk Booster, Milk Plus" etc. can increase the production of milk in the area. 	
Milk market	 Less contact with the direct market for milk Unaware of the market demand of different milk made products. 	A huge demanded market for milk is available as Kokrajhar district head quarter and West Bengal state is too far from the EDC.	

Table 14: NWFP Table 14: NWFP

Constraints	Reasons	Opportunities Programme	
Less collection	• Less availability of	Availability of fertile	• Plantation of Food
	NWFP	fallow land	plans, Medicinal Plant
			etc.
Unsustainable	• NA	Availability of fertile	•
extraction		fallow land	
Low rates	• NA	•	•
Value addition	No processing units	•	•
	• Non availability of		
	required resources		
	No technical know-how		

Table 15: Specialised skill

Table 15: Specialised skills: Handloom

Constraints	Reasons	Opportunities	Programme	
Raw material availability	 Non-Availability of Raw Materials within reachable location (market 7km away) No Storage 	Common place for setting a raw material storage	Setting up a raw material bank	
Product quality	 Shortage of High Quality Materials Use of Traditional machineries 	Developing Quality Products for new market exploration.	 Training on Modern Tools and Equipment. Providing modern technology to the villagers 	
Marketing potential	 No standardised market No pricing policy No linkage with the institutional buyers No Product Diversification or New Product Development. 	• Exploring new markets with diversified products	Providing a bulk buy arrangement of the finished product with institutional buyers.	
Credit facilities	 No linkage with the banks or post office saving banks. Unaware of the development schemes of banks and government 	 Financial assistance by the Govt. Providing easy access to credit. 	Microfinance, Term Loans, Working Capital Arrangement	
Product Diversification	 No Product Diversification or New Product Development. Lack of concept for product diversification. 	Developing Demand Based Products, as per the needs of the modern day market.	Skill Upgradation& Training on New Product Development and Product Diversification	

Table 16: Credit facility Table 16: Credit facility

Constraints	Reason	Opportunities	Programme
Indebtness	Nil	• Setting up modern financial institution in the nearby areas.	
Rate of interest	Higher lending rates charged by the private money lender	• Subsidised credit arrangement	
Availability of loan	Fear of risk takingNo knowledge of documentation	Start-ups entrepreneurial venture	
Mortgage difficulty	Unavailability of proper documentation of mortgaged property.	Proper awareness about documentation in the area	