



**Rangchali Eco-Development Committee**  
**Kaziranga National Park**  
**Eastern Assam Wildlife Division, Bokakhat**

**MICRO-PLAN**

(2016-17 to 2025-26)

Prepared by Rangchali EDC

Assisted by

Assam Forest Department

&

COMPELO

(IIE & RGVN)



*Approved*  
*D. Bis*  
*2/6/17*

Divisional Forest Officer  
-cum- FTU APFBC Society  
E.A. V.L. Division, Bokakhat

## List of Acronyms

<b>Acronym</b>	<b>Full Form</b>
ACF	Assistant Conservator of Forests
AfD	<i>Agence France de Développement</i>
APFBC	Assam Project on Forest & Biodiversity Conservation
APL	Above Poverty Line
BPL	Below Poverty Line
CCF	Chief Conservator of Forests
CF	Conservator of Forests
COMPELO	Consulting Service for Micro Planning Enhancing Livelihood Opportunities
DCF	Deputy Conservator of Forests
DFO	Divisional Forest Officer
EDC	Eco-Development Committee
EPA	Entry Point Activity
FCA	Forest (conservation) Act, 1981
FD	Forest Department
FRA	Forest Rights' Act
FV	Forest Village
FYP	Five Year Plan
GHG	Green House Gases
GoI	Government of India

GP	GaonPanchayat
Ha	Hectare
IEC	Information Education & Communication
IIE	Indian Institute of Entrepreneurship
JFMC	Joint Forest Management Committee
MDR	Major District Roads
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MoEFCC	Ministry of Environment, Forests & Climate Change
NTFP	Non Timber Forest Produce
OBC	Other Backward Classes
ODR	Other District Roads
PCCF	Principal Chief Conservator of Forests
PHC	Primary Health Center
PMU	Project Monitoring Unit
PRA	Participatory Rural Appraisal
REDD+	Reducing Emission from Deforestation and Forest Degradation Plus
RGVN	Rashtriya Gramin Vikas Nidhi
RO	Range Officer
Sc	Scheduled Caste
SDG	Sustainable Development Goals
SLF	Sustainable Livelihood Framework
Spp	Species

ST	Scheduled Tribe
SWOT	Strength Weakness Opportunity & Threat
TV	Taungya Village
TV	Television
WLS	Wildlife Sanctuary
WPA	Wildlife (Protection) Act, 1972
WPC	Working Plan Circle

## Glossary of Vernacular Name of Trees, Shrubs, Herbs and Other Plants

<u>S.No.</u>	<u>Local Name</u>	<u>Scientific Name</u>
<b><u>SHRUBS</u></b>		
1.	Hat-thenga.	<i>Cassia occidentalis.Linn.</i>
2.	Era gosh	<i>Riccinus ommunis.Linn</i>
3.	Garakhia koroï	<i>Hibiscus ablemoschus.Linn</i>
4.	Kuchia-kata	<i>Mimosa rubicaulis-Lamk.</i>
5.	Pani-Bhatora	<i>Ipomaea cornea. Jack</i>
6.	Xon-borolua or sokamara	<i>Urena lobota. Linn</i>
7.	Dighalati	<i>Litsaea salicifolia.Roxb.</i>
<b><u>GRASS</u></b>		
1.	Kauri-moni	<i>Coix Lacryma.Linn</i>
2.	Keya bon	<i>Koeleria Brevifolia(Willd)Spreng.</i>
3.	Lokocha Bon	<i>Hemarthia Compressa. (Linn.F)R.Br</i>
4.	Erali Bon	<i>Leersia Hexandra Swartz</i>
5.	Ikora	<i>Phragmites Kakra.(Retz).Trin.</i>
6.	Ulukher	<i>Impereta Cylindrica. (Linn)P.Beauv.</i>
7.	Sonkher	<i>Pollinia Cilata.Trin.</i>
8.	Dol.	<i>Arundo Donax.Linn</i>
9.	Birina	<i>Erianthus Ravannae (Linn)P.Beauv</i>
10.	Duboribon	<i>Cynodon Doctylon Pers.</i>
<b><u>TREES</u></b>		
z1.	Baghnola	<i>Litsaea sebifera.Pers.</i>
2.	Azar	<i>Legerstromia flosregance.Pers.</i>
3.	Jia	<i>Lannae grandis.A.Rich.</i>
4.	Laru-bandha	<i>Mallotus fezocugireus.Muell &amp; Arg.</i>
5.	Xarua	<i>Streblus asper.Lour</i>
6.	Udal	<i>Sterculia villosa.Roxb.</i>
7.	Kolajamu	<i>Syzygium cumini (L) Skeels.</i>
8.	Amera	<i>Spondium pinnata L.f. Kurz.</i>
9.	Khud-jamur	<i>Sezizium syzzysioides. (Miq) Merrill &amp; Perry.</i>
10.	Bhomora	<i>Terminalia bellirica.Roxb.</i>

11.	Xilikha	<i>Terminalia chebula. Retz</i>
12.	Tetelit	<i>Tamarindus indica. Linn</i>
13.	Bhelkor	<i>Trewia nudiflora. Linn</i>
14.	Bogori	<i>Ziziphus mauritiana. Lamk</i>
15.	Kodom	<i>Anthocephalus cadamba. Miq.</i>
16.	Gomari	<i>Gmelina arborea. Linn.</i>
17.	Dhutkhuri	<i>Holarrhena antidysenterica. Wall</i>
18.	Cheleng	<i>Sapium baccatum Roxb.</i>
19.	Bor-thekera	<i>Garcinia pedunculata Roxb.</i>
20.	Moder	<i>Erythrina stricta Roxb.</i>
21.	Tenga-bor	<i>Ficus geniiculata. Kurz</i>

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**Micro-Plan  
(2016-17 to 2026-27)**

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Divisional Forest Officer

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**PART-I**



# 1. Introduction

## 1.1 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.

## 1.2 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 and *Rashtriya Gramin Vikas Nidhi (RGVN)* has been formed to implement (*inter-alia*) the micro-planning and livelihood development under the above project. The above consortium has been titled as 'Consulting Service for Micro Planning 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.

### 1.3 Micro-Plan for the Rangchali EDC

This document gives the Micro-Plan for the Rangchali EDC, which is located in the Biswanath district of Assam. The EDC falls under the jurisdiction of Eastern Assam Wildlife Division. The profile of the community is given in the next section.

## 2. General Description of the Area

Kaziranga is known world over as the habitat of the Greater One Horned Rhinoceros. It is spread over an area of 429.93 sq km with further additions of about 454.50 sq km to its original area. The history of Kaziranga dates back to 1905 and scripted by none other than Lady and Lord Curzon, the then Viceroy of India. On 1st June 1908 it was first declared as a Reserve Forest. It was subsequently upgraded to a Game Sanctuary in 1916, a Wildlife Sanctuary in 1950, World Heritage Site in 1985, a National Park in 1974, and finally a Tiger Reserve in 2007. Kaziranga National Park is situated on the southern bank of the Brahmaputra River at the foot of the Karbi Anglong Hills about 8 km from Bokakhat and 230 km east of Guwahati, the State capital of Assam. The National Highway No.37 forms partly the southern boundary. The Kaziranga Tiger Reserve headquarters are located at Bokakhat, which is a Sub Divisional medium sized township situated on the NH37 (now NH715), also known as the Assam Trunk Road. Bokakhat is about 239 Km towards the east of Guwahati. The other two nearest townships are Jorhat which is 70 km further east of Bokakhat on the NH37, and Golaghat which is 53 km towards the southeast on the NH39 (now NH129). On the north bank Tezpur is the main township which is about 100 km from Bokakhat. The Bokakhat sub division has a population of 141,502 as per 2001 census. The Bokakhat urban population as per 2001 census is 8844.

There are five ranges in Kaziranga National Park. There are a total of thirty EDCs situated on the fringes of the Kaziranga National Park and about 400 fringe villages.

### 2.2 Location

Its coordinates are 26° 30' to 26° 45'N and 93° 05' to 93° 40'E. The Kaziranga Tiger Reserve, on the other hand, is bounded by the coordinates 26° 28' to 26° 49'N and 92° 35' to 93° 42'E. The Kaziranga Tiger Reserve as notified in 2007 is spread over an area of **1055.89454**sq km in the districts of Golaghat, Nagaon and Sonitpur in Assam. The **Appendix I** gives the location map and **Appendix II** gives the Approach Map of the EDC

### 2.3 Soil:

The plain areas of Kaziranga predominantly comprise of recent composite alluvial plains and floodplains. The channels and point bars, back swamps deposits are quite conspicuous in the active flood plain of the area. Lithologically the Kaziranga formation is represented by grey silt and fine to medium sands which form the recent composite flood plain with numerous meander scars and scrolls. The area is swampy and is criss-crossed by a number of channels flowing

through the park area. The area is characterised by numerous permanent water bodies locally known as “Beels”. The Brahmaputra River flowing along the northern boundary of the Park exhibits braiding pattern with numerous river island (*char / chapories*). Two type of *Char / chapories* are encountered: -stable and unstable. The Park is characterized by a numerous swamps / *Beel* complexes, along with a thick vegetation cover. The soil overlying the sandy deposits at places is very deep while at some places it is of very recent origin consisting mainly of sand, devoid of any humus or decomposed organic matter. As such the soil at various places varies from sandy soil, sandy loam, and clayey loam to purely clayey soil.

#### **2.4 Water:**

The Kaziranga National Park is surrounded on the north by the Brahmaputra river and by the Mori Dhansiri, Diffolo and Mori Diffolo on the south. There is an intricate network of river channels, both dead and alive, and hundreds of big and small water bodies, locally called beels, spread all over the Park. Some of the noted beels are Sohola (in the Eastern Range), Mihi Beel, Borbeel, Hanuman Beel (in the Central Range), Raomari Beel, Doonga Beel, Borbeel, Daflang Beel (in the Western Range), Patahi Beel (In the Burapahar Range).

#### **2.5 Climate: Temperature & Rainfall**

The maximum **temperature** during the summer is 35° C. The minimum temperature during the winter is 6° C.

The annual **rainfall** is about 1960 mm. About two-thirds of the rainfall usually occurs during the rainy season (June-September). The village has high levels of **humidity** (over 90%) during the rainy months and low levels in the winter (Below 30%).

#### **2.6 Eco- system and Biodiversity:**

About 5% of the total area of the Kaziranga National Park is permanently covered by water of the *Beels* and streams. The area under water increases during the rainy season. Some floating and creeping species of grasses and other aquatic plants grow in these *beels*. The main grass species is Erali (*Andropogon* spp). The other aquatic vegetation consists of Kalmou (*Ipomearepans*), Helonchi (*Enhydrafluctuans*) Borpuni (*Pistiastrafioles*), Harupuni (*Lemnapanciostata*) etc. In addition to such aquatic vegetation some *Beels* have small floating swamps consisting of species such as Ekra, Nal, Khagori etc.

The Kaziranga National Park is known to house 38 mammal species, about 553 birds species, about 64 herpetofauna, 41 amphibian species, 42 piscifauna, and about 550 species of flora (of which 106 floras has been identified as rare and endangered). The Sloth bear (*Melarsusursinus*) is commonly found in the wooded areas of the park near Kanchanjuri, Bimoli, Kathpara,

Rangamotia etc. They are not sighted frequently due to their natural habits. Estimated population of Sloth bear is about 40 - 50 in the park. The Hoolock gibbons (*Hylobates hoolock*) visit the wooded areas of the Park near Kanchanjuri and Panbari R.F. Common Langur (*Presbytis entellus*), Capped Langur (*Presbytis pileatus*) are also found in this area. During 1999 census operation, 139 capped Langur were found in the park. Rhesus monkey (*Macaca mulatta*), Assamese macaque (*Macaca assamensis*) are also found in the forested areas of the park. However their number is small. Indian porcupine (*Hystrix indica*), Hog badger (*Arctonyx collaris*), Fishing cat (*Felis viverrina*), etc. are some of the smaller animals found in the Park. Amongst the reptilian fauna, python (*Python molurus*), common (*Naja naja*) and king cobra (*Ophiophagus hannah*), water monitor lizards (*Salvator monitor*), Tortoises and Turtles of various species and Indian gharial (*Gavialis gangeticus*).

Kaziranga is situated in Indo-Australian mega fly way of birds and have at least 550 different avifauna species. The inventory contains 25 species of global importance (Anwaruddin Choudhary) of which 23 are critically endangered, endangered or vulnerable.

Kaziranga is regarded as breeding stock for tropical freshwater fishes in this region. Numerous water bodies and rivers have fishes in large quantity as well as in diversity. But so far only 42 species have been recorded.

Kaziranga National Park is a major habitat of famous endangered one horned Rhinoceroses. Attempts to find out the number of rhinoceroses in Kaziranga were made in 1957, 1961 and 1963. But the method used was very crude and were aimed at finding out the number of rhinoceroses only. During these estimates the number of rhinoceroses in Kaziranga varied from 250-300. Systematic and detail censuses of the larger mammals in Kaziranga were carried out only in 1966, 1972, 1978, 1984, 1991, 1993, 1999, 2005, 2009, 2012. A special population estimation of rhinos was conducted in 2013. According to recent records the population of rhino is increasing. The trends recorded as 366 in the year 1966 and 2401 in the 2015. Poaching has adversely affected the survival of rhinos in Kaziranga National Park.

Asian Elephants are also widely found in Kaziranga National Park. The elephant is one of the largest land mammals on Earth. The trunk of the Asian elephant has two finger-like structures at its tip that allow the animal to perform both delicate and powerful movements. Elephants have long, coarse hairs sparsely covering their body. Their skin is brown to dark gray. They are popularly for Wildlife Safari and festivals. According to survey of the year 2011 its population is 1165 while it was 1246 in 2005.

## 2.7 Concern of Biodiversity Conservation in Kaziranga National Park:

**Erosion:** The Kaziranga National Park is located in the flood plain of the Brahmaputra river and is affected by floods each year. Flooding has caused large scale erosion in the park and adjoining areas. Erosion is detrimental to the biodiversity conservation of the area. A number of researchers have studied the erosion problem of Kaziranga National Park.

According to JN Sharma, the loss of habitat is summarized in the Table below:-

Year/ Period	Area Lost (Sq. Km)	Area Gained (Sq. Km)
1912-1916 to 1972	84.87	24.49
1972 to 1998	44.70	29.47
1998 to 2008	20.41	7.89
<b>TOTAL</b>	<b>149.98</b>	<b>60.85</b>

### Fishing:

The Kaziranga National Park is a rich habitat for a variety of fishes. Fishing is a traditional practice in the area and the communities residing in the fringe villages continue practice fishing in the Beels, mostly those that are along the National highway 37.

### Collection of Thatch Grass:

People from the fringe villages collect thatch grass mostly during the thatch grass season from December to March, despite restrictions. They use thatch grass for house roofing and some families also sell the thatch grass which is a source of livelihood.

### Poaching:

Poaching is a major concern in Kaziranga National Park. The Rhino is the most targeted animal for poaching. Poaching of tigers is also reported. Poaching of other animals and reptiles are also reported. Most of these animal parts are used in Chinese medicine and other traditional medicines.

### 3. Village Socio-Economic Profile and EDC Profile

#### 3.1 Key Information

Rangchali is a revenue village and is located in Biswanath District. The EDC was registered on 3/11/2016 (Appendix III as per the registration certificate) under the jurisdiction of Kaziranga National Park. This village is located in the fringes of Kaziranga National Park.

**Table-A: Key Information of the EDC**

<b>Name of the EDC</b>	Rangchali
<b>Name of the Gram Panchayat / VCDC</b>	Batiamari G.P
<b>Revenue Circle</b>	Biswanath
<b>District</b>	Biswanath
<b>Forest Division</b>	Kaziranga
<b>Forest Range</b>	Nothern Range, Kaziranga National Park
<b>Forest Beat</b>	Biswanath
<b>Year Formed</b>	2016
<b>Registration no.</b>	KNP/FG.761/EDC/RC/EAWL/2016-17/01
<b>Description of Boundary of EDC</b>	As below North: Rangchali Sonari South: Boroï off stream and KNP West: Kachokotia East: Nepalibori

**Source:** EDC Records & Discussions during PRA Exercise in April 2017

#### 3.2 Brief Details of the Executive Committee

The brief details of Executive Committee & General Body of the EDC are contained in the table, which is given below. (Appendix IV- Signed list, APPENDIX V- Group photo of the EDC members)

**Table-B: Brief Details of Executive Committee**

SL. No.	Name	Guardian Name	Designation	Qualification	Contact No.
1	Purnadhar Das	Late Ganesh Das	President	10 <sup>th</sup>	7896422516
2	Raju Gogoi	Forest Department	Member	10 <sup>th</sup>	
3	Jibon Das	Late Thanuram Das	Vice President	10 <sup>th</sup>	9508653441
4	Dil Kumar Das	Late Banai Kumar Das	Member	9 <sup>th</sup>	887670609
5	Jogesh Das	Late Matiram Das	Member	9 <sup>th</sup>	7086138684
6	Kumud Bania	Late Lakheswar Bania	Member	10 <sup>th</sup>	8486179110
7	Ranjit Bora	Late Manik Bora	Member	H.S pass	7576838139
8	Biju Das	Late Ramai Das	Member	7 <sup>th</sup>	7577924979
9	Girin Hazarika	Biren Hazarika	Member	10 <sup>th</sup>	9859798771
10	Tounk Das	Late Moneswar Das	Member	5 <sup>th</sup>	8876624022
11	Aruna Das	Bimal Das	Member	10 <sup>th</sup>	8011139960
12	Moina Das	Uttar Das	Member	7 <sup>th</sup>	8402993316
13	Pushpalata Das	Bhupen Das	Member	9 <sup>th</sup>	7636964749
14	Rabin Das	Late Hemeswar Das	Member	7 <sup>th</sup>	8399018496



15	Sanjib Das	Tuwai Das	Member	7 <sup>th</sup>	
16	Jan Kanti Das	Late Dabeswar Das	Member	10 <sup>th</sup>	

Source: EDC Records

### 3.3 Households & Population Composition

The village has 218 households of which 200 households were surveyed. According to the survey report, 160 households are BPL (Below Poverty Line) households.

**Table-C: Demographic Profile**

Demography				
Category	No of Households	Male	Female	Total
SC	200	488	477	965

The total population of the surveyed 200 households is 965, of which 488 are male and the rest are female members. The population includes entirely of Assamese SC community.

From this, it is inferred that:

- (1) The average number of persons in a household is 5
- (2) The sex ratio is 97 females per 100 males in the village.

**Table-D: Age Group Distribution**

Age and Sex Distribution					
Age Class	< 5 years	5-18 years	18-45 years	45-60 years	>60 years
Male	38	125	214	75	36
Female	33	137	227	53	27
Total	71	262	441	128	63

### 3.4 Education & Skills Development

The education profile of the EDC is given in Table E below.

**Table-E : Education Profile**

Age class	Primary	Mid dle	High School	H. S	Gradu ate	Masters	Illiterate
<25 years	80	56	154	21	12	0	20
>25 years	118	152	141	57	8	2	54
<b>Total</b>	198	208	295	78	20	2	74

Over 85% of the population is reported to be literate.

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:

- (a) Agriculture and horticulture
- (b) Fishing
- (c) Weaving
- (d) Carpentry
- (e) Cane and bamboo craft

### **3.5 Land Use Pattern**

The population is largely dependent on Agriculture and Livestock.

From the land-use pattern of the village, it is seen that the land-use in the village is as follows:

Crop Land: 37.20%

Tree Cover: 9.29%

Habitation: 46.46%

Water Bodies: 4.64%

Barren Land: NIL

Other: 2.41%

### 3.6 Land Holding Pattern

From the type of households as per land-holding, it is seen that:

- 25 % of the households are landless;
- 72.5 % of the households are marginal farmers (less than 2 Ha); and
- 2.5 % of the households are small farmers (2-10 Ha).

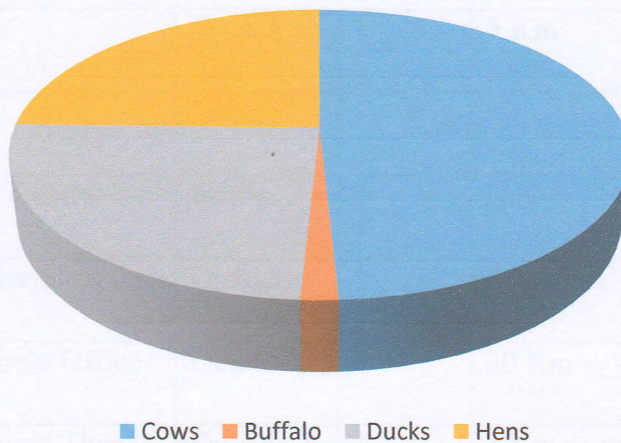
### 3.7 Livestock

The main types of livestock possessed by the households include:

**Livestock Details**

Sl.No	Livestock	Number
1	Cows	300
3	Buffalo	10
4	Duck	150
5	Hens	150

**Livestock**



### 3.8 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 gives the present status of the village infrastructure.

**Table-F: Physical Infrastructure**

Sl. No	Point Infrastructure	Location inside village or Outside	Number (If applicable)	Approximate Distance from Village, if outside (m/Km)	Condition and status of present use
1	Bus stand	Outside	1	5 Km	Good
2	Primary Health Centre	Outside	1	5 Km	Good
3	Primary School	Inside	2		
4	Middle School	Outside	1	1 Km	
5	High School	Outside	1	3 Km	
6	HS School	Outside	1	8 Km	
7	College	Outside	1	10 Km	
8	Post Office	Outside	1	3 Km	
9	Bank	Outside	1	5 Km	
10	Telephone	NILL			
11	Anganwadi Centre	Inside	2	Near	Good
12	Gram Panchayat Office	Outside	1	3 Km	Good
13	Revenue Circle Office	Outside	1	30 Km	Good
14	Police Outpost/ Thana	Outside	1	3 Km	Good
15	Forest Beat Office	Outside	1	33 Km	Good

16	Forest Range Office	Outside	1	33 Km	Good
17	Railway Station	Outside	1	5 Km	Good
18	Drinking Water Sources	NILL			
19	Community Hall	NILL			
20	House with Electricity	Inside	170		
21	Street Lighting	NILL			
22	No. of Tractors	Inside	2		
23	No. of Power Tillers	NILL			
24	Temple/ Church/ Mosque/ Namghar	Inside	4 Nmghar		Good
25	District Head Quarter	Biswanath		30 Km	
26	No. of Vehicles (Cars/ Trucks)	NILL			
27	No. of JCB	NILL			
28	Nearest Market	Bedeti		5 Km	

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

**Physical Infrastructure:** The road connecting the village to the main road is broken down at many places. The habitation is also deprived of basic physical infrastructure like water supply, mobile network etc. They have 2 tractors for agricultural purposes. There are 2 RCC houses, around 50 pucca houses and around 145 kaccha houses are there in the village. Around 160 households are availing houses through the Pradhan Mantri Gramin Awas Yojana.

**Education & Health Facilities:** There are minimal educational and health facilities. Public transport is not available, and the community members have to walk or use bicycles to move around.

**Govt. Offices:** The government offices (such as Police station, 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. Hence, all the community members do not have bank accounts or postal savings accounts.

### **3.9 Agriculture/Crops**

The following are the main crops grown in the village.

Kharif Crops: Sali Paddy

Rabi Crops: Vegetables

Others: Tea

Maximum numbers of households are involved in growing crops like Sali paddy.

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

- (a) Paddy (Sali): Production 120 Quintal; Yield 9000kg /ha
- (b) Rabi (Vegetables): Production 100 Quintal; Yield 1500kg /ha

### **3.10 Fodder Availability**

The village depends on the nearby forest. The main sources of the fodder in the village are as follows:

- a) Crop residue
- b) Grasses

### **3.11 Markets**

The main markets used by the community are as follows:

- (a) Grocery: Inside.
- (b) Weekly / Bi-weekly Market: : Bedeti at 5 km away
- (c) Major Market: : Bedeti at 5 km away

### **3.12 Water Resources**

The main water resources with the water availability are as follows:

- (a) Tube well: 140 nos (Water Availability: Perennial)
- (b) Ring well: 4 nos. (Water Availability: Poor)

### 3.13 Energy Consumption

The major sources of energy in the village have been listed below.

(a) Fuelwood: Households Depending: 200 Nos. Source: Homestead and forest

(b) Kerosene: Households Depending: 200 Nos. Source: Market.

(c) LPG: Households Depending: 20 Nos. Source: Market.

### 3.14 Socio-economic status

**Social set-up:** The village is inhabited entirely by Assamese SC community. They have a caste system. The society is marked by social divisions. The observed position of women is satisfactory.

**Economic Condition:** The economic position is not satisfactory. The main livelihood is fishing, agriculture and some people are also involved in plucking of tea leaves (180 women and 100 men) in small tea gardens. Most households earn Rs 25200 to Rs. 36000 per annum.

Additional details are available in the next section.

## 4. Livelihood assets profile and vulnerability contexts

This section deals with the livelihood assets and their current status in the village. The vulnerability context has also been analysed in the section

### 4.1 Livelihood Assets Analysis

As per the sustainable livelihood framework (SLF) there are five most important livelihood assets i.e. Human capital, Financial capital, Social capital, Natural capital and Physical capital that are needed for livelihood enhancement in a village. The status of the five capitals have been analysed and are given below:

#### Human Capital

In terms of the human capital in the area, we focus on crucial elements such as the educational qualification and skills possessed by the people of Rangchali. Such factors of literacy and professional profile play a major role in the development of a village, helping it grow faster and better.

The literacy rate of the village is 85% which denotes a rather high level. As per the skill profile in the village, maximum people are skilled in cultivation which acts as the major source of livelihood. There are also other skills such as tailoring, cane and bamboo craft, carpentry that are present amongst the people.

The other sources of livelihoods in the village are *Tea production*(Raw) industry, fishing, daily wage earners, small business owners etc. The percentage of people in the working age group in Rangchali is 59%. Higher the percentage, greater the availability of workforce in the village to help improve the economic condition of the people and the village.

#### Physical Capital

The physical capital denotes the infrastructural growth in a village, which helps the day to day activities of people such as availability of proper roads, transportation facilities, educational and administrative institutions along with markets. The absence of these basic amenities tend to create a number of problems for the villagers.

There is 1 primary school, 1 middle school and one high school located approximately 3-8 km from Rangchali but the higher educational institutions such as HS and college are situated outside the village at a distance of about 8km and 10km respectively. This makes it difficult



for those who wish to pursue higher studies since they need to travel a distance.

The condition of roads in the village are also not satisfactory making transportation and communication a major issue for the people.

Important administrative offices such as post office and banks are located outside the village at 2km and 5km respectively. Offices being located at considerable distances make it difficult for the people to access the various facilities that they offer.

### **Natural Capital**

Natural capital denotes the availability of a wide variety of flora, fauna and other natural elements in a village. Rangchali boasts of a rich natural capital as it is located in the fringes of the Kaziranga National Park. Different species of birds are found such as kingfisher, house maynah, parrot, sparrow, stork etc. and animals such as wild boar, rhinoceros, buffaloes, jackals.

There is around 200 bighas of land available as fertile area which helps improve the production of various crops such as bodo paddy, vegetables and oilseeds. The village lies along the north bank of the Brahmaputra river which acts as a source of water for animals and for fishing purposes.

### **Social Capital**

Elements of a village such as social, cultural institutions and religious institutions, contribute to the overall social capital. In Rangchali, the existence of social institutions such as Mahila Samiti and Youth clubs act as social agents. While anganwadi centres give basic health care to children and women, the presence of 20 SHGs (Self Help Groups) among the villagers provide financial help to the members of the groups. As per religious institutions, there are 4 Namghar in the village.

The panchayat in the village, act as a centre for fulfilment of administrative duties while the village headman (*GaonBurha*) helps resolve conflicts that arise in the village among the people and is a representative of the village.

### **Financial Capital**

The financial capital of a village refers to the presence of financial institutions and various schemes that provide aid to the people. Presence or absence of services such as banking and postal are a part of the Capital and in Rangchali, though the post office is located just outside the village,

the bank is at a considerable distance which makes it difficult for the 400 account holders to gain access to their facilities.

In the village, there are 50 people who have availed micro finance while 10 of them have taken bank loans. There are also a number of government schemes in the village such as MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) which provide guaranteed 100 days of employment and PMGAY (Pradhan Mantri Gramin Awas Yojna) that provide housing to rural area. The people of the village are not aware of the schemes and for implementation a proper awareness programme is to be conducted.

#### **4.2 Livelihood Asset Pentagon**

Based on the analysis and assessment of the existing five livelihoods assets in the village a livelihood pentagon was studied. The livelihood pentagon is not balanced and gaps could be plugged by taking appropriate livelihood strategies and actions that are mentioned in the village development plan and livelihood development plan

#### **4.3 Vulnerability Context Analysis:**

The analysis of vulnerability to external shocks is also an inevitable livelihood issue of the village people. The village is prone to flood and various water borne diseases like dysentery, malaria etc that affect the community people in this village during the period of March to July and May to September. Wild animal depredation is major issue in this village and it affects the lives and crops in the village. Elephant depredation causes man-animal conflict and cause destruction in the village.

#### **4.4 Seasonality:**

The seasonality calendar of crops grown and vulnerability due to floods, animal depredation was prepared through participatory approach.

Sali paddy is cultivated from June to November. The community people also grow vegetables from October to April. Some people are also engaged in tea leaf growing and plucking from April to December

The village is severely affected by flood during the months of June to September. During this period, disruption of communication along with damage to households is the major problem faced by the community. Wild animals like elephants cause man animal conflict. The people

are prone to disease such as Dysentery from the month of March to July and Malaria from the month of May to September. Pest attack is prevalent during the month of June to November.

### Seasonality Calendar of Rangchali EDC

Months	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Crops						Sali Paddy						
	Rabi									Rabi		
				Tea								
Risk Factors & Hazard						Flood						
			Dysentery									
					Malaria							
						Pest Attack						
		Elephant										
						River bank Erosion						

## 5. Existing plans and programs

This Chapter deals with certain essential linkages with other key planning and execution mechanisms and processes which have direct bearing upon microplanning. The topmost among these is the Working Plans which provide an overall umbrella for sustainable development and forestry and wildlife conservation in forest areas of the State. In wildlife areas, these plans are known as Management Plan, and in Tiger Reserves, as Tiger Conservation Plans. In addition, there are several plan scheme components such as the Tribal Sub Plan (TSP), and Scheduled Caste Component Plan (SCP) which also get implemented in forest villages through the Forest Department. There are several line departments providing health, education, power, irrigation and livelihood services. Often these departments also implement schemes in the forest villages.

After the promulgation of the Assam Joint (Peoples' Participation) Forestry Management Rules, 1998 in Assam, the joint forest management got initiated, and the JFMCs and EDC were constituted in 2002. Prior to this, some working plans had prescriptions for joint forest management or constituted JFM circles. However, the National Working Plan Code, 2014 gave the right impetus to the microplanning and has incorporated detailed guidelines to this effect. This Microplan is based on the 2014 National Working Plan Code.

### **Eco-Development Committees:**

In 1995-96, the Government of India decided to implement The India Eco Development Project as a five-year pilot project in 7 protected areas, viz. Buxa Tiger Reserve, Palamau Tiger Reserve, Ranthambore Tiger Reserve, Gir National Park, Pench Tiger Reserve, Nagarhole Tiger Reserve and Periyar Tiger Reserve with the objective of trying out the feasibility of this participatory conservation model. The IEDP envisaged eco-development as a strategy that 'aims to conserve biodiversity by addressing both the impact of the local people on the protected areas and the impact of the protected areas on local people'. In sum, the IED has been a landmark project in India. Starting as an ambitious exercise, facing civil society criticism, plagued with an agonizingly slow pick up, a serious rethink and downscaling at the MTR stage, it has finally resulted in some exceptional achievements (Project Tiger, India, 2004).

As on today there are 33 registered EDCs under Eastern Assam Wildlife Division FDA and another 28 registered numbers of EDCs under the Nagaon Wildlife Divisional FDA, Kaziranga Tiger Reserve. Moreover 40 and 10 EDCs have been proposed by the Eastern

Assam Wildlife Division FDA and Nagaon Wildlife Division FDA respectively. Eco Development Committees will be formed in all the fringe villages bordering Kaziranga National Park on the south as well as the north side. A Confederation of EDCs comprising of representatives of all the EDCs would be constituted once the remaining EDCs have been registered. In each village, Self Help Groups will be formed for different income generating activities. Existing Eco-Clubs under National Green Corps in the fringe village schools of the area will be converted to Nature Clubs. Wherever Eco Clubs are lacking, efforts would be made to constitute them. The Nature Clubs may also include institutions and organisations formed independently to educate people on environment and its values.

#### **Livelihood Support Initiatives through Village Micro Plans:**

Effective PRA exercises and socio-economic surveys in the fringe and forest villages would be conducted with the help and support of local NGOs and Institutions in order to make micro plans for the villages. With the help of the micro-plans, livelihood support to the villagers will be provided through various income generating activities (IGA).

The eco development programme of the Kaziranga National Park has been undertaken with the following objectives-

- To create a congenial relation between the Kaziranga National Park management and the people, this will act as an effective barrier against attempt of poachers and miscreants.
- To improve capacity of Protected Area management to conserve resources of the Park and to achieve local co-operation in achieving Park management objectives.
- To develop effective and extensive support for eco-development by putting in places an effective participatory conservation model for Kaziranga National Park.

Specific Issues to be tackled through the Eco Development Programme -

1. Alternative livelihood strategies.
2. Improvement of living condition.
3. Mitigating negative impact arising out of man animal conflict.
4. Community development work.
5. Non consumptive use of Protected Area through eco-tourism.
6. Dependence of villagers on forest resources.
7. Sustainable use of forest resources.

Broad strategies for operationalizing the Eco Development Programme -

1. Conduct participatory micro-planning and provide implementation support for eco-development.
2. Provide assistance for village Eco-development program which specify measurable action by villagers to strengthen conservation effort of the Park management.
3. Implementation of Eco-development activities which will encourage alternative livelihood and resource use, conservation and protection of the Protected Area.

Other suggested initiatives are-

- Livelihood Support Initiative through Village Micro-plans
- EDC Livelihood Support Initiative:
- Mitigation of Human Wildlife Conflicts
- Village Development Activities:
  - Entry point activities
  - Income Generation Activities (IGA)
- Human Resources Development/Capacity Building Plan
- Ecotourism Activities

### **Monitoring and Evaluation**

#### ***Expected Commitments from the EDCs:***

1. No destruction of PA habitat due to activities such as grazing, encroachment, illegal forest fire, illegal felling, illegal NTFP collection etc.
2. No poaching or illegal felling in the Protected Area.
3. Provision of intelligence, information and other assistance in the prevention and investigation of offences and offenders.
4. Facilitating registration of all fire arms in the village.
5. Ensuring 100% immunisation of village livestock.
6. Participation in sustainable eco tourism without damage to the PA habitat.
7. Maintenance of cordial relationship with the PA management.

**Microplan Implementation Strategy:** Micro-planning support teams composed of protected area personnel, NGOs and villagers will assist village communities to develop and implement Micro-plans on a continuing basis. Micro-plan should accommodate all issues such as guidelines, investment criteria, training programme, schedule, and commitment etc. so as to ensure achieving the set objectives. Strengthening of EDCs should be carried out in the fringe villages of the Reserve Forest buffer area components. The rural development works in the fringe villages can be taken up in collaboration with other line departments. The monitoring and evaluation of the eco development activities will be carried out by other than the implementing agencies. Local NGOs, Institutions, university can be asked to evaluate the ongoing activities. All the eco-development programmes should have in- built Monitoring and Evaluation mechanism so as ascertain the progress in right direction and also keep the ongoing activities in right track through timely corrective measures.

### **5.3 Forest Department Initiatives in the past**

### **5.4 Schemes of other departments**

**RANGCHALI ECO DEVELOPMENT COMMITTEE  
KAZIRANGA NATIONAL PARK  
EASTERN ASSAM WILDLIFE DIVISION, BOKAKHAT**

**Micro-Plan  
(2016-17 to 2026-27)**

**PART-II**

- a) Community meetings organized in the outset in April 2017 to discuss the objectives of the project and obtaining their consent to gather the required information about the community and its concerns.
- b) Collection of the baseline data on the community and its concerns as per the available format.
- c) Valuation of collected information through community discussions, field observation and
- d) Preparing the outline of the Action Plan as per the community participation and feedback.
- e) The micro-plan has been approved by BGVN based on the project guidelines. The document has been discussed and finalized for adoption in May 2017.



## 6. Micro plan Objectives, SWOT and GAP Analysis

### 6.1 Micro plan Objectives

A village level Micro-Plan is a village development plan and forest development plan, which is need based and site specific, commensurate to available resources. As the unit of the plan is small, it is called a micro plan. The Micro plan tries to meet the twin objectives of:

- i. Enhancing livelihoods
- ii. Biodiversity conservation and maintaining the ecological balance

In India, micro-plans have become an integral part of the joint forest management approach adopted by the Government of India. In this context, a micro-plan is a simple document prepared with the active participation of the community members. The community (village) is the unit for such micro-planning. The document aims to link local forest based resources to local needs and programme objectives of the Forest Department. As per the JFM Guidelines of 2000, the Forest Officers and EDC should prepare a micro plan after having detailed PRA exercise in the village. The micro-plans of the EDC are to be incorporated into the working plans of the Forest Department.

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 the following Participatory Rural Appraisal (PRA) process undertaken by the community and personnel of RashtriyaGraminVikasNidhi (RGVN) in Rangchali. The various steps followed are enumerated briefly below:-

- a) Community meetings organized at the outset in April 2017 to discuss the objective of the project and obtaining their cooperation to gather the required information about the community and its contexts;
- b) Collection of the baseline data on the community and its contexts as per the available formats;
- c) Validation of collected information through community discussions held thereafter; and
- d) Preparing the outline of the Action Plan as per the community participation and feedback.
- e) The micro-plan has been compiled by RGVN based on the project guidelines. The document has been discussed and finalized for adoption in May 2017.

## 6.2 Need Assessment and GAP Analysis

Based on the resource assessment, capacity assessment, livelihoods assets mapping and vulnerability assessment through focused group discussions, PRA exercises, village level and household level survey, the need assessment, gap analysis and SWOT analysis was carried out. The action plan, livelihood, village development strategies and forestry development plan were conceptualized for the EDC primarily based on this analysis.

### Training Need Assessment:

- a. **Capacity building** of communities through regular awareness programmes on important development issues like Forests and Biodiversity, Sustainable development, climate change issues, Gender issues, Financial inclusion, importance of WATSAN, Soil and water conservation, Flood management should be carried out. A mechanism for the same is proposed in the action plan for village development.
- b. **Skill Development:** Conducting regular review of livelihood skills and providing specialized training on use of equipments and tools and processes and procedures for livelihood enhancement to be conducted on a regular basis as proposed in the action plan for livelihood development.

### GAP Analysis

- a. Poor infrastructure
- b. Poor communication network
- c. Poor water sanitation setup
- d. Drinking water issues
- e. Lacks livelihood opportunities
- f. No flood protection measures
- g. No proper scientific measures for protection from elephant depredation

## 6.3 SWOT Analysis

The SWOT analysis was carried out through participatory approach by involving both male and female members of the community.

### Strengths

- i. Traditionally skilled in weaving
- ii. Skilled in fishing and close proximity of the village to the Brahmaputra river
- iii. Homogeneous community

- iv. Small tea growers
- v. Cultivation of local vegetables like pumpkins, local beans etc. along the riverside during winter seasons.
- vi. Scope for tourism

### **Weaknesses**

- i. Lack of modern technology for skill development
- ii. Poor infrastructural facility
- iii. Lack of higher education
- iv. Lack of access to bank loans
- v. Lack of marketing knowledge
- vi. Moderate alcoholism

### **Opportunities**

- i. Agricultural expansion through Organic Farming and use of modern tools
- ii. Young entrepreneurs
- iii. Fishery development
- iv. Cultivation of High Yielding Variety (HYV) crops
- v. Processing and value addition of NTFP
- vi. Weaving expansion

### **Threats**

- i. Animal depredation
- ii. Lack of awareness among the community members about illegal activities like poaching of wild animals etc.
- iii. Erosion of lands
- iv. Man- animal conflict

### **6.4 PRA Exercise**

Appendix VI(A) to VI(D) gives the **PRA** maps

Team from RGVN Guwahati carried out PRA exercise in Rangchali village as follows:

**Date:** 10/04/2017 **Location:** L. P. School

**Numbers Present: 80**

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

Awareness and orientation programme was conducted at village level before taking up the participatory mapping and transect walk. The main themes covered during awareness and orientation included the following:

- (a) Participatory Planning
- (b) Participatory tools & Methods
- (c) Importance of Microplanning and role of EDC
- (d) Environmental issues
- (e) Climate change and Climate variation
- (f) Ecological balance and Ecosystem management ( traditional and scientific)
- (g) Sustainable livelihood Framework
- (h) Livelihood Assets Pentagon and importance of social capital
- (i) Cluster formation & SHG , Financial inclusion
- (j) Marketing and Value addition
- (k) Development agenda and its relationship with environment and ecological balance
- (l) Gender Issues and gender equality

**Observations:** The communities actively participated during the discussions and PRA exercise. The following important points have emerged:

- People expressed that the EDC have not been very active in the past due to lack of funds and projects
- There have been very few awareness and orientation programs in the EDC in the past.
- They appreciated the importance of micro planning and were very supportive and cooperated during the micro planning process.
- While some NGOs have been visiting the EDC they only collected data and information but did not take up any development activity.
- It was for the first time that Under the APBFC the NGO has come and interacted with the community and created awareness and proper orientation not only about the project but also on the development issues including environmental and ecological aspects to growth and development.
- The communities have good local wisdom and traditional knowledge regarding the environment, forestry and other livelihood issues like pest control, livestock management etc.
- They shared their concern over the climate variation and its ill effects on agriculture and

health in the village. They are keen to learn more on the scientific facts about climate change issues.

- A sense of importance was observed among the people as they understood the important role they had towards reducing causes leading to climate variation by protecting the nearby forests and a sense of ownership seems to be gripping them boosting their self esteem.

**Community Need Assessment:** Based on the PRA exercise, Focus group discussions, consultations with village community, EDCmembers, forest staff and other stakeholders the Village Development plan and Livelihood development Plan was prepared for the EDC. Through the participatory approach the community Need Assessment was carried out. The people's needs can be categorized as follows:

### **1. Structural Needs**

### **2. Non Structural needs**

These needs can be classified further into long term needs and short term needs. The details of the community's needs are given in the village development plan.

The structural needs of the people have direct and indirect linkage with livelihood improvement. These include improvement of infrastructure like roads, school buildings, Health care infrastructure, drinking water supply system, water tanks, ring wells etc. Construction of toilets, community halls and training sheds, market sheds.

The non structural needs of the people include provision for skill training, provision of veterinary services, health care services, mobile doctors team, requirement of teachers for schools in the villages, capacity building through training and awareness on financial inclusion, SHG and cluster formation, provision for raw materials, village maintenance & development fund/ community fund for EDC, Value addition of traditional products and marketing linkages. Exposure visits to best practice sites relating to joint forest management, community participatory project cites, artisans villages and participation in melas, trade fairs etc.

## 7. Village Development Plan

Considering the long term and short term needs for village development a village development plan was prepared in consultation with the community members as well as the EDC members.

The measures planned by the community members for the village development are as follows:

- a) The members of the community are skilled in fishery related activities. To help turn into a sustainable source of livelihood, the community members should tie-up with the Fishery Department and avail the various schemes under it.
- b) Provision of a community hall for the people would act as a centre for skill trainings and to hold important discussion with the community members. There should also be proper drinking water and sanitation facilities.
- c) Agriculture is the major form of livelihood in the village and to help improve its production new technologies along with technical knowledge such as new tools ,High Yield Variety (HYV) seeds, new patterns of cultivation should be provided to the community
- d) Tea growers can be registered with the Tea Board Of India/ Tocklai Tea Research Institute/ Department of Tea Husbandry and Technology, Assam Agriculture University. This would help them avail various training, technical guidance and subsidies offered by the institutions.
- e) Introduction of skill development programmes regarding weaving, tailoring to help them provide specialized training to participants and act as an alternate source of livelihood. This would help improve the employment opportunities available in the village.

### 7.1 Ranking of EPA

For village development, the community proposes to take up a number of Entry Point Activities. The EPA includes infrastructure development and skill development and both are directly linked with each other.

Rank	Activity	Details of site	Budget
1	Fishery project	Community land allotted for 4 nos of fishery, as the village people is having experience in fishery related activity.	INR 18,00,000.00

2	Training centre cum EDC office & community hall with toilet & drinking water facility  GPS- N-26.78674° E-093.38799°	Land donated 2 katha near Rangehali Juria Namghar by the vice president Mr. Jiban Das.	INR 8,00,000.00
3	Tent House	A part of EDC office to be used as tent house for economic generation by giving rent includes utensil & generator set	INR 2,50,000.00
Total			INR 28,50,000.00



Divisional Forest Officer  
-cum, FIU APFBC Society  
E.A.V.L. Division, Bolakhat

## **8. Livelihood Development Plan**

Effective PRA exercises and socio-economic surveys in the fringe and forest villages have been conducted with the help and support of EDC members and RGVN in order to prepare microplan for the village. Various Income Generating Activities (IGA) were identified through focus group discussions and PRA. Some of the important income generating activities as identified by the communities include:- pisciculture, vegetable farming, poultry, dairy farming, apiculture, mushroom farming, decentralized nursery, tailoring, small crafts, jute crafts, bamboo crafts, candle making, incense stick making, pickle making, etc. Value addition to the products can be made by processing, grading packing/ bottling and labelling professionally. Inputs, equipments, raw materials required for the IGA were identified. A marketing platform, called Van Bazaar, is proposed to be established to showcase and sell products from EDCs.

### **8.1 Ranking**

#### **Ranking of Livelihood and Skill Development**

- Weaving
- Agriculture
- Fishery
- Carpentry
- Tailoring
- Tea cultivation
- Electrician
- Computer Operator

### **8.2 Livelihood Opportunities**

**Livelihood were identified as follows:**

- a. Agriculture and horticulture
- b. Weaving
- c. Livestock
- d. NTFP
- e. Skill Development
- f. Credit Facility

### **8.3 Agriculture & Horticulture**

**Constraints:**

- a) Flood



- b) Poor market linkage facilities
- c) Animal depredation and pest attacks

**Opportunities:**

- a) Suitable area for rabi crop cultivation
- b) Commercialization of agricultural crops
- c) Tea cultivation
- d) Organic farming

#### **8.4 Livestock**

**Constraints:**

- a) Diseases
- b) Poor access to veterinary facilities
- c) Less grazing land

**Opportunities:**

- a) Dairy farming
- b) Poultry farming

#### **8.5 NTFP**

**Constraints:**

- a) Lack of processing unit
- b) Lack of knowledge by community about NTFP utility
- c) Poor utility of available NTFP

**Opportunities:**

- a) Fruits can be used for commercial processing and value addition
- b) Awareness about conservation and judicial uses of NTFP
- c) Boosting income generation

#### **8.6 Specialized Skills**

**The main constraints are:**

- a) Traditional skill
- b) Lack of training centres
- c) Lacks knowledge about modern tools and techniques

**The opportunities are:**

- a) Weaving expansion
- b) Sericulture
- c) Bamboo crafting

d) Tailoring

## 8.7 Credit Facility

**The main constraints are:**

- a) Poor access to bank loans
- b) Poor road connectivity and infrastructure
- c) No awareness and knowledge about government schemes

**The opportunities are:**

- a) Motivation to form SHGs
- b) Awareness about Micro finance provision and institutions
- c) Coverage of government schemes for provision of loans

## 8.8 Strategic Interventions

Summarizing the suggested programmes above as strategic interventions for the Livelihood Development Plan:

- a) Weaving expansion through proper training
- b) Bamboo crafting
- c) Tailoring and Handicrafts expansion through proper market linkage
- d) Dairy Farming can be developed using scientific tools and techniques
- e) Scope for development of tea cultivation with proper training and use of scientific tools and equipments.
- f) Fruits can be used for commercial processing and value addition and thus boosting income generation.
- g) Awareness about Micro finance provision and institutions and government schemes for provision of loans

## 8.9 Income Generating Activities

The main income generating activities as planned at the village are:

1. Weaving
2. Tailoring
3. Tea production
4. Agricultural and Horticultural Activities
5. Cane and Bamboo craft

## 8.10 SHG activities

SHGs of the village can plan the following activities:

1. Weaving
2. Providing small loans
3. Bamboo craft
4. Handicrafts
5. Tailoring and Embroidery

### **8.11 Exposure Trips**

The following exposure trips are planned:

1. Good practices of EDC/ Livelihood in North-East and other states of India
2. Participation in melas and fairs like SARAS mela and other melas organised by TRIFED
3. Trips to nearby countries on training on bamboo treatment and handicraft/ furniture making

### **8.12 Convergence**

The planned initiatives may be converged with the following schemes of the Government of India:

- (a) National Rural Employment Guarantee Scheme - for rural employment
- (b) RashtriyaKrishiVikasYojana (RKVY) - for agricultural and allied development
- (c) RashtriyaKrishiSinchayYojana (RKSJ) - for irrigation, including watershed development
- (d) National Rural Livelihoods Mission
- (e) Skills Development schemes
- (f) Prime Minister UjjwalaYojana
- (g) NRLM
- (h) NRHM
- (i) Bamboo Mission
- (j) 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 periods

## 9. Forest Development Plan of Rangchali 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 Rangchali EDC. The objective of this plan is to meet the dual objective of conserving forest and bio-diversity and at the same time meeting the livelihood needs of the community in a sustainable manner.

The micro-plan takes into consideration the areas planted / to be planted on community lands and other lands outside the notified forest area by the Rangchali EDC

The status of both the above category of EDC forests is briefly discussed below.

### ii. Forest Village Management in the past.

No systematic Forest Management plan in Village. It was based on traditional and indigenous knowledge.

### iii. Domestic Requirements of Forest Produce

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

**Table-1(A): Domestic Requirement of Forest Produce per Household of the RangchaliEDC**

Name of Forest Produce	How met at Present	Source
Firewood	Homestead/Market& Forest	Homestead/Market& Forest
Timber for House	Homestead & Market	Homestead & Market
Small timber for Implements	Homestead/Market	Homestead/Market
Pole / Bamboo	Homestead &Market	Homestead & Market
Fodder from Forest	Homestead/Market	Homestead/Market
NTFP (Thatch grass, jharu etc.)	Homestead & Market	Homestead & Market

Other (Fish)	Homestead & Market	Homestead & Market
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**Source:** Discussions with Forest Department personnel & Community members

**Table-2 (B): Total Domestic Requirement of Forest Produce - All Households of the RangchaliEDC**

Name of Forest Produce	Community Requirement (Kg per annum)	Remarks
Firewood	1460000	
Timber for House		
Small Timber for Implements		
Pole / Bamboo		
Fodder from Forest	2190000	
NTFP		
Other (Fish)	36000	

## 9.2 Forest Protection Issues

### 9.2.1. Protection Problems

The protection issues of the forests of Rangchali EDC have been summarized below

**Table-2: Protection Problems of the Rangchali EDC**

Type of Problem	Relevant (Yes / No)	Significant (Yes / No)
Grazing - Local Animals	Yes	No
Illegal fishing	Yes	No
Grazing - Animals from Other Area	No	
Illicit Felling of Timber	No	
Smuggling of Timber	No	
Accidental Fires	No	

Encroachment of Forest Lands	No	
Others		

**Source:** Discussions with Forest Department personnel & Community members

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

- (a) Grazing - Local Animals
- (b) Illegal fishing

### 9.2.2 Reasons for Degradation of the Forest

Grazing and illegal fishing in the North bank of Brahmaputra river, which is the sixth addition to the Kaziranga National Park, was observed due to lack of community grazing ground and awareness among the people at Rangchali EDC. The fishing was traditionally a local source of livelihood, so many people are still inclined towards fishing from Brahmaputra River.

## 9.3 Components of the Forest Development Plan

### 9.3.1 Protection Plan

The following sub-sections discuss the main components of the Forest Development Plan of Rangchali EDC; viz. the plans for Anti Rhino Poaching, Nursery Development, Man -Animal Conflict Reduction, Grazing Plan for village.

### 9.3.2 Protection Plan/Anti Rhino Poaching Plan and Gangatic Dolphin protection plan.

The protection Plan is twofold, namely wildlife protection and secondly Forest protection in terms of control over grazing, poaching of Rhino and control over traditional fishing practices to protect Gangetic Dolphins and other aquatic plants and animals. EDC members have well developed information network for Anti poaching of Rhinos and illegal fishing.

#### Wildlife Protection:

The Protection Plan given below discusses the measures for the protection of Kaziranga National Park. The Forest Department shall constitute Local Protection Squad from the youth members belonging to the villages involve in crop protection. They will be provided equipment like torches and battery. However, there are certain issues such as

1. Issue of training and skilling
2. Lack of scientific methods and inputs

Therefore, in view of the above, the following are prescribed:

1. They should be provided with minimum wages/ honorarium
2. The squad should be made at par with (Village Defence Party)VDP.
3. The squad should be well armed with boots, raincoats, torch, battery.
4. Regular training and motivational camps to be held for the Local Protection Squad
5. EDC to monitor the works and performance of the Local Protection Squad youths every month.

### **Forest Protection:**

As revealed in the PRA, the communities are not dependent upon the sanctuary for their daily requirement of firewood, grazing and timber. But in order to reduce Green house Gas emission and to meet their demands-

1. The EDC should create awareness among the people about proper sanitation and waste management issues.
2. All the EDC households to be given an alternate source for cooking such as bio-gas, solar cooker, LPG etc.
3. All the EDC household to be supplied with alternate sources of energy for lighting etc. such as solar/ wind/ hybrid energy solutions.
4. The grazing pressure should be reduced gradually (Village Grazing Land).
5. The EDC should create awareness among the people about the Wild Life (Protection) Act 1972 and any violations should be reported to the proper authorities.
6. The EDC should enforce strict discipline so that fishing and any other illegal activities are stopped totally within the Kaziranga National Park.

### **Habitat Improvement Plan:**

The park is mainly famous for one horned rhinoceros. It is also the home of variety of Wildlife like, Wild buffalo, Barking deer, Wild boar, etc. Birds like the Egrets, Pond herons, River tern, Black necked storks, Pelican, Pied horn bill, Greater Indian Hornbill, Fishing eagle are found abundance.

The following Habitat Improvement works are prescribed to be undertaken with the help of the EDC:

1. EDC members should be made aware to completely stop the grazing of cattle and traditional fishing inside the Kaziranga National Park.

2. EDC members shall participate on request of RO for removal of weed and de-siltation of forest areas, provided as and when proper funding is available.

### **Nursery Development Plan:**

Nursery is an excellent source of livelihood arising out of forestry activities. The following are prescribed:-

1. The EDC should develop a 0.25 Ha Nursery for poly-pots and naked bed seedlings.
2. Each seedling could be sold at Rs 5-8 to the neighbouring division, and at slightly higher prices to others
3. The nursery should be of fruit bearing, important forest species and medicinal plants

### **Wetland Conservation Plan:**

Kaziranga National Park is a unique place of wetland ecosystem with diverse flora and fauna. It is the prime habitat for Rhinoceros, Asiatic Wild buffalo etc. Apart from this, it acts as roosting and nesting ground for migratory and indigenous water birds.

However, this unique wetland eco-system is confronted with several problems such as shrinkage in size and depth of the water bodies due to heavy siltation and choking of water bodies by water hyacinths.

The following prescriptions are made for wetland conservation situated outside Kaziranga National Park:

1. The wetlands in the village area to be de-silted thoroughly.
2. Local variety of fish alone to be cultured in the village wetlands
3. Sprinkler irrigation to be used
4. Crops needing less water to be promoted along with organic manuring.
5. The EDC should not allow any fishing inside the Kairanga National Park.
6. Conducting extensive research on various aspects of wetland eco-system.

### **Man -Animal Conflict Reduction Plan:**

Depredation from elephant, rhino, wild buffalo, wild boar and other animals are common. Damage to human life and property is consequent in chance encounters with wildlife. To mitigate the man animal conflict situation, the following are prescribed:-

1. Small tongies / watch towers to be created by the Forest Department to keep watch and ward on stray wildlife.
2. Anti Depredation Squad to be created in the EDC



3. Torches & search lights, crackers and kerosene should be supplied regularly by the Department to the Anti Depredation Squads.
4. The EDC should monitor the functioning of the Anti Depredation Squad
5. All the crops should be insured regularly
6. All persons should be covered under the Pradhan Mantri Suraksha Bima Yojana
7. The Forest Department should enhance the ex-gratia grant.
8. The process of awarding ex-gratia should be simplified so that the affected families do not have to wait for long to receive compensation.
9. The EDC president's certification should be sufficient to certify that the damage has occurred.

### **Grazing Plan for village**

The following prescriptions are made for control of grazing:

1. The EDC shall evolve novel methods for grazing control / stall feeding, develop village grazing land and fodder plantation.
2. High Yielding Variety cattle should slowly replace the existing cattle population.
3. The EDC should impose de-incentives on families having large number of cattle.
4. Stall feeding to be promoted by the Forest Department
5. Diary Development activities to be taken up by the EDC using high milk yielding cows.
6. There should be a conscious plan by the EDC to stop grazing completely within next 5 years.
7. All cattle to immunize regularly and the EDC should monitor the same. No unimmunized cattle should be allowed to be grazed.
8. ICT (Information and Communication Technology) could be used to study grazing pattern and suggest corrective measures.

### **Eco-Tourism Plan:**

Kaziranga National Park is a world famous eco-tourism spot. The Park with its rich biodiversity resources is the favoured destination of both domestic and foreign tourists and getting the top priority as tourist destination in the state.

The following prescriptions are made in respect of eco-tourism:

1. Educational wildlife tourism has a great potential in Kaziranga National Park

which should be actively promoted by the Forest Department.

2. Home stay should be encouraged from now onwards from amongst the EDC members and also to maintain proper disposal of the home stay waste so as not to pollute the sanctuary.
3. The Department should provide funding for creating home stay facilities by the village communities
4. A number of eco-tourism trails should be developed with the help of Forest Department and the local communities
5. Such eco-trails may be actively promoted by the Department.
6. Local tourist guides should be trained in tourism and foreign languages
7. Commercial tourism should be discouraged.

## 10. Implementation Strategies, Timelines and Budget

### 10.1 Roles and Responsibility Matrix

For the three sub plans namely Livelihood Development Plan, Village Development Plan and Forest Development Plan, a matrix of roles and responsibilities has been developed. The matrices have been shown below for each of the sub plans separately.

#### Livelihood Development Plan

Stakeholders	Planning	Manpower	Training	Funding	Production & Value Addition	Marketing	M&E
EDC		✓			✓	✓	
NGO		✓			✓	✓	
Skilling Agencies		✓			✓		
Forest Deptt		✓					✓
Line Deptt.		✓					

#### Village Development Plan

Stakeholders	EDC	Forest Department	Line Departments	NGO	Training Institutions	Govt of India/Corp
Solar Power		✓	✓			✓
Solar/Hybrid Street Lights		✓	✓			✓
Sprinkler Irrigation		✓	✓		✓	✓
LPG		✓			✓	✓
Power Pumps		✓	✓			✓
Training Center		✓			✓	✓
Community Hall cum EDC Office		✓	✓			
Roads		✓	✓			

WATSAN		✓	✓			✓
School		✓				
Health Infra		✓	✓		✓	✓
Organic farming/ vermicompost		✓	✓		✓	✓

### Forest Development Plan

Stakeholders	EDC	Forest Department	Line Departments	NGO	Training Institutions	District Admin
Forest Protection		✓				✓
Wildlife Protection		✓	✓		✓	
Habitat Improvement		✓	✓		✓	
Nursery Development		✓			✓	
Wetland Conservation		✓				✓
Man-Animal Conflict		✓				
Grazing Control		✓	✓			
Eco-Tourism		✓	✓			

### 10.2 Finance and Budget

The budget for the microplan has been prepared based on annual requirement of the three sub plans namely the Livelihood Plan, Village Development Plan and Forest Development Plan. The consolidated table is given below.

SI No.	Plan	Amount (Rupees)	Remarks
1.	Livelihood Development Plan		
2.	Village Development Plan		
3.	Forest Development Plan		
	<b>TOTAL</b>		

### Livelihood Development Plan

SI No.	Item of Work	Amount (Rupees)	Remarks
1.	Skill Development & Training		
2.	Dairy Farming		
3.	Poultry/ Fishery/ Duckery		
4.	Computers		
5.	Trades and Callings		
6.	Handicrafts		
7.	Kits and Equipment		
8.	Value Addition & Certification		
9.	Packaging and Marketing		
10.	Exposure Visits		
11.	SHG/ JLG/ Cluster Formation & Credit		
	<b>TOTAL</b>		

### Annual Village Development Plan:

SI No.	Item of Work	Amount	Remarks
1.	Solar Power		
2.	Solar/Hybrid Street Lights		
3.	Sprinkler Irrigation		
4.	LPG		

5.	Power Pumps		
6	Training Center		
7	Community Hall cum EDC Office		
8	Roads		
9	WATSAN		
10	School		
11	Health Infra		
12	Organic farming/ vermi-compost		
	<b>TOTAL</b>		

### Annual Forest Development Plan

SI No.	Item of Work	Amount	Remarks
1.	0.25 Ha Nursery		
2.	10 Ha Fuelwood Plantation Creation		
3.	Desiltation of water bodies		
4.	Anti Depredation Squad		
5.	Crop Insurance		
6.	Life Insurance		
7.	Cattle Insurance		
	<b>TOTAL</b>		

### 10.3 Action Plans and Strategies:s

Each of the **three** plans namely the Village Development Plan, Forest Development Plan and Livelihood Development Plan would require short term and long term action plans strategies in order to realize the prescriptions of the Microplan. Short term strategies should focus on activities to be taken up from 0-5 years, and long term plan should focus on activities to be taken up in 5-10 years of this Plan.

### **Livelihood Development Action Plan:**

The livelihood action plan may be divided into three parts namely, skilling, production & marketing and value addition. The most immediate want of the population is skilling. The skilling requirements needs to be viewed at basic level and advanced level. Once the trades and skill requirements have been frozen, the basic skills should be imparted within a period of 1 year for all willing members of the village both men and women in a phased manner. During this period, some of the trainees could also start production. The most marketable outputs need to be channelized to the available markets in order to create the brand effect and assess the marketability of the production in terms of quality and value.

### **Village Development Action Plan:**

The village development action plan may be divided into the short term plan and the long term. In the short term plan activities like Solar lighting, Providing LPG connections, construction of Community hall and training centre and water sanitation needs would be addressed. In the long term plan for the village the activities like construction of schools, health care facilities would be taken up. Providing improved tools and equipments for enhancing agriculture production along with water sprinklers, power pumps would be provided.

**Forest Development Action Plan:** The forest development action plan comprises of the short term action plan and the long term plan. The short term plan includes formation and strengthening of forest protection squads, Nursery development, desiltation of water bodies, formation of anti depredation squads, Tongi construction and firewood plantations. In the long term action plan activities like Plantation, Crop improvement and habitat improvement would be taken up.

## **10.4 Institution Building, Networking and Partnership**

**EDC:** The EDC to be upgraded both in terms of its infrastructure assets and in terms of acting as a resource center for village and forestry development. The proposed EDC office along with the community hall in the entry point activity to be provided with modern equipment like computer/ TV and support equipment like generator etc. Building capacity of EDC members through training programs on use of computers, maintaining and updating records/ accounts keeping and village level/ forestry data on a regular basis. The EDC office to be upgraded as a resource center, an activity and training hub. Improving their networking skills and creating awareness regarding development schemes of other departments and modalities for partnership.

## LIST OF APPENDIX

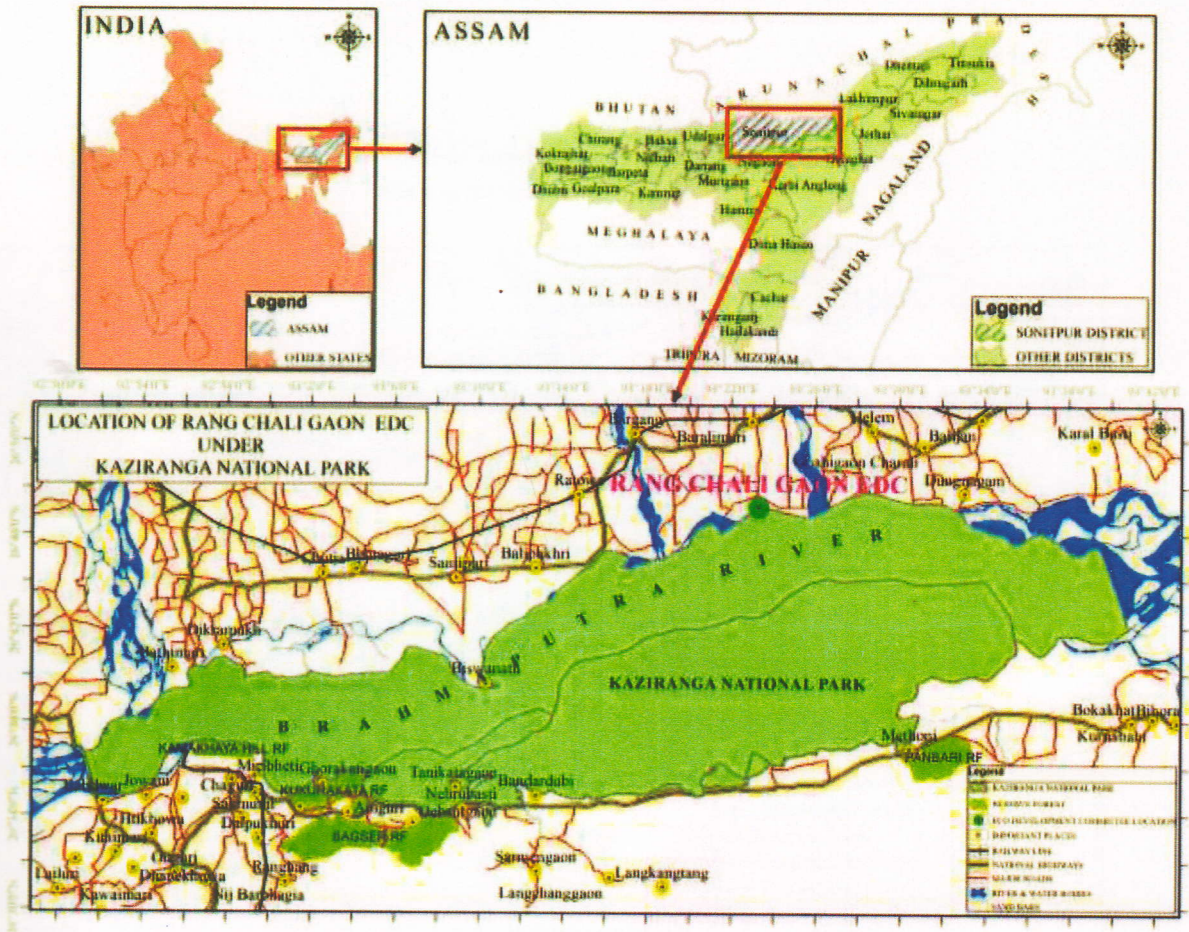
Location Map of EDC in India

Appendix No.	Title
I(A)	Location Map of EDC in India
I(B)	Location Map of Rangchali EDC
II	Approach map to EDC
III(A)	EDC Registration Certificate
IV	Executive Members of Rangchali EDC
V	Executive Members group Photo of Rangchali EDC
VI	List of members present during PRA & FGD(Signed list)
VII(A)	Community map of Rangchali EDC
VII(B)	Resource map of Rangchali EDC
VII(C)	Hazard map of Rangchali EDC
VII(D)	Venn Diagram
VIII	Entry point Activities
IX(A)	Training list of Rangchali EDC (Proposed)
X	Photographs
XI	GPS Coordinates



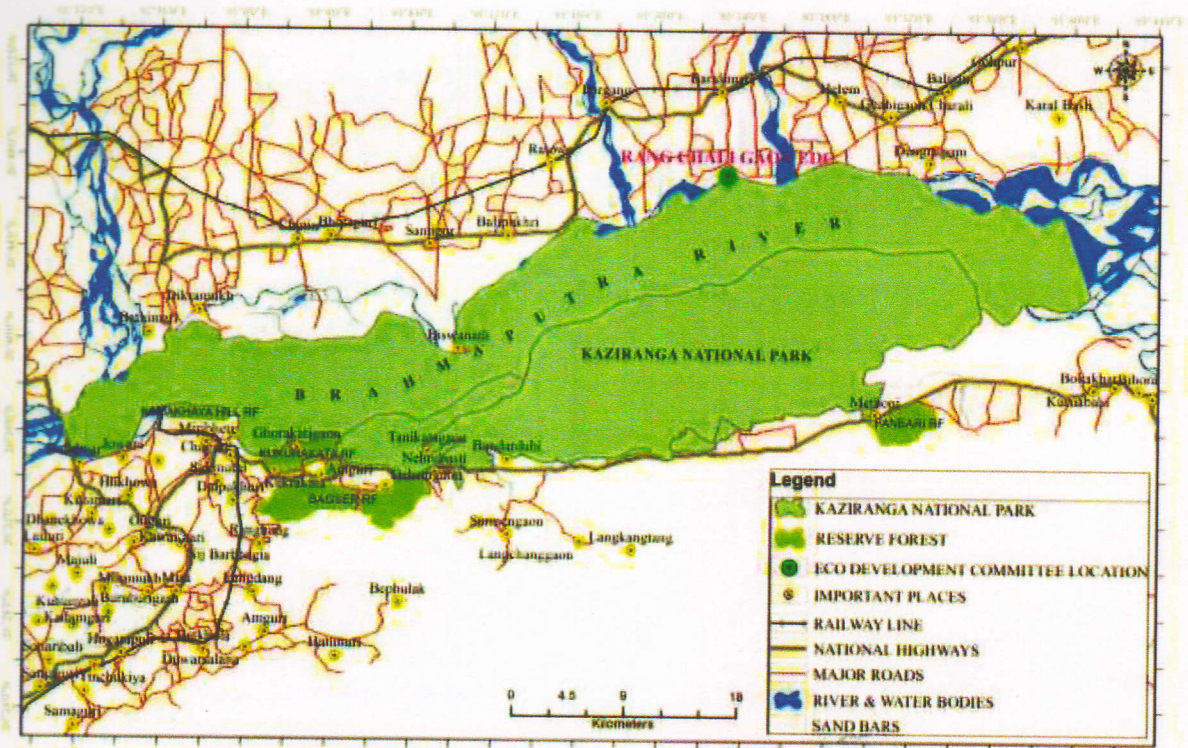
# Appendix I (A)

## Location Map of EDC in India



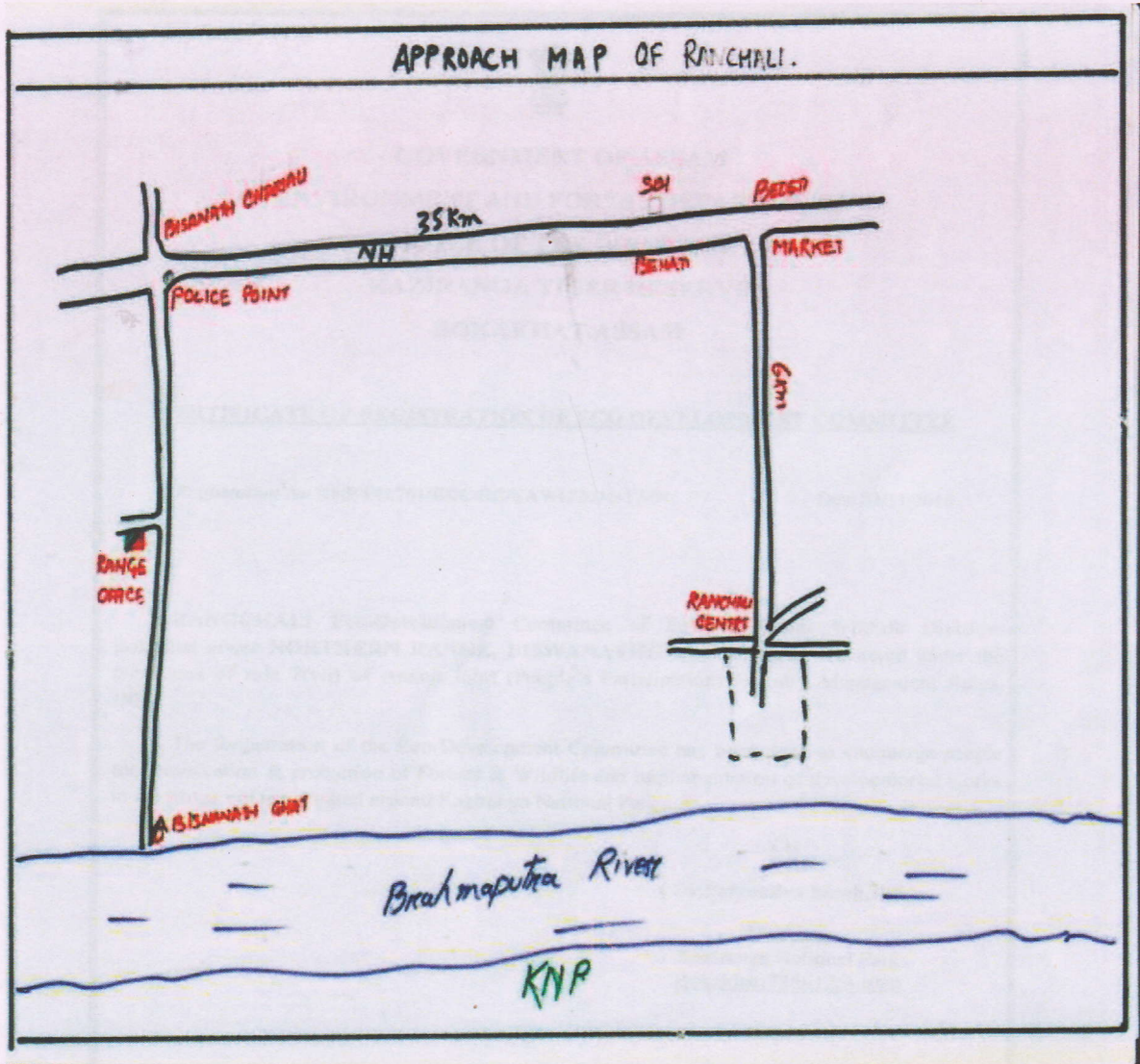
# Appendix I (B)

LOCATION OF RANG CHALI GAON EDC  
UNDER KAZIRANGA NATIONAL PARK



# Appendix II (A)

EDC Approach map to EDC gate



# Appendix III (A)

## EDC Registration Certificate



GOVERNMENT OF ASSAM  
ENVIRONMENT AND FOREST DEPARTMENT  
OFFICE OF THE DIRECTOR  
KAZIRANGA TIGER RESERVE  
BOKAKHAT, ASSAM


CERTIFICATE OF REGISTRATION OF ECO DEVELOPMENT COMMITTEE

Registration No. KNP/FG.761/EDC/RC/EAWL/2016-17/01,

Date.03/11/2016

RANGCHALI Eco-Development Committee of Eastern Assam Wildlife Division, Bokakhat under NORTHERN RANGE, BISWANATHGHAT is hereby registered under the provisions of rule 7(vii) of Assam Joint (People's Participation) Forestry Management Rules, 1998.

The Registration of the Eco-Development Committee has been done to encourage people for conservation & protection of Forests & Wildlife and implementation of developmental works in the fringe village situated around Kaziranga National Park.

  
( Dr. Satyendra Singh, IFS )

Director,  
Kaziranga National Park  
Bokakhat, 785612, Assam

# Appendix IV

## Executive Members of Rangchali EDC

### Executive Committee RANGCHALI EDC .

ক্রমিক নং	নাম	আতিথাকার নাম	পদবী	বসতি	ফোন নম্বর
১	শ্রী পূর্ণবর্তন দাস	শ্রী মানব দাস	সভাপতি	প্রশান্তিকা অপ্তিম	৭৪৭৬৪২২৫ ১৬
২	" রাজু মলি	শ্রী বিনোদ	সদস্য		
৬	" জীবন দাস	শ্রী শ্যামধাম	উপ সভাপতি	প্রশান্তিকা	৭৫০৬৬৫৩
৪	" দিন কুমার দাস	শ্রী বেনজি	সদস্য	স্বপ্নান	৭৭৭ ৪৪৭৬৭০৬০৭
৫	" মোহাম্মদ দাস	শ্রী মতিলাল	সদস্য	স্বপ্নান	৭০৪৬১৩৪৬ ৪৭
৬	" কুমুদ বনীয়া	শ্রী নাথান	সদস্য	দুলাল দাস	৪৭৪৬১৭৭ ১১০
৭	" স্বর্জিত বসু	শ্রী মানিক	সদস্য	H.S	৭৫৭৬৪৪১৩৭
৮	" বিজু দাস	শ্রী বসন্ত	সদস্য	স্বপ্নান	৭৫৭৭২২৭ ২৭৭
৯	" নিখিল রাজর্ষীক	শ্রী বীরেন	সদস্য	দুলাল দাস	৭৪৫৭৭৭ ৫৭৭
১০	" উৎকল দাস	শ্রী মনোজ	সদস্য	শ্রী	৪৫৭৬৬২৭০২২
১১	" উজ্জ্বল দাস	শ্রী বিমান	সদস্য	প্রশান্তিকা	৪০১১১৩৭৭ ৬০
১২	" মন্ডিত দাস	" উত্তর	সদস্য	স্বপ্নান	৪৭০২২২৫৩ ১৬
১৩	" গুণেন্দ্র দাস	" উল্লাস	সদস্য	স্বপ্নান	৭৬৩৬৭৭ ৭৭৭
১৪	" স্বপ্নিত দাস	শ্রী অক্ষয়	সদস্য	স্বপ্নান	৫৩৭৭০
১৫	" সঞ্জিত দাস	শ্রী উজ্জ্বল	সদস্য	স্বপ্নান	১৪৭৬
১৬	" দীন কুমার দাস	শ্রী দ্বৈত	সদস্য	দুলাল দাস	

শ্রী পূর্ণবর্তন দাস  
President  
RANGCHALI  
Eco-Development Commission  
১১/৪/২০১৭

১১/৪/১৭  
Secretary  
RANGCHALI  
Eco-Development Commission

# Appendix V

## Executive Members group Photo of Rangchali EDC



**From Left hand Side:**1. Robin Das 2. Tanko Das 3. Girin Hazarika 4. Biju Das 5. Ranjit Borah 6. Kumud Bonia 7. Jugash Das 8. Dilip Kumar Das 9. Jiban Das (VP) 10. Raju Gogoi (Secretary) 11. Purna Dhar Das (President) 12. Aruna Das 13. Moina Das 14. Puspallata Das

# Appendix VI

List of members present during FGD (Signed list)

बाणवली EDC FGD

9/4/17  
9/4/17 बाणवली EDC FGD

क्र. सं.	नाम	पता	संघर्ष सं.	हस्ताक्षर
1	श्री (क) राम नारायण	बाणवली	7508653441	श्री (क) राम
2	श्री (ख) राम नारायण	"	8402993316	श्री (ख) राम
3	श्री (ग) राम नारायण	"	8011139960	श्री (ग) राम
4	श्री (घ) राम नारायण	"		श्री (घ) राम
5	श्री (ङ) राम नारायण	"		श्री (ङ) राम
6	श्री (च) राम नारायण	"	8876283820	श्री (च) राम
7	श्री (ज) राम नारायण	"	7896141863	श्री (ज) राम
8	श्री (झ) राम नारायण	"	7896141517	श्री (झ) राम
9	श्री (झ) राम नारायण	"	7576840250	श्री (झ) राम
10	श्री (झ) राम नारायण	"	7897978710	श्री (झ) राम
11	श्री (झ) राम नारायण	"	2376930261	श्री (झ) राम
12	श्री (झ) राम नारायण	"	8011959047	श्री (झ) राम
13	श्री (झ) राम नारायण	"	8011570025	श्री (झ) राम
14	श्री (झ) राम नारायण	"	8876673509	श्री (झ) राम
15	श्री (झ) राम नारायण	"		श्री (झ) राम
16	श्री (झ) राम नारायण	"		श्री (झ) राम
17	श्री (झ) राम नारायण	"		श्री (झ) राम
18	श्री (झ) राम नारायण	"		श्री (झ) राम
19	श्री (झ) राम नारायण	"		श्री (झ) राम
20	श्री (झ) राम नारायण	"		श्री (झ) राम
21	श्री (झ) राम नारायण	"		श्री (झ) राम
22	श्री (झ) राम नारायण	"		श्री (झ) राम
23	श्री (झ) राम नारायण	"	8076820463	श्री (झ) राम
24	श्री (झ) राम नारायण	"	0706134621	श्री (झ) राम
25	श्री (झ) राम नारायण	"	9706360813	श्री (झ) राम
26	श्री (झ) राम नारायण	"	9854626592	श्री (झ) राम
27	श्री (झ) राम नारायण	"		श्री (झ) राम
28	श्री (झ) राम नारायण	"		श्री (झ) राम
29	श्री (झ) राम नारायण	"		श्री (झ) राम
30	श्री (झ) राम नारायण	"		श्री (झ) राम
31	श्री (झ) राम नारायण	"	9864564792	श्री (झ) राम
32	श्री (झ) राम नारायण	"	9706359840	श्री (झ) राम
33	श्री (झ) राम नारायण	"	8686179092	श्री (झ) राम
34	श्री (झ) राम नारायण	"	0021002970	श्री (झ) राम

Contd...

Contd...







List of members present during PRA (Signed list)

10/4/17 Rangchali EDC PRA				
S/NO	Name	Village	Contact NO	Signature
1	Mrs Mira Borah Das	Rangchali	8011376220	Mira Borah
2	শ্রীমতী মীরা বরহা দাস	Do		শ্রী মীরা বরহা দাস
3	Mrs Ruma Das	Do	887625240	R. Das ১৭৭
4	Smt Sakhya Pravee Borah			Smt Sakhya P.B.
5	শ্রীমতী সখ্যা প্রবেষী বরহা		9854626592	শ্রীমতী সখ্যা প্রবেষী
6	শ্রীমতী সখ্যা প্রবেষী		927086186	শ্রীমতী সখ্যা প্রবেষী
7	শ্রীমতী মৃগা		7576822110	মৃগা
8	শ্রীমতী মৃগা		8721034204	শ্রীমতী মৃগা
9	শ্রীমতী মৃগা		9850798777	শ্রীমতী মৃগা
10	শ্রীমতী মৃগা	"	9106773000	শ্রীমতী মৃগা
11	শ্রীমতী মৃগা			
12	শ্রীমতী মৃগা		845105194	শ্রীমতী মৃগা
13	শ্রীমতী মৃগা			
14	শ্রীমতী মৃগা			
15	শ্রীমতী মৃগা			
16	শ্রীমতী মৃগা			
17	শ্রীমতী মৃগা			
18	শ্রীমতী মৃগা			
19	শ্রীমতী মৃগা			
20	শ্রীমতী মৃগা			
21	শ্রীমতী মৃগা			
22	শ্রীমতী মৃগা			
23	শ্রীমতী মৃগা			
24	শ্রীমতী মৃগা			
25	শ্রীমতী মৃগা			
26	শ্রীমতী মৃগা			
27	শ্রীমতী মৃগা		8011139960	শ্রীমতী মৃগা
28	শ্রীমতী মৃগা			
29	শ্রীমতী মৃগা			
30	শ্রীমতী মৃগা			
31	শ্রীমতী মৃগা			
32	শ্রীমতী মৃগা			
33	শ্রীমতী মৃগা			
34	শ্রীমতী মৃগা			

Contd...



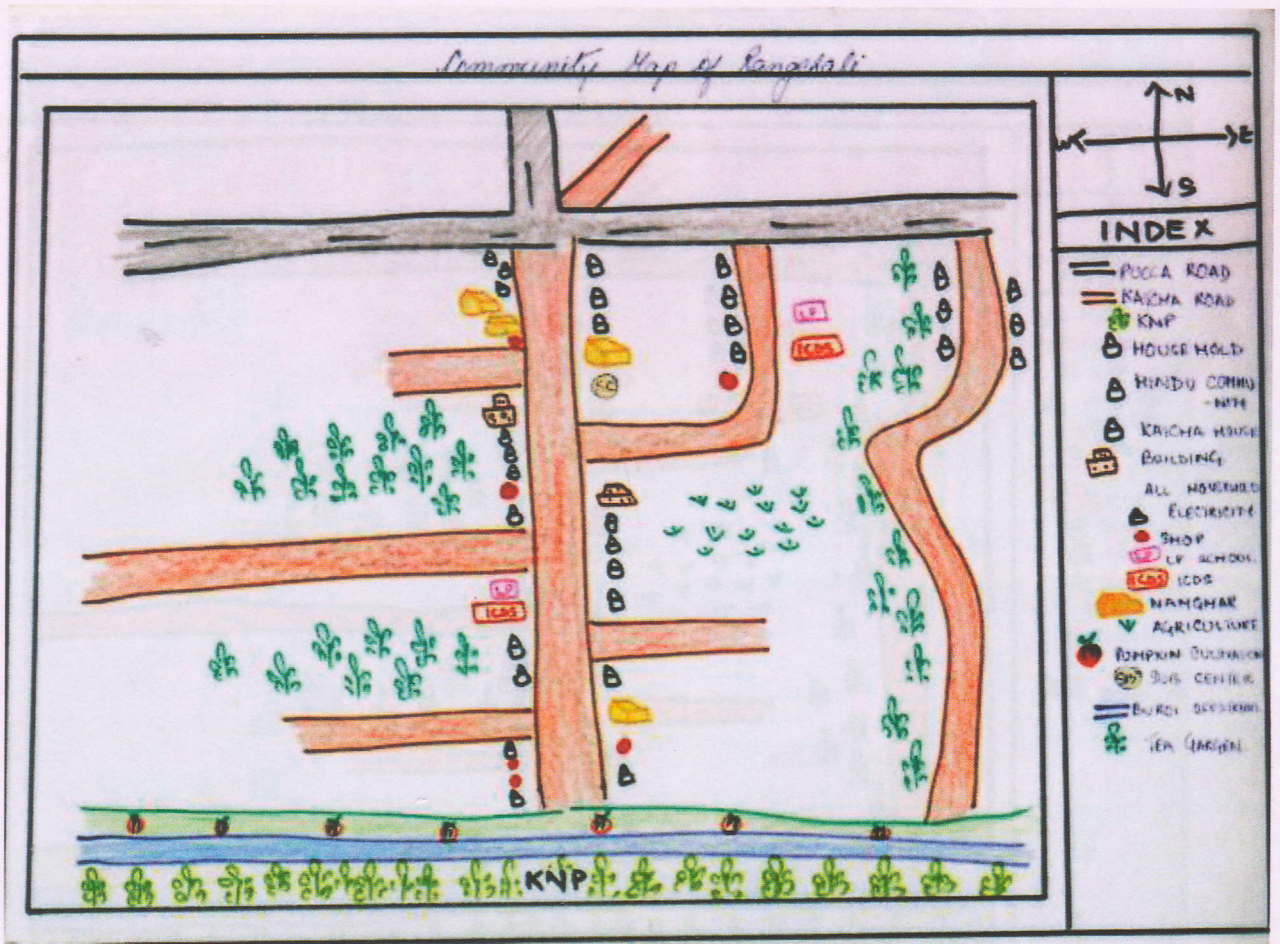
Rangchali EDC PRA

10/04/17

Sl No	Name	Village	Contact No	Signature
72	Manmath Das			
73	Mloet Das			
74	শ্রীকান্ত দাস			
75	শ্রীকান্ত দাস			
7				
76	শ্রীকান্ত দাস			
7				
77	শ্রীকান্ত দাস			
78	শ্রীকান্ত দাস			
79	শ্রীকান্ত দাস			
80	শ্রীকান্ত দাস			

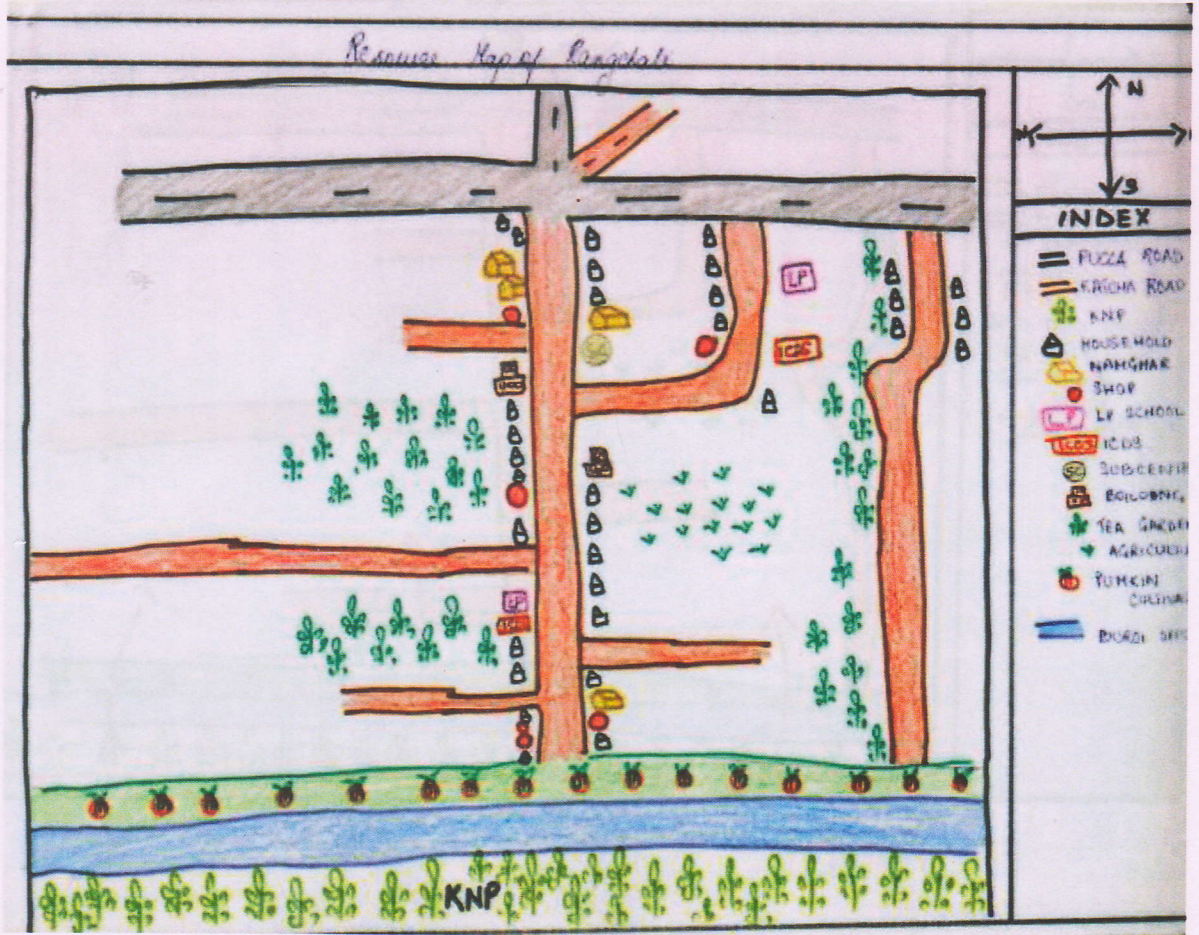
# Appendix VII (A)

## Community map of Rangchali EDC



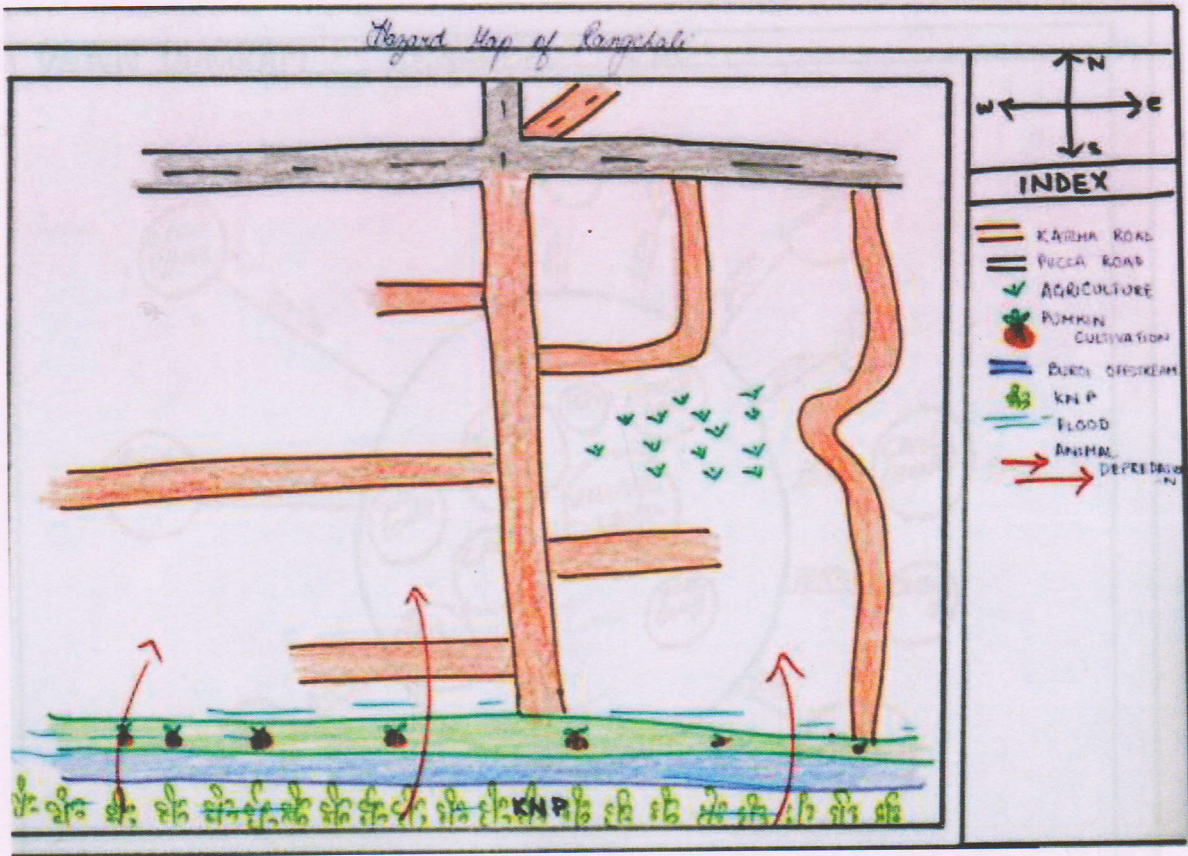
# Appendix VII (B)

## Resource map of Rangchali EDC



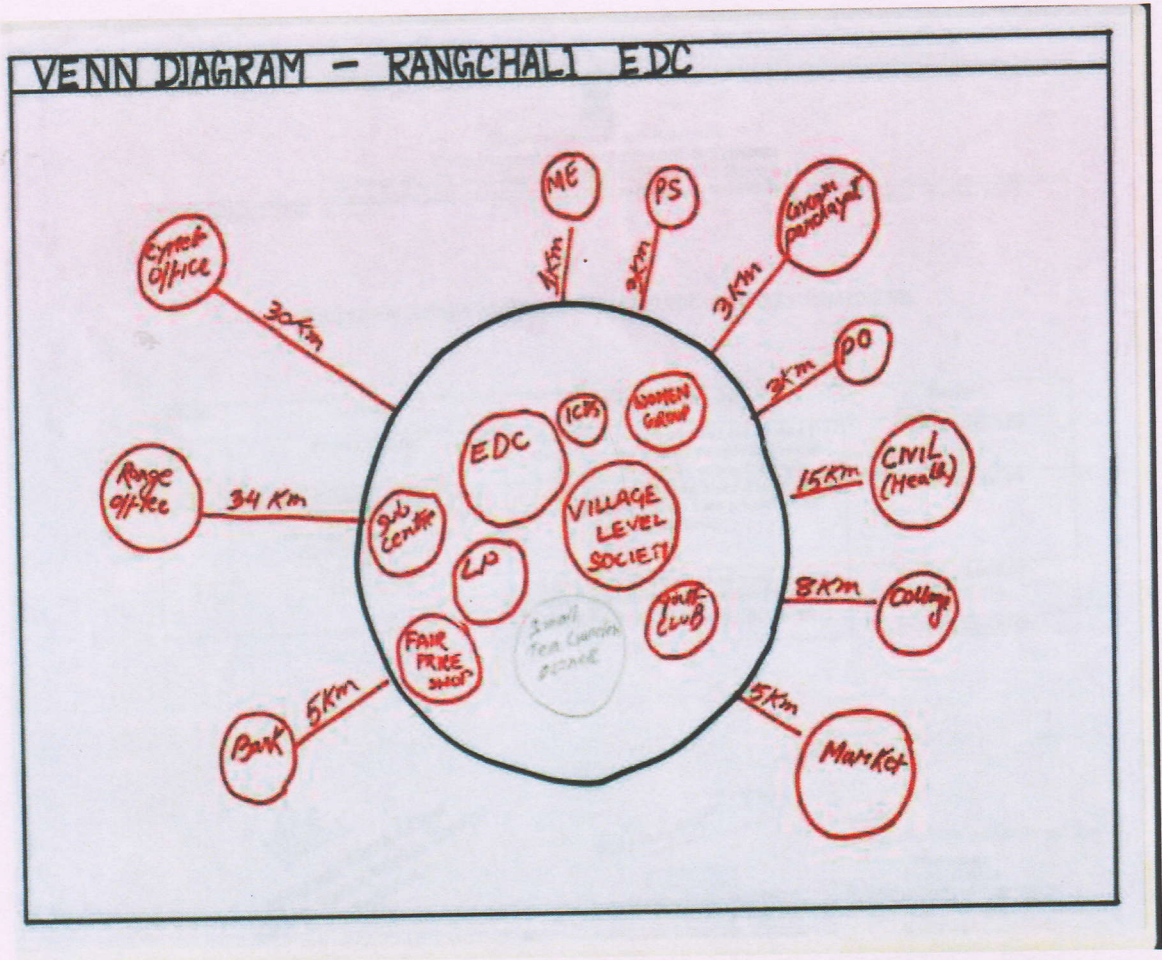
# Appendix VII (C)

## Hazard map of Rangchali EDC



# Appendix VII (D)

## Venn Diagram





# Appendix VIII

## Entry point Activities

Training list of Rangchali EDC (Proposed)



Government of Assam  
Department of Environment & Forests  
Office of the Forest Range Officer, Northern Range, Panibharel

Memo No.: NR/ 50 /2017/

787

Dated: 28-04-2017

### Entry Point Activity for Rangchali ECO DEVELOPMENT COMMITTEE

SL.No	Activity	Details of the site	Budget
1	Fishery Project	Community land allotted for 4 nos of fishery, as the village people is having experience in fishery related activity.	INR 18,00,000.00
2	Training Center cum EDC office & community hall with toilet & drinking water facility GPS- N-26.78674° E-091.35792°	Land donated 2 katha Near Rangchali Jaria Namghar by the vice president Mr. Jiban Das.	INR 8,00,000.00
3	Tent House	A part of EDC office to be used as tent house for economic generation by giving rent includes all utensils & genset	INR 2,50,000.00
Total			INR 28,50,000.00

*B. Barua*  
Divisional Forest Officer  
Eastern Assam Wildlife Division  
Dibrugarh

*Rajulogoi-101*  
AS Secretary  
RANGCHALI  
ECO-Development Committee

*Rekha Das*  
President  
RANGCHALI  
ECO-Development Committee

Contd....

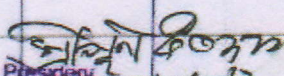
# Appendix IX (A)

## Training list of Rangchali EDC (Proposed)

classmate  
Date \_\_\_\_\_  
Page \_\_\_\_\_ 9

বাংলাদেশ EDC ও  
কম্পিউটার প্রকল্পের মাধ্যমে - নির্বাচিত মুখ্য মুহুরীসহকারী

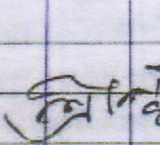
ক্রমিক সংখ্যা	নাম -	বিত্ত শ্রেণী	বয়স	শিক্ষা স্তর	পাস
১	শ্রী অরুণ দাস	দারিদ্র		HS	
২	" বিদ্যুৎ - "	দিনকর		HS	
৩	" সুপ্রসন্ন বসু	স্বল্প		HSLC	
৪	" মোহাম্মদ দাস	দারিদ্র		HSLC	
৫	" সিরাজুল "	সাধন		HSLC	
৬	" মাদুয় "	সাধারণ		HSLC	
৭	" (আইন) কামাল	মুখ্য		HS	
৮	" (সীতা) কামাল "	"		HS	
৯	" অরুণ - "	দিনকর		HS	
১০	" লক্ষ্মণ - "	স্বল্প		HSLC	
১১	" (সিদ্দিক) কামাল	স্বল্প		HSLC	
১২	" প্রমথ দাস -	স্বল্প		HS	
১৩	" দুর্গেশ্বর শাহজাদা, কলকাতা			HSLC	
১৪	" সিরাজুল দাস, দেয়			HSLC	
১৫	" সুপ্রসন্ন বসু -	স্বল্প		HSLC	
১৬	" সিরাজুল শাহজাদা, কলকাতা			দুঃসমস্যা	
১৭	" নিলিমা দাস	দারিদ্র		দুঃসমস্যা	
১৮	" পদ্মা - দাস		অরুণ	BA	

  
 President  
 RANGCHALI  
 Eco-Development Committee

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ଭାଗ୍ୟବାନୀ - ଡି. ଡି. ଡି.  
 ବିନାୟକ - (କାହିଁକି, କାହିଁକି, କାହିଁକି, କାହିଁକି, କାହିଁକି, କାହିଁକି, କାହିଁକି, କାହିଁକି, କାହିଁକି, କାହିଁକି)

କ୍ର. ସଂଖ୍ୟା	ନାମ	ପିତାଙ୍କ ନାମ	ପଠନ ସମୟ	ପଠନ ସମୟ	କାର୍ଯ୍ୟ	(କାର୍ଯ୍ୟ)
28	ଶ୍ରୀ (କାହିଁକି) କୁମାର	ଶ୍ରୀ (କାହିଁକି)	28	28	କାହିଁକି	-
28	" କୁମାର (କାହିଁକି) କୁମାର	ଶ୍ରୀ (କାହିଁକି)	29	29	କାହିଁକି	-
29	" (କାହିଁକି) କୁମାର	ଶ୍ରୀ (କାହିଁକି)	28	28	କାହିଁକି	-
28	" (କାହିଁକି) କୁମାର	ଶ୍ରୀ (କାହିଁକି)	29	29	କାହିଁକି	-
28	" (କାହିଁକି) କୁମାର	ଶ୍ରୀ (କାହିଁକି)	28	28	କାହିଁକି	-
00	" (କାହିଁକି) କୁମାର	ଶ୍ରୀ (କାହିଁକି)	00	00	କାହିଁକି	-

  
 20/8/2019  
 President  
 RANGCHALI  
 Eco-Development Committee

ଶାସ୍ତ୍ରୀ ଶ.ପି.ସି. ସି  
 ୨୫ ୦୦୪ ବାବୁ ମିଶନାରୀ-ପଞ୍ଚିନା ନାମ

କ୍ର.ସଂ.	ନାମ	ପିତା	ଧର୍ମ	ପଠ୍ୟ	ମାତ୍ରା (ନାମ ମଧ୍ୟ)
୧	ଶ୍ରୀକୃଷ୍ଣ ମାନି ଦାମ	ଶ୍ରୀକୃଷ୍ଣ	୨୮	ମହତ୍ତମ ମାନ	
୨	" ଚନ୍ଦ୍ରମା - ଦାମ	ସିଦ୍ଧାନ୍ତ	୬୦	ମହତ୍ତମ ମାନ	
୩	" ଶ୍ରୀକୃଷ୍ଣ - ଦାମ	ସଂପ୍ରକାଶ	୬୨	ମାଟି	
୪	" ଚନ୍ଦ୍ରମା - ଦାମ	ଶ୍ରୀକୃଷ୍ଣ	୨୯	ମହତ୍ତମ ମାନ	
୫	" ଭଗିନୀ "	ଶ୍ରୀକୃଷ୍ଣ	୬୦	ମହତ୍ତମ ମାନ	
୬	" ଶ୍ରୀକୃଷ୍ଣ "	ଶ୍ରୀକୃଷ୍ଣ	୫୦	ମାଟି	
୭	" ଭଗିନୀ "	ଶ୍ରୀକୃଷ୍ଣ	୨୯	ମାଟି	
୮	" ମିଶନାରୀ ବାମ	ଶ୍ରୀକୃଷ୍ଣ	୬୦	ମାଟି	
୯	" ଭଗିନୀ - ଦାମ	ଶ୍ରୀକୃଷ୍ଣ	୨୮	ମାଟି	
୧୦	" ଶ୍ରୀକୃଷ୍ଣ ମାନି ଶ୍ରୀକୃଷ୍ଣା	ଶ୍ରୀକୃଷ୍ଣ	୨୮	H.S	
୧୧	" ଦାମା - ଦାମ	ଶ୍ରୀକୃଷ୍ଣ	୨୯	ମାଟି	
୧୨	" ଶ୍ରୀକୃଷ୍ଣା "	ଶ୍ରୀକୃଷ୍ଣ	୨୨	ମହତ୍ତମ ମାନ	
୧୩	" ମିଶନାରୀ "	ଶ୍ରୀକୃଷ୍ଣ	୨୯	ମାଟି	
୧୪	" ଶ୍ରୀକୃଷ୍ଣା - ଦାମ	ଶ୍ରୀକୃଷ୍ଣ	୨୮	ମହତ୍ତମ ମାନ	
୧୫	" ଭଗିନୀ "	ଶ୍ରୀକୃଷ୍ଣ	୨୯	ଦାମା ମାନ	
୧୬	" ଶ୍ରୀକୃଷ୍ଣା "	ଶ୍ରୀକୃଷ୍ଣ	୬୦	ମହତ୍ତମ ମାନ	
୧୭	" ଶ୍ରୀକୃଷ୍ଣା - ଦାମ	ଶ୍ରୀକୃଷ୍ଣ	୬୦	ଦାମା ମାନ	
୧୮	" ଶ୍ରୀକୃଷ୍ଣା - ଦାମ	ଶ୍ରୀକୃଷ୍ଣ	୫୦	ମାଟି	
୧୯	" ଶ୍ରୀକୃଷ୍ଣା - ଦାମ	ଶ୍ରୀକୃଷ୍ଣ	୫୦	ମାଟି	
୨୦	" ଶ୍ରୀକୃଷ୍ଣା - ଦାମ	ଶ୍ରୀକୃଷ୍ଣ		ମାଟି	
୨୧	" ଦାମା "	ଶ୍ରୀକୃଷ୍ଣ	୬୦	ମାଟି	
୨୨	" ଶ୍ରୀକୃଷ୍ଣା "	ଶ୍ରୀକୃଷ୍ଣ	୬୦	H.S.C	
୨୩	" ମିଶନାରୀ - ଦାମ	ଶ୍ରୀକୃଷ୍ଣ	୨୯	ମହତ୍ତମ ମାନ	

ସାହସକୀ - F.P.E. ଧ -  
 ୧୫ ଡିସେମ୍ବର - ନିର୍ବାଚିତ କାର୍ଯ୍ୟକାରୀ ମଣ୍ଡଳ

classmate

Date \_\_\_\_\_  
 Page \_\_\_\_\_

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କ୍ର.ସଂଖ୍ୟା	ନାମ -	ବିଷୟ	ପ୍ରାପ୍ତି	ଅଙ୍କ	ନିର୍ବାଚନ ସମୟ	ମୋଟ ଅଙ୍କ
୨୦	ଶ୍ରୀମତୀ ମନି ଦାସ		ସିପୁ	୬୦	ନିର୍ବାଚନ	
୨୧	" ଅକାଶିନି " "		ପାଠ୍ୟ	୬୦	ନିର୍ବାଚନ	
୨୨	" ଭୋଗ୍ୟା " "		ସିପୁ	୬୦	ନିର୍ବାଚନ	
୨୩	" ସିନିକି " "		ସାଧୁ	୬୦	ନିର୍ବାଚନ	
୨୪	" ଚନ୍ଦ୍ରା " "		ପ୍ରକାଶ	୫୦	ନିର୍ବାଚନ	
୨୫	" ସିନିକି " "		ସୁଧା	୬୦	ନିର୍ବାଚନ	
୨୬	" ପୁଷ୍ପାଳୟା " "		ସୁଧା	୬୦	ନିର୍ବାଚନ	
୨୭	" ଅପ୍ସରା " "		ସିନିକି	୫୦	ନିର୍ବାଚନ	
୨୮	" ଅକାଶି ବନିୟା " "		ପାଠ୍ୟ	୫୦	ନିର୍ବାଚନ	
୨୯	" ସୁଧା " "		"	୬୦	ନିର୍ବାଚନ	
୩୦	" ପୁନିତ୍ୟା - ସାମ " "		ସିନିକି	୨୨	ନିର୍ବାଚନ	
୩୧	" ସାନିକା " "		ସୁଧା	୨୦	ନିର୍ବାଚନ	
୩୨	" ସାନିକା " "		ପାଠ୍ୟ	୨୦	ନିର୍ବାଚନ	
୩୩	" ସିନିକି " "		ସାଧୁ	୨୦	ନିର୍ବାଚନ	
୩୪	" ସିନିକି " "		ପାଠ୍ୟ	୬୦	H.S.L.E	
୩୫	" ସାନିକା " "		ପାଠ୍ୟ	୬୦	ନିର୍ବାଚନ	
୩୬	" ସାଧୁ " "		ସୁଧା	୬୦	ନିର୍ବାଚନ	
୩୭	" ସାଧୁ " "		ସୁଧା	୬୦	ନିର୍ବାଚନ	
୩୮	" ସାଧୁ " "		ସୁଧା	୬୦	ନିର୍ବାଚନ	
୩୯	" ସାଧୁ " "		ସୁଧା	୬୦	ନିର୍ବାଚନ	
୪୦	" ସାଧୁ " "		ସୁଧା	୨୦	ନିର୍ବାଚନ	
୪୧	" ସାଧୁ " "		ସିନିକି	୬୦	H.S.L.E	
୪୨	" ସାଧୁ " "		ସିନିକି	୬୦	ନିର୍ବାଚନ	
୪୩	" ସାଧୁ " "		ସୁଧା			

ଆବଦ୍ଧତା - E.D.C ଓ -  
 ଉତ୍ତରାଚାର ନିର୍ଦ୍ଦେଶାଳିକା ନିମିତ୍ତ ନାମ

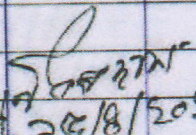
କ୍ରମିକ ନଂ	ନାମ -	ପିଠି	ପାଠ୍ୟ -	ପୃଷ୍ଠା	ବିଷୟବସ୍ତୁ, ମାର୍ଗ
୪୩	ଆଦିତ୍ୟା - ଚନ୍ଦ୍ରା		ଭୂମିବିଦ୍ୟ	୭୦	ନାହିଁ
୫୦	" ଶିଶୁ ଦାମ -		ଓଡ଼ିଆ	୨୮	ନାହିଁ
୫୧	" ସୁଧି - "		ସାହିତ୍ୟ	୪୦	ନାହିଁ
୫୨	" ଦିବ୍ୟା - "		ଓଡ଼ିଆ	୪୦	ନିୟମାବଳୀ
୫୬	" ଭାନିକା - "		ଅଭିକାନ୍ତ	୭୦	ନିୟମାବଳୀ
୫୫	" (ନାମମାନି ହାତକୋଟା		କବିତା	୫୦	ନିୟମାବଳୀ
୫୬	" ଚିନ୍ତନେନା ଯତା		ବିଜ୍ଞାନ	୭୦	ନିୟମାବଳୀ
୫୭	" (ହାତକୋଟା) ନାମ -		ପାଠକାନ୍ତ	୭୦	ନାହିଁ
୫୯	" ଭାସ୍କରାଣି ଦାମ		ପିଠି	୭୦	ନିୟମାବଳୀ
୬୧	" ଭାସ୍କରାଣି ଦାମ		ନାହିଁ	୭୦	ନାହିଁ
୬୫	" କୁଞ୍ଜନାଥ - "		ହିତାଧିକାର	୪୦	ନାହିଁ
୬୬	" କବୀରାଣି - "		ଅଧ୍ୟାପକ	୭୦	ନାହିଁ
୬୭	" (ନାମମାନି) - "		ଓଡ଼ିଆ	୭୦	ନାହିଁ
୬୮	ପିଠି - "		ଅଭିକାନ୍ତ	୭୦	ନାହିଁ
୬୯	" କାନ୍ତକାନ୍ତା - "		ମୁକ୍ତି	୪୦	ନାହିଁ
୬୬	" ଗର୍ଭାଗାଧି ଶିଳା		ମୁକ୍ତି	୭୦	ନାହିଁ
୬୮	" ଚନ୍ଦ୍ର - ଦାମ -		ଭାବିତା	୭୦	ନାହିଁ
୬୯	" ନିନାଦି -		ବାସିନି	୪୦	ନାହିଁ
୬୬	" ବୁଦ୍ଧିଶାଳି ହାତକୋଟା		ନିୟମାବଳୀ	୪୦	ନାହିଁ
୬୭	" (ନାମମାନି) - ଦାମ		ନିନାଦି	୨୦	ନିୟମାବଳୀ
୬୮	" (ନାମମାନି) - "		ସମ୍ବନ୍ଧ	୭୦	ନାହିଁ
୬୯	" ଶିଳା - "		ଦିନକାନ୍ତ	୭୦	ନାହିଁ
୭୦	" (ନାମମାନି) - "		ମୁକ୍ତି	୫୦	ନାହିଁ
୭୧	" (ନାମମାନି) - "		ମୁକ୍ତି	୨୦	ନାହିଁ

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ଆବୃତ୍ତ) E.D.C ଓ  
 ଶ୍ରୀକୃଷ୍ଣ ଓ ମିତ୍ରମାଣିକ୍ୟ ଶାସିନୀୟ ନାମ

କ୍ରମିକ ସଂଖ୍ୟା	ନାମ	ବିଷୟ	ପଞ୍ଜୀ -	ଆମ	ପ୍ରାପ୍ତ ସଂଖ୍ୟା	ମାର୍ଗ
୧୨	ଆଦିତ୍ୟ (ନାମ) ଦାମ		ମାଲ୍ୟାଳ	୫୯	୩୫	
୧୬	" ଦିକ୍ଷି - "		"	୫୦	୩୫	
୧୫	" ଶାନ୍ତମାନି - ଦାମ		ପ୍ରାଦିପ -	୨୭	୩୫	
୧୯	" ନମୀ - "		କୃଷ୍ଣ -	୨୯	୫୦୦୦୦୦	
୧୬	" କୃଷ୍ଣ କାନ୍ତ - "		ନାଥନ	୬୦	୫୦୦୦୦୦	
୧୭	" ନିର୍ମାଣ (କୃଷ୍ଣ) "		କୃଷ୍ଣ -	୨୯	୫୦୦୦୦୦	
୧୮	" ସୁକୁମାର ଦାମ		ବିଦ୍ୟାଧର	୬୦	୫୦୦୦୦୦	
୧୯	" ସାଧୁନୀ - "		ବାହୁନ	୨୯	୫୦୦୦୦୦	
୨୦	" ବିନୁ - ଦାମ		ନାଥନୀ	୫୦	୫୦୦୦୦୦	
୮୧	" ସାନ୍ତମାନି ଦାମ		ପୁନିନ	୨୮	H.S.L.E	
୮୨	" ବିହ୍ନି - ଦାମ		ବିହ୍ନି	୫୦	୩୫	
୮୩	" କୃଷ୍ଣା ଦାମ		ନାଥନ	୨୮	୫୦୦୦୦୦	
୮୪	" ବିନୁ ଦାମ -		ମତ୍ସ୍ୟ	୬୯	୫୦୦୦୦୦	

  
 ୨୯/୮/୨୦୧୭  
 President  
 RANGCHALI  
 Eco-Development Committee





# Appendix X

## Photographs



Group Photo During PRA



PRA Mapping



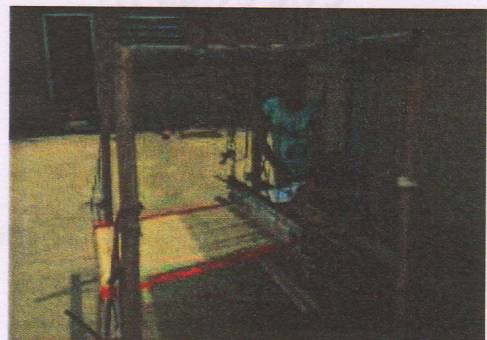
Cultivation of Pumpkin



FGD



Collection of firewood



Weaving

# Appendix XI

## GPS Coordinates

1. Chariali Point	N-26°79'59.1" E-93°38'76.0"
2. Tiniali Point	N-26°78'92.4" E-93°38'7.65"
3. First L. P School	N-26°78'79.3" E-93°38'75.4"
4. Sub Centre	N-26°79'3.75" E-93°38'75.7"
5. Second L. P. School	N-26°7'95.14" E-93°38'89.6"
6. Last Point	N-26°78'44.2" E-93°38'8.10"

