

Hatigarh ECO-Development Committee

Guwahati WL Division

Guwahati

MICRO-PLAN

(2016-17 to 2025-26)

Prepared by Hatigarh EDC

Assisted By

Assam Forest Department

&

COMPELO

(IIE, RGVN)



Approved -
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09.05.2017

Divisional Forest Officer
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Guwahati-8

List of Acronyms

Acronym	Full Form
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
PA	Protected Area
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

TREES

Sl. No.	Vernacular Name	Botanical Name
1.	Chama	<i>Artocarpuslakoocha.roxb.</i>
2.	Kothal	<i>Artocarpusintegrefolia.linn.</i>
3.	Bel	<i>Aeglemarmelos.carr</i>
4.	Satiana	<i>Alstoniascholaris.Brown</i>
5.	Helosh	<i>Antidesmaghesambilla.goertn</i>
6.	Pani-helosh	<i>Antidesmabunius.spreng</i>
7.	Ximalu	<i>Bombaxceiba.D.C.</i>
8.	Xanaru	<i>Cassia fistula.linn</i>
9.	Ow-tenga	<i>Dilleniaindica.linn</i>
10.	Amlokhi	<i>Emblicaofficinalis.gaertn</i>
11.	Bor-gosh	<i>Ficusbengalnsis.linn</i>
12.	Dimaru	<i>Ficushispida.linn</i>
13.	Kuji-thekera	<i>Garciniacowa.Roxb</i>
14.	Baghnola	<i>Litsaeasebifera.Pers</i>
15.	Azar	<i>Legerstromiaflosregance.Pers</i>
16.	Jia	<i>Lannaegrandis.A.Rich.</i>
17.	Euat, Muga	<i>Litsaeapolyantha.Juss</i>
18.	Aam	<i>Mangiferaindica.Linn.</i>
19.	Kolajamu	<i>Syzygiumcumini (L) Skeels.</i>
20.	Amera	<i>SpondiumpinnataL.f.Kurz.</i>
21.	Bhomora	<i>Terminaliabelirica.Roxb.</i>
22.	Xilikha	<i>Terminaliachebula.Retz</i>
23.	Telelit	<i>Tamarindusindica.Linn</i>
24.	Bhelkor	<i>Trewianudiflora.Linn.</i>

25.	Bogori	<i>Ziziphus mauritiana. Lamk</i>
26.	Kodom	<i>Anthocephalus cadamba. Miq.</i>
27.	Bor-thekera	<i>Garcinia pedunculata Roxb</i>
28.	Tita-sopa	<i>Michelia champaca. Linn</i>
29.	Teta	<i>Vitex canescens. Kurz</i>
30.	Moder	<i>Erythrina stricta Roxb.</i>
31.	Tenga-bor	<i>Ficus geniculata. Kurz</i>

Shrubs

Sl. No.	Vernacular Name	Botanical Name
1.	Hat-thenga	<i>Cassia occidentalis. Linn.</i>
2.	Era gosh	<i>Ricinus communis. Linn.</i>
3.	Pani-bhotora	<i>Ipomoea cornea. Jack</i>
4.	Xon-borolua or sokamara	<i>Urena lobata. Linn.</i>
5.	Dighalati	<i>Litsea salicifolia. Roxb.</i>
6.	Makhiloti	<i>Flemingia strobilifera. R.Br.</i>
7.	Harumoin	<i>Fagerlindia fasciculata Tiruv</i>
8.	Abu-tenga	<i>Antidesma acidum. Retz.</i>
9.	Bhet-tita	<i>Solanum torvum. Swartz.</i>
10.	Agaru	<i>Xanthium strumarium. Linn</i>

Herbs

Sl. No.	Vernacular Name	Botanical Name
1.	Mati-kaduri	<i>Altermanthera sessilis. (L). Br.</i>
2.	Khutura	<i>Amaranthus viridis. Linn.</i>
3.	Jom-lakhuti	<i>Costus speciosus. Sm.</i>
4.	Kona-Ximalu	<i>Commelinadiffusa. Barun. F.</i>
5.	Helochi	<i>Enhydra fluctuans. Lour</i>

6.	Bor-manimuni	<i>Hydrocotyleasiatica Linn.</i>
7.	Xaru-manimuni	<i>Hydrocotylesibthorpioides.Limk</i>
8.	DurunXak	<i>Leacusanata</i>
9.	Tengesi	<i>Marsileaqudrifolia</i>
10.	Lajukilota	<i>Mimosa pudina.Linn</i>
11.	Bon-dhonia	<i>Ranunculussceleratus.Linn.</i>

Canes and Bamboo

Sl. No.	Vernacular Name	Botanical Name
1.	Bhaluka-bah	<i>Bambusabalcooa.Roxl</i>
2.	Bijuli-bah	<i>Bambusatulda.Roxb</i>
3.	Koto-bah	<i>Bombusaarundinacea.wild</i>
4.	Jati-bah	<i>Bambusanutans. Willich</i>
5.	Kako-bah	<i>Dendrocalamushamiltonii</i>
6.	Jati Bet	<i>Calamustenuin</i>

Climbers

Sl. No.	Vernacular Name	Botanical Name
1.	ChagalSingalota	<i>Myriopteropaniculata, Griff.</i>
2.	Kukuhailota	<i>Thunbergiagrandiflora.Roxb.</i>
3.	Nagarberalota	<i>Mikaniamicrantha, H.B.K.</i>
4.	Tapurilota	<i>Cissampelospariera. Linn</i>
5.	Vedeilota	<i>PoederiaScandern.Linn</i>
6.	Medmedialota	<i>Cissusrepanda. Vahl</i>
7.	Naharlota	<i>Combretumacuminatum. Roxb</i>
8.	Kwa-bhaturi	<i>Gymnopetalumcochinchinense. Kurz.</i>
9.	Bag-achora	<i>Smilax ovalifolia. Roxb</i>

10.	Xatu-mul	<i>Asperagasracemosus wild</i>
11.	Hatibandha-lota	<i>Spathololasroxburghii. Benth</i>

Grass

Sl. No.	Vernacular Name	Botanical Name
1.	Birina	<i>Vetiveriazizanioides.(Linn).Nash</i>
2.	Kauri-moni	<i>Coixlacryma.Linn</i>
3.	Keya bon	<i>Koeleriabrevifolia(Wild)Spreng.</i>
4.	Lokocha Bon	<i>Hemarthiacompressa.(Linn.F)R.Br.</i>
5.	Erali Bon	<i>Leersiahexandra Swartz</i>
6.	Khagori	<i>Phragmiteskakra.(Retz). Trin.</i>
7.	Ulukher	<i>Imperetacylindrica.(Linn)P.Beauv</i>
8.	Sonkher	<i>Polliniacilata.Trin.</i>
9.	Dol.	<i>Arundodonax.Linn</i>
10.	Ikora	<i>Erianthusravannae (Linn)P.Beauv</i>
11.	Duboribon	<i>Cynodondoctylon Pers.</i>
12.	Floating grass	<i>Hygrarphillaaristata.Nees</i>
13.	Murphula bon	<i>Cyperusiria.Linn.</i>
14.	Bonguti	<i>Chrysopogonacciculatus.Trin</i>
15.	Balocha bon	<i>Eleusineindica.Gaertn</i>

**HATIGARH ECO DEVELOPMENT COMMITTEE
POBITORA WILDLIFE SANCTUARY, GUWAHATI WILDLIFE DIVISION**

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

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HATIGARH ECO DEVELOPMENT COMMITTEE
POBITORA WILDLIFE SANCTUARY, GUWAHATI WILDLIFE DIVISION

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

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 Hatigarh EDC

This document gives the Micro-Plan for the **Hatigarh EDC**, which is located in the Morigaon district of Assam. The EDC falls under the jurisdiction of the Pobitora Wildlife Sanctuary of the Guwahati Wildlife Division. The profile of the community is given in the next section.

2. General Description of the Area

2.1 General Description:

Pobitora originally was a grazing reserve of erstwhile Nagaon district, came into limelight during the year 1961-62 for sighting of One Horned Rhino (*Rhinoceros unicornis*). The area of 1584.76 ha was declared as Reserved Forests (RF) in 1971 vide Govt. notification no. 4/Settlement/542/65/54 dt 18th November 1971. The adjacent Rajamayong Hill with an area of 1191.86 ha was also a RF declared during 1957 vide Govt. Notification no. AFS 427/54/11 dt 20th September 1957.

Keeping in view the importance of Rhino in the area Preliminary notification was issued declaring a total area of 3880.62 ha of land as **Pobitora Wildlife Sanctuary** comprising both the RF (2776.62 ha) and Govt. Khas land (1104 ha) between the RF vide Govt. notification FWR/19/87/39 dt 16th July 1987. Subsequently, final notification of the sanctuary was published vide Govt. notification no. FRS/19/87/152 dt 17th March 1998 and published in Assam Gazette on 13th May 1998.

The Govt. Khas land that brought within the periphery of Sanctuary are Murkata I & II with 336.00 ha, Dipranga with 40.00 ha. Thengbhanga with 176 ha and Kamarpur/Rajamayong Koritor Khas land with an area of 552 ha.

The natural boundary of the Pobitora Wildlife Sanctuary is the Garanga Beel on the south and the river Brahmaputra on the north, rest of the boundaries are artificial and surrounded by 27 villages. Significantly, the protected area is free from human habitation.

The Sanctuary could be accessed from Guwahati, the capital city of the state of Assam, the district head quarter Marigaon and the industrial town Jagoraod through National Highway 37 and State Highway 3. It is situated about 35 Km. from Guwahati via Chandrapur. The other approach road from this city is 53 Km., of which 32 Km. is along the National Highway No-37 and 18 Km. along the state road.

2.2 Location

Pobitora Wildlife Sanctuary, situated in the flood plains of River Brahmaputra in the district of Morigaon. The extent of the Protected Area is 38.81 sq. Km. lays between latitude 26°12' N to 26°15' N and longitude 91°59' E to 92°05' E.

The Appendix I gives the location map and Appendix II gives the Approach Map of the EDC.

2.3 Soil:

Soil of the area is mostly alluvial deposits of the rivers. In some places alluvial with higher percentage of clay is noticed. Hence it can be termed as fertile clayey loam with silt. In Rajamayong hill, on the higher side the soil is sandy loam and suitable for tree growth. The soil is derived by decomposition and weathering of most gneiss and sandstone. On exposure the soil loses its fertility in the hilly area.

2.4 Water:

The entire Sanctuary except the Rajamayong hill is subjected to annual flood due to it being a low lying area. Water remains round the year, with Garanga and HadukBeel being perennial sources of water in the sanctuary. Most of the water bodies are ox-bow lakes and sizes are rather big. A few shallow water bodies are also uniformly scattered all around the sanctuary. While in Rajamayong hill, there are small water bodies in the form of springs and small wetlands. The mighty river Brahmaputra flows on the northern boundary of the Protected Area and Kopili flows 2km away on the south-western side and joins the Brahmaputra in Kajolimukh, while the Pokoriabeel is situated just on the eastern boundary of the Protected Area. Some of the seasonal water bodies in the area are JugdolBeel and LambaDova.

2.5 Climate: Temperature & Rainfall

The climate of Pobitora Wildlife Sanctuary can be treated as sub-tropical monsoon. The maximum temperature during the summer is 31° C. The minimum temperature during the winter is 11° C. The rainy season begins from May to September with an average rainfall of 251mm. The humidity level during winter is around 78% while in the monsoon it raises up to 82%.

2.6 Ecosystem & Bio-Diversity

The Pobitora Wildlife Sanctuary is rich in natural capital with a wide range of flora and fauna.

The area of the sanctuary can be divided into three categories:

1. The grass lands
2. The tree forests
3. Wetlands

The grassland areas consist of both tall and short type of grass with some main species like *Phragmiteskakra*, *Imperatecylindrica*, *Saccarumspontaneum* etc.

Approximately 6.61% of the total area of the sanctuary is covered by wetlands and has a vast variety of migratory and resident birds, mammals, fishes, amphibians and reptiles. The water bodies are associated with the grasslands and some of the beels such as Haduk, Solmari and Garanga remain under water throughout the year. Some species of grasses and aquatic plants grow in the water bodies such as *Pani-meteka* (*Metekawichhoria*), *Padum* (*Nelumbo*), *Khaleka* etc.

The forest cover in the area consists of tree species like *Syziumcumini*, *Ficusglomerata* and floristic composition of consist of *Alstoniascolaris*, *Terminaliatomentosa* and others.

In terms of the animals and birds in the area, there is a wide mix of species, with a recorded twenty-two mammals- rhinoceros, barking deer, wild pig, and buffalo. As per birds, there are 375 species of 46 families (both migratory and resident) recorded. There are 27 species of reptiles and 9 species of amphibians. Some of the important types of fishes in the area are Rohu, Kandhuli, Bato, Ari, Xol etc. Other

than the above mentioned animals, there are also Jungle cats, leopard cats and some smaller animals are also there such as Civet Cat, Mongoose, Otter etc.

2.7 Concern for Biodiversity Conservation in the Pobitora Wildlife Sanctuary

Some of the major concerns in the Sanctuary can be listed as below

- **Floods**
Annual flood which is in fact a regular phenomenon, cause severe damage to the sanctuary in terms of death of wild animal, damage of infrastructure and communication network. The flood of 1998, 2002 and 2004 submerged the entire PA except the forest rest house.
- **Poaching of rhinos**
Poaching of Rhino is a major threat to the Sanctuary, 49 rhinos being killed by poachers in the last 25 years. The poachers normally come from the outside and with the assistance of local villagers commit the offence.
- **Siltation of wetlands**
Siltation of all the major wetlands is a serious matter for the protected area. Every year after flood, water bodies of the sanctuary are silted up with heavy silt deposition. This causes shrinking of size and depth of the wetlands resulting in decrease of water retaining capacity.
- **Human habitation and mobility**
The surrounding human habitation and the various activities related to them is a concern for the biodiversity of the Pobitora Wildlife Sanctuary. With increase of human population, construction activities also increase for roads, housing, market area etc., which leads to sound and air pollution. These kind of activities also tend to restrict the mobility of wild animals in and around the PA. Moreover the main road that passes through the sanctuary increases the risk of accidents as well as poaching of animals.
- **High pressure of cattle grazing**
The fringe villages release their livestock inside the sanctuary for grazing, though it is prohibited in the sanctuary. Recent record shows more than 3000 cattle grazing inside the PA every day. As the livestock follows the pattern of concentrated grazing, significant degradation of grassland is visible. The grazing pressure comes from all the sides of the PA, and the Rhino has to compete with the cattle for fodder.

3. Village Socio-Economic Profile and EDC Profile

3.1 Key Information

Hatigarh is a revenue village and is located in Morigaon District. The EDC was registered on October 2016 (Appendix III as per the registration certificate) under the provisions of rule 7 (vii) of Assam Joint (People's Participation) Forestry Management Rules,1998

Table-A: Key Information of the EDC

Name of the EDC	Hatigarh
Name of the Gram Panchayat	Pachim Mayong
Revenue Circle	Mayong
District	Morigaon
Division	Guwahati Wildlife Division
Forest Range	Pobitora
Forest Beat	Pobitora
Year Formed	2016
Registration no.	KNP/FG.761/EDC/RC/GWL/2016-17/03
Description of Boundary of EDC	As below North: Mayong/Pobitaora South: Thengbhonga Village West: Buraburi Village East: Kolongpar Village

Source: EDC Records & Discussions during PRA Exercise in March 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

Name	Age	Guardian Name/ Address	Educational qualification	Phone No	Designation
Raju Puri	40	C/O Monmohan Puri, Hatigarh, P.O. Kamarpur	H.S.L.C.	8471870012	President
Ashok Kumar Das	50	C/o Lt. Harendra Das	B.A.	9435141158	Member Secretary

Jit Bahadur Bhujel	56	C/O Kripashig Bhujel, Hatigarh, P.O. Kamarpur	IX	9854744660	Member
Kumar Sharma	50	C/O Krishna Sharma, Hatigarh, P.O. Kamarpur	VIII	9859741576	Member
Man Prasad Sharma	50	C/O Setu Prasad Sharma, Hatigarh, P.O. Kamarpur			Member
Narayan Sharma	35	C/O Gobinda Sharma Hatigarh, P.O. Kamarpur	B.Sc.	8812950778	Member
Ganesh Chetri	28	C/O Narbahadur Chetri, Hatigarh, P.O. Kamarpur	H.S.L.C.	9854050360	Member
Gaj Bahadur Chetri	46	C/O Dal Bahadur Chetri, Hatigarh, P.O. Kamarpur	B.A.		Member
Krishna Chetri	30	C/O Manbahadur Chetri, Hatigarh, P.O. Kamarpur	H.S.L.C.	9854183926	Member
Ashok Sharma	24	C/O Dataram Sharma, Hatigarh, P.O. Kamarpur	IX	9854976566	Member
Balika Puri	40	C/O Chandra Puri, Hatigarh, P.O. Kamarpur	IX		Member
Rekha Sharma	35	C/O Resmo Sharma, Hatigarh, P.O. Kamarpur	IX	8723895074	Member
Sangita Puri Magar	37	C/O Karna Magar, Hatigarh, P.O. Kamarpur	H.S.L.C.		Member
Sita Sharma	38	C/O Ganesh Sharma, Hatigarh, P.O. Kamarpur	IX		Member
Kamala Sharma	33	C/O Sankar Sharma, Hatigarh, P.O. Kamarpur	IX		Member

Source: EDC Records

3.3 Households & Population Composition

The village has 72 households, of which 72 households are BPL (Below Poverty Line).

Table-C: Demographic Profile

Category	No of Households	Male	Female	Total
Gen	5	10	24	34
OBC	12	25	60	85

Other	55	117	235	352
Total	72	152	319	471

The total population is 471, of which 152 are male and the rest are female members. The population includes 85, 34, 353 people in the OBC, General and Other category respectively.

From this, it is inferred that:

- (1) The average number of persons in a household is 7.
- (2) The sex ratio is 48 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	45-60years	>60	Total
Male	8	28	78	25	13	152
Female	13	63	121	86	36	319
Total	21	91	199	111	49	471

3.4 Education & Skills Development

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

Table-E : Education Profile

Age Class :	Illiterate	Primary	Middle	High	H.S.	Graduate	P.G	Total
<25 years	19	55	26	10	10	20	5	145
>25 years	187	50	21	7	7	15	4	291
Total	206	105	47	17	17	35	9	436

Over 52.7% 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) Cattle rearing
- (b) Agriculture
- (c) Weaving

(d) Handicrafts

3.5 Land Use Pattern

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

Total area under EDC: 43 Ha

Crop Land: 33 Ha

Habitation: 9 Ha

Barren Land: 1 Ha

3.6 Land Holding Pattern

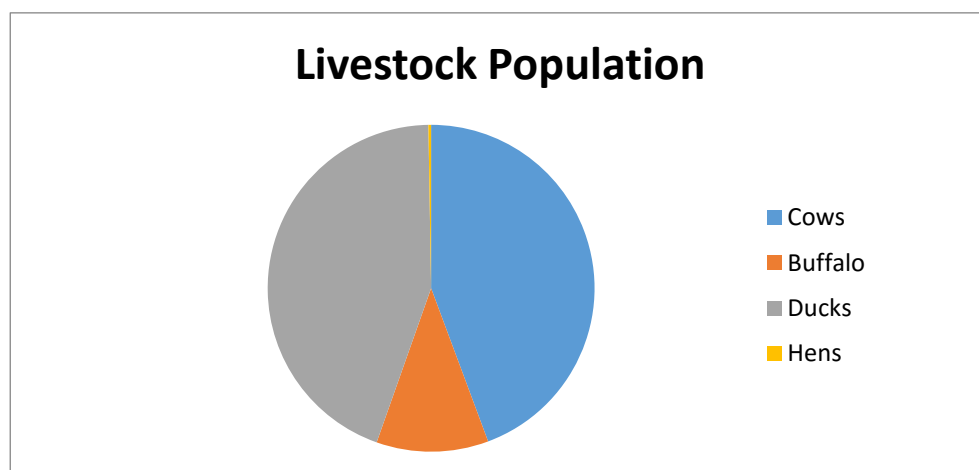
From the type of households as per land-holding, it is seen that:

- 7 % of the households are marginal farmers (less than 2 Ha); and
- 93 % of the households are small farmers (2-10 Ha).

3.7 Livestock

The main types of livestock possessed by the households include:

Sl.No	Livestock	Number
1.	Cows	200
2.	Buffalo	50
3.	Duck	200
4.	Hens	100



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	Out	---	3 KM	Good
2	Primary Health Center	Out	---	1.5 KM	Good
3	Primary School	Inside	2	---	Good
4	Middle School	Out	1	1.5 KM	Good
5	High School	Out	1	2 km	Good
6	HS School	Out	1	8km	Good
7	College	Out	1	8km	Good
8	Post Office	Out	1	1km	Good
9	Bank	Out	2	8km	Good
10	Telephone	---	---	---	---
11	Angawadi Centre	In	3	---	Good
12	Gram Panchayat Office	Out	1	22km	Good
13	Revenue Circle Office	Out	1	25km	Good
14	Police Outpost/Thana	Out	1	8km	Good
15	Forest Beat Office	Out	1	8km	Good
16	Forest Range Office	Out	1	8km	Good
17	Railway Station	Out	1	35km	Good
18	Drinking Water Source	In	Tubewell: 40 Handpump: 20	---	Poor

			Ring well: 5		
19	Community Hall	Out	1	2km	Good
20	Houses with Electricity	-----	60	---	---
21	Street Lighting	In	2	---	---
22	No. of Tractors	---	---	--	---
23	No. of Power Tillers	----	----	----	---

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, water supply etc.

Education & Health Facilities: There are minimal educational and 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, Revenue office, Forest Beat office etc.) are located at a considerable distance.

Financial Inclusion: Facilities for financial inclusion like bank and post office are located outside the habitation. Hence, a very few community members have bank accounts or postal savings accounts.

3.9 Agriculture/Crops

The main crops grown in the area are Bodo Paddy and Rabi crops like vegetables (cabbages, pumpkin etc) Maximum numbers of households are involved in growing bodo paddy.

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

(a) Bodo Paddy: **Production**-3200 Quintal; **Yield**-6000 kg/ha

(b) Vegetables: **Production**-80 Quintal; **Yield**-6000 kg/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) Pobitora Wildlife sanctuary
- b) Homestead area
- c) Local areas

3.11 Markets

The main markets used by the community are as follows:

- (a) Grocery / PDS: Tinialiati 100m away.
- (b) Weekly / Bi-weekly Market: : Kolongat 3 km away
- (c) Major Market: Guwahati at 40 km away

3.12 Water Resources

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

- (a) Tubewell : 40 (Water Availability: Poor)
- (b) Hand Pump: 20 (Water Availability: Poor)
- (c) Ring well: 5 (Water Availability: Adequate)
- (d) River/Stream : 2 (Water Availability: Adequate)

3.14 Socio-economic status

Social set-up: The village is inhabited by Nepali community. They have no caste system. The society is not marked by social divisions. The observed position of women is satisfactory.

Economic Condition: The economic position is not satisfactory. The main sources of livelihood are Agriculture and Dairy farming. Most households earn Rs. 40,000 to Rs. 50,000 per annum

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

The human capital focuses on certain crucial elements of the villagers such as the kind of skills they possess, their education profile and their professional profile. In terms of their literacy rate, around 52.7 % of the population in Hatigarh are literate.

The skill profile in the area is dominated by cultivation and cattle rearing, along with 5 people involved in weaving and 2 in cane & bamboo craft. Maximum number of people earn their livelihood through dairy production and farming, along with a few working as shopkeepers, factory workers, teachers, daily wage earners and private company workers. In order to have a strong workforce in the village, a high percentage of working age group is necessary, which in the case of Hatigarh is 65.81%

Human capital also engulfs the varying gender roles that exists in an area, in Hatigarh, the men are more involved in farm activities like ploughing and harvesting; while women are focused on cooking and child care.

Physical Capital

The infrastructural growth of a village denotes the physical capital of that area. In Hatigarh, the main roads are at a distance and this leads to a number of issues in transportation and daily communication for the villagers. The village roads are unpaved and the condition isn't good.

As per educational facilities, the primary school is located inside the village, whereas the middle school, high school and college are all situated at a distance. This creates problems for the continuation of higher studies for the students. As per electricity connection in the village, around 83% of the total households are connected. The administrative institutions such as the post office are in good condition at a distance of 1km, whereas the police outpost is 8km away from the village. In terms of the accessibility to markets, the nearest is 3km away from the village which is an advantage for the villagers.

Social Capital

Religious, social and cultural institutions are crucial elements of the social capital of a village. These institutions often inculcate harmony and a sense of unity among the people. There are 3 temples and 1 *namghar* in Hatigarh along with 3 Anganwadi centres which look after pre natal care for women, child care and basic health care. *Pobitora Dugdha Utpadak Samabai Samiti* is a cooperative society in Hatigarh which collects milk from the households and sells it to Purobi Dairy.

The panchayat of the village focuses on the fulfilment of the administrative duties while the Village Headman (*GaonBurah*) is a representative for the village. In Hatigarh, the presence of Mahila Samitis, Youth/Sport Clubs and SHGs (Self Help Group) act as social agents.

Financial Capital

The financial capital of a village depends on the presence of institutions such as banks or post offices. Both these services help the villagers fulfil their financial needs. In Hatigarh, the post office is located 1km away from the village making it easier for the people to avail its services. While the banks in the area are at a considerable distance, this creates a number of issues for the 150 account holders in the village and hampers the overall efficiency of the institution.

Natural Capital

The natural resources in the village are crucial elements in the natural capital. Hatigarh being located in the fringes of Pobitora Wildlife Sanctuary is well endowed with a wide range of birds and animals. Some of the common birds found in the area are stocks, cuckoo, sparrows and animals such as wild boar, buffalo and rhinoceros.

The fertile land in Hatigarh leads to higher productivity especially for boro paddy and vegetables like cabbages, brinjal, pumpkin etc. There are also waterbodies such as Garanga and streams such as Kapili Kolong.

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:

Various research studies have shown that even if the village is rich in the five livelihood capitals, livelihood enhancement targets are not achieved due to the existing vulnerabilities in

the village. In many cases it has been found that even if there is a rich natural capital like forests and bamboo plantations, or fertile agricultural land the vulnerability and sudden shocks due to pest attacks and flooding or spread of epidemics retard the growth in the region and has a direct negative impact on livelihoods and livelihood assets.

Malaria is common in the months of August and September, while floods are common during the months of May to August. Around 72 families have been affected by floods. The village is also prone to crop damage due to the depredation of animals like rhinos and wild boars.

4.4 Seasonality:

The seasonality calendar given below was prepared in consultation with the community. The different cropping seasons are reflected in the seasonal calendar. Crops such as Sali paddy is cultivated during the months of January to April, while mustard is cultivated from November to February.

The agricultural fields are prone to attack by wild animals that destroy the standing crop each year. Animals like Rhinos and wild boars depredate almost throughout the year. Floods cause spread of diseases like malaria. As no proper health care facilities are situated nearby, the people are prone to sickness for a long time during the monsoon season which impacts their livelihoods directly.

Seasonality Calendar of Hatigarh EDC

Particulars	Months											
	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec
Crops	Mustard										Mustard	
	Bodo Rice											
Hazards (Flood and Animal Depredation)						Flood						
	Wild Boar											
	Rhino											
Disease					Dysentery							
								Malaria				

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 chapter is based on Management Plan of Pobitora Wildlife Sanctuary written by S.K.Seal Sharma, DFO Guwahati Wildlife Division for the period 2011-2016.

5.1 The Location, extent, boundaries and natural attributes of the Zone of Influence:

The zone of influence is considered the locations around the sanctuary within a radius of 5 km from the boundary of the PA. In this sanctuary, altogether 27 nos. of villages are situated within a radius of one km from the boundary. These villages are very important in the matter of wildlife conversation but the other villages situated within 5 km. radius have minimum impact.

The villages on the north and west consists of Assamese Hindu community, whereas immigrant muslim dominates the eastern portion and Bengali Hindus and Nepali lives in the southern portion. The name of the villages are listed below. The grazing of the livestock, collection of firewood, illegal fishing are some of the dependency pattern of the villages. Majority of the villagers are cultivators. A few villages are situated in Kamrup district.

The natural attributes of the zone of influence is very positive of the survival of the wild life. The Kopili river flows 4km away from the PA boundary on the South. The Pokoria river flows just on the periphery of the PA in the East, the Borbilla & Kanduli Pathar on the Southern side are also important for the PA.

5.1.1 Villages inside and outside the PA, Ethnic identities, traditions, Customs, relationship between district groups of people, relationship with forests:

There are no villages inside the PA. But, the sanctuary is surrounded by Civil villages. The resent data of the villages could not be made available. Hence the data as published in the “The survey of the fringe villages & Pobitora wild life sanctuary and Eco development” (published in 1994) is quoted in the plan. With the publication and available of the data these could be modified.

The names of the village around the sanctuary are listed below.

Sl. No	Villages	Location with the PA	Ethnicity
1	Rajamayang	North	Assamese Hindus (konch,yugi.kalita etc.)
2	Buramayang	North-West	Do
3	Loonmati	North-West	Do
4	Owguri	North-West	Do
5	Satveti	North-West	Do
6	Sildubi	North-West	Do, Tribal
7	Hatipara	South	Nepali ,Assamese, Bengali
8	Hatimuriya	North	Assamese Hindu
9	Kamarpur	South-West	Do
10	Karanibori	East	Immigrant Muslim, Assamese Hindu
11	Buraburi	East	Do
12	Kukuari	East	Do
13	Nekerahabi	East	Do
14	Diprang	South	Bengali, Hindu, Assamese
15	Thengbhang	South	Nepali(GEN)
16	Gurubandha	South	Assamese Hindu
17	Keetasila	North	Do
18	Dhanukhunda I	West	Do
19	Gorati	North-West	Assamese, Garo, Bengali
20	Murkata I&II	North	Bengali(Gen/SC)
21	Dhanukhunda II	West	Assamese, Bengali(Gen/SC/O)

The Assamese Hindus are elite among the all villagers. Educationally & culturally they are advanced than other villagers. The immigrant muslim people originally belongs to the erstwhile East Pakistan and present Bangladesh. These people are now assimilating with the greater Assamese Society and taking part in tradition of local people. These villagers are illiterate, poor and some of them have past record of poaching activities. Their increase of population is too rapid as they hardly follow any family planning procedure. The Nepali people originally reared cattle for milk. But, now they cultivate and do business etc. Their activities so far not found detrimental for the conservation of the wild life. Their economic condition is also not very good and literacy percentage is comparatively less. The Bengali Hindus are cultivators and most of them are illiterate and poor. They also originally belong to the erstwhile East Pakistan or Bangladesh. They have their separate identity and assimilation with the Assamese Society is very slow. Their past record also found to be not detrimental for the conservation of the wildlife.

The relationship with the forests generally speaks of dependence & collection of firewood, fishing in the water bodies, grazing, collection of thatch, grass. The dependency pattern of the

villages in respect of grazing, firewood collection & dependency etc., are shown in the following table as per the report of the earlier mentioned survey and on the basis of census of 1991:

Villages	Total household		Sources		Cattle population		Grazing in PWLS
	1991	2009	PWLS	Own	1991	2009	
Kuranibori	600	-	450	150	140	-	-
Buraburi	582	-	390	192	339	-	32
Kukuani	167	261	167	-	251	641	71
Nekarabari	132	165	120	12	157	263	-
Diprang	116	139	110	6	328	556	-
Thangbhanga	406	500	380	26	110	2000	-
Gurubandha	101	70	60	41	271	210	1
Murkata I	90	208	50	40	181	832	1
Murkata II	52		50	2	104		10
Kachasila	41	-	36	5	-		
Dhanukunda I	41	-	Na	Na	-		
Dhanukunda II	144	-	Na	Na	-		
Gorati	95	-	88	7	-		
Loonmati	51	55	12	6	-	110	
Hatigarh k	37	48	-	23	-	240	
Owguri	67	110	-	66	-	550	
Sildubi	40	45	4	35	-	225	
Sativeti	72	110	71	1	-	550	
Buramayang	72	-	72	-	-		
Rajamayang	252	400	79	-	-	1075	
Hatimuria	95	361	90	39	-	1053	
Kunarpar	20	4	11				

5.1.3 The state of people's economy, vocations, land use, use of forests and non-forests based natural resources by people and seasonal patterns

The major crop is however Bodo paddy which is extensively cultivated in the villages. There is no irrigation facilities except minor irrigation. So, in the flood prone areas Bodo cultivation is normally done. The survey of the fringe villages reveals that the average yield per bigha under Bodo paddy cultivation in Mayang areas is 6-8 quintals. The power pump is extensively used and villages in our huge expenditure on power pump, fuel and fertilizers. Rajamayang, Loonmati and Hatimuria are deficit in Rice but a substantial production of Dal and Bettlenut offsets part of the deficit, but Ouguri village experience serious deficit.

The existing available land have already been taken over by the resident and immigrant people. Being flood prone the poor farmers are drawn into activities that affords them very few return during the non-cultivation season. No seasonal migration is noticed. But the adequate year round activities are contrived which include fishing and collection of thatch.

The land holding of the surrounding people are low. The landless comprises almost 22% of household population, 44.05% small and land holders and 33.5% of house lands population work in other lands. In some of the neighbouring villages, total number of persons involved in the agricultural pursuits being as high as 22% of the working population.

The population of the fringe villages also shows various trends of increase. Whereas the original inhabits of the fringe shown only 44% growth of population from 1941 to 1991 but the village consisting mostly of immigrant population record 101% growth of population during these period. The growth of population as shown by the earlier mentioned survey in the fringe villages are shown below:

Percentage decadal increase of population (1941-1991)

		1941-51	1951-61	1961-71	1971-91
Resident or original villages	34%	64%	29%	49%	
Immigrant Bengali Hindus	50%	50%	66%	100%	
Immigrant Muslims	226%	56%	156%	85%	

The general health and medical facilities are very poor in the fringe village. Diarrhoea & Malaria disease are very common. Malnutrition is high. Warm infection and water borne disease are common. The source of drinking water is mainly ring well and open kutchra well. There is no access to health education. The sanitary & hygiene of the village are also poor.

5.1.4 Implication of the land use and resource dependency for the conservation of PA

a. Live Stock Grazing: The livestock population of the surrounding 27 nos. of villages shall be more than 10000 which include Cow, Buffalo, Goat etc. As no grazing reserve are locate nearby, this sanctuary has to withstand such a huge population of the livestock. The pressure of the grazing ultimately degraded the habitat.

b. Agriculture: The land holding of the villagers are very small and a section of the people are landless. So, majority people earn their livelihood seasonally. Irrigation facilities are not there and except a few places, most people practice single cropping. In such a situation, poor people indulge firewood collection, felling of tree, grazing. These people also indulge in seasonal encroachment inside the PA.

c. Fishing: During lean Agricultural period, the land less people do illegal fishing inside the PA for their livelihood. Before declaration of the Wildlife Sanctuary, fish Mahals were leased but to the public. But now it is banned.

d. Collection of fuel wood, small timber: Majority of the people depend on the PA for fuel wood and small timber. They use to collect it for their domestic use. The result of the land use and resources dependency on the conservation of the PA has to be minimized by taking massive eco-development programme. So far, the activities undertaken under the Eco-development programme have helped the villagers to lessen the dependency on the PA. But, more site specific programme based on the micro-planning of the concerned village should be taken up in future.

5.1.5 PA management practice and their implications for people:

Before declaration of the PA, the local people used this areas as grazing ground and KHUTIS. They enjoyed the leases of fishery mahals and benefits. With the declaration, the restriction on free movement and facilities was imposed. The protected area also put some negative impact on the population in the zone of influence. However, the negative impact of the PA has not taken any serious turn on the relationship maintained with the surrounding population. The declaration of the sanctuary put some pressure on the surrounding villagers. The fishery and thatch mahal was stopped. Grazing, collection of firewood, NWFP, small timber etc. was restricted, though, they try to collect it illegally for their domestic use. Delayed and inadequate compensation for crop damage and human injuries by wild animals also have some impact

5.2 The development programmes and conservation issues:

5.2.1 An evaluation of government and non-government agency programme for development. Implication for the PA, people and the ZI:

Forest department normally undertake several developmental programmes in and around the sanctuary under the Eco-development scheme. Programme are taken up as confidence building measures among the villagers and also assisting the villagers in finding alternative source of income.

Some of the works already taken up under the various schemes for the last few years are as follows:

- 1) Installation of drinking water facilities at schools, college and important public places.
- 2) Human health check-up camp.
- 3) Vaccination/Veterinary camp
- 4) Distribution of smokeless chulla.
- 5) Distribution of sport goods to institutions.
- 6) Providing water lifting pump set for agriculture.

The agriculture department has encouraged the villagers for using fertilizer and pesticides in the agricultural field to earn better yield. But such application has put some negative effect on the water bodies and grasslands of the PA.

Different departmental activities were taken up by the DRDA and other development in the fringe villages of the PA.

Besides the organization like veterinary college, Khanapara and Early Bird (NGO) organize health check up camps in fringe villages. Another NGO Aaranyak provides financial assistance to local youth for helping the forest department in conservation works. The Wild Life Trust Of India (WTI) an NGO also distributed field kit and gears to staff. So far, the NGOs have donated the following material to the PA and its staff:

Date	NGO	Materials donated
18/01/1999	Rino foundation for N.E India	9 wireless set
14/01/2000	Do	Two nos. of motorcycle
07/01/2000	Do	Two wireless set
17/06/2001	W.T.I	Field kit to the staff consisting of Caps, shoe, Jacket, Rucksack, Khaki, cloth etc.

5.2.2 The interplay of market forces and their economy and their impact on the subsistence economy of the local people:

The economic condition of the villagers are poor and there is no interplay of the market forces. Bodo paddy is the only produce which people could sell. The paddy is sold to mainly Darrang district transporting by machine boat crossing the River Brahmaputra. Except paddy, no other major produce is sold in large quantity. The improvement of road condition will have positive impact on market linkage of the villagers.

5.2.3 A Summary of problems faced by people that affect the management of the PA and the ZI:

1. Annual flood is one of the main problems of the surrounding villagers. Due to annual/regular flood, the economy of the surrounding villagers gets affected.
2. Illiteracy and increase in the number of unemployment put indirect pressure on the PA.
3. The villagers depend on the PA for firewood, thatch and do illegal fishing.
4. The unproductive large cattle population put enormous pressure on the PA. The villagers do not keep stall feed high yielding cattle.
5. The communication facilities including road from the interior area in extremely poor. This is one of the major hurdles.
6. The basic amenities to all the villages are lacking.
7. Use of alternative source of energy or cooking materials is lacking. Instead they use firewood, part of which is being collected from the PA. Firewood is not abundantly available in the village.

5.3 Eco-Development

The sanctuary is surrounded by civil villages from all sides. There are at least 27 villages within the radius of 1 km from the PA. These areas are taken as buffer zone. Most of the villagers are very poor, illiterate and depends on the sanctuary for their daily household needs. Villages on the eastern and northern side of the Sanctuary are thickly populated.

The protection and conservation of this Sanctuary depends entirely on the successful implementation of the scheme and participation of the surrounding villagers. Hence, planning and implementation of the ECO development scheme should be carefully implemented.

To uplift the economic condition of the villagers and maintain good relationship, number of schemes has so far been undertaken with success. The Econ-development schemes should be based on the assessment of people requirement.

In this sanctuary one or two Non-Governmental Organization(NGO) have taken up programmes on Eco-development activities like vaccination of cattle and material assistance to the staff and other help from time to time.

5.3.1 Objective:

The major objective of the Eco-development programme shall be with the following objective:-

- 1) To reduce dependence and pressure on the sanctuary.
- 2) To reduce the man-animal conflict.
- 3) To generate alternative source of income for the local people.
- 4) To create awareness for sustainable use of local resources.
- 5) To ensure people's participation in bio-diversity conservation.

5.3.2 Specific Issues:

- i) Poor economic condition.
- ii) More landless people.
- iii) High flood zone.
- iv) Lack of alternative resources.
- v) Higher growth of population.
- vi) Higher illiteracy rate.
- vii) Easy availability of forest produces.
- viii) Lack of infrastructure of double cropping.
- ix) Poor road communication.
- x) Keeping high number of un-productive cattle.
- xi) Lack of grazing ground.

5.3.3 Broad Strategies:

The need based Eco-development programme on broad issues are proposed below-

- a) **Socio-Economic Survey:-** In 1994, a socio-economic survey was conducted by the forest department through Mr. A K Baruah in and around the fringe village and compiled a report. To take up the specific programme of the Eco-development, it is necessary to resurvey the socio-economic status of the surroundings village considering the subsequent change. It should be taken up in phased manner. In the first year the survey will be completed. The local committee formed shall be great help.
- b) **Cattle immunization:-**As per the provision of Wildlife protection Act. Immunization of the cattle within the radius of 5 km from the boundary is compulsory which shall be continued in the interest of both Wildlife and fringe villager. Vaccination will make an immune belt and protect the wildlife from contaminated disease by keeping good health of the cattle.
- c) **Formation of anti-depredation squad:-** As stray activities of Rhino at Pobitora is a major concern , so to protect the crop in adjacent areas anti depredation squad are to be formed consisting of local youth. They can jointly work with forest staff to protect their crop as well as restrict stray activity of Rhino. There shall be one such in each village.

The total such squad will be minimum of fifteen, which may be increased subsequently. The minimum requirement like torch, cell, kerosene, crackers and cost of construction of Tongi (shed) shall be borne by the department. The period shall be from Oct-March. The villages in first cases shall be khulabuyan, kachuoni, Berdia, Sildubi, Rajamayang, Thenbhanga, Nekerahabi, Kukari, Kuruan ibori, Burabori, Dibrang, Bordoloni, Kamarpur, Hatimuria etc.

- d) **Improvement of community facilities:** After preparation of the micro-planning and as per need of the local people various support programme are to be framed and implemented.

Such as-

- i) Construction of community hall, development of school building, providing sport facilities to institutions, development of the village roads etc.
- ii) To improve the stock of domestic cattle in fringe villages by providing high yielding cattle in exchange of unproductive cattle of the villagers. In first year, a survey will be conducted to assess the number of unproductive cattle available per house hold. The cattle owner shall be perused to accept one high yielding cattle in lieu of 5 unproductive local breed cattle. The one third cost of the high yield cattle shall be borne by the cattle owner after sale and proceed of the unproductive cattle. This will not minimize the unproductive cattle population in fringe areas but also help in reducing the pressure of cattle grazing inside the PA and improve the economic condition of the people. The actual implementation shall be done at the village level after micro-planning. The assistance in this regard from the line department like Veterinary, state Institute of Rural Development (SIRD) , District Administration shall be sought for.
- e) **Community welfare activities:** Such activities shall include providing drinking water facilities to institutions, scholarship to meritorious students from fringe villages, supply of

improved variety of seeds to agriculturist and horticulturist , supply of lift pump for irrigation, supply of Pam, power tiller etc.

- f) Installation of Gobar gas plant in order to meet the energy requirement of the fringe villagers and also to minimize dependency of the fuel wood from the PA.
- g) Shortage of bullock cart in the villages could be supplemented by the Forest Deptt. Under the Eco development programme. The need is felt much by the villagers during the selling of paddy.
- h) Awareness programme: To promote awareness among the surrounding villagers. It is necessary to create awareness for protection of habitat. So programme shall be organized accordingly to create awareness of the villagers. The programme includes film show among the school children, meeting, and distribution of poster, leaflet and other activities.
- i) Compensation scheme for crop damage by wildlife shall be adopted and due compensation be provided as early as possible to the victims after assessment.

5.3.4 Village Level Site Specific Strategies:

The village level site specific issues of each village shall be dealt after preparation of the micro plan of each village, which shall be done in the first year in completion of the socio-economic survey.

5.3.5 Monitoring and Evaluation

Monitoring and evaluation protocol for the entire range of eco development activities will be developed. This shall extend to all the eco-development activities. A committee comprising forest department personals and member of local panchayat will be constituted to monitor the implementation of eco development works.

The Non-Government Organisation or reputed Institution will be roped into to carry out the survey to assess the impact of eco development programme in transforming the economic status of the people. After evaluation requisite corrective measures will be made at the requisite points.

**HATIGARH ECO DEVELOPMENT COMMITTEE
POBITORA WILDLIFE SANCTUARY, GUWAHATI WILDLIFE DIVISION**

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

PART-II

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 Rashtriya Gramin Vikas Nidhi (RGVN) in March,2017. The various steps followed are enumerated briefly below:-

- a) Community meetings organized at the outset in March 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 April 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 equipment 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

- Economic conditions of households vary from one another, hence only a minor section of society can afford better equipment and cattle for dairy farming
- Unpaved roads in the village disrupts its day to day communication and transportation
- Illiteracy causes the community as well as the individual themselves to fall behind in terms of social, economic and other factors.
- Primary a community involved in dairy farming, the absence of veterinary services leads to a number of issues
- There is lack of employment generation in diverse skill stagnating the economic growth of the village
- Due to its location, animal depredation causes damage to crops and it is a concern for the community

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 Dairy Farming
- ii. Instances of social instability in these homogeneous communities is low
- iii. Enthusiastic and young members of the community focuses on the overall betterment of the village

Weaknesses

- i. Infrastructure is rather weak with basic amenities such as drinking water and sanitation lacking in the village
- ii. The skill potential of the people hasn't been utilised to the best due to lack of diverse skill training
- iii. Majority of the community lacks high yielding cattle and the economic stability for mass production of dairy products

Opportunities

- i. There is scope for growth of dairy farming in the area
- ii. Skill development regarding weaving can be encouraged as an alternate source of livelihood
- iii. Scope for cultivation of hybrid grass to be used as fodder to help increase productivity of cattle

Threats

- i. High rate of animal depredation causes damage to standing crops
- ii. Floods in the village makes day to day life come to a standstill
- iii. Due to floods and waterlogging, diseases such as malaria tend to spread

6.4 PRA Exercise

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

Date: 10th March 2017 **Location:** Hatigarh

Numbers Present: 33

In Presence of: Forest officials, EDC office bearers, Village Headman, Community Members

Appendix VI gives the list of members present during PRA and FGD. **Appendix VII A to VII C** gives the PRA maps.

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:

- Through the PRA activities, there was an exchange of ideas and thoughts between the community members and the RGVN team. This allowed a mutual understanding of the problems they face and the objectives of the project.
- Lack of proper economic support and project opportunities led to the EDC being inactive in the past according to the people.
- 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.
- There was a general misconception about the eco-sensitive zone which creates issues of trust in the initial stages of interaction with the community.
- The communities have good local wisdom and traditional knowledge regarding the environment, forestry and other livelihood issues like pest control, livestock management etc.
- 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.
- 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.
- The faith of the people on government organisation have reduced due to the lack of involvement in terms of overall development.
- The importance of micro planning was understood and were very supportive and cooperated during the micro planning process.

Community Need Assessment: Based on the PRA exercise, Focus group discussions, consultations with village community, EDC members, 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. With poor drinking water facilities, unhygienic sanitation, unpaved roads, the existing physical infrastructure of the area is lagging behind in Hatigarh.

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 sites, artisans villages and participation in melas, trade fairs etc.

In order to boast of an overall development of Hatigarh, it is important that the non-structural needs are also emphasised upon. To generate better employment opportunities, training should be provided to the people on traditional as well as new skills.

Dairy farming is the primary source of income for the people in Hatigarh, hence it is prerogative that veterinary services be provided. Also to turn the livelihood into a better profit making venture, it is important to enhance its production and marketability with provision of funds and technical know-how for the farmers.

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 present condition of roads in the village isn't satisfactory and hence proper road development is crucial to help improve the communication and transportation channels for the villagers.
- b) Floods are a major threat in the area and hence raised platforms are a necessity to help the people safeguard their property and other goods.
- c) Infrastructures such as community halls and cultural halls would act as centres for discussion, cultural programmes and training. Thus creating a sense of harmony and unity among the people.
- d) Most of the households depend on the Pobitora Wildlife sanctuary for their fodder. To help reduce the dependency, stall feeding should be encouraged.
- e) Awareness on High Yielding Variety cattle should be imparted to the villagers to help increase milk production.
- f) Dairy Farming being the major source of livelihood, the provision of veterinary services in the village is crucial to help treat diseased animals.

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 other.

Rank	Village EPA as ranked	GPS coordinates	Details	Budget
1	Community hall	N-26°13'00.1" E-92°03'00.9"	Total land: Community land 1bigha Location: Near Bhagabati Mandir) Proposed Activity: i. Conference hall ii. EDC office room iii. Training production centre iv. Toilet and bathroom with running water v. Local production showroom vi. Earth filling	19 lakhs
2	Boundary wall for Garanga LP School	N-26°12'58.7" E-92°02'53.7"	Total land: 1 bigha Location: Hatigarh Tiniali Proposed Activity: i. Bricks boundary wall of 16,000 sq. ft.	10 lakhs
3	Tent house with sound system	N-26°13'00.1" E-92°03'05.7"	Total land: 1 bigha Location: Near Hatigarh Youth Club	

			Proposed Activity: i. Generator – 1 nos. ii. Dining table- 10 nos. iii. Chair- 500 nos. iv. Utensils v. Sound box system vi. Tripal	8,30,000
4	Road development		Location: Bhagawati Mandir	50 lakhs
5	Dam development with switch gate		Location: Garanga Mandir	30 lakhs
6	Earth filling at Bhagawati Mandir	N-26°13'00.1" E-92°03'05.7"	Land: 3 bigha land Location: Neat Hatigarh Youth Club	20 lakhs
7	Bus stand and toilet at Hatigarh Tinali	N-26°12'58.4" E-92°02'52.4"	Land: ½ bigha Location: Near Garanga L.P.School	7 lakhs
8	Materials support for development of Hatigarh Youth Club	N-26°13'00.1" E-92°03'05.7"	Location: Hatigarh Youth Club Proposed Activity: i. Music system ii. Games instruments	3 lakhs
9	Public Fishery Development	N-26°13'00.1" E-92°03'05.7"	Land: 3 bigha Location: Near Bhagawati Mandir	10 lakhs
10	High Land at Hatigarh Youth club	N-26°13'00.1" E-92°03'05.9"	Land: ½ bigha Location: Hatigarh Youth Club	6 lakhs
11	Public cemetery		Land: ½ bigha Location: Garanga Beel	7 lakhs
12	Road development		Size: 20ft and 1.9 km Location: From Bhagawati Mandir to Jhangbhanga camp Proposed Activity: i. Road development ii. Street Light- 10 nos.	80 lakhs
13	Earth filling	N-26°12'58.7" E-92°02'53.7"	Land: ½ bigha Location: Garanga L.P. School	6 lakhs
14	Cultural Stage at Durga Mandir Land	N-26°12'58.7" E-92°02'53.7"	Land: ½ bigha Location: Near Hatigarh Tinali	7 lakhs
15	Agriculture development		Proposed Activity: i. Power tillers (tractors)- 2 nos. ii. Motor (water) – 5 nos. iii. Watch tower (<i>tang ghor</i>)- 10 nos. iv. Threshing set	21 lakhs

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 micro plan 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 Bazar, is proposed to be established to showcase and sell products from EDCs.

8.1 Ranking

Ranking of Livelihood and Skill Development

- Dairy Farming
- Agriculture
- Weaving
- Cane and bamboo craft

8.2 Livelihood Opportunities

Livelihood were identified as follows:

- Livestock
- Agriculture/Horticulture
- Processing of locally available herbs and fruits
- Skill Development
- Credit Facility

8.3 Agriculture & Horticulture

The main constraints are:

- (a) Lack of agricultural machinery such as tractors and power tillers
- (b) Destruction of agricultural fields due to depredation of animals
- (c) Unawareness regarding special provision of financial aid to farmers

The opportunities are:

- (a) Increasing mechanisation of farming techniques and patterns
- (b) Emphasis on organic farming to meet the demands of more conscious consumers

8.4 Livestock

The main constraints are:

- (a) Lack of proper veterinary services
- (b) Spread of diseases due to lack of proper care
- (c) No high yielding variety cattle to help emphasis production
- (d) Open grazing in the Pobitora Wildlife Sanctuary which harms the biodiversity

The opportunities are:

- (a) Traditional skill of dairy farming which can be specialised with better training
- (b) Scope for further development of dairy industry with the use of modern means and modes
- (c) Emphasis on Poultry farming

8.5 NTFP

The main constraints are:

- (a) Lack of knowledge by community about NTFP utility
- (b) Scarce availability of products
- (c) Lack of access to markets and linkages to help enhance its profits

The opportunities are:

- (a) Fruits can be used for commercial processing and value addition
- (b) Awareness about conservation and judicious usage of NTFP

8.6 Specialized Skills

The main constraints are:

- (a) No specialised training in traditional skills such as dairy farming
- (b) Lack of access to modern tools and equipment to help increase its production
- (c) Limited diverse skills in the area

The opportunities are:

- (a) Scope of weaving as an alternate source of livelihood for the people
- (b) Introducing skill development programmes in the area to help expand its range of skills
- (c) Develop existing traditional skills of dairy farming

8.7 Credit Facility

The main constraints with the reasons are:

- (a) Lack of awareness and knowledge about Micro finance institutions and government schemes
- (b) Lack of knowledge on crop and health insurances
- (c) Poor access to bank loans for the people in remote areas

The opportunities are:

- (a) Increase availability of government schemes for provision of financial aid
- (b) Create more awareness on micro finance institutions in the village

8.8 Strategic Interventions

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

1. Skill development training in specialised skills such as weaving
2. Improving conditions for dairy farming through generating awareness on technical knowledge to enhance production
3. Increase the production of agricultural crops with the help of better mechanisation processes

8.9 Income Generating Activities

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

1. Dairy Farming
2. Weaving
3. Poultry Farming
4. Crafting
5. NTFP value addition

8.10 SHG activities

SHGs of the village can plan the following activities:

1. Weaving
2. Handicraft
3. Dairy Farming

8.11 Exposure Trips

The following exposure trips are planned:

1. Good practices/project of EDC in North East and other states of India
2. Participation in fairs (melas) like Agri-Horti Expo, SARAS and other exhibitions organised by TRIFED

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 Ujjwala Yojana
- (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 Hatigarh 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 Hatigarh 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 Hatigarh EDC

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

i. Forest Village Management in the past.

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

ii. 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-1(A): Domestic Requirement of Forest Produce per Household of the Hatigarh EDC

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 & Forest	Homestead/Market & Forest
Pole / Bamboo	Homestead & Market	Homestead & Market
Fodder from Forest	Homestead/Market & Forest	Homestead/Market & Forest
NTFP	Homestead & Market	Homestead & Market
Other (Fish)	Homestead/Market & Forest	Homestead/Market & Forest

Source: Discussions with Forest Department personnel & Community members

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

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

9.2 Forest Protection Issues

9.2.1. Protection Problems

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

Table-2: Protection Problems of the Hatigarh EDC

Type of Problem	Relevant (Yes / No)	Significant (Yes / No)
Grazing - Local Animals	Yes	Yes
Grazing - Animals from Other Area	No	No
Illicit Felling of Timber	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 are:

- (a) Grazing - Local Animals

9.2.2 Reasons for Degradation of the Forest

Over grazing in the forest was observed in Pobitora Wildlife Sanctuary due to lack of community grazing ground at Hatigarh EDC.

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 Hatigarh EDC; viz. the plans for Anti Rhino Poaching, Nursery Development, Man -Animal Conflict Reduction, Grazing Plan for village and Eco-Tourism Plan.

9.3.2 Protection Plan/Anti Rhino Poaching Plan

The protection Plan is twofold, namely wildlife protection and secondly Forest protection in terms of control over grazing and poaching of Rhino. EDC members have well developed information network for Anti-poaching of Rhinos.

Wildlife Protection:

The Protection Plan given below discusses the measures for the protection of Pobitora Wildlife Sanctuary. 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. There should be enforcement of 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 park for their daily requirement of 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 gohar 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 Park area.
7. The EDC should ensure that timber felling inside the sanctuary should be stopped.
8. The EDC should take active part in the restocking of the community forest

Habitat Improvement Plan:

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

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

1. 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.
2. EDC members should be made aware to completely stop the grazing of animals inside the Wildlife Sanctuary.

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:

Pobitora Wildlife Sanctuary 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 Pobitora Wildlife Sanctuary:

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 wetlands within the village to be de-silted.
6. The EDC should not allow any fishing inside the Wildlife Sanctuary area.
7. Conducting extensive research on various aspects of wetland eco-system.

Man -Animal Conflict Reduction Plan:

Depredation from elephants, 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 dis-incentives on families having large number of cattle.
4. Stall feeding to be promoted by the Forest Department
5. Dairy 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:

Pobitora Wildlife Sanctuary 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 Pobitora Wildlife Sanctuary 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		✓	✓		✓	✓
Tent House and equipment		✓	✓			✓
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		
	TOTAL		

Livelihood Development Plan

Sl 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	-	
	TOTAL		

Annual Village Development Plan:

Sl. 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		
13.	Tent House and equipment		
	TOTAL		

Annual Forest Development Plan

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

10.3 Action Plans and Strategies

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

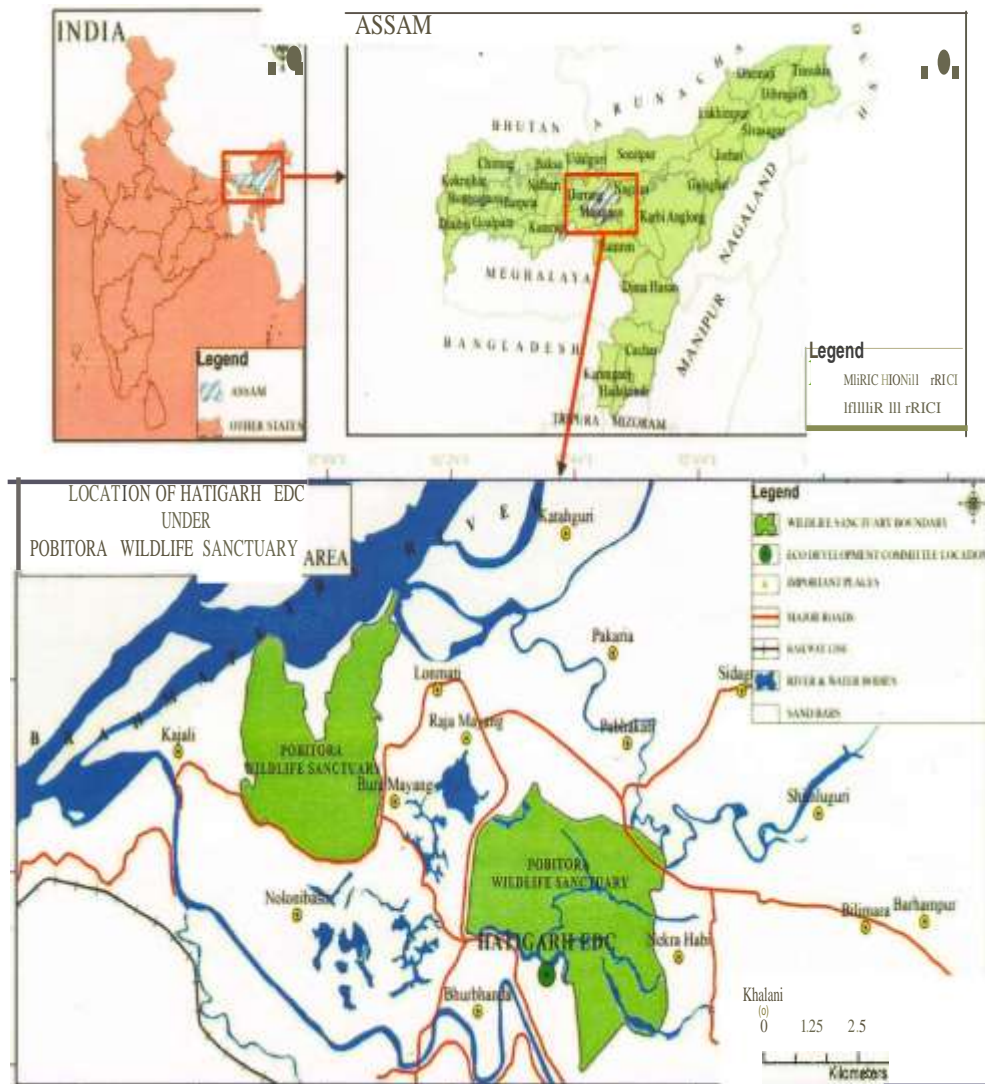
EDC: The EDC to be upgraded both in terms of its infrastructure assets and in terms of acting as a resource center for village and forestry development. The proposed EDC office along with the community hall in the entry point activity to be provided with modern equipment like computer/ TV and support 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

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

Appendix I(A)

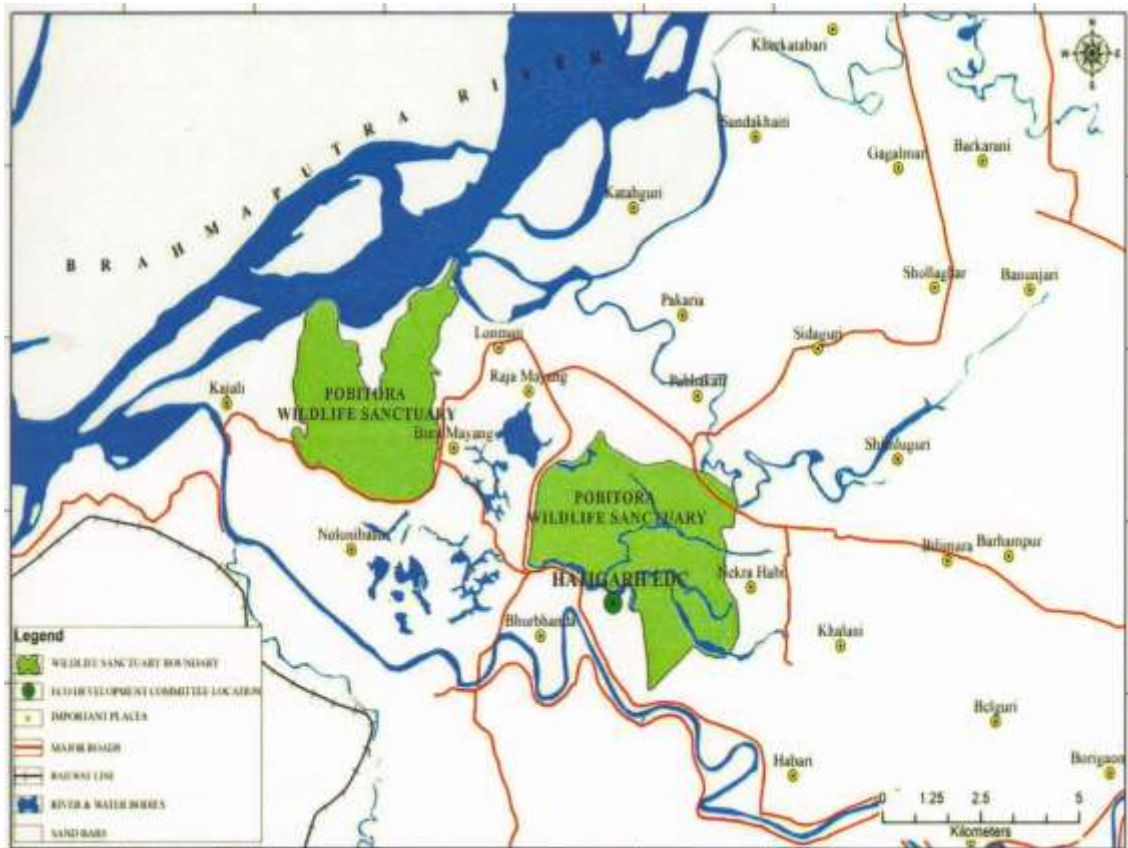
Location Map of E.D.C. in India



Approved
Predepta Banna
18.05.2012

Appendix I (B)

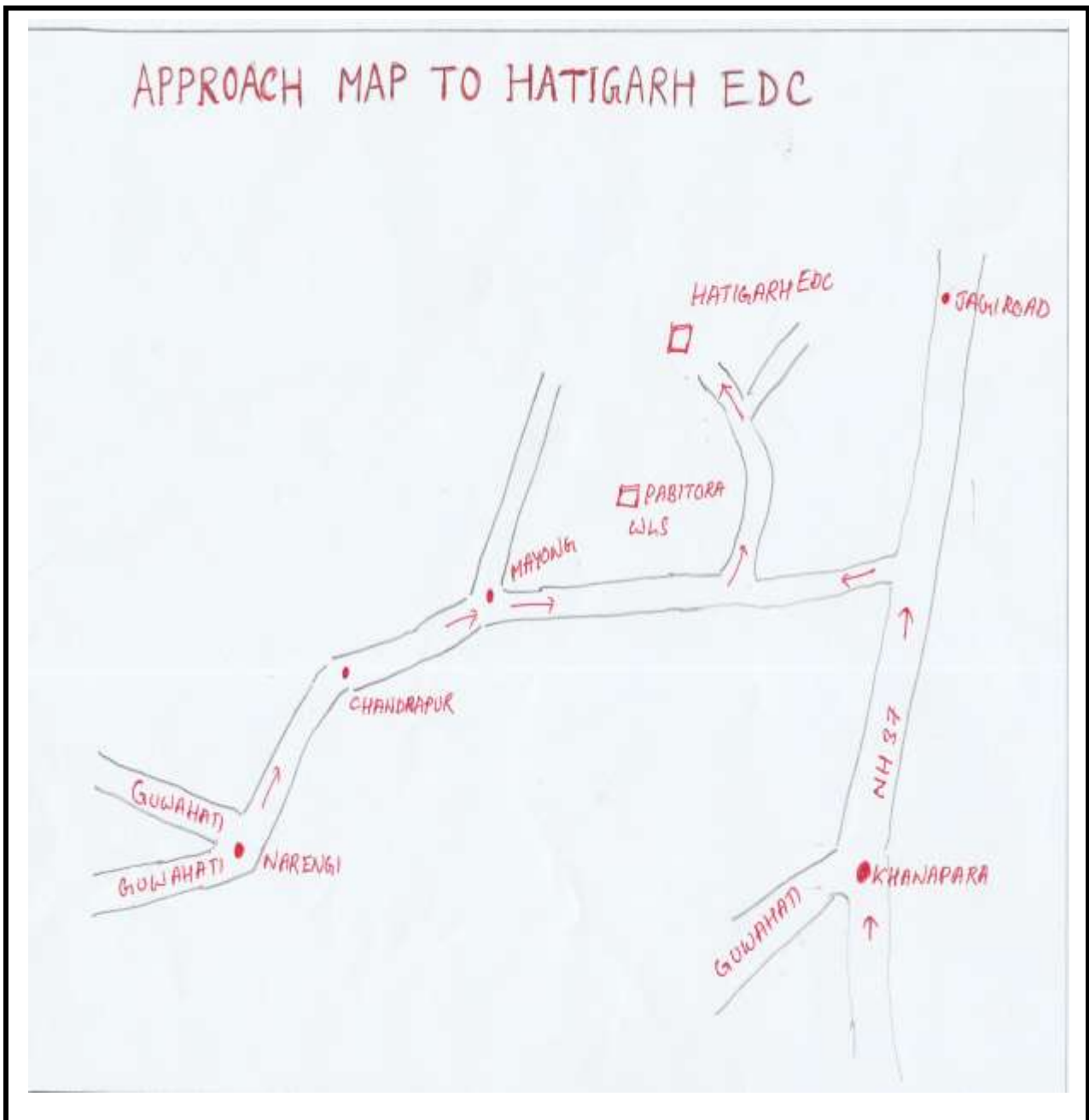
LOCATION Map OF HATIGARH EDC
UNDER POBITORA WILDLIFE SANCTUARY AREA



Approved
Pradipta Banish
18/5/17

Appendix II

Approach map to EDC



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/EG.761/EDC/RC/GWL/2016-17/03,

Date.03/10/2016

HATIGARH Eco-Development Committee of Guwahati Wildlife Division under **POBITORA WILDLIFE SANCTUARY** 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 villages situated around Pobitora Wildlife Sanctuary.


(Dr.Satyendra Singh,IFS)

Kaziranga National Park
Director,
Kaziranga National Park
Bokakhat:785612:Assam

Appendix III(B)

MoU/Resolution Certificate


GOVT. OF ASSAM
OFFICE OF THE RANGE OFFICER, POBITORA WILDLIFE RANGE,
MAYONG, MORGAON

Memo No.P/50/2017/145 Dated Mayong the 7th May/2017

From: Ashok Kr. Das, IFS
Range Officer
Pobitora Wildlife Range
Mayong, Morgaon


To: The Executive Director
Rashtriya Gramin Vikas Nidhi
Padma Lakhi Complex
2nd Floor, Opp. 8th Bye Lane
Rajgarh Road, Guwahati- 781003

Sub: Regarding MoU for The EDC under Pobitora Wildlife Sanctuary

Respected Sir/Madam,

With reference to the above it is to inform you that no MoU have been signed yet for the Kholaburya, Owguri and Hatigarh EDC.

This is for favour of your kind information and necessary action.

Yours faithfully,

(Ashok Kr. Das, IFS)
Range Officer
Pobitora Wildlife Range
Mayong, Morgaon

Appendix IV

Executive Members of Hatigarh EDC

HATIGARH EDC LIST					
Sl No	NAME	AGE SEX	ADDRES. C/O, Photo, P.O	EDUCATION	Designati
1.	RAJU PURI	40/M	VIII- HATIGARH S/O- MONMOHAN PURI P.O- KAMARPUR P.S- MAYONG DIST- MORIGAON Phone- 87718700 12	H.B.L C	President
2.	ASHOK KUMAR DAS				
3.	JIT BAHADUR BHUJEL	56/M	S/O- KRIPASHIG BHUJEL VIII- HATIGARH P.O- KAMARPUR P.S- MAYONG DIST- MORIGAON Phone- 9854744 660	IX	MEMBAR
4.	KUMAR SHARMA	50/M	S/O- KRISHNA SHARMA VIII- HATIGARH P.O- KAMARPUR P.S- MAYONG DIST- MORIGAON	VIII	MEMBAR

Continue.....

5. MAN PRASHAD SHARMA 50/M
 S/O - SETU
 PRASHAD SHARMA
 Vill - HATIGARH
 P.O - KAMARPUR
 P.S - MAYONG
 Dist - MORIGAON

HATIGARH EDC LIST

Sl No	NAME	AGE SEX	ADDRESS, C/O, P.O Phone, ect	EDUCATION	DESIGATION
6	NARAYAN SHARMA	35/M	S/O - GOBINDA SHARMA Vill - Hatigash P.O - KAMARPUR P.S - MAYONG Dist - MORIGAON Phone - 8812950 778	B.Sc	MAMBAR
7	GANESH CHETRI	28/M	S/O - NAR BAHADUR CHETRI Vill - HATIGARH P.O - KAMARPUR P.S - MAYONG Dist - MORIGAON Phone - 9854050 360	H.S.L.C	MAMBAR
8	GAJ BAHADUR CHETRI	46/M	S/O - DAL BAHADUR CHETRI Vill - HATIGARH P.O - KAMARPUR P.S - MAYONG Dist - MORIGAON Phone -	BA	MAMBAR
9	KRISHNA CHETRI	30/M	S/O - MAN BAHADUR CHETRI Vill - HATIGARH		

Continue.....

10	ASHOK SHARMA	24/M	S/O - DATARAM SHARMA Vill - HATIGARH P.O - KAMARPUR P.S - MAYONG Dist - MORIGAON Phone - 98549965-66	<u>IX</u>	MAMBAR
11	BALIKA PURI	40/F	W/O - CHANDRA LAL PURI Vill - HATIGARH P.O - KAMARPUR P.S - MAYONG Dist - MORIGAON	<u>IX</u>	MAMBAR

HATIGARH EDC LIST

Sl. No	NAME	AGE SEX	ADDRESS, C/O, P.O Phone - ckt -	EDUCATION	Reg
12	REKHA SHARMA	35/F	W/O - RESMO SHARMA Vill - HATIGARH P.O - KAMARPUR P.S - MAYONG Dist - MORIGAON Phone - 87238950-74	<u>IX</u>	MAMBAR
13	SANGITA PURI MAGAR	37/F	W/O - KARNA MAGAR Vill - HATIGARH P.O - KAMARPUR P.S - MAYONG Dist - MORIGAON Phone -	H.S.C.C	MAMBAR
14	SITA SHARMA	38/F	W/O - GANESH SHARMA Vill - HATIGARH P.O - KAMARPUR P.S - MAYONG Dist - MORIGAON Phone -	<u>IX</u>	MAMBAR

15	KAMALA SHARMA	33/F	Phone - W/O - SANKAR SHARMA Vill - HATIGARH P.O - KAMARPUR P.S - MAYONG Dist - MORIGAON Phone -	<u>IX</u>	MAMBAR
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Raja Pur

President
Rajya Pur Development
Committee

Signature

Secretary
Rajya Pur Development
Committee

Date

Appendix V

Executive Members group Photo of Hatigarh EDC



From left handside sitting :1.Ashok kr. Das 2. Sangita Puri Magar 3.Balika Puri 4. Raju Puri. 5.Jit Bahadur 6. Rekha Sharma 7. Sita Sharma **From left hand side Standing** 8. Kamala Sharma 9. Ganesh chetri 10.Krishna Chetri 11. Kumar Sharma 12. Gaj Bahadur Chetri 13.Narayan Sharma 14.Jit Bahadur Bhujal 15. Mon Prasad Sharma(absent)

Appendix VI

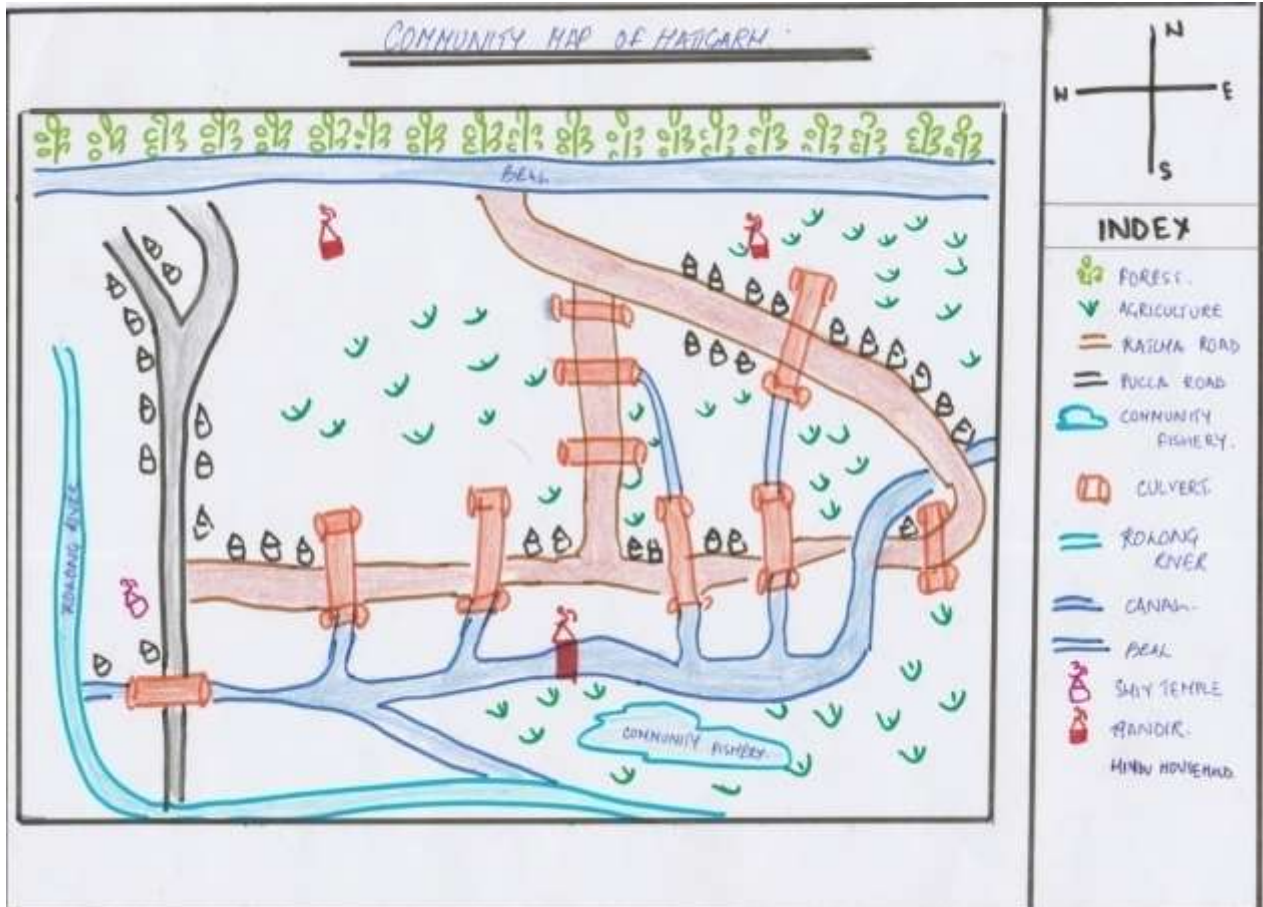
List of members present during PRA & FGD (Signed list)

10/3/17 FGD

Sl. no	Name	Address	Ph no	Signature
1	Gaj Bahadur Chetri	Hatigarh	9678892276	GC
2	10335421E132	0*		
3	Ramesh Kumar	Hatigarh	7857602155	Same.
4	10335421E132	99 Hatigarh	8486729418	RS
5	10335421E132	50	9954326844	
6	Rajiv Upadhyaya	50	7876717157	
7	Balaram	Hatigarh	8130410492	Same
8	Burja Thapa	"		Burja
9	Chandra Puri			
10	Soi Ashok Sharma	Hatigarh	9854796566	Ashok Sharma
11	10335421E132	Hatigarh		
12	Dipak Kumar	Hatigarh	7086610216	Dipak
13	Jyoti Sundhar	Hatigarh		J. Sundhar
14	Sangita Puri Math	Hatigarh		Sangita
15	Bishwanath Sharma	Hatigarh	8876158752	B. Sharma
16	Kiran Kumar	Hatigarh		Kiran Kumar
17	10335421E132	Hatigarh		
18	10335421E132	ETAT STG 1		
19	Sita Devi	Hatigarh		Sita Devi
20	Mina Choudhary	Hatigarh		Mina Choudhary
21	Arunjaly Devi	Hatigarh		Arunjaly Devi
22	Hari Naga Choudhary	Hatigarh		H. Naga Choudhary
23	10335421E132	Hatigarh		
24	Manamaya Choudhary	Hatigarh		
25	Ashok Kumar	R.O. Bahadur H.C.	9435141158	Ashok
26	Rajee Puri	President Hatiga	8471876002	Rajee
27	Anita Karan	RGN		AN
28	Hat Bahadur Datta	RGN	9878668769	H. Bahadur
29	Dipankar Kalita	RGN	9508844746	Dipankar
30	Jitendra Biswal	Hatigarh	9854744660	Jitendra
31	Lok Bahadur Chetri	do	7035663298	Lok
32	Susmi Bordala	do		
33	Robiul Islam	RGN	9857112744	Robiul

Appendix VII(A)

Community map of Hatigarh EDC



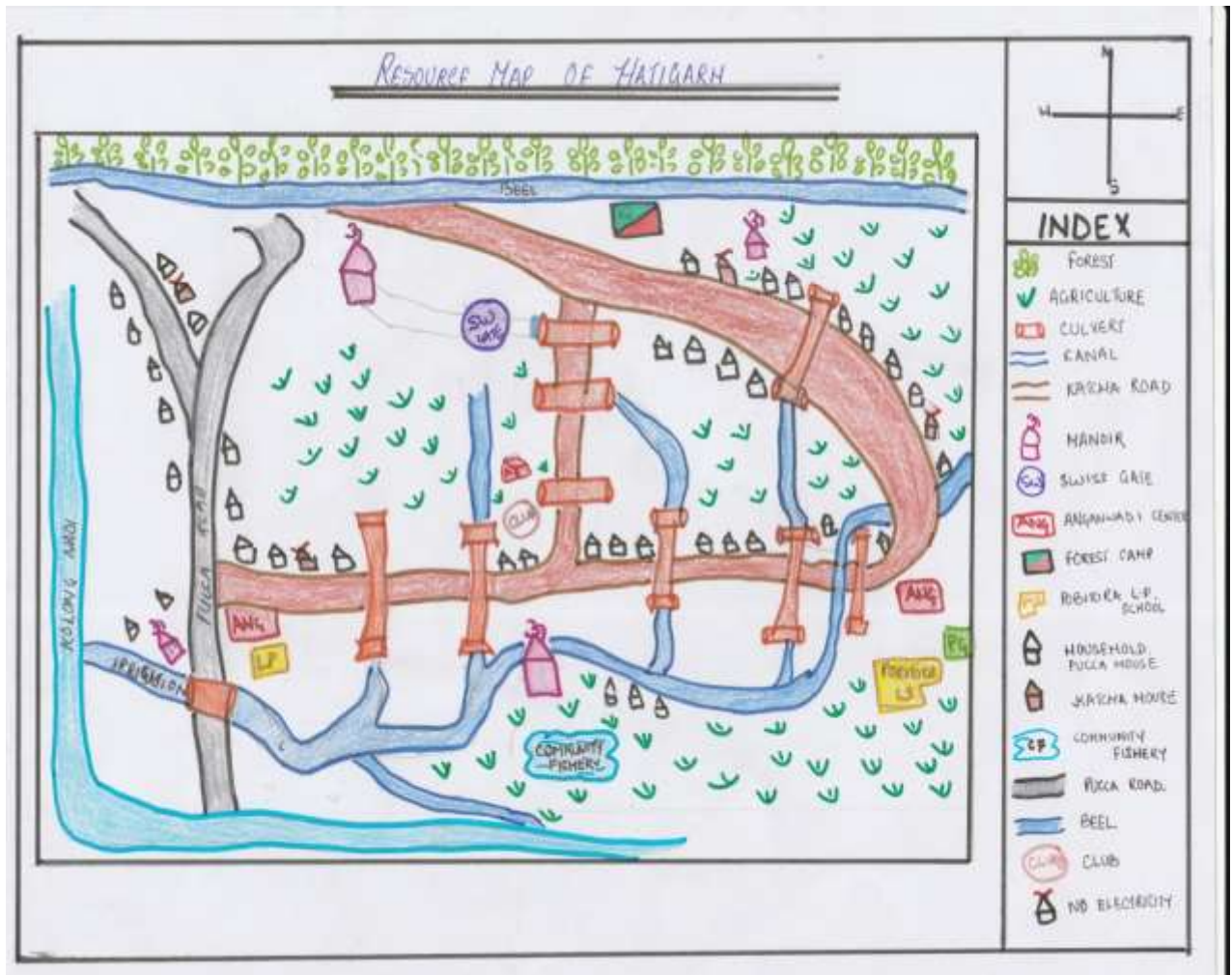
Sl. No	Name of the Facilitator	Address	Mobile No
1	Gaj Bahadur Chetri	Hatigarh	9678892276
2	Kashi Ram Sharma	Hatigarh	9859602158
3	Ashok Sharma	Hatigarh	9854976566
4	Raju Puri	Hatigarh	8471870012

NB: Details list of participants during PRA mapping is given in Appendix VI

Contid.....

Appendix VII (A)

Resource map of Hatigarh EDC

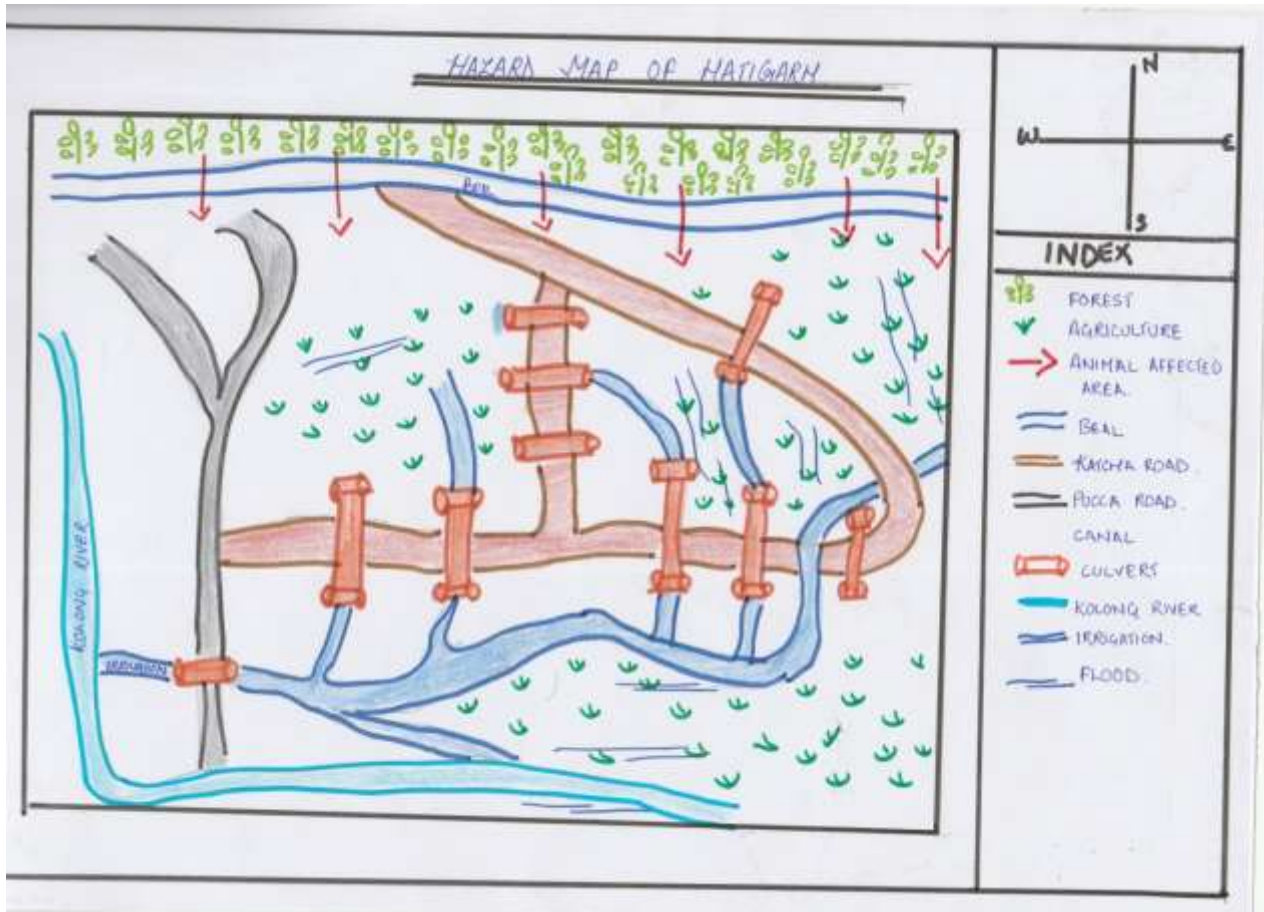


Sl. No	Name of the Facilitator	Address	Mobile No
1	Gaj Bahadur Chetri	Hatigarh	9678892276
2	Kashiram Sarma	Hatigarh	9859602158
3	Ashok Sarma	Hatigarh	9854976566
4	Raju Puri	Hatigarh	8471870012

NB: Details list of participants during PRA mapping is given in Appendix VI

Appendix VII(C)

PRA-Hazard map of Hatigarh EDC

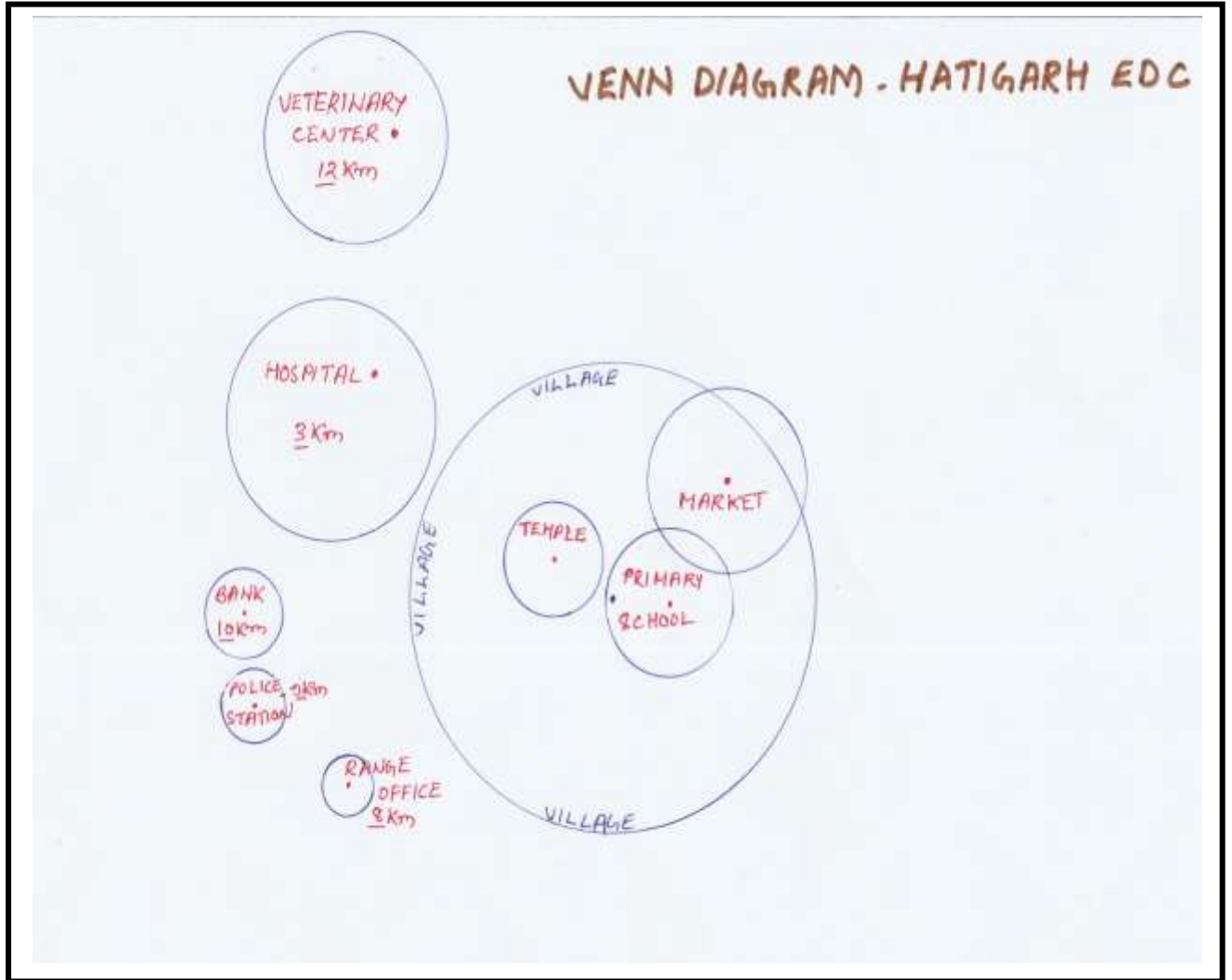


Sl. No	Name of the Facilitator	Address	Mobile No
1	Gaj Bahadur Chetri	Hatigarh	9678892276
2	Kashiram Sarma	Hatigarh	9859602158
3	Ashok Sarma	Hatigarh	9854976566
4	Raju Puri	Hatigarh	8471870012

NB: Details list of participants during PRA mapping is given in Appendix VI

Appendix VII(D)

Venn Diagram



Appendix VIII

Entry point Activities

PABITORA RANGE
HATIGARH EPA LIST

Rank	Name of Activity with Landmark and Land GPS Coordinate	Details of Activity	Budgeted Amount
1	Community Hall At Community Land 1 Bigha Land Near: Bhagabati Mandir	I Conference Hall	6 Laks
		II EDC office room	1 Laks
		III Training Production Center	3 Laks
		IV Toilet & bath room scanning meter.	2 Laks
		V Local production show room	3 Laks
		VI earth filling	4 Laks
		Sub total Amount	19 Laks
2	Girls toilet already have, but we needs a boundary wall At Garanga LP School 1 Bigha Near: Hatigash timali	I Bricks boundary wall of 16,000 Bst	10 Laks
		Sub total Amount	10 Laks
3	Teent House with sound system At Teent House Land Hatigash ejeeth Club Land 1 Bigha	I Generator 1/pc	80,000
		II Dyaning table 10/pc	20,000
		III Chair 500/pc	1,50,000
		IV Utensils	5,00,000
		V Sound box system	60,000
		VI Tripal	20,000
		Sub total Amount	8,30,000
	Road Development Bhagabati Mandir to Dams At Bhagabati Mandir to 1.87x.124	(I) Road Development Bhagabati Mandir	50 Lak
		Sub total Amount	50 Lak
	Dam Development acith Smith gate At : granga Mandir to Malid Near: granga Mandir	I Dam Development acith Smith gate	30 Lak
		Sub total Amount	30 Lak

Contd..

FABTORA RANGE
Hatigarah EDC
EPA LMT



Rank	Name of Activity with Landmark	BPT	Details & Activity	Budgeted Amount
6	Earth Filling At Bhagabati Mandi Land 3 Bigha Land Near: Hatigarah Youth Club	N-26°13'00.1" E-92°03'05.7"	I Earth Filling	20,00,000
			Sub total Amount	20,00,000
7	Bus Stand & toilet At Hatigarah Kimali Land 1/2 Bigha Land Near: Ganga C.P School	N-26°12'58.4" E-92°02'52.4"	II Bus Stand & toilet	2,00,000
			Sub total Amount	2,00,000
8	Verity materials support for development of Hatigarah youth club Music system and games At Hatigarah youth club	N-26°13'00.1" E-92°03'05.7"	II Music system II games instrument	2,00,000 1,00,000
			Sub total Amount	3,00,000
9	Public Fishery Development At Near: Bhagabati Mandi on Community 3 Bigha Land	N-26°13'00.1" E-92°03'05.7"	I Public Fishery Development	10,00,000
			Sub total Amount	10,00,000
10	High Land At Hatigarah youth club Land 1/2 Bigha	N-26°13'00.1" E-92°03'05.7"	I High Land	6 Lacs
			Sub total Amount	6 Lacs
11	Public Symmetry At Public place gram bill near Land 1/2 Bigha		I Public Symmetry	7 Lacs
			Sub total Amount	7 Lacs

Contd..

POBitora RA
HATIGARH EDC
EPA LIST



Rank	Name of Activity with Landmark Land	GPS	Details of Activity	Budgets Amount
12	Road Development from Bhayubati Mander to Ghonghanga Camp Size: 202 x 1.9 KM		I Road Development	25,00,000
			II Street Light 10pic	5,00,000
			Sub total Amount	80,00,000
13	Earth Filling At Garanga C.P School Campus Land 1/2 Bigha Land	N-26°12'58.3" E-92°02'53.3"	I Earth Filling	6 LAKS
			Sub total Amount	6 LAKS
14	Ranga Mancha At Deoga Mander Land 1/2 Bigha Land Near: Hatigarh Timeli	N-26°12'58.3" E-92°02'53.3"	I Ranga Mancha	7 LAKS
			Sub total Amount	7 LAKS
15	Agriculture Development AT Hatigarh EDC Farms		I Power tiller (Tactor) 2pic	5 LAKS
			II Miler (Water) 5pic	1 LAKS
			III Tany Ghos 10 pic	10,00,000
			IV Tracing Sack (Dhan Morime Ghos)	5,00,000
			Sub total Amount	16 LAKS
			Sub total Amount	21 LAKS

Rajiv Puri
President
Hatigarh Eco-Development
Committee
Date: 11/11/2017

Divisional Forest Officer
Guwahati Wildlife Division
Guwahati-09

Secretary,
Hatigarh Eco-Development
Committee
Date: 11/11/2017

Appendix IX(A)

Training list of Hatigarh EDC (Proposed)

1

Training List of computer

Sl. No.	NAME	Guardient Name	Age/ Sex	Education	Training
1.	Juli sharma	Sri Maneshon Sharma	(F) 18y	HSLC	Computer.
2.	Ramesh puri	Sri Chandralal puri	(M) 19y	12 th pass	computer.
3.	Namita puri	Sri Chandralal puri	(F) 23y	B.A. pass	Computer.
4.	Rituraj Bordalai	Sri Sushil Bordalai	(M) 20	12 th pass	Computer.
5.	Rita Sharma	Sri Ganesh Sharma	(F) 21	B.A. pass	Computer.
6.	Ankita Magar	" Kanna Magar	(F) 19	12 th pass	"
7.	preeti Rekha Bordalai	" Sushil Bordalai	(F) 23	B.com. pass	"
8.	priyanka puri	" Narayan puri	(F) 21	BA pass	"
9.	priya puri	" Narayan puri	(F) 20	12 th pass	"
10.	Suman bhujel	" parlad bhujel	(F) 23	12 th pass	"
11.	Sumi bhujel	" parlad bhujel	(F) 22	BA pass	"
12.	pompi Devi	" Nayan prashad sh	(F) 20	12 th pass	"
13.	Barsha Bhujel	" Krishan bhujel	(F) 19	12 th pass	"
14.	pawan bhujel	" jeet bh. Bhujel	(M) 20	12 th pass	"
15.	puja bhujel	" jeet bh. Bhujel	(F) 23	BA pass	"
16.	Deep thapa	" Durga Thapa	(M) 20	12 th pass	"
17.	pradeep thapa	" Durga Thapa	(M) 21	12 th pass	"
18.	Hemraj chettri	" Tuk bh. chettri	(M) 20	12 th pass	"
19.	Ganesh puri	" Bijuli puri	(M) 20	12 th pass	"

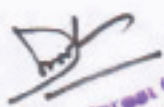
Contd..

19.	Ganesh puni	u Bijuli puni	(M) 20	12th pass	11
20.	Kalpana puni	u Chandralal puni	F 23	12th pass	11


 Divisional Forest Officer
 Mumbai W. S. Division
 Mumbai

Training list of Talukal ore Driving operators

Sl.No	Name	Guardant Name	Age Sex	Education	Training
1.	Askok Sharma	Lal Dufaram Sharma	(M) 25	10th	Driving
2.	Ganesh Chettri	Lal. Nar bh. Chettri	(M) 27	12th	Driving
3.	Jeet bh. bhujel	Lal. Kripasingh bhujel	(M) 19 50	9th pass	Driving
4.	Krishna chettri	Sri Manbhodun chettri	(M) 36	10th	Driving
5.	parakash Bhujel	Sri pranlal bhujel	(M) 21	9th	Driving
6.	Anoni Devi	Sri Maneshor Sharma	(F) 39	5th	Talukal
7.	Anjali Devi	Lal Arun Sharma	(F) 46	4th	talukal
8.	Bhadrati bhujel Bondaloi	Sri Sushil Bondaloi	(F) 42	10th pass	talukal
9.	Geeta puri	Sri dilip puri	(F) 38	4th	talukal
10.	Anima deka	Sri Ramesh deka	(F) 30	4th	talukal
11.	Lalita gini	Lal Jyeshor gini	(F) 25	8th pass	Training
12.	Kamala bhujel	Sri pranlal bhujel	(F) 42	4th pass	Training
13.	Kamala puri	Sri Raju puri	(F) 33	B.A pass	Training
14.	Kabita Chettri	Sri lak bh. Chettri	(F) 24	8th pass	Training
15.	Sita devi	Sri Ganesh chettri	(F) 41	10th	Training
16.	Dharen Medhi	Sri suran medhi	(M) 26	VIII	Driving
17.	Balika puri	Sri Chandra Lal puri	(F) 42	8th pass	Training
18.	Rita Sharma	Sri Ganga ram sh.	(F) 28	10th	Training
19.	usha medhi	Sri Lala Medhi	(F) 32	B.A pass	Talukal
20.	Rakhi Rana	Sri Samira Rana	(F) 40	10th	Training








 Regional Forest Officer
 W. L. Division
 2024-25

20.	Rakhi Rana	Sri Samira Rana	(F) 30	10th	training
21.	gasudeu upadhaya	Sri Raju upadhaya	(F) 32	10th	training
22.	Deepu Neupani	Sri Gokinda N.	(M) 29	B.com pass	

Contd..

Appendix X

Photographs

	
<p>Crop Field</p>	<p>Dairy</p>
	
<p>FGD</p>	<p>Irrigation Canal</p>
	
<p>PRA Mapping</p>	<p>Weeding in rice field</p>

Appendix XI

GPS Coordinates

- 1. Starting point** : N-26°13'32"
E-092°03'1.5"
- 2. Bhagawati Mandir** : N-26°12'59"
E-092°03'59"
- 3. Tiniali Point** : N-26°12'58"
E-92°02'52"

Guwahati Wildlife Division		
Sl. No	Amendment Suggested	Corrections Done
1.	Correction in Location Map	Appendix I(A) & I(B)

Approved
Dmt
(Pradipha Baruah).

Divisional Forest Officer
Guwahati Wildlife Division.
Guwahati-09