





AMGURI JOINT FOREST MANAGEMENT COMMITTEE

SOCIAL FORESTRY DIVISION, KOKRAJHAR

BODOLAND TERRITORIAL COUNCIL FOREST CIRCLE

MICRO-PLAN

(2016-17 to 2025-26)

Prepared by AMGURI JFMC

Assisted by

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

July 2016

Divisional Forest Officer Field Implementation IJni's S.F. Division, Kokrajhar

List of Acronyms

Acronym	Full Form		
APFBC	Assam Project on Forest and Biodiversity Conservation		
AFD	Agence France de Développement		
BPL	Below Poverty Line		
COMPELO	Consortium for Micro Planning and Enhancing Livelihood Opportunities		
EPA	Entry Point Activities		
GIS	Geographical Information System		
На	Hectare		
IIE	Indian Institute of Entrepreneurship		
JFMC	Joint Forest Management Committee		
Kg	Kilogram		
Km	Kilometre		
MT	Metric Ton		
NGO	Non-Governmental Organization		
NTFP	Non Timber Forest Product		
PDS	Public Distribution System		
PRA	Participatory Rural Appraisal		
Rs.	Indian Rupees		
SHG	Self Help Group		
VCDC	Village Council Development Committee		

AMGURI JOINT FOREST MANAGEMENT COMMITTEE

Kokrajhar Social Forestry Division, Forest Circle Forest Division, Bodoland Territorial Council Forest Circle

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

Table of Contents

Contents

1.	Introductioni
2.	Village Socio-Economic Profileii
3.	Livelihood Opportunity Analysisvi
4.	Livelihood Development Planix
5.	Forest Development Planx
6.	List of Annexuresxxii
,	Annexure 1xxiii
,	Annexure 2xxvi
,	Annexure 3xxvii
,	Annexure 4xxxv
,	Annexure 5xli
,	Annexure 6 (Record I)xlii
,	Annexure 7l
	List of Beneficiaries identified for livelihood Generation activities
(1)Mixed Livestock
(2) Apparel made-ups making

1. Introduction

About the Project

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

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

Micro-Planning & Livelihood Development

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

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

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

Micro-Plan for the Amguri JFMC

This document gives the Micro-Plan for the Amguri JFMC, which is located in the Kokrajhar District of Assam. The JFMC is taken over by the Kokrajhar Social Forestry Division for development of plantation and other forest regeneration activities. The JFMC was originally formed under the Haltugaon Forest Division and its forest area is under the jurisdiction of the Territorial Division of the Haltugaon Division of the Bodoland Territorial Council Forest Circle. The profile of the community is given in the next section.

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

2. Village Socio-Economic Profile

Location Key Information	The Amguri Joint Forest Management Committee (JFMC) has been formed to cover the existing community dwelling in Amguri, a village located on the fringe of the Haltugaon Reserve Forest. The area covered by the above JFMC falls within the Kokrajhar Development Block of Kokrajhar District of Assam. Appendix-1 gives the Village Map. The key information of the JFMC is furnished below.		
	Table-A: Key Information of the JFMC		
	Name of the JFMC	Amguri	
	Habitation	Amguri	
	Name of Revenue Village	Amguri	
	Name of the Gram	Nadangari	
	Panchayat / VCDC		
	Revenue Circle	Kokrajhar	
	District	Kokrajhar	
	Forest Division	Kokrajhar SF	
	Forest Range	Kokrajhar SF Beat	
	Forest Beat	Account Beat Kokrajhar SF	
	Year Formed	2003-04, renewed in 2014-15	
	Description of Boundary As below		
	of JFMC	North: Lalkura	
		South: Ketengajhora	
	West: Nayegaon		
	East: Chaibari Tea Estate		
	Source: JFMC Records & Discussions during PRA Exercise in June 2016 Additional details are given at Table-1 of Record-I. (Given at Annexure)		
Brief Details of the	The brief details of Executive	Committee & General Body of the JFMC are	
Executive	contained in the table, which i	· · · · · · · · · · · · · · · · · · ·	
Committee & General Body	Table-B: Brief Details o	of Executive Committee & general Body	
	Name of President	Raju Chetri	
	Name of Secretary	FR-I Dilip Sarkar	
	No. of Members in	Male: 8	
	Executive Committee	Female: 3	
	Source: JFMC Records		
Households & Population Structure	The village has 75 households, of which 66 households are BPL (Below Poverty Line) households. None of the households are headed by females. The total population is 392, of which 213 are male and the rest are female members. About 90% of the villagers belong to OBC and rest belong to SC Category. These demography of the village includes Advasi, Nepali, Rajbanshi and		
	Bengali.		

	Table-2 of Record-I may be referred for further details in the above regard.
	From this, it is inferred that: (1) The average number of persons in a household is 4.29. (2) The sex ratio is 840 females per 1000 males in the village.
Education & Skills Development	Over 73 % of the population is reported to be literate. Most of the community members have received school level education. On the other hand, relatively fewer households have college educated members.
	Livelihood skills are usually acquired under various settings – formal & informal. In the JFMC area, informal means for skills development is the traditional norm. People have traditional skills in the following areas: a) Agriculture b) Daily Wage c) Livestock d) Rubber Trapping
	Government has been active in promoting formal skills development programmes in the country as well as in the state. However, no such programme has been carried out in the habitation or in nearby areas.
Soil	 The soil type of the project area includes: Red Alluvial soil in low lying (clayey soils) and plain areas (loamy soils). Red soils in hillocks, hilly parts and forests areas.
	Both types of soil can support different kinds of crops, as the soil is reported to be fertile on the whole.
Water	The area is drained by Ketengajhora River, which flows from the adjoining hills into the project area before joining the River Brahmaputra to the south. This is a perennial river.
Climate: Temperature & Rainfall	The maximum temperature during the summer reaches 38 ° C. The minimum temperature during the winter is 7-8 ° C.
	The annual rainfall is about 2500-3000 mm. About two-thirds of the rainfall usually occurs during the rainy season (June-September). The village has high levels of humidity (over 90%) during the rainy months and low levels in the winter (Below 30%).
Forest & Biodiversity	The local forests have been broadly classified as Eastern Alluvius Plainful Forests. The main tree species are Saal, Teak, Ghora Neem, Bhelkor, Koros, Jia and Arjun. The forests can yield a range of NTFP like spices, leafy vegetables, ferns, medicinal plants, bamboo, thatch, fodder, etc. Additional details in this regard are given at the 'Forest Development Plan'.
Land Use Pattern	Appendix-2 gives the land-use pattern of the village. From the same, it is
	seen that the land-use in the village is as follows: Crop Land: 11 % Tree Cover: 40 % Habitation: 10 % Water Bodies: 2 % (incl. water logged areas) Barren/Fallow Land: 27 %

	Others: 10%		
Land Holdings	The type of households as per land-holding is given at Table-3 of Record-I. From the same, it is seen that: • 3 % of the households are landless; • 94 % of the households are marginal farmers (less than 2 Ha); and • 3 % of the households are small farmers (2-10 Ha).		
Livestock	The total number of livestock in the village is 709. The main types of livestock possessed by the households include: Cows: 208 Goats: 40 Pigs: 100 Poultry: 326 Table-4 of Record-I may be referred to for the details in the above connection.		
Village Infrastructure & Communication Facilities	In any community; the availability of basic infrastructure enables the development of sustainable livelihood options. The present condition of infrastructure in the village is not satisfactory. This is borne out by Table -of Record-I, which gives the present status of the village infrastructure. From the above table, the following have been noted with regard to village infrastructure:		
	Physical Infrastructure: The habitation is not deprived of basic physical infrastructure like electricity, water supply, mobile network etc.		
	Education & Health Facilities: There are minimal educational and health facilities. Public transport is available, though the community members have to use bicycles to move around.		
	Govt. Offices : The government offices (such as Police station, Gram Panchayat office, Revenue office, Forest Beat office etc.) are located at a considerable distance.		
	Financial Inclusion : Facilities for financial inclusion like bank and financial institutions are located at distance from the habitation. Hence, the community members do have bank accounts or postal savings accounts.		
Agricultural Crops	The details of the agricultural crops grown in the village is available at Table-6 of Record-I.		
	The above shows that the following are the main crops grown in the village. a) Kharif Crops: Paddy-Sali; Seasonal Vegetables-Ridge Gourd, White Gourd, Bottle Gourd, Okra, etc. b) Rabi Crops: Seasonal Vegetables-Radish, Tomato, Potato, etc. c) Others: Leafy Vegetables, Jack Fruit, Mango, Pomello, Papaya, Banana, Areca Nut, Coconut, Pineapple, etc. Most crops are rain-fed, except for the Rabi Crops, which are cultivated under irrigated conditions.		
Crop Production Profile	Table-7 of Record-I may be referred to for the production and yield details of the crops grown in the village.		

	The maximum numbers of households are involved in growing crops like paddy and other seasonal vegetables-gourds, pumpkins, radish, etc. The production and yield of these crops is given as follows:
	(a) Paddy: Production 121(aprox) MT Yield 1.88 MT /ha(b) Seasonal Vegetables: Production 10 MT Yield 0.6 MT/ha
Fodder Availability	The matter of fodder availability in the village is dealt with at Table-8 of Record-I. The above shows that the main sources of fodder in the village are as follows:
	a) Paddy Wasteb) Household Kitchen Wastec) Grazing Landd) Forest Area
Markets	Table-9 of Record-I shows the location of the different markets from the village. The main markets used by the community are as follows: (a) Grocery / PDS: Within the Village (b) Weekly / Bi-weekly Market: : Chaibari(3km) & Nayekgaon(8 km) (c) Major Market: : Kokrajhar at 15 km away
Water Resources	The water resources are tabulated at Table-10 of Record-I. The main water resources with the water availability is as follows: (a) Ketengajhora River (Water Availability: Perennial / Seasonal) (b) Ring Well (Water Availability: Perennial / Seasonal) (c) Tube Well (Water Availability: Perennial / Seasonal)
Energy Consumption	 Table-11 of Record-I shows the major sources of energy in the village. The same have been listed below. a) Fuel Wood-Households Depending: 75 Nos. Source: Firewood Plantation b) Kerosene- Households Depending: 71 Nos. Source: Local Market c) LPG-Households Depending: 3 Nos. Source: Local Authorised Agency d) Electricity- Households Depending: 33 Nos. Source: Electricity Dept.
Socio-economic status	Social set-up: The village is inhabited by tribal community. They do not have a caste system. The society is not marked by deep social divisions. The observed position of women is satisfactory.
	Economic Condition: The economic position is / is not satisfactory. The main livelihoods are Agriculture. The annual income of the households ranges between Rs. 15,000 to Rs. 1,00,000 per year. There is no large-scale migration of the youth and others for livelihoods. Additional details are available at the next section.
Maps	 Appendix-1 gives the following maps, based on PRA exercise: Village Map Village Social Map (with the names and particulars of members in PRA) Village Resource Map

3. Livelihood Opportunity Analysis

PRA Exercise	Team from IIE Guwahati carried out PRA exercise in Amguri village as follows:			
T KA Excreise				
	Date : 9th of June, 2016 Location : Community Hall, Amguri Village, Numbers Present : 50			
		esence of: JFMC of Department person	office bearers, Village Headman, nnel, etc.	, community members,
Objective of	The ol	biective was to stu	dy the existing household cond	itions and obtain other
PRA	primar		ommunity for developing the live	
Tools Used &	Differe	ent tools were used	and outcomes obtained. These in	icliide.
Outcomes of	Differ	one tools were used	and outcomes obtained. These in	iciaac.
the PRA	Social	Mapping		
		n Ranking		
	Time I	Line review		
	Seasor	nality of Crop Grov	vn	
		Diagram		
	Apper	ndix-3 furnishes de	tailed information of the above.	
Ranking	Rankii	ng exercise has bee	n done for the following:	
	 Livelihoods & Skills Development Entry Point Activities (EPA) 			
	Appendix-3 elaborates the above. From the same, it is stated that:			
	Ranking of Livelihoods & Skills Development			
		Livestock(Pigger		
	2. Bamboo Product Making and Agarbatti Making			
	3. Heavy Motor/JCB Operator			
		ng of EPA		
	Sl.	Village EPA as	Details	Probable source of
	No.	ranked	(Appendix-3 has additional	funding/deptt.
		particulars)		<u> </u>
	1.	Fishery	Redevelopment of the existing	APFBC/ State
		Community Existing Fishery 2. Sanitation Construction of Low Cost		Fisheries Deptt
	2.	Sanitation	Swachh Bharat	
	Toilets-covering 80% of the Mission			IVI1SSION
	households 3. LPG/Solar Providing LPG connection to APFBC			
	3. LPG/Solar Providing LPG connection to APFBC 71 households			ALLDC
	4	4. Electricity Access to electricity towards State Electricity		
		the village outskirt-covering Deptt.		
		about 50% households		20pm
	5	5. Drinking Construction of 10 nos of NDWRP/		NDWRP/
	••	Water Facility Community Wells within the		Swajaldhara
				Programme
		village		- 10514111110

	6. Bamboo	Availability wide variety	National Bamboo	
	Product	Bamboo of Amguri	Mission	
	Making			
	Centre-cum-			
	Agarbatti Making Unit			
	An arrangement of working capital worth Two Lacs should be arranged			
	from the EPA fund for promoting livelihood activities.			
	A low cost community work shed cum JFMC office to be set up within			
	the JFMC boundaries for installation and commissioning of Toolkits/			
	Equipments/Machineries.			
	A low cost livestock rearing shed have to be arranged from the EPA fund			
	for promoting a co	ommon community livelihood ac	zuvity.	
Livelihood		were identified as follows:		
opportunities	Agriculture & Ho	rticulture		
	• Livestock			
	NTFP Skills Developme	nt-Bamboo Product Making and	Agarbatti Making	
	Access to Credit I	•	Agarbatti Waking	
		ut the above has been given belo	W.	
Agriculture & Horticulture	Table-12 under Record-2 may be seen in this connection for opportunities in the areas of agriculture and horticulture.			
lioraculture	areas or agriculture and no	Theulture.		
	The main constraints are:			
	a) Low Production			
	b) Storage & processing			
	c) Marketing The opportunities are:			
	a) Increase annual crop cycle			
	b) Collection Unit, Packaging			
	c) Institutional linkage for marketable outputs			
	The supported agreement is:			
	The suggested programme is: a) Agri-skill development programme.			
	b) Training on insecticides, pesticides, hybrid cultivation etc.			
T . 4 1	•			
Livestock	Table-13 furnishes additional information about opportunities for livestock			
	rearing.			
	The main constraints are:			
	(a) Unable to buy fodder from market due to poor financial condition.			
	(b) Trees fodder and crop residue are available only for 3-6 months. Green fodder			
	is also not available for the whole year. (c) No veterinary care clinic			
	(d) Lack of knowledge about the proper rearing of live stock			
	The opportunities are:			
	(a) Higher income from livestock rearing.(b) A huge demand for livestock products like pork, chicken, eggs, etc in the			
	nearby markets.			
	non's markets.			

	The suggested programme is:
	(a) High Yielding Variety Pig Rearing
	(b) High Yielding Variety Poultry Rearing
	(c) Dairy Farming
NTFP	The opportunities for NTFP are tabulated at Table-14 under Record-2
	The main constraints are:
	(a) Less availability of NWFP
	(b) No technical know-how
	(c) No processing units
	The opportunities is:
	(a) 30 ha of NTFP and Medicinal planation undertaken by the JFMC
	(b) Availability of fertile fallow land
	(c) Generation of Livelihood from collection
	The suggested programme are:
	(a) Enhance Plantation area of Food plants, Fodder, Medicinal & Aromatic
	Plants, Herbal Plants, etc
	(b) Setting Up Bamboo Nursery
Cracializad	For skills development, the approximation are to bulleted at Table 15 under Decord
Specialized Skills	For skills development, the opportunities are tabulated at Table-15 under Record-2
SKIIIS	
	The main constraints are:
	(a) Lack of skills and technical know-how
	(4) = 4444
	The opportunities are:
	(a) Availability of Raw Materials-Bamboo
	(b) Enhance Skills, viz-Bamboo Product Making, Agarbatti Making
	(c) Availability of Man-power
	The suggested programme is:
	(a) Training on Modern Tools and Equipment
	(b) Providing modern technology to the villagers
	(c) Skill Up gradation & Training on New Product Development and Product
	Diversification
	(d) Setting up a raw material bank
	(e) Providing a bulk buy arrangement of the finished product with institutional
	buyers.
Credit Facility	Table-16 under Record-2 discusses this aspect.
	The main constraints with the reasons are:
	(a) Financial exclusion
	(b) Involvement of unorganised money lender
	(c) Lack of Credit Appraisal
The opportunities are:	
(a) Setting up modern financial institution	
(b) Adequate awareness.	
The suggested programme is:	
	(a) Setting up modern financial institution in the nearby areas.
	(b) Financial Inclusion Initiatives
Strategic	Summarizing the suggested programmes at above as strategic interventions for the
Interventions	Livelihood Development Plan:

- **1. Agriculture** & Horticulture: Tractor operation training, Agri-skill development programme, Training on insecticides, pesticides, hybrid cultivation
- 2. Livestock: Piggery, Poultry, Dairy
- **3. NWFP**: Plantation of Food plants, Medicinal & Aromatic Plants, Herbal Plants, etc
- **4. Specialized Skills:** Training on Modern Tools and Equipment, Providing modern technology to the villagers, Skill Up gradation & Training on New Product Development and Product Diversification, Setting up a raw material bank, Market Linkage with institutional buyers.
- 5. Credit facility: Setting up modern financial institution in the nearby areas

4. Livelihood Development Plan

The main income generating activities as planned at the village are:		
Farm Sector:		
1. Agriculture		
2. Livestock-Piggery & Poultry		
3. Pisciculture		
4. Horticulture		
4. Horticulture Non-Farm sector:		
1. Bamboo Product Making		
2. Agarbatti Making		
3. Heavy Motor Driving		
Source: Table-32 of Record-4		
SHGs of the village can plan the following activities:		
1. To generate entrepreneurial awareness		
2. To organise and form Joint Liability Groups(JLG)		
3. To involve the villagers in Livelihood Activities collectively.		
Source: Table-33 of Record-4		
The following exposure trips are planned:		
1. No Exposure Trips Planned		
Source: Table-34 of Record-4		
As attached in next page.		
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) Rashtriya Krishi Vikas Yojana (RKVY) - for agricultural and allied development		
(c) Rashtriya Krishi Sinchay Yojana (RKSY) - for irrigation, including		
watershed development		
(d) National Rural Livelihoods Mission		
(e) Skills Development Programmes		
(f) Other schemes for rural development and livelihoods as found		
appropriate- DRDA, MGNREA, PHE, Fishery		
The above convergence will yield synergies for the present plan, as well as		
help in sustaining the planned works in the post-project period.		

5. Forest Development Plan

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

1. Status of the JFMC Forests

The micro-plan takes into consideration the following categories of the JFM Forests of the Amguri JFMC:

- (a) Forest areas assigned to the JFMC by the Forest Department; and
- (b) Areas planted / to be planted on community lands and other lands outside the notified forest area.

The status of both the above categories of JFMC forests is briefly discussed below.

1.1. Forests & Their Conditions

The details of the status of forest areas assigned to the JFMC have been furnished at Table-3.1 under Proforma-3 ('Forest Development Plan'), which has been attached as Annexure to this micro-plan. After considering other areas planted (or to be planted), the conditions of the forests of the Amguri JFMC have been summarized below.

Table-1: Conditions of the Forests of Amguri JFMC

Identification	Area of JFMC Forest (Ha)	Distance from Village (Km)	Condition of Forest [Good - Forest with crown density of 40% of more Else 'Degraded']	Frequency of Use by Community [2-3 m / 3-6 m / 6-9 m / Over 9 m]
(A) Assigned Forest				
RF / PF Name: Nayekgaon Beat: Account Beat Compartment:	50 (APFBC)	.5	Good Area: Nil Ha Degraded Area: 20 Ha	-
(B) Other Planted Area				
Location: Type of Forest: Eastern Alluvius Plainful Forests	210 (NARMIL)	.5	Good Area: 210 Ha Degraded Area: Nil	3-6 m
TOTAL	260		Good Area: 210 Ha Degraded Area: 50 Ha	

Source: Proforma-3, Table 3.1 / Discussions with Forest Department personnel & Community members

It is seen that the Amguri JFMC has 260 Ha under its forests, of which 210 Ha (80.5 %) is 'Good' (Crown density >40%) and the rest is 'Degraded'.

1.2. Forest Soil Type

The forests of Amguri JFMC are located in Red Soil. Some salient points of the forest soil type have been given in the following table.

Table-2: Forest Soil Type in Amguri JFMC

Parameter	Status in Assigned Forests	Status in Other Planted Areas
Fertility Level	High	High
Soil Erosion Status	No Soil Erosion	No Soil Erosion
Presence of:		
(a) Silt	Nil	Nil
(b) Mud-flat	Nil	Nil
(c) Newly accreted land	Nil	Nil
(d) Sand dune	Nil	Nil

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

For the Amguri JFMC; the salient points of the forest soil type are summarized below:

- (a) The Red Soil id Fertile in Nature
- (b) No Soil Erosion in the recent past
- (c) No Presence Silt, Mud-flat, newly accreted land or Sand dune

1.3. Existing Composition of Flora

In the forests of the Amguri JFMC, the existing composition of the flora has been given as follows. It may be noted that the local forests are classified as Moist Deciduous Forests.

Table-3: Existing Composition of Flora in the Amguri JFMC

Parameter	Local Name(s)	Botanical Name(s)
Major Forest Species	Teak(Segun)	Tectona Grandis
	Saal	Shorea Robusta
Associates	Ghora Neem	Melia azedarach
	Koroi	Albizia Procera
	Ajar	Lagrslroomia Specia
	Bhelkor	Trewia nudiflora
Shrubs	Dhekia	Ferns
	Jharmoni Ban	Eupatorium Odoratum
Medicinal Plants	Amla	Phyllanthus emblica
	Hilikha	Terminalia chebula
	Bohera	Terminalia bellirica
	Bhomora	Terminalia belerica
Produces	-	-
Others, if any	Bamboo	Bambusa

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

2. Other Inputs for the Forest Development Plan

The following sub-sections discuss the other inputs for the Forest Development Plan of the Amguri JFMC.

2.1. Past Protection Measures of the JFMC

The measures taken by the Amguri JFMC for forest protection in the past have been discussed as follows.

(a) Number of households involved: 75

(b) Number of people involved: 170

(c) Summary of the measures: Plantation of Major and Associates Species, Non Grazing of Cattle in Plantation Area, Protection against illegal deforestation

(d) Any formal mechanism: Nil

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

2.2. Domestic Requirements of Forest Produce

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

Table-4 (A): Domestic Requirement of Forest Produce per Household of the Amguri JFMC

Name of Forest Produce	Average Household Requirement		How met at	Source
	Frequency of Requirement	Approx. Qty	Present	
Firewood	Regularly	6-7 kg daily	Cutting Branches	Plantation Area
Timber for House	-	-	-	-
Small timber for Implements	-	-	-	-
Pole / Bamboo	Frequently	2-3 Monthly	-	-
Fodder from Forest	Not Available	-	-	-
NTFP	Not Available	-	-	-
Other	-	-	-	-

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

There are 75 households in the Amguri JFMC. From the above table and this number of households, it is inferred that the total annual requirements of the Amguri village for forest produce for own use is as follows:

Table-4 (B): Total Domestic Requirement of Forest Produce - All Households of the Amguri JFMC

Name of Forest Produce	Community Requirement (Kg per annum) (*)	Remarks
Firewood	More than 120000 annully	Usage of Firewood Branches
Timber for House	30-40 large tree trunks	Usage of Teak for timber

Small Timber for Implements	50 small trunks, big branches	Usage of Teak for making ploughs,
Pole / Bamboo	1000 bamboo	Fencing, Sale
Fodder from Forest	Not Available in large scale	-
NTFP	Not Available in large scale	-
Other	Not Available	-

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

(*) = Approx. Qty. of Average Household Requirement (from Table-4 (A) x 75 Households

2.3. Collection & Marketing of Forest Produce by Villagers

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

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

Name of Forest Produce	Col	Location of		
	Season / Months	No of Households Collecting	Average Qty. Collected (Kg)	Collection
Firewood	Autumn/winter	70	100-150 kg annually	Plantation
Timber for House	Autumn/winter	-	-	-
Small timber for Implements	Autumn/winter	-	-	-
Bamboo	Throughout the Year	75	10-15 pieces annually	Plantation
Pole	-	-	-	-
Fodder from Forest	-	-	-	-
NTFP	-	-	-	-
Other	-	-	-	-

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

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

Table-5 (B): Collection & Marketing of Forest Produce - Additional Information [Amguri JFMC]

Name of Forest Produce	Surplus Marketed	How marketed	Average Income per HH from sale of Forest Produce
Firewood	100-150 kg per household	Sold in the Local Market	500-800
Timber for House	Not marketed	Not marketed	Not marketed
Small timber for Implements	Not marketed	Not marketed	Not marketed
Bamboo	10-15 per household	Sold in the Local Market	500-1000
Pole	Not Available	Not marketed	Not marketed
Fodder from Forest	Not marketed	Not marketed	Not marketed

NTFP	Not Available	Not Available	Not Available
Other	Not Available	Not Available	Not Available

Source: Proforma-3, Table-3.4 / Discussions with Forest Department personnel & Community members

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

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

Table-6: Total Requirements of Forest Produce by Villagers of the Amguri JFMC

Name of Forest Produce	Community Requirement (Kg per annum) From Table-4(B)	Surplus Marketed (Kg) From Table-5(B)	Total Requirements (Kg)
Firewood	130000	10000	140000
Timber for House	-	-	-
Small timber for Implements	-	-	-
Bamboo	1000 pieces	150 pieces	1150 pieces
Pole	-	-	-
Fodder from Forest	-	-	-
NTFP	-	-	-
Other	-	-	-

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

3. Forest Protection Issues

3.1. Protection Problems

The protection issues of the forests of Amguri JFMC have been summarized below.

Table-7: Protection Problems of the Amguri JFMC

Type of Problem	Relevant (Yes / No)	Significant (Yes / No)
Grazing - Local Animals	Yes	Yes
Grazing - Animals from Other Area	Yes	Yes
Illicit Felling of Timber	No	No
Smuggling of Timber	No	No
Accidental Fires	No	No
Encroachment of Forest Lands	No	No
Others	No	No

Source: Proforma-3, Table-3.5 / Discussions with Forest Department personnel & Community members

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

- (a) Grazing of Local Animals
- (b) Illegal Deforestation

3.2. Reasons for Degradation of the Forest

In the Amguri JFMC, the reasons for degradation of forest are as follows:

(a) Illegal Deforestation

[Source: Proforma-3, Table-3.6 / Discussions with Forest Department personnel & Community members]

4. Components of the Forest Development Plan

The following sub-sections discuss the main components of the Forest Development Plan of Amguri JFMC; viz. the plans for Protection, Forest Improvement (Treatment), Nursery Development, Maintenance and Miscellaneous Operations.

4.1. Protection Plan

The Protection Plan given at below, discusses the measures for the protection of the forests of Amguri JFMC from the issues discussed earlier at Sub-section 3.1

Protection Work Location in Quantification **Priority Timing** [to be filled from Table 3.7 of **Forest Area** of the [High / Medium / Proforma-3 as applicable] Measures Low] [Length, Area, Size etc.] Social Fencing Grazing Season Boundary Along the High Demarcation of the Plantation Area Fire Protection Within the Autumn-Winter High Forest

Table-8: Protection Plan of the Amguri JFMC

Source: Proforma-3, Table-3.7 / Discussions with Forest Department personnel & Community members

Thus, it is seen that the significant protection measures planned to be undertaken in the Amguri JFMC (with high / medium priority) are as follows:

- (a) Social Fencing
- (b) Fire Protection

4.2. Types of Operations Proposed

The types of operations proposed for the treatment of degraded areas of the JFMC Forest of Amguri JFMC are given hereunder.

Treatment	Required (Yes/ No)	Responsibility of JFMC (Yes / No)	Month / Year when can be done	Extent of Area proposed for Treatment (Ha)
Restoration of Degraded Forests	No	No	No	No
Protection to Cut Stumps of Trees	No	No	No	No
Watershed Treatment	No	No	No	No
Water Reservoirs	No	No	No	No

Table-9: Types of Operations Proposed in the Amguri JFMC

Treatment	Required (Yes/ No)	Responsibility of JFMC (Yes / No)	Month / Year when can be done	Extent of Area proposed for Treatment (Ha)
Grass & Silvi-pasture	No	No	No	No
Bamboo Plantation	No	No	No	No
Seed Sowing	Yes	Yes	June-July	
Root & Shoot Cutting & Plantation	Yes	Yes	June-July	
Cut Back & Coppice Treatment	No	No	No	No
Physical Fencing	Yes	Yes	November- February	NTFP 50 ha
Social Fencing	Yes	Yes	June-July	100 ha
Other Activities	No	No	No	No

Source: Proforma-3, Table-3.9 / Discussions with Forest Department personnel & Community members

Thus, it is seen that the following are the treatment operations which have been proposed in the forest area of the Amguri JFMC:

- (a) Seed Sowing
- (b) Root & Shoot Cutting & Plantation
- (c) Physical Fencing
- (d) Social Fencing

4.3. Forest Improvement Plan - Advance Works & Creation

The pertinent details in the above connection have been tabulated as follows.

Table-10: Forest Improvement Planned in the Amguri JFMC

Treatment	Area in Ha under Plantation Module	Priority for Block Plantation	Species	Spacing (metre x metre)
Assisted Natural Regeneration (with plantation in gap)			Teak, Gamari,	4m x 4m
Block Plantation	200	High	Teak, Gamari, Sissoo, Ghoraneem, Khayer	3m x 3m; 2m x 2m
Sowing of Neem, Amla, Bahera (Medicinal Plants)	50	High	NTFPs	2m x 2m
Enrichment Plantation	-	-		
Direct Plantation	-	-	-	-
Other	-	-	-	-
TOTAL AREA (in Ha)	250	-	-	-

Source: Proforma-3, Table-3.8 / Discussions with Forest Department personnel & Community members

4.4. Forest Improvement – Action Plan

Action Plan for Block Plantation Mixed Harwood Plantation(MHWP)-Teak Mixed with Associates

Name of Plantation : Block Plantation of Saal Mixed with Associates

Plantation Period : 2016-17 to 2025-26 (10 Years)

Plantation Area : 100 ha

Spacing : 3m X 3 m-1100 plants per ha
No. of Plants to be Raised : 110000 (44000 approx. annually)

Number Blocks : 4 Numbers(25 ha each)

Species : Teak; Associates-Gamari, Sissoo, etc.

Rates : As Approved by APFBCS(to be increased by 20% every two years)

Financial Year	Activities	
2016-17	Identification of suitable site for regeneration-examine possibilities of natural seed fall-determine intensity and nature of biotic interference-Area Not Less than 100 ha, Demarcation of land during the month of December-January, Partition of land in 4 blocks, Land development, Soil Working @ Rs 1000/ha	
2017-18*	Block Plantation 3m x 3m, 1111 plants/ha-during the season of April-June ; GPS marking of the area	
2018-19*	Block Plantation 3m x 3m, 1111 plants/ha-during the season of April-June ; GPS marking of the area	
2010-19	1st Weeding; Replacement of dead/struggling saplings raised in the previous year	
2019-20*	Block Plantation 3m x 3m, 1111 plants/ha-during the season of April-June ; GPS marking of the area	
2019-20	2nd Weeding; Replacement of dead/struggling saplings raised in the previous year	
2020-21*	Block Plantation 3m x 3m, 1111 plants/ha-during the season of April-June ; GPS marking of the area	
2020 21	3rd Weeding	
2021-22*	4th Weeding; Replacement of dead/struggling saplings raised in the previous year	
2022-13*	5th Weeding; Replacement of dead/struggling saplings raised in the previous year	
2023-24*	6th Weeding; Replacement of dead/struggling saplings raised in the previous year	
2024-25*	7th Weeding	
2025-26*	8th Weeding	

^{*} Silvicutural thinning to be undertaken on intervals of five years post plantation

Action Plan for Block Plantation of Teak Mixed Associates, Firewood and Bamboo

Name of Plantation : Block Plantation of Mixed Harwood Plantation - Teak with Associates,

Firewood and Bamboo

Plantation Period : 2016-17 to 2025-26 (10 Years)

Plantation Area : 100 ha

Spacing : 2m X 2 m-2500 plants per ha
No. of Plants to be Raised : 2,50,000 (62,500) approx. annually)

Number Blocks : 4 Numbers(25 ha each)

Species : Teak; Associates-Ajar, Khoroi, Khayer, Sissoo, Jia, Arjun, Ghora Neem,

Bamboo(Jaati, Kako, Bholoka, Bijili), etc

Financial Year	Activities
2016-17	Identification of suitable site for regeneration-examine possibilities of natural seed fall-determine intensity and nature of biotic interference-Area Not Less than 100 ha, Demarcation of land during the month of December-January, Partition of land in 4 blocks, Land development, Soil Working @ Rs 1000/ha
2017-18*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June ; GPS marking of the area
2018-19*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June; GPS marking of the area
2010 10	1st Weeding; Replacement of dead/struggling saplings raised in the previous year
2019-20*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June; GPS marking of the area
2013-20	2nd Weeding; Replacement of dead/struggling saplings raised in the previous year
2020-21*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June; GPS marking of the area

	3rd Weeding
2021-22*	4th Weeding; Replacement of dead/struggling saplings raised in the previous year
2022-13*	5th Weeding; Replacement of dead/struggling saplings raised in the previous year
2023-24*	6th Weeding; Replacement of dead/struggling saplings raised in the previous year
2024-25*	7th Weeding
2025-26*	8th Weeding

^{*} Silvicutural thinning to be undertaken on intervals of five years post plantation

Source: Proforma-3, Table-3.10 / Discussions with Forest Department personnel & Community members

Action Plan for Block Plantation of Non Timber Forest Produce

Name of Plantation : NTFP PLANTATION

Plantation Period : 2016-17 to 2025-26 (10 Years)

Plantation Area : 50 ha

Spacing : 2m X 2 m-2500 plants per ha

No. of Plants to be Raised: 1,25,000 (31,250) approx. annually)

Number Blocks : 4 Numbers(25 ha each)

Species : Amla, Hilikha, Bhomora, Bohera, Mango, Guava, Neem, Arjun, etc

Financial Year	Activities
2016-17	Identification of suitable site for regeneration-examine possibilities of natural seed fall-determine intensity and nature of biotic interference-Area Not Less than 50 ha, Demarcation of land during the month of December-January, Partition of land in 4 blocks, Land development, Soil Working @ Rs 1000/ha, 3 wired barb fencing 2800 RM @ Rs56.36/RM
2017-18*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June ; GPS marking of the area
2018-19*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June ; GPS marking of the area
2010-19	1st Weeding; Replacement of dead/struggling saplings raised in the previous year
2019-20*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June ; GPS marking of the area
2019-20	2nd Weeding; Replacement of dead/struggling saplings raised in the previous year
2020-21*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June ; GPS marking of the area
2020 21	3rd Weeding & Prunning
2021-22*	4th Weeding & Prunning; Replacement of dead/struggling saplings raised in the previous year
2022-13*	5th Weeding & Prunning; Replacement of dead/struggling saplings raised in the previous year
2023-24*	6th Weeding & Prunning
2024-25*	7th Weeding
2025-26*	8th Weeding

4.5. Nursery Development Plan

The Nursery Development Plan for the Amguri JFMC depends on the following types of Nurseries:

(a) JFMC Peoples' Nursery (incl. Departmental Nursery) The details are given below.

JFMC Nurseries

The following table gives the details of the nurseries of the Amguri JFMC. This includes the Departmental Nursery involved in JFMC works.

Table-11 (A): JFMC Nurseries of the Amguri JFMC

Location of Nursery	Species	Year of Development	Number of Seedlings	Remarks
	Major- Saal, Teak		37000	Provide sapling for
	Associates- Gamari, Sissoo, Titasopa, Ghoraneem, Khayer, etc	asopa, 2010-17 37000	37000	plantation to be under taken in the 2017-18
	NTFP		50000	
	Major- Saal, Teak		37000	Provide sapling for
Within the Vilage	Associates- Gamari, Sissoo, Titasopa, Firewood Species etc	2017-18	37000	plantation to be under taken in the 2018-19
	NTFP		45000	
	Major- Saal, Teak		37000	
	Associates- Gamari, Sissoo, Titasopa, Firewood Species etc	2018-19	37000	Provide sapling for plantation to be under taken in the 2019-20
	NTFP		40000	
	Major- Saal, Teak		37000	
	Associates- Gamari, Sissoo, Titasopa, Firewood Species etc	2019-20	37000	Provide sapling for plantation to be under taken in the 2020-21
	NTFP		40000	

Source: Proforma-3, Table-3.11 / Discussions with Forest Department personnel & Community members

4.6. Maintenance Plan - 10 Years

The maintenance plan for plantations raised in the Amguri JFMC is given below. This covers a period of ten years.

(A) Timber Species Teak, Associates

Table-12 (A): Maintenance Plan of Plantation in the Amguri JFMC

Year(s)	Treatment
2016-17 to 2025-26	As provided in Action Plan for Block Plantation of Teak Mixed with Associates
2016-17 to 2025-26	As provided in Action Plan for Block Mixed Harwood Plantation - Teak with Associates, Firewood and Bamboo

Source: Discussions with Forest Department personnel & Community members

(B) Bamboo

Table-12 (B): Maintenance Plan of Bamboo Plantation in the Amguri JFMC

Year(s)	Treatment
2016-17 to 2025-26	As provided in Action Plan for Block Mixed Harwood Plantation - Teak with Associates, Firewood and Bamboo

Source: Discussions with Forest Department personnel & Community members

(C) Fuel wood Plantation

Table-12 (C): Maintenance Plan of Fuel Wood Plantation in the Amguri JFMC

Year(s)	Treatment
2016-17 to 2025-26	As provided in Action Plan for Block Mixed Harwood Plantation - Teak with Associates, Firewood and Bamboo

Source: Discussions with Forest Department personnel & Community members

(D) NTFP / Medicinal Plantation

Table-12 (D): Maintenance Plan of NTFP / Medicinal Plantation in the Amguri JFMC

Year(s)	Treatment
2016-17 to 2025-26	Action Plan for Block Plantation of Non Timber Forest Produce

Source: Discussions with Forest Department personnel & Community members

4.7. Miscellaneous Operations Plan

The miscellaneous operations planned in the Amguri JFMC are given below.

Table-13): Miscellaneous Operations in the Amguri JFMC

Operation	Required (Yes / No)	Responsibility	Month / Year	Area (Ha)
No such planned	-	-	-	-

Source: Proforma-3, Table-3.13 / Discussions with Forest Department personnel & Community members

5. Expected Benefits

This sub-section furnishes the benefits expected from the forests protected by members of the Amguri JFMC, as well as the sharing mechanism for the usufruct benefits.

5.1. Expected Benefits Related to Wood & Grass

The above has been tabulated below for the Amguri JFMC. The benefits are expected from the forests protected by its members under this Forest Development Plan.

Table-14: Expected Benefits from Forests Protected by Members of Amguri JFMC

Item	Month	Year (Indicative)	Quantity
Firewood	Throughout the year	2021-20	2 quintals annually per household
Timber for House	Throughout the year	2025-26	2-3 trunks per household annually
Small timber for Implements	Throughout the year	2025-26	6-7 trunks per household annually
Bamboo		2017-18 onwards	100 pices
Pole	-	-	-
Fodder from Forest Trees & Grass			
NTFP	June-July	2021-22 onwards	1 MT
Wages	Planation and Weeding Season	2016-17 onwards	-
Other	-	-	-

Source: Proforma-3, Table-3.14 / Discussions with Forest Department personnel & Community members

5.2. Sharing Mechanisms

The sharing mechanism for the benefits is indicated below for members of the Amguri JFMC.

Table-15: Sharing Mechanism for Amguri JFMC

Method	Items
To be shared equally	NTFP
To be freely collected by the members	Firewood(Regulated)
Other Methods	Processing of NTFPs

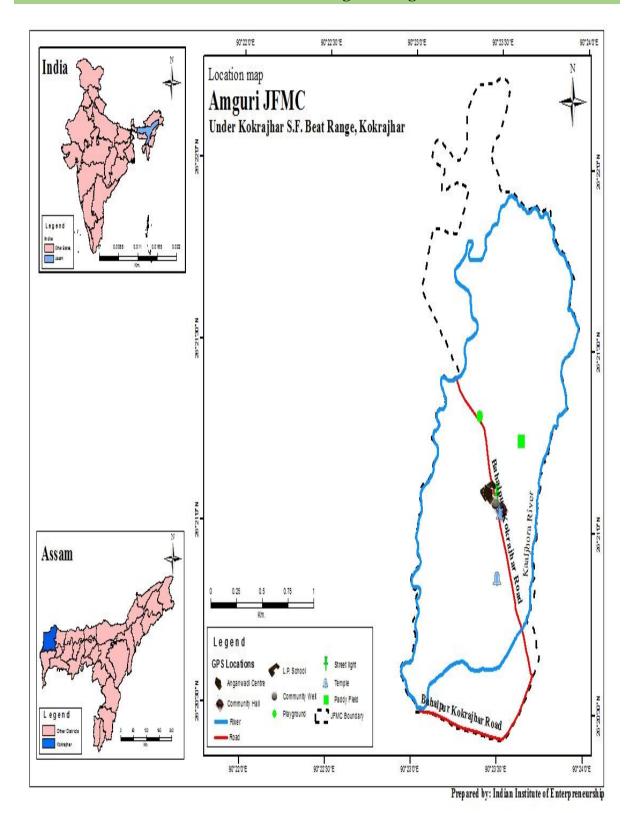
Source: Proforma-3, Table-3.15 / Discussions with Forest Department personnel & Community members

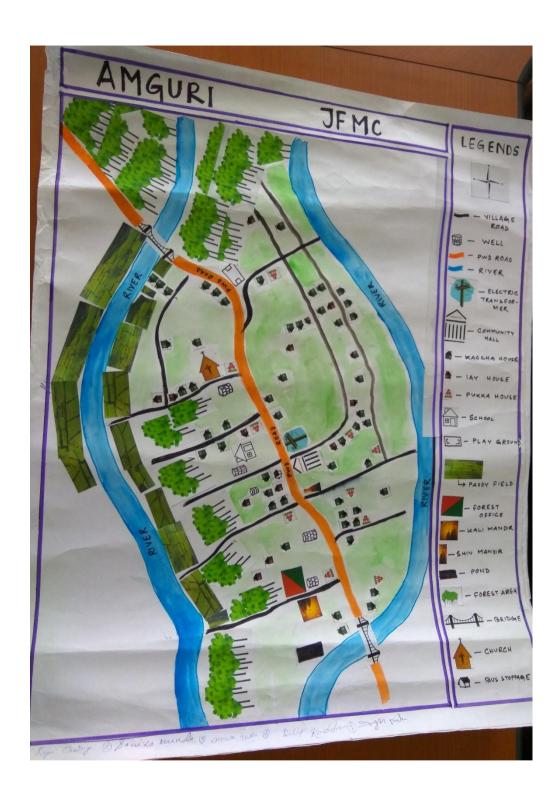
6. List of Annexures

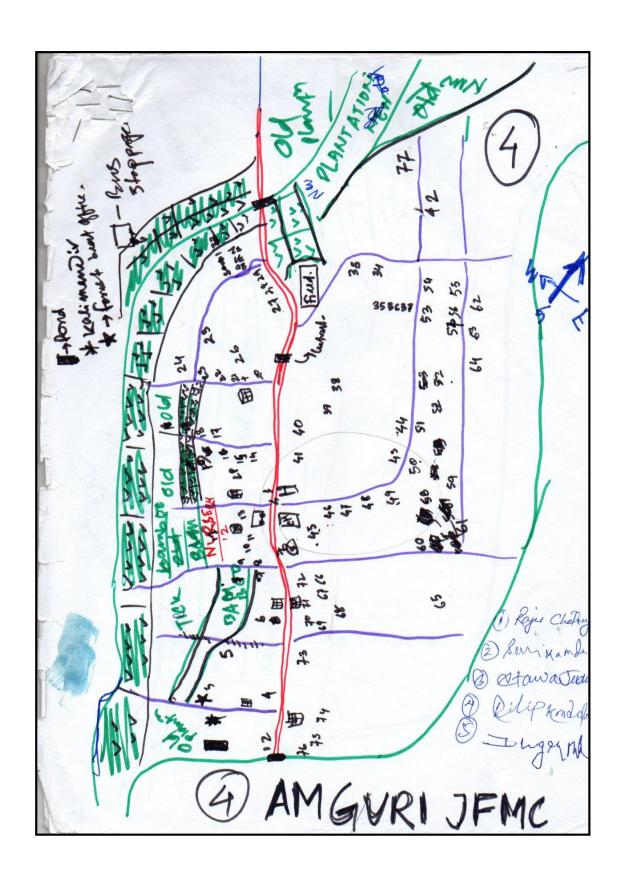
Appendix No	Heading
1	Maps
	Village Map
	Village Social Map
	Village Resources Map
2	Land Use Map of Village (GIS)
3	PRA Exercise
	Social Mapping
	Wealth Ranking
	Time Line review
	Seasonality of Livelihoods
	Venn Diagram
4	Photographs
5	List of JFMC Members
6	Filled Up Tables (Proforma-1 to Proforma-4)
	Table Nos. 1-37

Annexure 1

Location of the Amguri Village



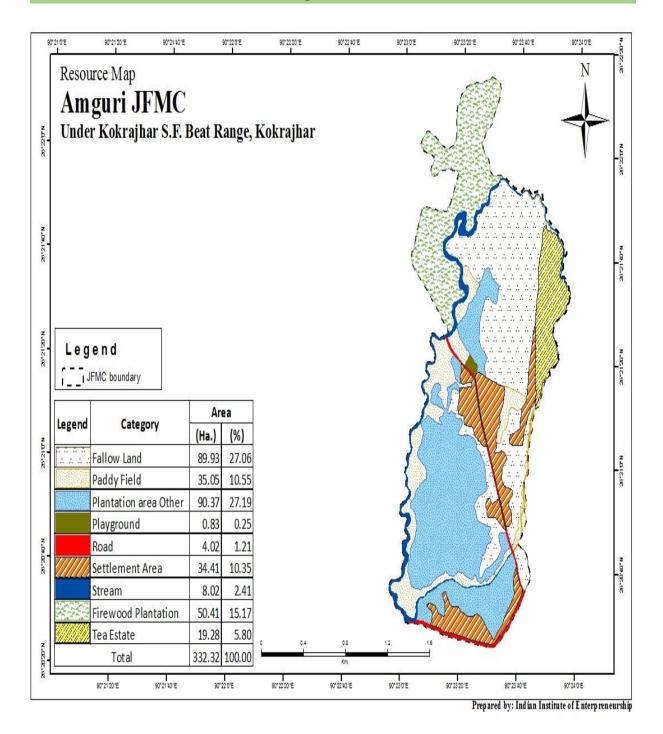




Social-cum-Resource Map Prepared by JFMC Members

Annexure 2

Land Use Maps of the JFMC (GIS)



Annexure 3

PRA ACTIVITY

Location and Timing of Participatory Rural Appraisal:

Numbers of participants:	80
Time:	11:30 am, 9 th June 2016
Venue:	Community Hall (Amguri Village)

Table – 3.1Brief about the AMGURI JFMC

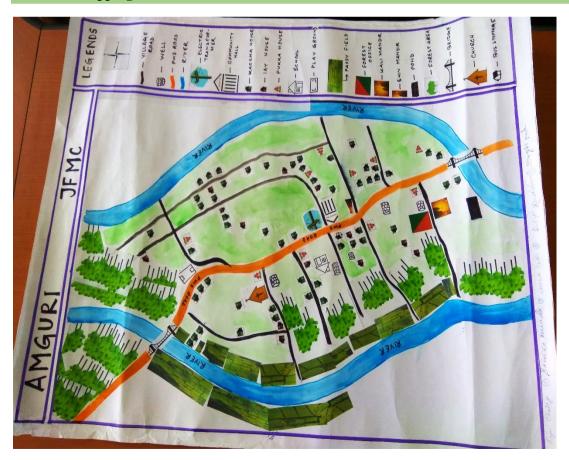
Sl. No.	Name of Village	Village Households Popul	ulation (No.)		Avg. HH	
SI. 140.	. Name of vinage	(No.)	Total	Male	Female	size
1.	Amguri	74	392	218	179	4.76
2.	Total	74	392	218	179	4.76

Source: Field Survey

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

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

3.1 Social Mapping:



Social mapping is used to visualise the socio-economic aspects of the Amguri JFMC where the land holding patterns of the households, the numbers of schools, social infrastructure, and religious beliefs among households. Awareness among the villagers was carried out by the field teams, in order infuse the self-consciousness for protection and enhancement of the forest areas. People from all the households of the village gathered for the PRA process, which was conducted in the community hall of the village. The PRA process marked with enthusiasm and active participation from all people present.

The social and resource mapping process, was undertaken with the help of the villagers in identifying and marking the villager. Villagers voluntarily came out to draw the maps. All the villagers spotted their households in the map. After the mapping process the team members collected the information about the pattern of their dwelling namely pukka, semi pukka, IAY and thatch house.

Details Numbers Social Information Total population 392 218 Male 179 Female Total households 74 Pucca House(Nos.) 11 IAY House(Nos.) 12 Tin Roof Kuccha House (Nos.) 51 Bridges(Nos.) 2 River(Nos.) 1 Community hall(Nos.) 1 7 Community Wells(Nos.) Play Ground cum Grazing filed (Nos.) 1

Table 3.1: Information about the Amguri Village

Findings of social map:

- The participants of social mapping have identified all 75 households out of which 10 households have pucca house; 12 households have IAY house and 53 households have Kuccha House with Tin Roof.
- Other than the class based division of the households, important places like community hall, schools, and playground, stream, well, embankment, check dam, hand pump and bridges are mapped.
- Main sources of water for the villagers are the wells (personal/community), hand pumps, Kaljora River The water from the wells and hand-pumps are used for day to day purposes.
 Though the agricultural land of the village is rain-fed though the water from the river used by the villagers for farming purposes.
- The primary education facility is available in the village which includes a L.P. School and an Anganwadi Centre.
- The village has a community hall.
- The people belong to the Adivasi, Rajbanshi, Nepali and Bengali community. The villagers follow Hinduism or Christianity. Most of the Villagers are from Other Backward Classes and a few are from Scheduled Caste category.

Learnings:

- Electricity is available in about 50 percent of households of the Amguri Village. There is LPG gas connection in 3 homes. Most of households are still dependent on forest and use firewood for their cooking purposes. They used to go to the forest for collecting the firewood, which includes branches and snags. Occasionally, villagers cut down trees from the forest, for their personal use which is a concern for forest department as it is leading to degradation for the forest.
- The primary health centre, bank, post office, high schools are located in Nayekgaon, which is 3 km away from the JFMC.
- ➤ There is also one community hall in the village, which is used by the villagers, where various meetings are held.
- The availability of fodder for domestic animals depend on the resource available in the forest area and the capacity of the household who can rear the livestock's. The Amguri Village is fully dependent on crop residue, trees fodder, grasses, and green fodder. Field residues are materials left in an agricultural field after the crop has been harvested. These residues include stalks and stubble (stems), leaves, and seed pods.
- There are some grazing field where villagers use for their cattle rearing. These fields are available for a maximum of six months.
- ➤ The villagers of the Amguri JFMC have to go Nayekgaon and Chaibari, a distance covered with 3 km, for their weekly marketing activity. Domestic materials, utensils, bangles, cloths and stationeries are sold in different stalls.

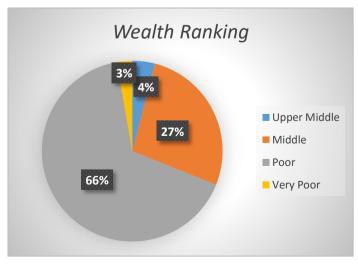
3.2 Wealth Ranking:

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

- a) Land holding
- b) Occupation
- c) BPL Card Holding
- d) Dwelling Status

None of the households in the village are categorised as rich (about 2ha of agricultural land, Pucca House, Non BPL Category, Govt Occupation); 4 per cent of the households belong to Upper middle class (about 2ha of agricultural land, Pucca House, Non BPL, No Dependency on Daily Wage); about 27 per cent (Marginal agricultural land, Kutcha House, BPL Category, Occupation-

Agriculture) are categorised to be the middle level; 27 per cent (Marginal agricultural land, Kutcha House, BPL Category, Occupation-Agriculture); 66 per cent are categorised to be the poor(negligible agricultural land, BPL Category, Kutcha House, BPL Category, Occupation-Daily Wage Earning); and 3 per cent are categorised to be the middle level(landless, BPL Category, Kutcha House, BPL Category, Kutcha House, BPL



3.3 Timeline Review

In order to know the past important cum historical events over time, the team has conducted the timeline analysis. The team members discussed about the local events to the village head, elderly persons and also to some young people to have an idea about how they dealt with those situations and what was the impact of those events on their lives as well as on the development of the village. Our time line illustrates the following events.

Year **Event Type** Establishment of the Village, with settlement of the labour 1925 Establishment brought for Charibari Tea Estate 1960 Establishment of the L.P. School Construction 1980-81 PWD road constructed through the middle of the village Construction 1982 Construction of Kali Mandir Religious Institute 1982 Shortage of Food due to insufficient cultivation output Drought Insurgency, Illegal Deforestation, Degradation of more 100 ha of 1986 Deforestation forest area 1990 First Matriculate Achievement 1996 Bodo Adivasi Clash Political Formation of the Amguri JFMC Social Unit 2005-06 1st plantation undertaken by the JFMC under NAP Forest Regeneration Few families converted into Christianity Religious conversion 2nd Plantation Undertaken by the JFMC under NARMIL (210 ha) Forest Regeneration 2011-12 3rd Plantation Undertaken by the JFMC under APFBC (50 ha) 2014-14 Forest Regeneration

Table 3.3: Timeline review

The Amguri Village has a history behind as the village stood in the pre-independence period in the year 1925. The village was established by the Adivasi people, which were brought to work in the Chaibari Tea Estate.

The village has faced few disorders in form of shortage of food, illegal deforestation, during the period 1980s.

The establishment of the JFMC in the year 2004 has a major impact in regeneration of the degraded for under the Nayegaon RF. The JFMC has undertaken various plantation initiatives in the past 10 years in regenerating 260 ha of forest area.

3.4 Seasonal Mapping of livelihood activities:

Seasonal calendars drawn by the local people are very useful means of generating information about seasonal trends within the community and identifying periods of particular stress and vulnerability. Best undertaken in the context of a group discussion (to help verify the information obtained), seasonal calendars are often drawn on the ground with the relative trends depicted using stones or seeds, as in a preference-ranking matrix. In other instances, simple line graphs can be drawn to show seasonal increases or decreases. A whole series of seasonal variables can be included in one calendar to give an overview of the situation throughout the year. These variables can include: rainfall, crop sequences, labour demand, availability of paid employment, out-migration, incidence of human diseases, expenditure levels, and so on. Important periods, such as festivals, can also be shown.

Seasonal mapping mainly covers the seasonal variation of crops. In seasonal mapping, we considered agricultural crops and the timing of three activities viz. showing, cropping and harvesting criteria and

collected the details throughout the year. From the seasonal mapping, it has been noticed that the main crops grown in the village are Sali rice and Sesonal Vegetables. The FGD conducted revealed that other major livelihood options available in the JFMC are Livestock rearing (Piggery, poultry), shop-keeping, daily wage labourers, mason, tailoring, which are not seasonal in nature but is showed in the seasonal mapping.

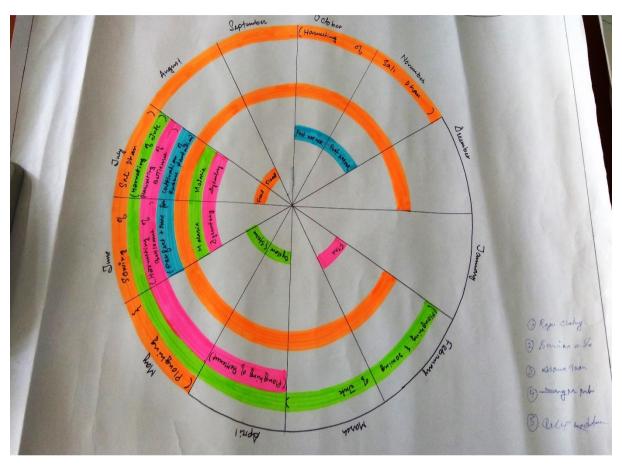
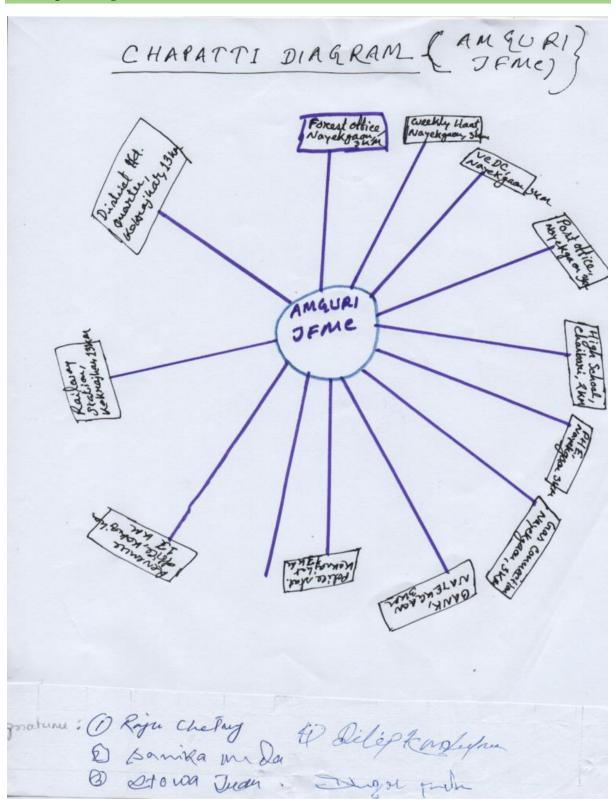


Table 3.4 Seasonal cropping pattern

Categories		Time of Activity					
		Sowing	Harvesting	Plucking			
Farming	Sali	May-June	July-Aug	Oct-Nov			
	Seasonal	Throughout the year					
	Vegetable						
	Farming						
Non-Farming	Livestock						
	Rearing	_					
	Daily Wage						
	Earning		Thursday the see a				
	Shop-keeper	Throughout the year					
	Masonry						
	Electrician	1					
	Tailoring						





3.7 Priority Ranking-Livelihood

7 Priority Ranking- Livelihood

Livelihood Activi	ties	Livestock	Bamboo ProductMaking	AgarbatiMaking	Driving(HeavyMotor)	Tailoring	Masonry	Carpentry	Horticulture	Marks	Marks Rank	
		A	В	С	D	Е	F	G	Н			
Livestock	A	X	В	C	A	A	A	A	A	5	1	
Bamboo Product Making	В	x	х	В	В	В	G	Н	В	5	1	
Agarbatti Making	С	х	Х	х	D	С	С	С	С	5	1	
Driving(Heavy Motor)	D	x	х	х	x	D	G	D	D	4	4	
Tailoring	Е	X	X	X	X	X	G	Н	F	0	8	
Masonry	F	X	X	X	X	X	X	G	I	1	7	
Carpentry	G	Х	х	X	X	X	X	X	Н	4	4	
Horticulture	Н	X	X	Х	X	X	X	Х	X	3	6	

Priority Ranking: Entry Point Activities

Priority Matrix Ranking of Amguri JFMC for Entry Point Activities

Entry Point Activitie	es	JFMC Office	LPG/Solar Stove	Electricity	Table Total	Health Centre	Sanitation	Drinking Water	Market Shed	Fishery	Marks	Rank
		A	В	C	D	E	F	D	G	I		
JFMC Office	A	X	В	C	D	E	F	D	G	1	0	8
LPG/Solar Stove	В	X	X	В	В	В	F	В	В	I	6	3
Electricity	C	X	X	X	C	C	F	C	C	1	. 5	4
Bamboo Product Making Centre-cum- Agarbatti Making Unit	D	x	х	х	x	D	F	D	G	I	5	4
Health Centre	E	X	X	X	X	X	F	D	Е	I	2	7
Sanitation	F	X	X	X	X	X	X	F	F	I	7	2
Drinking Water	G	X	X	X	X	X	X	X	G	I	3	6
Market Shed	Н	X	X	X	X	X	X	X	X	I	0	8
Fishery	I	X	X	X	X	X	X	X	X	X	8	1

5 gratum : O Røju Chetay & Diliptorolytum & Sanika ma Da O Diliptorolytum & Storon Juan . Digot pulm

Annexure 4

PHOTOGRAPHS





PRA ACTIVITY









COMPLETION OF SOCIAL-cum-RESOURCE MAP



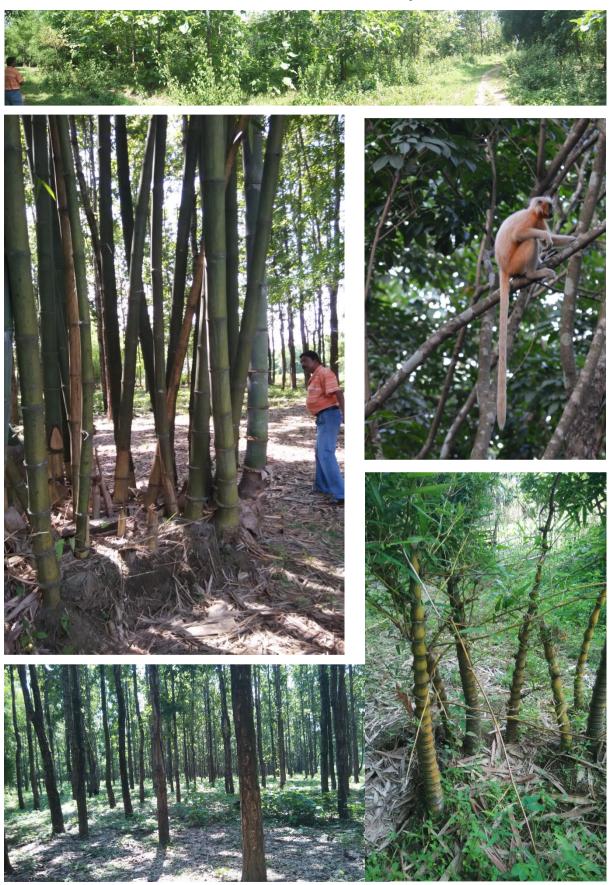
A SNAP OF THE VILLAGERS





FUN TIMES

A VIEW OF THE FLORA and FAUNA of the JFMC



Annexure 5

LIST OF JFMC MEMBERS

RECORD 7: MEMBERSHIP REGISTER

Name of JFMC Division Range SF Kok

Beat 8k Beat, Kok JFMC Code

Sr. No.	Name	Father's / Husband's name	Age	Male / Female	Education	SC/ST / BC/OBC
1	Atua		26	M	11.5	ST
2	Tuadu		26	м	IX	37
3 .	Sanika		.40	M	H.S.LC	rt
4	2 417 70		11	M	VIII	51
5						

4.	Mangala Sulredbor 55%	on (M)
	Chely 4442 /E)
6.	Lakhi Muranu (F) - 50	0
2.	Manah Sutradler (M) -	(10).
8.	Raju elichen (10)	28 24
9.	Raju chetrey (42) (M2)	(plenidout
<i>y</i>	Dilip Sankar (M) (Me	nukee
		ee.

Annexure 6 (Record I)

Table 1: Basic data of the village:

Table 1: Basic data of the JFMC

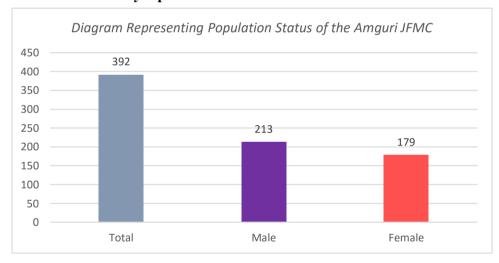
Sl no	Name of the JFMC	Date of establishment	No. of members in executive committee	Name of the president	Name of the secretary
1	Amguri	2004	11	Raju Chetry	Dilip Sarkar

Table 2: Village wise population data:

Table -2: Demographic status of the project villages

Sl. No.	Name of village	Households	Population			Sex ratio	Avg. HH
		(No.)	Total	Male	Female	(per 1000 male)	size
1	Amguri	75	392	213	179	840	5.23
	Total	75	392	213	179	840	5.23

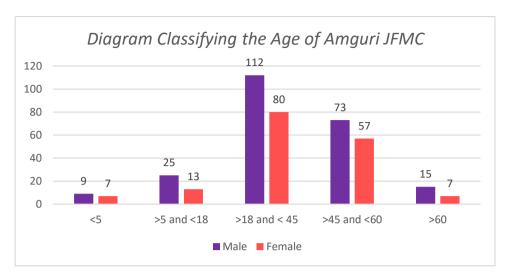
Source: - Field survey report.



Age Profile: The adult generation between the age of 18-45 year of Amguri Village outnumbers the other generations. Only 5% of the villagers are Senior Citizens. The younger generation (upto 18 years of age) account about 14% of the villagers.

Table -2.2: Age Profile of the population

Age Classification	<5	>5 and <18	>18 and < 45	>45 and <60	>60
Male	9	25	112	73	15
Female	7	13	80	57	7



Literacy Status: The Amguri Village has cumulative literacy rate of 69.6%, which below the national rate of 74%(2011). More than two-fifth of the

Table – 2.3: Status of literate person in the Amguri JFMC

Sl. No.	Name of	Households	Population (No.)		Literacy Rate
	Village	(No.)	Total	Total Literates	(%)
1	Amguri	75	392	286	73
	Total	46	392	286	73

Source: - Field survey report.

Table-2.4: Classification of educational status

Sl	Categories	Percentage
no		
1	Illiterate	23%
2	Up to ME	27%
3	Class VIII	16%
	to class X	
4	Class X to	25%
	XII	
5	Graduate	5%
6	Children	4%

Source: Field Survey Report

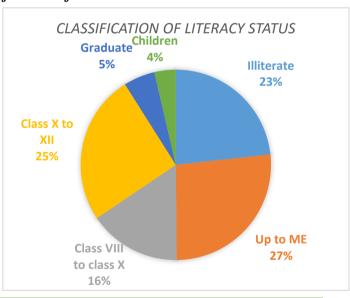


Table 3: Village wise farmer category on the basis of land holding:

Table3 Village wise farmer category on the basis of land holding

Sl no	Name of the	Type of famer according to land holding							
	village	Large small		Marginal farmer	Land less	Total			
		farmer	farmer	(household)	(household)				
		>10 ha.	2-10 ha.	<2ha.					
1	Amguri	-	2	71	2	75			

Table 4: Cattle Population:

Table 4: Cattle Population of the JFMC

Sl	Name Of		Village Wise No Of Cattles Or Type Of Animal								
No	The	Cows	Buffaloes	Goat	Sheep	Bulls	Camels	Pig	Poultry	Total	
	Village										
1	Amguri	208	-	40	-	-	-	103	326	676	

The domesticated animals of the Amguri village includes both animal and poultry. Animals includes both cattle and livestock which include cows (31%), goats (6%) and pigs (15%). Poultries account for about than half of the total domesticated animals. Hen/Cocks are preferred by most of the households in the village. These poultry are kept for domestic consumption as well as selling purposes.

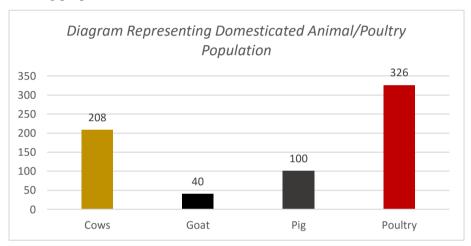


Table 5: Village wise Infrastructure:

Table 5 showing village wise infrastructure

Sl No	Infrastructure	Location	Distance from village
1.	Electricity	Within the Village	-
2.	Gas connection	Nayekgaon	3km
3.	Transport	Within the Village	-
4.	PHE	Nayekgaon	3km
5.	LP school	Within the Village	
6.	High school	Chaibari	2km
7.	Bank	Kokrajhar	2km
8.	Anganawadi centre	Within the Village	-
9.	VCDC	Nayekgaon	3km
10.	Revenue Office	Kokrajhar	7km
11.	Police station	Kokrajhar	7km
12.	Forest Office	Nayekgaon	7km
13.	Post office	Nayekgaon	2km
14.	Bus facility	Within the Village	-
15.	Railway Station	Kokrajhar	2km
16.	District head quarter	Kokrajhar	7km

Table 6: Agricultural crops

Table 6 Agriculture Crops

Type of Crop	Rain Fed		Irrigation	
Type of Crop	Name of the crop	Area (in ha.)	Name of the crop	Area (in hac)
Kharif	Sali Rice	50	-	-
Others	Vegetable, Fruits	10	-	-

Table 7: Crop production profile of AMGURI JFMC:

Table 7 Crop production profile of AMGURI JFMC

Type of crop	Total	No of household	Average production	Area under crop
	Production	growing	(Metric Ton / hac)	(hac) approx
	(approx) in		approx	
	Metric Ton			
Paddy	121	71	1.88	64
Vegetable	5	75	1.3	4
Fruits	5	75	1.3	4

Table 8: Fodder Availability (animal)

Table 8 fodder availability of the JFMC

Types	1-3 month	3-6 month	>6 month
Crop residue	•	✓	-
Trees fodder	-	✓	-
Grasses	-	-	✓
Green Fodder	-	-	✓
Grazing in Forest	-	-	✓

Table 9: Location of market from the village

$\it Table~9~Location~of~market~from~the~village$

For Purchase	Location	Distance from village if in other village (in km)
Grocery shop	Within the Village	-
Weekly Market	Nayekgaon	3 km
Major Market	Kokrajhar	7 km
Forest Corporation Sale Depot.	NA	-
Tendu Patta PHAD	NA	-
Fish Market	Nayekgaon	3 km
Medicinal Plant collection Centre	NA	-
Forest Corporation Medicinal plant Collection Centre	NA	-

Table 10: Water Resources Facility:

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

Water source	Number	Availability of water	uses
River	1	Perennial	Agricultural use, Fishing
Community ring well	7	Perennial	-

Table 11: Energy consumption:

Table 11 showing the Energy Consumption of the JFMC

Type of Fuel	Number of	Number of	Sources (local,	Major/ Secondary
	household	months dependent	village, forest,	
	depending		other sources)	
Fuel wood	71	12	Forest	Major
Kerosene stove	60	12	Market	Secondary
Gobar/Bio gas	NA	-	-	-
LPG	3	12	Market	Major
Electric Healer	NA	-	-	-

RECORD: II

LIVELIHOOD OPPORTUNITY ANALYSIS

Table 12: Agriculture and Horticulture:

Table 12: showing the agricultural and horticultural status

	1 avie 12: snowing the agricultural and norticultural status				
Constraints	Reason	Opportunities	Programme		
Low Production	 Traditional way of cultivation. Only one crop undertaken annually (Sali) Very negligible use of fertilizers and pesticides, insecticides. Lack of irrigation facilities. Lack of agricultural infrastructure, modern tools and equipment's viz, power tillers, tractors etc. Non usages of high yielding seeds. 	 Application of proper and controlled pesticides and insecticides. Introduction of new and advance technology. Well-structured training programme. The villagers are inherited with the skill of cultivation. But an improvisation of skills is the need of the hour. Usage of high yielding seed programme. 	 Tractor operation training Agri-skill development programme. Training on insecticides, pesticides, hybrid cultivation 		
Storage and Production	 Lack of common storing place Lack of cold storage facility due to non-availability of electricity 	 Helpful in preserving unsold products for a longer period of time. They can store their product and sell it when there is a higher demand. 	 Packaging Transportatio and distribution. 		
Marketing	Lack of transporting facilities for carrying products	Smooth transportation facility will help the farmers to carry their products to the nearby markets.	Minimum support price arrangement		

(Less contact with the direct market; much	•	Generate highest market price by removing middle	
(dependency upon middle		men.	
1	man	•	More knowledge about the	
	No knowledge on marketing know-how,		current market situation as well as the current value of	
(dependence on traditional system of selling.		their products.	

Table 13: Livestock

Table 13 Livestock

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

Table 14: NWFP

Table 14 NWFP

Constraints	Reasons	Opportunities	Programme
Less collection	NWFP Plantation have not borne collectibles yet	30 ha of plantation available	Additional plantation of NTFP to be undertaken
Unsustainable extraction	-	Availability of fertile fallow land	-
Low rates	-	-	-
Value addition	 No processing units Non availability of required resources No technical know-how 	-	-

Table 15: Specialised skill

Table 15: Specialised Skills: Bamboo Products

Constraints	Reasons	Opportunities	Programme
Raw Material Availability	-	Available Raw materials	-
Product quality	Lack of Skills	Developing Quality Products for new market exploration.	 Training on Modern Tools and Equipment. Providing modern technology to the villagers
Marketing Potential	 No standardised market No pricing policy No linkage with the institutional buyers No Product Development. 	Exploring access to new markets	Providing a bulk buy arrangement of the finished product with institutional buyers.
Credit Facilities	 No linkage with the banks or post office saving banks. Unaware of the development schemes of banks and government 	 Financial assistance by the Govt. Providing easy access to credit. 	Microfinance, Term Loans, Working Capital Arrangement
Product Diversification	 No Product Diversification Lack of concept for product diversification. 	Developing Demand Based Products, as per the needs of the modern day market.	Skill Upgradation & Training on New Product Development and Product Diversification

Table 16: Credit facility

Table 16 Credit facility

Constraints	Reason	Opportunities Programme
Indebtness	No Access to organized lending source	• Setting up modern financial institution in the nearby areas. Financial inclusion initiative
Rate of interest	Higher lending rates charged by the private money lender	Subsidised credit arrangement
Availability of loan	Fear of risk takingNo knowledge of documentation	• Start-ups entrepreneurial venture
Mortgage difficulty	Unavailability of proper documentation of mortgaged property.	 Proper awareness about documentation in the area

Annexure 7

List of Beneficiaries identified for livelihood Generation activities

1) Mixed Livestock

Trade:	MIXED LIVESTOCK	RAJABAHA DUR	AMSON	DRADUATE	36		OBC .	Park	
Locatio n:	AMGURI	CHETRY							
Start Date:	24-08-2016	MINDA		D LIVEST	OCK	0			
End Date:	02-09-2016	HASADA	(R)						
Master Traine r	DR. MRINMOY KALITA	MANGLA SUTRADHA R							
SL NO	PARTICIPAN NAME	GUARDIAN NAME	ADDR ESS	QUALIFIC ATION	A GE	GEND ER	CATEG	CONTAC	
SLINO	KUWARI	BINOY	AMGU	V	30	F	OBC	T NO N	
1	URAO	MUNDA	RI		100		OBC	To the second	
2	MANI MUNDA	BAJO MUNDA	AMGU RI	N	55	М	OBC	N	
3	BINAY MUNDA	MANI MUNDA	AMGU RI	VIII	32	M	OBC	N	
4	SIBANATH HASDA	THEPAI HASADA	AMGU RI	IV	29	М	OBC	N	
5	PALO MUNDA	MANI MUNDA	AMGU RI	N	52	F	OBC	N	
6	BONE SUTRADHAR	KORNO SUTRADHA R	AMGU RI	VII	25	F	SC	N	
7	PRAMILA SUTRADHAR	DHANIRAM SUTRADHA R ·	AMGU RI	IV	35	F	SC	N	
8	POMPI SUTRADHAR	MOHEN SUTRADHA R	AMGU RI	IV	28	F	SC	N	
9	LEELA CHETRI	KHARKE BAHADUR CHETRI	AMGU RI	VIII	40	F	OBC	N	
10	MINA LUGUN	MANGRA LUGUN	AMGU RI	V	34	F	OBC	N	
11	SHANIYARA MUNDA	LT. JUNGA MUNDA	AMGU RI	N	45	F	OBC	N	
37	MINA SUTRADHAR	BISHNU SUTRADHA	AMGU RI	VI	26	F	SC	N	
12	KABITA	R KHARKE	AMGU	HS	19	F	OBC	847386136	
13	CHETRY	BAHADUR CHETRY	RI	110	12	1	OBC	7	
14	NISHA HASADA	SUBHASH MARDI	AMGU RI	VIII	25	F	OBC	813309007 3	
15	SUBINA LUGUN	PUSA LUGUN	AMGU RI	HSLC	24	F	OBC	967892981 5	
41_	ATOWA TUDU	LT LALMOHAN	AMGU RI	HSLC	24	М	OBC	N	
16	MINIKA MARDI	ATOWA TODU	AMGU RI	VI	22	F	OBC	N	
18	DUGURU MUNDA	LT MANGAL MUNDA	AMGU RI	VII	50	М	OBC	N	
19	KOWAR TUDU	LT DURJON TUDU	AMGU RI	HS	23	М	OBC	N	

Member Secretary Amguri J F. M.C.

20	PUSHPA CHETRY	RAJABAHA DUR CHETRY	AMGU RI	GRADUATE	36	F	OBC	N
21	SANIKA MUNDA	JUNGA MUNDA	AMGU RI	HSLC	36	М	OBC	N
22	MANKO MARDI	LT THEPAI HASADA	AMGU RI	N	60	F	OBC	N
23	BISHNU SUTRADHAR	MANGLA SUTRADHA R	AMGU RI	VI	29	M	SC	N
24	AGNESH URAW	PIUSH URAW	AMGU RI	IX	28	M	OBC	813503220 5
25	SUNITA HASDA	DIBU TUDU	AMGU RI	VII	23	F	OBC	N
26	DILIP KANDULNA	LT GOMA KANDULNA	AMGU RI	IX	48	М	OBC	84738418: 8
27	RUPAN KANDULNA	BIRASA KANDULNA	AMGU RI	V	21	F	OBC	708628220
28	MINA KANDULNA	BIRSHA KANDULNA	AMGU RI	VI	23	F	OBC	99575948
29	BASANTI BISHWAKAR MA	GYAN BAHADUR BISHWAKA RMA	AMGU RI	IV	34	F	OBC	84738761 2
30	SUMI KISKU	DHENA KISKU	AMGU RI	V	29	F	OBC	N
31	ANJALI MURMU	MONIRAM TUDU	AMGU RI	IX	21	F	OBC	N
32	SUNATI MINJ	AGNESH MINJ	AMGU RI	VII	24	F	OBC	80037558 22
33	RINIKI KONDULNA	DILIP KONDULNA	AMGU RI	IX	19	F	OBC	70358534
34	KUNGKI MUNDA	HINDU MUNDA	AMGU RI	П	44	F	OBC	N
35	SUMI URAW	BASDO URAW	AMGU RI	. v	28	F	OBC	N
36	NIKASHI RAY	LT SHOLTA SUTRADHA R	AMGU RI	П	45	F	OBC	N
37	APENI MARDI	PANDU MARDI	AMGU RI	HSLC	21	F	OBC	73996306
38	CHAULI SUTRADHAR	SANJIT MODAK	AMGU RI	III	34	F	OBC	N
39	SUKURMONI MUNDA	BANA MUNDA	AMGU RI	VII	26	F	OBC	84728408-
40	TUPE SUTRADHAR	PANESHWA R SUTRADHA R	AMGU RI	VI	30	F	SC	N
41	BUDIN MURMU	LT BARAKA TUDU	AMGU RI	III HSLC	38	F	OBC	N

Member Sacretary
Amguri J.F.M.C.

2) Apparel made-ups making

SI. No.	Forest Division	JFMC	Skill (trade)	Start Date	End Date	Master Trainer (Name, Organizatio n)	Participant	Guardian	Qua lific atio n	Age	Ge nde r	Cate gory
1	Kokrajhar SF	Amguri	Apparel and Made-ups Making	26-Oct-16	24-Nov-16	Pooli Barman, Dimpi S. Barooah	MINA KANDULNA	BIRSA KANDULNA	VIII	21	F	ОВС
2	Kokrajhar SF	Amguri	Apparel and Made-ups Making	26-Oct-16	24-Nov-16	Pooli Barman, Dimpi S. Barooah	SUKURMONI MUNDA	BANA MUNDA	HSLC	22	F	ОВС
3	Kokrajhar SF	Amguri	Apparel and Made-ups Making	26-Oct-16	24-Nov-16	Pooli Barman, Dimpi S. Barooah	DURJAN TUDU	BISWANAT H TUDU	IX	21	М	ОВС
4	Kokrajhar SF	Amguri	Apparel and Made-ups Making	26-Oct-16	24-Nov-16	Pooli Barman, Dimpi S. Barooah	MONIN HASDA	MONUN HASDA		18	М	ОВС

Divisional Forest Office Field Implementation Uni S.F. Division, Kokrajha