

**Forest Department** 



ASSAM PROJECT ON FOREST & BIODIVERSITY CONSERVATION



# Udito Suruj Joint Forest Management Committee (JFMC)

Kakopathar Range, Forest Doomdooma Division Tinsukia District, Assam

> Micro-Plan (2016-17 to 2025-26)

# Prepared by Kakopathar Joint Forest Management Committee

assisted by

**Assam Forest Department** 

&

COMPELO (IIE, RGVN and CML)

**July 2016** 

cer Divisional Fore Doomdooma Division DoomJootha

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# LIST OF ACRONYMS

ACF	Assistant Conservator of Forests
AFD	Agence Francaise de Development
APFBC	Assam Project on Forest & Biodiversity Conservation
APL	Above Poverty Line
BPL	Below Poverty Line
CCF	Chief Conservator of Forests
CF	Conservator of Forests
CML	Centre for Microfinance and Livelihood
COMPELO	Consortium On Micro Planning And Enhancement of 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	Gaon Panchayat
На	Hectare
HH	Households
IIE	Indian Institute of Entrepreneurship
JFMC	Joint Forest Management Committee
MoEFCC	Ministry of Environment, Forests & Climate Change
MT	Metric Ton
NTFP	Non Timber Forest Produce
OBC	Other Backward Classes
SDP	Skill Development Programme
ST	Scheduled Tribes
SC	Scheduled Caste
PHC	Primary Health Centre

PMU	Project Monitoring Unit
PRA	Participatory Rural Appraisal
RO	Range Officer
RGVN	Rashtriya Gramin Vikash Nidhi
SDG	Sustainable Development Goals
SLF	Sustainable Livelihood Framework
SWOT	Strength Weakness Opportunity & Threat
WPC	Working Plan Circle

# UDITO SURUJ JOINT FOREST MANAGEMENT COMMITTEE Kakopathar Range, Doomdooma Division

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

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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 <i>Agence France de Dévelopement</i> (AFD) - i.e. the French Development Agency, with co-funding from the Government of Assam. The Assam Project on Forest and Biodiversity Conservation Society (APFBC Society) has the mandate for planning, implementation, monitoring, coordination and management of all the activities under the above mentioned project.
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, <i>Rashtriya Gramin Vikas Nidhi</i> (RGVN) and Centre for Microfinance and Livelihood (CML) has been formed to implement ( <i>inter</i> -alia) the micro-planning and livelihood development under the above project. The above consortium has been titled as 'Consortium for Micro Planning and Enhancing Livelihood Opportunities' - COMPELO in short. As per project guidelines, this micro-plan includes 'various operations of village and forest development livelihood support of forest dependent members and keeping sustainable forest management as the broad objective'. It includes both forest development and livelihood development.
Micro-Plan for the Udito Suruj JFMC	This document gives the Micro-Plan for the Udito Suruj JFMC, which is located in the Tinsukia district of Assam. The Udito Suruj JFMC falls under the jurisdiction of the Kakopathar Forest Range under Doomdooma Forest Division. 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 personal of Centre for Microfinance and Livelihood (CML) GuwahatiinJune2016.The micro-plan has been compiled by CML based on the project guide lines. The document has been discussed and finalized for adoption in July 2016.

# 2. Village Socio-Economic profile

Location Key Information	Naharijan. The JFMC falls almost 16kms from the Divisi Nearest town of the village	under Duamora ional Forest Offic is Doomdooma a owns are 6 kms ar kia which is 35 km Map	nd Tinsukia and the distance from ad 8 kms respectively. District head ms away.	
	Name of the JFMC	Udito Suruj		
	District	Tinsukia		
	Forest Division	Doomdooma		
	Forest Range	Kakopathar		
	Year of Formation	2015-16		
	Forest Area Allotted	30		
	Total Household	430		
	Nos. of JFMC Village	430 Salengguri		
	Description of boundary of JFMC	<ul> <li>North : Meg</li> <li>South : Kak</li> <li>West : Luk</li> <li>East : Bora</li> </ul>	opathar hang	
	Beat Office Name	Kakopathar		
	Source: JFMC Records & I Additional details are given a		<b>g PRA Exercise in June 2016</b> rd-I. (Given at Annexure)	
BriefDetailsoftheExecutiveCommittee&	contained in the table given b	elow:	General Body of the JFMC are	
General Body	Table – B : Brief details of I         Name of President	Executive Comm	Mr. Bireswar Moran	
	Name of Secretary		Prabin Mahanta	
	Name of the Treasurer		N/A	
	No. of Members in Executiv	ve Committee	10 (Male: 9, Female:1)	
	No. of Members in the Gene		430	
	Source: JFMC Records	5	<u> </u>	
Households & Population Structure	The JFMC has one village na of 430 and the total populatio		and ubhota with a total households	

	The total male population stands at 1556 whereas the total female population is 1593. Hindu is the dominant religion practiced of the JFMC and residing communities is Ahom, Moran and Nepali.
	Almost 90.50% of the total population belongs to OBC category.
	The average size of the households is 7.32 and the sex ratio is 7323.26 females per 1000 males in the JFMC villages.
	As per the household survey conducted, 67.2% of the households are BPL whereas 32.8% belong to APL category and the status of the remaining households have not been reported in the field survey conducted. This signifies that the economic condition of majority of the households in the JFMC is not better off. Only 889 households possess Government ration cards.
	Table-2 of Record-I may be referred for further details in the above regard.
Education & Skill Development	The literacy rate in the Udito Suruj JFMC is of 52%. Around 16% of thehouseholds from the area is illiterate. Majority of population have studied uptoclass IV only The female members from the area have weaving as a traditional skill,available with them. The male members from the village have skills like masonry andtechnical knowledge is prevalent among the youths from the area, which is mainlycomputer knowledge and literacy.
	The households are dependent on agriculture for their income. Under agriculture they mostly go for the cultivation of rain fed paddy. Almost all the households have agricultural land and they are engaged in the cultivation of other seasonal crops like mustard, green leafy vegetables, brinjal, cabbage, ginger etc.
	Provision of Education facility up to primary level is satisfactory in the village as there is one primary school, one Anganwadi centre. But, for any education beyond that the children need to travel to the nearest town Kakopathar.
	So the activities which has been found out in the area are:
	<ol> <li>Agriculture-paddy and rabi crop cultivation</li> <li>Livestock Rearing</li> </ol>
Soil	There are three types of soil available: sandy loam, loam and clay loam in Udito Suruj JFMC villages.
	These favour the cultivation of Summer rice (Sali paddy), Rabi crops including mustard, pea, seasonal vegetables, ginger etc.

Water	Ground water is the main source of drinking water. Good quality water is available to the villagers around the year. Almost every household has tube well connections and wells. There are natural small outlets.
Climate: Temperature & Rainfall	Highest temperature is generally observed in the months of July/August (35°C) and lowest is in the months of December/January (7-8°C). Humidity is the morning hour's ranges from 90-95% and 50-70% in the afternoon hours. The climate of the region is sub-tropical wet and is characterized by hot and humid summer and dry cool winter.
	The Udito Suruj JFMC is experiences 2300 to 3000 mm rainfall per year. Average annual rainfall of the area is 2819 mm. While normal rainfall (1901-1950) is 2796.4 mm. It is observed that on an average 64 to 68% of annual rainfall is received during the monsoon period (June-September) and 22-26% of annual rainfall during pre-monsoon period (March-May).
Forest & Bio-	The local forests have been broadly classified as- Tropical Wet Evergreen forest.
diversity	The nearby forest is enriched with various tree species like- Lagerstroemia parviflora (Sida), Delonix resia (Radhasura), Cresiniferum (Dhuna, Dhup), Ficus hispida (Dimoru), Caeslpima pulcherima (Krishnasura), Tetrameles mdiflora (Bheleu) and Tactona srandis (Segun) etc. The forest can yield elephant apples, bamboo, thatch, fodder, medicinal plants.
	Additional information is provided in 'Forest Development Plan'.
Land Use Pattern	<b>Appendix-2</b> gives the land-use pattern of the village. From the same, it is seen that the land-use in the village is as follows:
	<ul> <li>Firewood plantation- 30%</li> <li>Forest degraded- 15%</li> <li>Paddy field- 10%</li> <li>Pond- 5%</li> </ul>
	<ul><li>Road-3%</li><li>Settlement area- 7%</li></ul>
	• Stream -15%
	<ul> <li>Tree Clad area- 7%</li> <li>Water body- 8%</li> </ul>
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:
	<ul> <li>62.93% HH (73 HH) have farming lands</li> <li>Large farmer (&gt; 10 ha.) 2.09% (5 HH)</li> <li>Small Farmer (2 – 10 ha.) 6.97% (18 HH)</li> <li>Marginal Farmer (&lt;2 ha.) 37.44% (50 HH)</li> <li>Landless 53.47 % (43 HH)</li> </ul>

Livestock	The total number of livestock in the village is 654. The main types of livestock
	possessed by the households include:
	• Cattle -387
	• Bull- 420
	Buffaloes- Nill     Delte 2220
	<ul><li>Poultry -2329</li><li>Pigs- 66</li></ul>
	• Goat- 435
	Table-4 of Record-I may be referred to for the details in the above connection.
Village Infrastructure &	In any community; the availability of basic infrastructure enables the development of sustainable livelihood options.
Communication Facilities	The infrastructures which are available in the villages can be categorized into the following heads:
	• <b>Physical Infrastructure:</b> The households have the basic amenities including electricity, mobile phones, cycles and motorbikes for communication purposes. The villages are well connected to the main road which connects them to the town.
	• Education and Health facilities: Education and health facilities include 6 lower primary school, 9 anganwadi centers, one public health center which is avaiblable with the families.
	• <b>Govt. Offices:</b> The Government offices and line departments which are existing in the area are Panchayat office, Revenue office, local police station, Forest beat office but those all are located in a considerable distance from the villages.
	• <b>Financial Institutions:</b> There are banks and post offices which are present in the area but they are at a considerable distance of at an average distance of 5 km from the villages.
	Table-5 of Record-I, which gives the present status of the village infrastructure.
Agricultural Crops	The details of the agricultural crops grown in the village is available at Table-6 of Record-I.
	• Only 6% of the households from the villages are engaged in Sali paddy cultivation.
	• Proximity to the Doomdooma town and limited farm landholding discourages the farmers from engaging in agriculture and certain traditional fruits like jackfruit, mango, banana and vegetables are grown by the farmers.
	• Few families have also started engaging in the cultivation of small scale tea gardens.

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.
1 Ioine	crops grown in the vinage.
	The production and yield details of the crops grown in the village are as follows. The crop cultivated by the families is basically rain fed.
Fodder Availability	The matter of fodder availability in the village is dealt with at <b>Table-8 of Record-</b> <b>I.</b> The above shows that the main sources of fodder in the village are:
	<ul><li>Crop residue,</li><li>Grazing in forest,</li></ul>
	<ul> <li>Household vegetable wastes</li> </ul>
	Green Fodder
Markets	Table - 9 of Record-I shows the location of the different markets from the village. The main markets used by the community and its distance from the JFMC villages are mentioned below:
	• The Grocery/ PDS shops: Nearly 1kmdistancefromvillage
	• The Weekly/ Bi-weekly Market Nearly 3 km away
	Major Market: Doomdooma and kakopathar (nearly 3km away)
Water Resources	The water resources are tabulated at <b>Table-10</b> of Record-I. The main water resources with the water availability is as follows:
	• Tube-well: 400 Nos. (Adequate)
	River: 1 No. (Adequate)- Digboi River
	• Ring well: 12
Energy Consumption	<b>Table-11</b> of Record-I shows the major sources of energy in the village. The same have been listed below.
	<ul> <li>Firewood: Households Depending: 460 Nos. Source: Local forest area</li> <li>Kerosene: Households Depending: 460 Nos. Source: outside market.</li> <li>LPG: Households Depending: 57 Nos.</li> </ul>
Socio-economic status	<b>Social set up</b> - The villages are inhabited by people mostly belonging to the OBC category. The society overall is not marked by deep caste divisions. The observed position of women is satisfactory.
	<b>Economic Conditions</b> - The economic condition of the people in the area is overall satisfactory. The annual income of the household ranges between Rs 20,000 to Rs 1, 50,000 per annum for the households.
	The families belonging to the OBC categories don't migrate much from the villages, but there are some Nepali families who have youths migrating to neighbouring town in search of stable employment.
Maps	Annexure-1 gives the following maps, based on PRA exercise:
	<ul> <li>Village Map</li> <li>Village Social Map (with the names and particulars of members in PRA)</li> <li>Village Resource Map</li> </ul>

# 3. Livelihood opportunity analysis

r				
PRA Exercise			ati carried out PRA exercis	se in Salengguri Gaon
	Panchay	at village as follows	8.	
	• ]	Date: 07-11-2016		
	• ]	Location: Salenggu	ri GP office	
		Numbers Present:		
		nce of: JFMC offi epartment personne	ce bearers, Village Headman	n, community members,
Objective of		cific objectives of the		
PRA	×F			
		understand the li alence and challeng	velihood options existing ges.	within the region, its
	b) Bette	er understand the c	redit needs of the poor and t	heir coning mechanism
			hallenges, and opportunities	
			financial services and	
	a) Idan	tifu aviating line 11	and annout markerstand	l avalore vickle article
			ood support mechanisms and od support services for in	
		loyment opportunit		
Tools Used & Outcomes of	In this st	udy, different tools	were used. These includes	
the PRA	•	Social Mapping		
		Resource Mapping,		
		Wealth Ranking,		
		Seasonality of Live	lihoods and	
<b>D</b> 1'		Venn diagram	1 0 1 0 11 1	
Ranking	Ranking	exercise has been o	done for the following:	
	• ]	Livelihoods & Skill	ls Development	
		Entry Point Activiti	-	
			1 5 1 1	
	Appendix-3 elaborates the above. From the same, it is stated that: Ranking of Livelihoods & Skills Development			
	Kaliking		skins Development	
		Agriculture		
		Livestock		
	3.	Medicinal Plant		
	Ranking	g of EPA		
	Rank	Village EPA as	Details	Probable source of
		ranked	(Appendix-3 has	funding/ Department
	1	Dood	additional particulars)	
	1	Road	Black Taping	PMGSY/ PWD
	2	Community Hall	With a modern Facility .	PNRD/DRDA
	3	Sanitation	Modern sanitised toilets.	Swach Bharat Aviyan
	4	LPG	Free LPG connection	Govt .Subsidy

			Scher	ne		
Livelihood opportunities	Livelihood Opportunities were identified as for	llows:				
	Keeping the view of the present livelihood of of skill needs/ skill preference of JFMC hav	e been anal	ysed.	The ca	ategor	isatio
	has been divided into farm sector and non-			-		
	preference towards skill development training the following chart.	programme	s have	been	prese	nted in
	Table I: Livelihood Opportunities Ranking					
	Type of training programme	Mark	the pr	eferre	d opti	ion
		1	2	3	4	5
	• Weaving	1	-	-	-	-
	Food Processing	-	-	-	4	-
	Computer training	-	2	-	-	-
	Organic Tea Production	-	-	-	4	-
	Pisciculture Source: PRA	-	-	-	4	-
Agriculture &	It is observed during the PRA that preference highest. This is because of the available reso second and third preference is given to food fourthly they were giving interest on Organ sector like activities are came less into focus. <b>Table-12</b> under Record-2 may be seen in this	ource presend d processing nic Tea proc	t in the g & Co duction	e JFM omput n and	C are er tra 1 Pisc	a. The ining iulture
0	highest. This is because of the available reso second and third preference is given to food fourthly they were giving interest on Organ sector like activities are came less into focus.	ource presend d processing nic Tea proc	t in the g & Co duction	e JFM omput n and	C are er tra 1 Pisc	a. The ining iulture
0	<ul> <li>highest. This is because of the available resonant second and third preference is given to food fourthly they were giving interest on Organ sector like activities are came less into focus.</li> <li><b>Table-12</b> under Record-2 may be seen in this areas of agriculture and horticulture.</li> <li><b>The main constraints are:</b> <ul> <li>a) Very negligible use of fertilizers and p</li> <li>b) Lack of irrigation facilities</li> </ul> </li> </ul>	burce presend d processing nic Tea proc s connection pesticides, in	t in the g & Co duction	e JFM omput n and pportu des.	C are er trai 1 Pisc	a. The ining iulture in the
0	<ul> <li>highest. This is because of the available resonant second and third preference is given to food fourthly they were giving interest on Organ sector like activities are came less into focus.</li> <li><b>Table-12</b> under Record-2 may be seen in this areas of agriculture and horticulture.</li> <li><b>The main constraints are:</b> <ul> <li>a) Very negligible use of fertilizers and provide the sector provides the sector provides of the sector provides the sector prov</li></ul></li></ul>	burce presend d processing nic Tea prod s connection besticides, in odern tools a	t in the g & Co duction	e JFM omput n and pportu des.	C are er trai 1 Pisc	a. The ining iulture in the
0	<ul> <li>highest. This is because of the available resons second and third preference is given to food fourthly they were giving interest on Organ sector like activities are came less into focus.</li> <li><b>Table-12</b> under Record-2 may be seen in this areas of agriculture and horticulture.</li> <li><b>The main constraints are:</b> <ul> <li>a) Very negligible use of fertilizers and p b) Lack of irrigation facilities</li> <li>c) Lack of agricultural infrastructure, more power tillers, tractors etc.</li> </ul> </li> </ul>	burce presend d processing nic Tea prod s connection besticides, in odern tools a besticides an nology The village	t in the g & Co duction n for o n sectici nd equ d insec rs are	e JFM omput n and pportu des. ipmen cticide inheri	C are er tra l Pisc nities t's viz s.	a. The ining iulture in the z,
Agriculture & Horticulture	<ul> <li>highest. This is because of the available resonant third preference is given to food fourthly they were giving interest on Organ sector like activities are came less into focus.</li> <li><b>Table-12</b> under Record-2 may be seen in this areas of agriculture and horticulture.</li> <li><b>The main constraints are:</b> <ul> <li>a) Very negligible use of fertilizers and p</li> <li>b) Lack of irrigation facilities</li> <li>c) Lack of agricultural infrastructure, more power tillers, tractors etc.</li> <li>d) Non usages of high yielding seeds etc.</li> </ul> </li> <li><b>The opportunities are:</b> <ul> <li>a) Application of proper and controlled p</li> <li>b) Introduction of new and advance technic.</li> </ul> </li> </ul>	purce presend d processing nic Tea prod s connection pesticides, in odern tools a besticides an nology The village provisation	t in the g & Co duction n for o usectici nd equ d insec rs are of thei	e JFM omput n and pportu des. ipmen cticide inheri ir skill	C are er tra l Pisc nities t's viz s.	a. The ining iulture in the z,

	The main constraints are:
	<ul><li>a. Unable to buy fodder from market due to poor financial condition.</li><li>b. Trees fodder n crop residue are available only for 3-6 months. Green fodder is also not available for the whole year.</li></ul>
	c. No veterinary care clinic.
	d. Lack of knowledge about the proper rearing of live stock
	<ul> <li>The opportunities are:</li> <li>a. Higher income from livestock rearing.</li> <li>b. A huge demanded market for milk is available as Tinsukia district head quarter.</li> </ul>
	The suggested programme is:a.Piggeryb.Poultry
NWFP	The opportunities for NWFP 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. Availability of fertile fallow land
	The suggested programme are:
	<ul><li>a. Plantation of Food plants,</li><li>b. Medicinal Plant etc.</li></ul>
	b. Medicinal Plant etc.
Specialized Skills	For skills development, the opportunities are tabulated at Table-15 under Record-2
	The main constraints are:
	Lack of product diversification
	<ul><li>Lack of research on product quality</li><li>Lack of TQM techniques.</li></ul>
	• Lack of TQW techniques.
	The opportunities are:
	Providing good communication facility
	<ul><li>Training of the skill holder</li><li>Financial assistance from govt.</li></ul>
	The suggested programme are:
	<ul> <li>Training on Modern Tools and Equipment</li> </ul>
	<ul> <li>Providing modern technology to the villagers</li> </ul>
	<ul> <li>Skill Up gradation &amp; Training on New Product Development and Product Diversification</li> </ul>
	Setting up a raw material bank
	<ul> <li>Providing a bulk buy arrangement of the finished product with institutional buyers.</li> </ul>
	<i>54,0</i> 10.

	<ul> <li>The main constraints with the reasons are: <ul> <li>Financial exclusion</li> <li>Higher rate charged by the private money lender.</li> </ul> </li> <li>The opportunities are: <ul> <li>Setting up modern financial institution</li> <li>Adequate awareness.</li> </ul> </li> <li>The suggested programme is:</li> </ul>
Strategic	<ul> <li>Setting up modern financial institution in the nearby areas.</li> <li>Summarizing the suggested programmes at above as strategic interventions for the</li> </ul>
Interventions	Livelihood Development Plan:
	• Agriculture & Horticulture: Tractor operation training, Agri-skill development programme ,Training on insecticides, pesticides, hybrid cultivation
	• Livestock: Piggery, Poultry.
	• <b>NWFP:</b> Plantation of Food plants, Medicinal Plant etc.
	• <b>Specialized Skills:</b> Training on Modern Tools and Equipment, Providing modern technology to the villagers, Skill Up gradation & Training on New Product Development and Product Diversification, Setting up a raw material bank, providing a bulk buy arrangement of the finished product with institutional buyers.
	• <b>Credit facility:</b> Setting up modern financial institution in the nearby areas.
Livelihood Opportunity Analysis	<ul> <li>Framework of livelihood Opportunity Analysis has been done with the help of the following criteria:</li> <li>Livelihood assets</li> </ul>
	Livelihood context
	Priority ranking on potential livelihood
	The livelihood situation of Udito Suruj JFMC has been analysed during the PRA exercise using sustainable livelihood framework of DFDI (Department of Funding for International Development). The existing livelihood situation of JFMC is outlined in terms of –
	<ol> <li>Natural Capital</li> <li>Physical Capital</li> <li>Social Capital</li> <li>Human Capital</li> <li>Financial Capital</li> </ol>

# 1. Natural Capital :

The project area is renowned for its biological diversity. Key naturalassets include trees like Holock, Gamari, Titachopa, Nahar, Bonsum, Bogipoma, Bola etc. These high value of trees and their extraction for fuelwood collection, zhum cultivation, timber exploitation (either for local consumption or for sale to urban centers), causes deforestation and it is directly connected to rural livelihood strategies.

This broad-based dependence on natural resources in the project area, we do not put forward an expectation regarding distinctions in access to natural capital across the populations. There is a need to provide alternative such as LPG connection for cooking etc would provide a lesser dependence in the forest. Other livelihood option to be build up for the same cause to preserve the natural resource in the project area.

# 2. <u>Physical Capital :</u>

Physical capital include the basic infrastructure that people need to make a living, as well as the tools and equipment that they use. For example, transport and communication systems, shelter, water and sanitation systems, and energy.

When we observe the availability of physical capital in the project area, the situation is very poor. There is no good roads, transport and communication systems is very week, water and sanitation systems are not adequate and access to electricity is nil.

In order to improve the livelihood of the project area, emphasis should be given to improve the physical structure of the JFMC area by providing road, water and sanitation facilities and solar lights alternative to electricity.

# 3. Social Capital :

Social capital has been used to explain the improved performance of diverse groups, the growth of entrepreneurial firms, superior managerial performance, enhanced supply chain relations, the value derived from strategic alliances, and the evolution of communities.

In the project area, only limited number of SHG groups are available. In this case, there is a need to strengthen the SHGs and build up village communities and cooperative societies for better performance of the livelihood opportunities in the area.

It is also seen that the delivery of government schemes to the people is very less. Social schemes are yet to be received in the area.

# 4. Human Capital :

In the project area, as far as human capital is concern, the people are traditionally skills in the farming sector. All the household reported to be farmer in nature and do subsistence agriculture for self-sufficiency. The farmers focus on growing enough food to feed themselves and their families. The output is mostly for local requirements with little or no

surplus for trade.
Although it is also seen from the survey that there is an immense potentiality of sericulture, weaving and cane and bamboo industry in the area.
In the project area, it is seen that majority of the households having land holding from 2-10 hector. It is found that the relationship between land holding and livelihood strategies that larger landholding did not imply higher income after a particular class or stage. Having higher land holdings did not suggest a greater dependence on land in terms of higher agricultural income (in cash or food) from their lands.
This suggest need for building skills like cane and bamboo, tailoring and other non-farm based activities so as to enable household to diversify their basket of livelihood option.
Sustainable livelihood is the capability of people to make their living comfortable and improve their quality of life without endangering the livelihood options of others and education plays an important role to achieve this. The provision of educational opportunities to all people must be facilitate to alleviate poverty and social empowerment.
In the project area, it is seen that there is no facility to attain higher education. There is a need to provide both formal and informal education in the area to equip vulnerable with entrepreneurial and related functional literacy skills.
Source of information always a factor for successful society. Perhaps the reason for backward in the forest area is the lack of access to information. There is no such medium (only radio) available in the project area. There is also negligence of forest offices to provide information to the people. Source of information became an important factor so that people may became upto date to compete with modern society with a better livelihood opportunities gathered from various source.
The culture and tradition of a community shows a communities civilisation. The project area is highly cultured and their traditional way of living brought immense potentially of tourism in the area.
In the project area, males are largely engaged in farm activities such as land preparation, sowing, weeding, inter culture and harvesting. Where females are involve in cooking, child care, livestock rearing etc. It is important to analyse gender participation to see how value addition can be provided based on their skills which they perform in day to day life.
Migration is one of the important factors in analysing human capital. Out- migration or in-migration is take place due to available opportunities for better livelihood. In the project area there is no such out-migration or in- migration seen in the PRA. This is due to the less high educated persons available in the area. As education plays an important role in the migration factor. Higher education level increases the migration because people willing to go outside for better livelihood option. The family size also limited in this certain case migration from other place to another is seen negligible in the project area.

	5. <u>Financial Capital :</u>					
	Economic & Financial Capital indicates the capital base (cash, credit/debt, savings, and other economic assets, including basic infrastructure, production equipment and technologies) which are essential for the pursuit of any livelihood strategies.					
	In the project area, it is seen that only limited number of people (2 percent of the total households) having their bank accounts. Other facilities like having health insurance, crop insurance, bank loans, availing micro finance is nil.					
	In this case there is a need to improve the Economic & Financial Capital in the area by providing bank accounts, health insurance, crop insurance, bank loans, availing micro finance in order to improve the livelihood scenario of the area.					
Livelihood Context	Livelihood activities of the Udito Suruj JFMC are identifies on the basis of following criteria:					
Context	Tonowing enterna.					
	• Contribution of particular livelihood activity in the total income of the JFMC					
	• Percentage involvement of income group in a particular livelihood activities					
	• Priority ranking of the potential livelihood activities					

# 4. Livelihood Development Plan (LDP)

Income Generating Activities	The main income generating activities as planned at the village are: Farm Sector : Pisciculture Sericulture Organic tea production Non-Farm sector: weaving Food processing Computer training
SHG Activities	<ul><li>SHGs of the village can plan the following activities:</li><li>1. To create awareness.</li><li>2. To organise and form group</li><li>3. To involve the villagers in Livelihood Activities collectively.</li></ul>
Exposure Trips	The following exposure trips are planned: 1. Exposure to Agriculture University
Summary of Action Plan	As attached in next page.
Convergence	<ul> <li>The planned initiatives may be converged with the following schemes of the Government of India:</li> <li>a) National Rural Employment Guarantee Scheme - for rural employment</li> <li>b) Rashtriya Krishi Vikas Yojana (RKVY) - for agricultural and allied development</li> <li>c) Rashtriya Krishi Sinchay Yojana (RKSY) - for irrigation, including watershed development</li> <li>d) National Rural Livelihoods Mission</li> <li>e) Skills Development schemes</li> <li>f) Other schemes for rural development and livelihoods as found appropriate.</li> </ul>

# 5.Action Plan Udito Suruj JFMC

SI.	Activity	Numbers	Method	Amount
No.				(in Rs.)
<b>A. P</b>	articipatory Micro Pla	anning		1
1	Preparation of	1	PRA, Baseline	1,00,000.00
	Micro Plan		Survey	
	Total			1,00,000.00
	<b>Organize Producers</b>		Entrepreneurial a	and Technica
Cap	acities (Capacity Build	ling)		
1	Awareness Build-	1	Awareness	20,000.0
	up Programme		Programme	
B1	Training on Skill			
	development			
1	Training	1	Conducting	2,00,000.00
	Programme on		Training	
	Livestock &			
	Weaving.		~	
2	Skill Development	1	Conducting Skill	2,00,000.00
	Training		Development	
	Programme on		Training	
	Weaving.		programme (40	
			days)	
3	Training on Micro	1	3 days	50,000.00
	Enterprise		Entrepreneurship	
			Orientation	
			programme	
9 6	Total			4,70,000.0
	ocial Mobilization		4.1	50,000,0
1	Awareness		4 days awareness	50,000.00
	generation camp on		camp on formation	
	Formation of		of collective units	
	collective units (e.g.		through cooperative	
	SHGs, Societies,		experts	
	NGOs, Bodies,			
	Producers Companies)			
2	Companies)		Hand hald'r a	50,000,00
2	Hand Holding		Hand holding	50,000.00
	guidance support		support from CML	
	and linkage		experts through out	
	promotion		the year upto march 2017	
	programme for self- employment and		2017	
	placement			
	Total			1,00,000.00
D V		ont		1,00,000.00
	alue Chain Improvem		us Chain Improve	.4
<u>C1</u> 1	Product improvement	,	A	
1	Value Chain	1	10 days Training on	50,000.00
	Improvement in		design	
<u>C2</u>	readymade garment		diversification	
C3	Supply of modern			
	tools			1

		Supply of modern tools for Weaving	7	supply of modern tools	1,50,000.00
		Supply of utensil for Livestock	15	Supply of spinning machine	70,000.00
	C4	Improved Production and Processing Capacity			1,30,000.00
		Total			4,00,000.00
	FS	upport for Access to N	Markat		
	D1	Linkage with institutional buyers and/or govt. Organizations. (throughout the	2	Creating platform for buyers' and sellers' interactions (2 day)	80,000.00
	D2	year) Setting Up Ban Bazar	Throughout the year	linkage through van bazar	1,00,000.00
	D3	Exhibition Participation	1	Participation in one exhibition through forest department	1,20,000.00
	D4	Access To Other Geographical Markets	1	Exposure visit	1,20,000.00
	D5	Publicity through E- portal, brochure, catalogue etc	1	2 day training and awareness programme taken by marketing expert	60,000.00
		Total			4,80,000.00
		Grand Total			15,50,000.00
Convergence	-	*	yment Guaran kas Yojana (1	ed with the following tee Scheme - for rural ( RKVY) - for agricul	employment
	c.	Rashtriya Krishi Sir watershed developmen		(RKSY) - for irrig	ation, includin
	d. National Rural Livelihoods Mission				
	e.	Skills Development so			
	f. g.	Other schemes for rur MGNREGA/Job Card	•	t and livelihoods as for	und appropriate.
	The a	bove convergence will ning the planned works	yield synergie	s for the present plan, a	as well as help i

# 6. Forest Development Plan (FDP)

This Forest Development Plan has been prepared after a detailed PRA exercise at the village level as a part of the Micro-Plan of Udito Suruj 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 Udito Suruj 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 Udito Suruj JFMC have been summarized below.

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				
Along the periphery Area	30 Ha	0Km	Good Area: - 16Ha Degraded Area: 5 Ha	2-3m
(B) Other Planted Area				
To be allotted as per sanctions amount in due course of time	1720Hact. (NR1290hact. IP-430)		Good Area: - Nil Degraded Area: Nil	
TOTAL				

# Table-1: Conditions of the Forests of Udito Suruj JFMC

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

It is seen that the Udito Suruj JFMC has 210 Ha under its forests, of which 160 Ha is 'Good' and 50 Ha is 'Degraded'.

# **1.2.** Forest Soil Type

The forests of Udito Suruj JFMC are located in loamy type(s) of soil. Some salient points of the forest soil type have been given in the following table.

Parameter	Status in Assigned Forests	Status Areas	in	Other	Planted
Fertility Level	2.3 to 2.94% organic. The available N, P205 and K20 content of the Soil is comparatively less.			-	
Soil Erosion Status	-			-	
Presence of:					
(a) Silt	24%			-	
(b) Mud-flat	31%			-	
(c) Newly accreted land	Low			-	
(d) Sand dune	45%			-	

Table-2: Forest Soil Type in Udito Suruj JFMC

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

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

- 1. Entisol (30.3%)
- 2. Inceptisol (51.3%)
- 3. Alfisols (11.3%)
- 4. Ultisols (7.1%)

# **1.3.** Existing Composition of Flora

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

Table-3: Existing Composition of Flora in the Udito Suruj JFMC

Parameter	Local Name(s)	Biological Name(s)
Major Forest Species	Hollock	
Associates	Gamari	Gmelina Arborea
Shrubs	Dhekia	Ferns
	Bhot jalakia	Capsicum chinense
Medicinal Plants	Arjun,	Terminalia arjuna
	Hilikha	Terminalia Chebula
	Neem	Azadirachta indica
	Amlakhi	Phyllanthus emblica
Produces		
	Jori bet	Calamus erectus
	Jati bet	Calamus tenuis

	Raidang bet	Calamus rotang
	Chuli bet	Calamus flagellum
	Lejai bet	Calamus floribundus
Others, if any	Kako Bah	D. hamiltonii
	Pahari Jati Bah	Oxytenthera parvifolia
	Dulu Bah	Schizostachyum dulloa
	Amlakhi	Emblica officinalis
	Halakh	Terminalia myriocarpa
	Hollong	Dipterocarpus macrocarpus
	Arjun	Terminalia arjuna
	Agar	Aquillaria agallocha

**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 Udito Suruj JFMC.

# 2.1. Past Protection Measures of the JFMC

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

- (a) Number of households involved: 183
- (b) Number of people involved: 183 (1 Person Per House hold)
- (c) Summary of the measures: Not available
- (d) Any formal mechanism: Not available

[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.

Name of Forest Produce	Average Household Requirement		How met at Present	Source
	Frequency of Requirement	Approx. Qty		
Firewood	Frequent	60-75 kg		Forest
Timber for House	Once in a year	2nos.		Forest
Small timber for Implements	-	-		-
Pole / Bamboo	Once in a month	2-3 bamboo / per month		Forest
Fodder from Forest	Frequent	5-6 kg per day		Forest
NTFP	Frequent	2-3 kg per day		Forest
Other	-	-		-

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

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

There are 116Nos.households in the Udito Suruj JFMC. From the above table and this number of households, it is inferred that the total annual requirements of the Udito Surujvillage for forest products for own use is as follows:

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

Name of Forest Produce	Community Requirement (Kg per annum) (*)	Remarks
Firewood	120700	Throughout the year
Timber for House	116 nos.	Dec – Jan
Small Timber for Implements	-	-
Pole / Bamboo	730 bamboo	Dec – Jan
Fodder from Forest	140800	Throughout the year
NTFP	204000	Throughout the year
Other		

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

(\*) = Approx. Qty. of Average Household Requirement (from Table-4 (A) x 65 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 Udito Suruj JFMC is given in the following table.

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

Name of Forest	Colle	ction for Mark	eting	Location of
Produce	Season / Months	No of Households Collecting	Average Qty. Collected (Kg)	Collection
Firewood	Throughout the year	183	4320	Forest
Timber for House	Dec – Jan	183	4 nos.	Forest
Small timber for Implements	-	-	-	-
Bamboo	Dec – Jan	183	16 nos.	Forest
Pole	-			
Fodder from Forest	Throughout the year	183	8 kg per day	Forest
NTFP	Throughout the year	183	9-11 kg per day	Forest
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 [Udito
Suruj JFMC]

Name of Forest Produce	Surplus Marketed (Kg)	How marketed	Average Income per HH from sale of Forest Produce
Firewood	117000 kg/year	Local Market	1800-2100/month
Timber for House	-	-	-
Small timber for Implements	-	-	-
Bamboo	22-40 pc/ month	Local Market	800-1250/month
Pole	-	-	-

Fodder from Forest	1200 kg /year	Local Market	900-1400/month
NTFP	-	-	-
Other	-	-	-

**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 Udito SurujJFMC have been summarized below - based on the information in the previous sub-sections.

**Refer to**: 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 Udito Suruj JFMC have been summarized below.

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	Yes	Yes
Accidental Fires	Yes	Yes
Encroachment of Forest Lands	Yes	Yes
Incident of Snake bites/life threats/risks while protecting forest	Yes	Yes
Theft of Medicinal Plants	Yes	Yes

#### • Table-7: Protection Problems of the Udito Suruj JFMC

**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 - Local Animals (b) Grazing - Animals from Other Area

# **3.2.** Reasons for Degradation of the Forest

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

- (a) No Scientific Plan
- (b) Traditional Cultivation of Tribal People
- (c) Extremist problem in hill sides

[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 Udito Suruj 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 Udito Suruj JFMC from the issues discussed earlier at Sub-section 3.1

Protection Work [to be filled from Table 3.7 of Proforma-3 as applicable]	Location in Forest Area	QuantificationoftheMeasures[Length, Area,Size etc.]	Timing	Priority[HighMediumLow]
1. Engagement of Watcher	R.F.	3 km	брт-бат	High
2. Informers award	R.F.	3km	Anytime	High
3. Fire Protection	R.F.	3km	Anytime	High

# Table-8: Protection Plan of the Udito Suruj 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 Udito Suruj JFMC (with high / medium priority) are as follows:

(a) 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 Udito Suruj 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	Yes	Yes	June - July	200 Ha

Treatment	Required (Yes/ No)	Responsibility of JFMC (Yes / No)	Month / Year when can be done	Extent of Area proposed for Treatment (Ha)
Protection to Cut Stumps of Trees	Yes	Yes	All the Year	200 Ha
Watershed Treatment	Yes	Yes	All the Year	5 Ha
Water Reservoirs	Yes	Yes	All the Year	5 Ha
Grass and Silvi Pastoral activities	Yes	Yes	All the Year	-
Bamboo culture and earth piling	Yes	Yes	All the Year	R.F
Seed Sowing	Yes	Yes	All the Year	-
Root & Shoot Cutting & Plantation	Yes	Yes	All the Year	-
Cut Back & Coppice Treatment	Yes	Yes	All the Year	-
Stone wall fencing/live Hedge fencing	Yes	Yes	All the Year	200 Ha
Social Fencing	Yes	Yes	All the Year	200 Ha
Other Activities(Protection of Elephants)	Yes	Yes	All the Year	R.F

**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 Udito Suruj JFMC:

(a) Seed Sowing

(b) Root & Shoot Cutting & Plantation etc.

# 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 Udito Suruj JFMC**

Treatment	Area in Ha under Plantation Module	Priority for Block Plantation	Species	Spacing (metre x metre)
Assisted Natural Regeneration (with plantation in gap)	45 Ha ANR by APFBC	-	Non Sal NTFP	2/2
Block Planting	-	-	-	-
Sowing of Neem, Amla,	15	-	Medicinal Plants	-

Treatment	Area in Ha under Plantation Module	Priority for Block Plantation	Species	Spacing (metre x metre)
Mahua, Bahera (Medicinal Plants)				
Enrichment Plantation/ Sowing	-	-	-	-
Direct Plantation	-	-	-	-
Other	-	-	-	-
Total Area (in Ha.)	60 Ha	-	-	-

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

# 4.4. Forest Improvement - Annual Targets

5. Table-10 (A) and (B): Annual Targets of Forest Improvement in Udito Suruj JFMC (Year-1 to Year-5) and (Year-6 to Year-10)

The annual targets in the above connection are given below for a ten year period.

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 (11000 approx. annually)
Number Blocks	: 10 Numbers(10 ha each)
Species	: Saal ; Associates- Gamari, Sissoo, Titasopa, etc.
Rates	: As Approved by APFBCS(to be increased by 20% every two years)

Action Plan for Creation of Plantation		
<b>Financial Year</b>	Activities	Amount
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	100000
2017-18*	Block Plantation 3m x 3m, 1111 plants/ha-during the season of <b>April-June;</b> GPS marking of the area	497000
2018-19*	Block Plantation 3m x 3m, 1111 plants/ha-during the season of <b>April-June;</b> GPS marking of the area	497000
	1st Weeding; Replacement of dead/struggling saplings raised in the previous year	61600
2019-20*	Block Plantation 3m x 3m, 1111 plants/ha-during the season of <b>April-June;</b> GPS marking of the area	596400
	2nd Weeding; Replacement of dead/struggling saplings raised in the previous year	73920
2020-21*	Block Plantation 3m x 3m, 1111 plants/ha-during the season of <b>April-June;</b> GPS marking of the area	596400

	3rd Weeding	147840
2021-22*	4th Weeding; Replacement of dead/struggling saplings raised in the previous year	266112
2022-13*	5th Weeding; Replacement of dead/struggling saplings raised in the previous year	354816
2023-24*	6th Weeding; Replacement of dead/struggling saplings raised in the previous year	266112
2024-25*	7th Weeding	266112
2025-26*	8th Weeding	266112
	Total Budgetary Requirement	3989424

\* 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

Name of Plantation	: Block Plantation of Teak Mixed 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 Raise	d : 110000 (11000 approx. annually)
Number Blocks	: 10 Numbers(10 ha each)
Species	: Teak; Associates-Ajar, Khoroi, Khayer, Sissoo, Jia, Arjun, Ghora Neem, Bamboo(Jaati, Kako, Bholoka, Bijili), etc

Action Plan for Creation of Plantation		
Financial Year	Activities	Amount (in Rs.)
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	100000
2017-18*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of <b>April-June</b> ; GPS marking of the area	262500
2018-19*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June; GPS marking of the area	262500
	1st Weeding; Replacement of dead/struggling saplings raised in the previous year	26950
2010 20*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June; GPS marking of the area	315000
2019-20*	2nd Weeding; Replacement of dead/struggling saplings raised in the previous year	32340
2020-21*	Block Plantation 2m x 2m, 2500 plants/ha-during the season of April-June; GPS marking of the area	315000
	3rd Weeding	64680
2021-22*	4th Weeding; Replacement of dead/struggling saplings raised in the previous year	266112
2022-13*	5th Weeding; Replacement of dead/struggling saplings	155232

	raised in the previous year	
2023-24*	6th Weeding; Replacement of dead/struggling saplings raised in the previous year	116424
2024-25*	7th Weeding	116424
2025-26*	8th Weeding	116424
	Total Budgetary Requirement	2149586

\* Silvicutural thinning to be undertaken on intervals of five years post plantation

# 5.1. Nursery Development Plan

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

(a) JFMC Nurseries (incl. Departmental Nursery)

(b) Other Nurseries - SHG & Private.

The details are given below.

# JFMC Nurseries

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

#### Table-11 (A): JFMC Nurseries of the Udito Suruj JFMC

Location of Nursery	Species	Year of Development	Number of Seedlings	Remarks
Udito Suruj JFMC	Varieties	2016	7,20,000	Proposed

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

#### **Other Nurseries**

The following table gives the details of other nurseries near the Udito Suruj JFMC.

#### Table-11 (B): Other Nurseries near the Udito Suruj JFMC

Name of Nursery	Species	Year of Development	Number of Seedlings	Remarks
	Varieties	2016	7,20,000	Proposed
Udito Suruj JFMC				

**Source**: Proforma-3, Table-3.12 / Discussions with Forest Department personnel & Community members

# 5.2. Maintenance Plan - 10 Years

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

# (A) Timber Species, Gameri, Tik

Year(s)	Treatment
1 <sup>st</sup> Year	Periodic weeding and removal of creepers Ring formation
2 <sup>nd</sup> Year	Removing of all dominating weeds affecting supply of sunlight Gap filling Training the plants for straight pole formation
3 <sup>rd</sup> Year	Removal of side branches
4 <sup>th</sup> Year	Pruning the nearby trees
5 <sup>th</sup> Year	Pruning the nearby trees
6 <sup>th</sup> Year	Gap plantation
7 <sup>th</sup> Year	Gap plantation
8 <sup>th</sup> Year	Gap plantation
9 <sup>th</sup> Year	Gap plantation
10 <sup>th</sup> Year	Removal of alternative row of teak

Table-12 (A): Maintenance Plan of Teak Plantation in the Udito Suruj JFMC

Source: Discussions with Forest Department personnel & Community members

# (B) Bamboo

# Table-12 (B): Maintenance Plan of Bamboo Plantation in the Udito Suruj JFMC

Year(s)	Treatment
1 <sup>st</sup> Year	Weeding and removal of dominating other weeds
	Ring formation around the buses
2 <sup>nd</sup> Year	Weeding and removal of dominating other weeds
	Ring formation around the buses
3 <sup>rd</sup> Year	Removal of culms
4 <sup>th</sup> Year	Removal of culms
5 <sup>th</sup> Year	Removal of culms and trimming of criss-cross culms
6 <sup>th</sup> Year	Removal of culms and trimming of criss-cross culms
	Light pruning to improve adequate sunlight and aeration
7 <sup>th</sup> Year	Removal of culms and trimming of criss-cross culms
	Light pruning to improve adequate sunlight and aeration
8 <sup>th</sup> Year	Removal of culms and trimming of criss-cross culms
	Light pruning to improve adequate sunlight and aeration
9 <sup>th</sup> Year	Removal of culms and trimming of criss-cross culms
	Light pruning to improve adequate sunlight and aeration
10 <sup>th</sup> Year	Removal of culms and trimming of criss-cross culms
	Light pruning to improve adequate sunlight and aeration

Source: Discussions with Forest Department personnel & Community members

# (C) Fuel wood Plantation

Year(s)	Treatment
1 <sup>st</sup> Year	Weeding around the fuel wood seedlings Ring formation around the seedlings
2 <sup>nd</sup> Year	Weeding around the fuel wood seedlings Ring formation around the seedlings
3 <sup>rd</sup> Year	Cutting of side branches, Removal of criss-crossing
4 <sup>th</sup> Year	Cutting of side branches, Removal of criss-crossing
5 <sup>th</sup> Year	Rows of plantation
6 <sup>th</sup> Year	Remove Stumps
7 <sup>th</sup> Year	Prune trees (This would create a 15 years pruning cycle)
8 <sup>th</sup> Year	Cutting of side branches and weeding
9 <sup>th</sup> Year	Cutting of side branches and weeding
10 <sup>th</sup> Year	Cutting of side branches and weeding

Source: Discussions with Forest Department personnel & Community members

# (D) NTFP / Medicinal Plantation

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

Year(s)	Treatment
1 <sup>st</sup> Year	Weeding around the seedlings
	Ring formation
	Nipping of terminal
	Disbudding to delay the fruit set to next season
2 <sup>nd</sup> Year	Weeding around the seedlings
	Ring formation
	Nipping of terminal
	Disbudding to delay the fruit set to next season
3 <sup>rd</sup> Year	Collection of fruits, Seeds and minimal pruning to remove dead
4 <sup>th</sup> Year	Collection of fruits
	Minimal pruning for removal of criss-crossing, overcrowding branches
5 <sup>th</sup> Year	Collection of fruits
	Minimal pruning for removal of criss-crossing, overcrowding branches

Year(s)	Treatment
6 <sup>th</sup> Year	Collection of fruits
	Minimal pruning for removal of criss-crossing, overcrowding branches
7 <sup>th</sup> Year	Collection of fruits
	Minimal pruning for removal of criss-crossing, overcrowding branches
8 <sup>th</sup> Year	Collection of fruits
	Minimal pruning for removal of criss-crossing, overcrowding branches
9 <sup>th</sup> Year	Collection of fruits
	Minimal pruning for removal of criss-crossing, overcrowding branches
10 <sup>th</sup> Year	Collection of fruits
	Minimal pruning for removal of criss-crossing, overcrowding branches

Source: Discussions with Forest Department personnel & Community members

# 5.3. Miscellaneous Operations Plan

The miscellaneous operations planned in the Udito Suruj JFMC are given below.

Operation	Required (Yes / No)	Responsibility	Month / Year	Area (Ha)
(i)Medical/Health care Camp	Yes	VSS	Feb-Mar	JFMC
(ii)Centre For Non- Formal education	Yes	VSS	Feb-Mar	JFMC
(iii)Promotion of Fuel Saving Devices	Yes	VSS	Feb-Mar	JFMC
(iv)Cattle improvement/health improvements	Yes	VSS	Feb-Mar	JFMC

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

# **Marketing Operations**

For produce from the Udito Suruj JFMC, the planned marketing operations are:

- (a) Linkage will be established with traders inside and outside the district
- (b) Selling to the Ban Bazar

(c) Participation in Exhibition

# **Expected Benefits**

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

# 5.4. Expected Benefits Related to Wood & Grass

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

Item	Month	Year (Indicative)	Quantity	
Firewood	12 month		65-75 Kg/month	
Timber for House	-	-	-	
Small timber for Implements	-	-	-	
Bamboo	12 month	32-40 pc/ month	700 -1250 Kg/month	
Pole	-	-	-	
Fodder from Forest Trees & Grass	12 month	-	1600-2000 Kg/month	

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

# 5.5. Nursery Development Plan

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

- (c) JFMC Nurseries (incl. Departmental Nursery)
- (d) Other Nurseries SHG & Private.

The details are given below.

# JFMC Nurseries

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

#### Table-11 (A): JFMC Nurseries of the Udito Suruj JFMC

Location of Nursery	Species	Year of	Number of	Remarks
		Development	Seedlings	
Udito Suruj	Varieties	2016	7,20,000	Proposed

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

#### **Other Nurseries**

The following table gives the details of other nurseries near the Udito Suruj JFMC.

#### Table-11 (B): Other Nurseries near the Udito Suruj JFMC

Name of Nursery	Species		Number of Seedlings	Remarks
Udito Suruj JFMC	Varieties	2016	7,20,000	Proposed

**Source**: Proforma-3, Table-3.12 / Discussions with Forest Department personnel & Community members

### 5.6. Maintenance Plan - 10 Years

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

### (E) Timber Species Sal , Gameri, Tik

### Table-12 (A): Maintenance Plan of Teak Plantation in the Udito Suruj JFMC

Year(s)	Treatment		
1 <sup>st</sup> Year	Periodic weeding and removal of creepers Ring formation		
2 <sup>nd</sup> Year	Removing of all dominating weeds affecting supply of sunlight		
	Gap filling		
	Training the plants for straight pole formation		
3 <sup>rd</sup> Year	Removal of side branches		
4 <sup>th</sup> Year	Pruning the nearby trees		
5 <sup>th</sup> Year	Pruning the nearby trees		
6 <sup>th</sup> Year	Gap plantation		
7 <sup>th</sup> Year	Gap plantation		
8 <sup>th</sup> Year	Gap plantation		
9 <sup>th</sup> Year	Gap plantation		
10 <sup>th</sup> Year	Removal of alternative row of teak		

Source: Discussions with Forest Department personnel & Community members

#### (F) Bamboo

### Table-12 (B): Maintenance Plan of Bamboo Plantation in the Udito Suruj JFMC

Year(s)	Treatment
1 <sup>st</sup> Year	Weeding and removal of dominating other weeds
	Ring formation around the buses
2 <sup>nd</sup> Year	Weeding and removal of dominating other weeds
	Ring formation around the buses
3 <sup>rd</sup> Year	Removal of culms
4 <sup>th</sup> Year	Removal of culms
5 <sup>th</sup> Year	Removal of culms and trimming of criss-cross culms
6 <sup>th</sup> Year	Removal of culms and trimming of criss-cross culms

Year(s)	Treatment           Light pruning to improve adequate sunlight and aeration
_th	
7 <sup>th</sup> Year	Removal of culms and trimming of criss-cross culms Light pruning to improve adequate sunlight and aeration
8 <sup>th</sup> Year	Removal of culms and trimming of criss-cross culms Light pruning to improve adequate sunlight and aeration
9 <sup>th</sup> Year	Removal of culms and trimming of criss-cross culms Light pruning to improve adequate sunlight and aeration
10 <sup>th</sup> Year	Removal of culms and trimming of criss-cross culms Light pruning to improve adequate sunlight and aeration

Source: Discussions with Forest Department personnel & Community members

### (G) Fuel wood Plantation

Year(s)	Treatment
1 <sup>st</sup> Year	Weeding around the fuel wood seedlings Ring formation around the seedlings
2 <sup>nd</sup> Year	Weeding around the fuel wood seedlings Ring formation around the seedlings
3 <sup>rd</sup> Year	Cutting of side branches, Removal of criss-crossing
4 <sup>th</sup> Year	Cutting of side branches, Removal of criss-crossing
5 <sup>th</sup> Year	Rows of plantation
6 <sup>th</sup> Year	Remove Stumps
7 <sup>th</sup> Year	Prune trees (This would create a 15 years pruning cycle)
8 <sup>th</sup> Year	Cutting of side branches and weeding
9 <sup>th</sup> Year	Cutting of side branches and weeding
10 <sup>th</sup> Year	Cutting of side branches and weeding

Source: Discussions with Forest Department personnel & Community members

### (H) NTFP / Medicinal Plantation

Table-12 (D): Maintenance	Plan o	f NTFP	/ Medicinal	Plantation	in the	Udito	Suruj
JFMC							

Year(s)	Treatment		
1 <sup>st</sup> Year	Weeding around the seedlings		
	Ring formation		
	Nipping of terminal		
	Disbudding to delay the fruit set to next season		
2 <sup>nd</sup> Year	Weeding around the seedlings		
	Ring formation		
	Nipping of terminal		

Year(s)	Treatment
	Disbudding to delay the fruit set to next season
3 <sup>rd</sup> Year	Collection of fruits, Seeds and minimal pruning to remove dead
4 <sup>th</sup> Year	Collection of fruits Minimal pruning for removal of criss-crossing, overcrowding branches
5 <sup>th</sup> Year	Collection of fruits Minimal pruning for removal of criss-crossing, overcrowding branches
6 <sup>th</sup> Year	Collection of fruits Minimal pruning for removal of criss-crossing, overcrowding branches
7 <sup>th</sup> Year	Collection of fruits Minimal pruning for removal of criss-crossing, overcrowding branches
8 <sup>th</sup> Year	Collection of fruits Minimal pruning for removal of criss-crossing, overcrowding branches
9 <sup>th</sup> Year	Collection of fruits Minimal pruning for removal of criss-crossing, overcrowding branches
10 <sup>th</sup> Year	Collection of fruits Minimal pruning for removal of criss-crossing, overcrowding branches

Source: Discussions with Forest Department personnel & Community members

### 5.7. Miscellaneous Operations Plan

The miscellaneous operations planned in the JFMC are give Udito Suruj below.

Operation	Required (Yes / No)	Responsibility	Month / Year	Area (Ha)
(i)Medical/Health care Camp	Yes	VSS	Feb-Mar	JFMC
(ii)Centre For Non- Formal education	Yes	VSS	Feb-Mar	JFMC
(iii)Promotion of Fuel Saving Devices	Yes	VSS	Feb-Mar	JFMC
(iv)Cattle improvement/health improvements	Yes	VSS	Feb-Mar	JFMC

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

### **Marketing Operations**

For produce from the Udito Suruj JFMC, the planned marketing operations are:(a) Linkage will be established with traders inside and outside the district(b) Selling to the Ban Bazar(c) Participation in Exhibition

#### **Expected Benefits**

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

### 5.8. Expected Benefits Related to Wood & Grass

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

Item	Month	Year (Indicative)	Quantity	
Firewood	12 month		65-75 Kg/month	
Timber for House	-	-	-	
Small timber for Implements	-	-	-	
Bamboo	12 month	32-40 pc/ month	700 -1250 Kg/month	
Pole	-	-	-	
Fodder from Forest Trees & Grass	12 month	-	1600-2000 Kg/month	

### Table-14: Expected Benefits from Forests Protected by Members of Udito Suruj JFMC

### 5.9 Sharing Mechanisms

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

#### Table-15: Sharing Mechanism for Udito Suruj JFMC

Method	Items
To be shared equally	NTFP, firewood(as revenue sharing)
To be freely collected by the members	Firewood,
Other Methods	Processing of NTFPs

# List of Appendices

Annexure No.	Heading	Page No.
1	Maps: <ul> <li>Social Map</li> <li>Resources Map</li> <li>GIS Map</li> </ul>	
2	<ul> <li>PRA Exercise</li> <li>Focussed Group Discussion</li> <li>Seasonality Analysis</li> <li>Social Mapping</li> <li>Wealth Ranking</li> <li>Venn Diagram</li> <li>Chapatti Diagram</li> <li>Priority Ranking and EPA</li> </ul>	
3	Photographs	
4	List of JFMC Members	
5	Filled Up Tables- Proforma 1 to 4 (Table 1-37)	

### Annexure-1

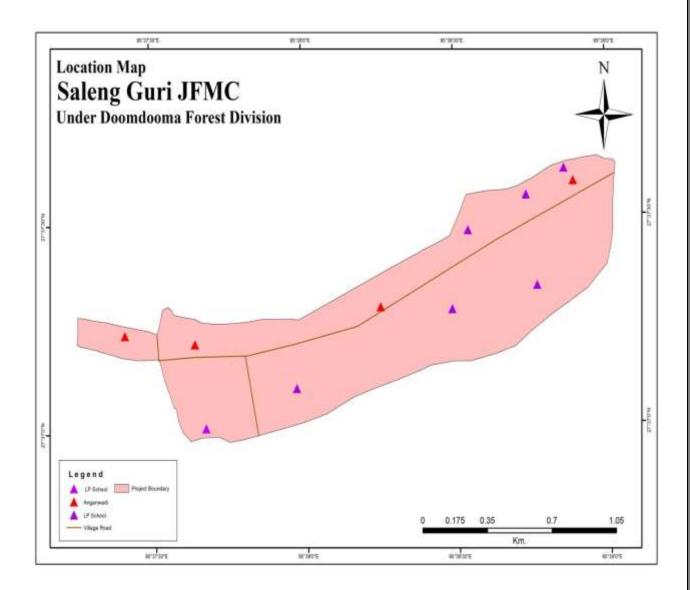
## 1. Social Map



### 2. Resource Map



# **3.GIS Map**



### **Annexure-2: PRA Activities**

### Location and Timing of PRA

Numbers of participants :	52
Time :	1:30 pm
Venue :	Community Hall

#### Brief about the villages under Udito Suruj JFMC

Sl. No.	Name of village	Households (No.)	Po	0.)	
			Total	Male	Female
1	Selengguri	260	1697	837	860
2	Ubhota	170	1452	719	733
	Total	430	3149	1556	1593

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

- a) Focussed Group Discussions
- b) Seasonality Analysis
- c) Social Mapping
- d) Wealth ranking
- e) Venn Diagram
- f) Chappati Diagram
- g) Priority Ranking EPA and Livelihood

#### a) Focussed Group Discussion:

The entire FGD were centred on the elements of rural economy namely- primary livelihood options of the JFMC, agriculture, livestock, skill-sets, available support services, infrastructure etc. and also considering the important determinant of the presence of forests area all around. These factors have been blended well before extracting the information out from the respondents.

#### **Findings from FGD**

- The existing livelihood options available in the JFMC villages are daily wage labour and a few private jobs. Agriculture is not prevalent in the JFMC, only about 6% of the families cultivate paddy which is mainly rain fed.
- Some of the emerging livelihood options are mid-scale poultry and wage labour in the nearby tea gardens.
- There is no support services available in the field of agriculture.
- The villagers rear cow, duck, local poultry and pig. Almost in 90% of the cases, it is mostly the womenfolk who looks after the reared livestock. However, the villagers face serious challenges like outbreak of diseases, attack of wild animals etc. while rearing livestock.
- There is no support services provided by the Government authorities in ensuring proper rearing of livestock. Even the veterinary sub-centre available in Doomdooma is non-functional.

- Some of the traded where the villagers are skilled at are weaving, masonry, bamboo craft, electrician, plumbing etc. In few of these courses, the villagers have been provided basic training as well under the Forest Department project.
- Some of the Government schemes through which some of the villagers have been benefitted are MGNREGA, IAY, provision of tube-well etc. However, these benefits have covered only 20-30% of the villagers.

### b) Seasonality Analysis

Seasonality analysis was done to generate information about and identifying periods of particular stress and vulnerability. In the context of a group discussion with respondents during the PRA, parameters such as expenditure, income, credit and savings were probed in sync with the factors such as employment trend, health conditions, education etc. associated with its increase or decrease in one's households.

### Expenditure& Income

Children's education is also a component where most of the households spend during the start of the year. It is especially during the months of January to March when the new academic session of schools begin and apart from admission fees, the people also spend on buying new uniforms, textbooks and stationeries. The community also spends during April as it marks the onset of festival of Bihu. Again, for those engaged in paddy cultivation spends significantly during sowing season starting May till July along with harvest season starting in the months of October till December.

When it comes to income, it is seen that selling of paddy, arecanut and livestock provides a good source of income to the villagers in the months of October and November. Those are engaged as daily wage labour in nearby tea estates earn good amount of income in the months of June and July as these months are considered to be peak season for plucking.

#### Savings and Credit

It was mostly found that amount of savings increases with the increase in income and most of the dwellers resort to institutional savings with likes of Post Office and bank savings. It is to be noted that the rate of interest for credit varies between group inter-loaning and outside members.

Seasonality of Engagement_ Farm Activities					
Сгор	Cultivating	Harvesting			
Paddy	May-July	October- December			

Сгор	Cultivating	Harvesting
Paddy	May-July	October- December

Seusonancy of Engagement_ ron r arm receivines		
Engagement	Period of Engagement	
Daily Wage Labour	April-August	
Masonry	September-March	
Petty business	Throughout the year	
Mason	August to March	
Other Private Service	Throughout the year	

#### Seasonality of Engagement Non-Farm Activities

#### c)Social Mapping:

The social mapping activity was carried out to visualise the socio-economic aspects of the household under the JFMC villages. The mapping identified the housing patterns of the households, availability of schools, social infrastructure, religions and beliefs of the communities etc. Prior to social mapping an awareness camp was organised within the villages with an objective

to gather villagers for PRA. The villagers were actively participated in the PRA activity. Initially, the people of villagers were asked to draw the main roads of the village and then asked them to locate their houses and locate the important social places and government offices with help of the PRA team members. Two of them voluntarily came out to draw and they were assisted by other villagers and the team members.

Table-3.1: Information about the villages							
	Village	Selengguri	Ubhota				
	Total Population	1697	1432				
~	Male	837	719				
Social information	Female	860	733				
	Total households	430					
	Numbers of semi pucca Houses	40	20				
	Numbers of Pucca Houses						
	Numbers of IAY Houses	32					
	Bridges						
	Stream	Nill					
	River	Nill					
Landmarks	РНС	Not functioning					
	Power Transformer	-					
	Community hall	1					
	Primary School	2	2				
	Anganwadi Centre	3	3				
	ME, High School &	1					

<b>Table-3.1: Information</b>	about the	villages
-------------------------------	-----------	----------

- Under social mapping study a total of 115 households have been identified. Out Of which only 25 houses are pucca houses (bricked wall)
- Other than the class based division of the households, important places like community hall, primary schools, anganwadi centre and playground, religious institutions etc. were mapped.
- Main sources of water for the villagers are the tube-well which is used by villagers as a source of drinking water and for their day to day use.
- Provision of Education facility up to primary level is satisfactory in the village as there are 4 primary schools in two villages along with Anganwadi centres. However, for ME & High School, the students have to go upto 4-5 kilometers.

#### a) Seasonal Mapping of livelihood activities:

Seasonal calendars were drawn to generate information about and identifying periods of particular stress and vulnerability. In the context a group discussion with villagers were organised, using stones or seeds, as in a preference-ranking matrix. For instance, simple line graphs were drawn to show seasonal increasing or decreasing trends. Seasonal variables like- rainfall, crop sequences, labour demand, availability of paid employment, out-migration, incidence of human diseases, expenditure levels etc., has been considered. Besides, important periods, such as festivals have also been included.

**Findings from Seasonality Analysis:** To find out the status of household income, expense, savings and credit, both qualitative and qualitative research tool namely- Seasonality Analysis (SA) was carried out in sync with Focus Group Discussion in the JFMC villages. **Appendix-2** furnishes detailed information of the above.

#### **Key Findings:**

The FGD conducted revealed that the major livelihood options available in the JFMC are agriculture, Government and Private Job, weaving, livestock rearing and daily wage labour. One of the recent livelihood options which according to the respondents have emerged in the last 3-4 years has been the engagement of some village youth in owning and running auto-rickshaws or small-sized commercial transport carrier such as Tata Ace.

**Agriculture:** Agriculture is the primary occupation of the people in the JFMC and the principle crop cultivated is paddy which is also the staple diet of the people. People also take up seasonal vegetable cultivation in their backyard homestead gardens and the produce is mostly for self-consumption. However, a few families also take to commercial vegetable cultivation. Mostly, people engaged in *Sali* paddy cultivation are busy in the months starting from June until the harvest is done in November-December

**Challenges in Agriculture:** Agricultural produce to a great extent depend on the type of soil, inputs like- high yield variety seeds and fertilizers, capital investment and also a good linkage with the different schemes of government, institutions etc. But, the study in the area brought into light problems particular to this area and expressed as serious by the villagers engaged in agriculture. Some of the problems expressed by the villagers are as follows:

- The trespassing of elephants in the paddy fields especially during harvest season has been expressed as one of the major problems faced by the farmers. The herd of elephants attack the fields mostly during the peak season because of which many lose their desired harvest.
- Poor irrigation is problem in the area. Recession of ground water level and low retention of rain water are causing water shortage problem for paddy cultivation. The respondents pointed out that the farmers in their own ways have been managing irrigation for their farm lands which is not sufficient in most cases.
- Also, villagers even if they want to take up homestead gardening as a commercial activity, can't take up owing to lack of irrigation facilities.
- The villagers lack the know-how on scientific agricultural technical application for ensuring better agricultural productivity

**Livestock Rearing/Holding:** Livestock is a key component in the economic growth of the JFMC. Most of the members are involved in rearing of goat, pigs, poultry and cows.

#### **Challenges in livestock rearing:**

- The Government veterinary care service in the area does not reach the villagers in most cases. The villagers have to take recourse to private veterinary services which are often costly for them. The veterinary doctors including the Government doctors charge high fees each time they visit. Some of the respondents also expressed that due to poor vet-care service, they have learnt from private clinics how to vaccinate and even provide medication to their livestock. In some of the places where people have started undertaking small scale or mid-scale poultry, lack of technical guidance and medication are acting as a great problem in scaling up the activities.
- Piggery is said to be the most profitable livestock but due to the high intensity in the outbreak of diseases, the villagers find it difficult to rear it on a large-scale. The pigs get sick with the change in season. Most prevalent diseases are swine fever, diarrhoea, and paralysis. Even in case of poultry, prevalence of avian flu is common and the situation becomes such that once the outbreak take its toll, most of the villagers sell their poultry at very lower prices
- *Non-Farm Livelihoods:* The number of available trained or skilled resources has been found to be very less in the JFMC. It was also expressed by some of the villagers that a few of them have also been trained in cane and bamboo craft but have not been able to pursue it as a livelihood option. Villagers are interested in taking up trainings on weaving, embroidery, soft toy making, LMV training and fabric painting

#### **Challenges of Non-farm Activity**

- The villagers engaged with craft and other activities are having low entrepreneurial Spirit. This can be attributed to the fact that, the artisans are having low level of education, lack of exposure and awareness regarding prospect of entrepreneurship income and employment generation.
- Non-availability of tools and machineries is another major impeding factor for the growth of non-farm activity in the JFMC villages.
- Absence of storage facilities of the raw material and finished products.
- Absence of adequate market and marketing channels

#### Wealth Ranking

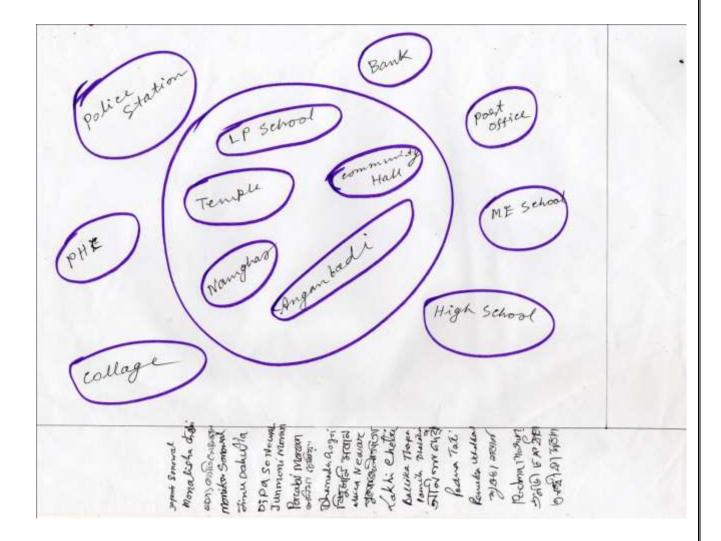
Wealth ranking, or well-being ranking, involves community members identifying well-being. Wealth ranking was done with the help of the following information about the households

- a) Occupation/livelihood
- b) Land holding
- c) Types of living house
- d) Ownership of assets

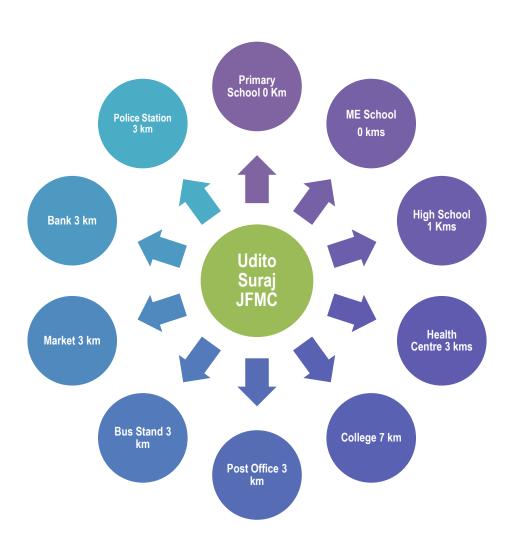
As such it is found that about 53.48 % per cent people are poor, about 37.44% per cent are belonging to middle class and about 9.07% per cent are categorized to be rich. Poor people are mainly irregular wage earners and mostly mortgage land for the paddy cultivation. Rich people are mainly involving in tea cultivators and paddy cultivators with good amount of agricultural land. They also have televisions sets, two wheelers, and four wheeler etc. Middle class people are doing cultivation of Tea, horticulture products as well as of paddy with own agriculture and analysing the different wealth groups in a community. It enables evaluators to learn about the socio-economic stratification of project beneficiaries and local people's definitions and indicators of wealth/land along with mortgaged lands.



### Venn Diagram



## Chapatti Diagram



### **Priority Ranking- EPA**

### Priority Matrix of Udito Suruj for Entry Point Activity

Sauchatics (c) Road (A) Comment' He Ranking Priorily Mark 3 Paris Him LPG. Enh Point (A) Road A A A A 4 Us1" 15 Y B Community Hall B. 3 220 ar. X X 2 . C Sanitahon . (C 2 520. LPG × (D) X X D 400 1 Dipa sonowal Bud mer 1 16201 monalistic distri Fine Doludia Ohumeda Baga Fagella stara enver Newoo geneastration Lakin Onetra Poscolal Morean Porter annons Poders Tati Junniers nera piervisia Janant Someral

## Priority Ranking- Livelihood Activity

Priority Matrix of Udito Suruj for Potential Livelihood Activity

Priosity Ranking of Lindshoods,	Summer (H)	Food (E)	Mathagan	Conception (D)	Perutrage	The Price	
Wearing (A)	A	A	A	A	A.		15t
Food Processing	X	B	13,	B	B	B	2 -
Mashy oun cult water		×	C	2	C	C	370
computer in Training (D)			×	D	D	D	434
Poulty (2)				8	F	F	3 th
Obgachic Ten Traing (F)				X	×	F	6 + 10

Jonn Jonnal Jonanal monutula Jonanal Amu Dala Cuargo Monuta Somoural Jurmunu menan Partaba Maga Luman Neuwar Jurmunu menan Partaba Maga Lakki Cheku Jurna Lakki Cheku Jurna Lakki Cheku Jura Laka Lakan Tak

### Annexure-3

# Photographs











### Annexure- 4 List of JFMC Members

1.	Raju	Dutta-	President	(8474896604)
----	------	--------	-----------	--------------

- 2. Prabin Mahanta- Secretary (9954142524)
- 3. Ridip Dutta- Member
- 4. Sabitri Chetia- Member
- 5. Diganta Chetia- Member
- 6. Chandan Baruah- Member
- 7. Dipak Chutia Member
- 8. Sanjib Bezbarua Member
- 9. Rubul Gogoi Member
- 10. Chandan Duhutia Member

#### Annexure - 5

### (Record I)

### Table -1: Basic data of the village:

Table – 2.1 Brief about the villages under Udito Suruj JFMC							
SI.	Sl. Name of village Households (No.) Population (No.)						
No.			Total	Male	Female		
1	Selengguri	260	1697	837	860		
2	Ubhota	170	1452	719	733		
	Total	430	3149	1556	1593		

### Table -2 Village wise population data

Name of	No. of	Μ	OBC	5	ST	0	BC	Ge	neral	Total of all
the village	HHs	Male	Female	Male	Female	Male	Female	Male	Female	Category
Selengguri	260	193	211	159	174	423	409	62	66	1697
Ubhota	170	163	169	85	89	422	422	49	53	1452
Total	430	356	380	244	263	845	831	111	119	3149

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

Sl.	Name of Village	Type of f	Total			
No.		Large Farmers >10 Hact.	Small Farmers 2 to 10 Hact.	Marginal Farmers < 2 Hact.	Landless	
1	Selengguri	5	19	99	137	260
2	Ubhota	4	11	62	93	170
	Total	9	30	161	230	430

### Table -4: Cattle Population:

JFMC	Cows	Goats	Cocks/H	Bulls/Ox	Duck	Pigs	Horse
			ens	en			
Selengguri	231	263	1200	240	1179	55	
Ubhota	156	172	1129	180	813	11	
Total	387	435	2329	420	1992	66	

# Table- 5: Village wise Infrastructure:

Head	Particulars	Additional Information	
Institution Name	Udito Suruj JFMC	President: Bireswar Moran (Member Secy : Mahanta	
Year of Formation	June, 2015-16	Formed by forest department and villagers	
Division	Doomdooma Forest Division	15 kms from Udito Suruj JFMC	
Range Office	Kakopathar	4 kms from Udito Suruj JFMC	
Number of Executive Committee members	10	Male 7- Female -3	
Names of cluster/villages under JFMC	2	Udito Suruj	
Total no. of Households	430		
Residing Communities	Ahoum, Moran, Napali, Adivasi		
Nearest LP School	4	0 km	
Anganwadi Kendra	6existing in the Village	0 km	
Church/Temple/Namghar	1 Mandir, 3Nam Ghar	0 km	
Nearest ME School	1 ME	5kms from the JFMC	
Nearest High School	1 High School	7 kms from the JFMC	
Nearest College	Doomdooma College, (5kms)		
Nearest Hospital	Sub-centre ( 1 km) Dooomdooma	20kms from the JFMC	
Nearest Police Station	Doomdooma PS	1 5 kms from the JFMC	
Nearest Post Office	Dooomdooma	15 kms from the JFMC	
Nearest Market	Dooomdooma	15 kms from the JFMC	
Approach Road	Through Doomdooma	15km	

# Table- 6: Agricultural crops

	Rain Fed		Irrigation		
	Name of the crop	Area (in ha.)	Name of the crop	Area (in hac)	
Kharif	Sali rice	50.5	NA		
Rabi	Mustard, leafy vegetables ,ginger	Household use	NA		

### Table -7: Crop production profile

Table- 7 Crop production profile

Type of crop	Total Production (approx) in quintals	No of household growing	Average production (quintal/ hac) approx	Area under crop (hac) approx
Paddy		396	22.42	30.5
Tea		396	4.98	16.05
Vegetable	288	53	22.32	12.9

### Table- 8: Fodder Availability

Types	1-3 months	3-6 months	>6 months
Crop Residue	$\checkmark$		
Trees Fodder			
Grasses			
Green Fodder			
Grazing in Forest	$\checkmark$		

### Table -9: Location of market from the village

For Purchase	Location	Distance from village if in other village (in km)
Grocery shop	Salengguri	0
Weekly Market	Kakopathar	4
Major Market	Kakopathar	4
Forest Corporation Sale Depo	NA	
Tendu Patta PHAD	NA	
Fish Market	Kakopathar	4

Medicinal Plant collection Centre	NA	
Forest Corporation Medicinal plant Collection Center	NA	

### Table -10: Water Resources Facility:

Water Source	Number	Water Availability	Uses
Water Harvesting	NA		
Structure			
Hand pump	430	Perennial	Drinking
Spring	1		
Pond			Washing and
		Seasonal	Kitchen Gardening

## Table -11: Energy Consumption

Type of Fuel	Number of household depending	Number of months dependent	Sources (local, village, forest, other sources)	Major/ Secondary
Fuel wood	430	12	Forest	Major
Kerosene stove	430	4	Market	Secondary
Gobar/Bio gas	NA			
LPG	65	3	Market	Secondary
Electric Healer	NA			

### **Additional Tables:**

### Table 12: Income Distribution

Table -12: Income distribution of the households

Categories		No. of households in each category
BPL	below 25000	230
APL	25000-50000	161
	above 50000	39

# Table -13: Education Status

Level of Education	Name of Villages		
Level of Education	Salengguri	Ubhota	
Illiterate	275	189	
I-IV	115	95	
V-VII	15	25	
VIII-X	136	121	
XI-XII	110	80	
Graduate	8	2	
Post Graduate	-	-	
Total	659	418	

### **RECORD- II**

### LIVELIHOOD OPPORTUNITY ANALYSIS

# Table -12: Agriculture and Horticulture

Constraints	Reason	Opportunities	Programme
Low Production/ Collection	<ul> <li>Degraded fertility level of the paddy land due to tea Cultivation</li> <li>Negligible knowledge for organic farming</li> <li>No use of HYV seeds</li> <li>Lack of irrigation facilities</li> <li>Negligible use of modern machineries like tractor, power tiller etc.</li> <li>Not driven by the market demand</li> </ul>	<ul> <li>Use of irrigation facilities, modern machineries which directly lead to increase production</li> <li>Application of HYV (high yielding variety) seeds</li> </ul>	<ul> <li>Training on organic farming</li> <li>Provide training on the application of modern seeds, machineries etc.</li> <li>Provide credit facilities to buy modern machineries.</li> </ul>
Storage and Processing	<ul> <li>Lack of common storing place</li> <li>Lack of cold storage facility due to non-availability of electricity</li> </ul>	• Helpful in preserving unsold products for a longer period of time	
Marketing	<ul> <li>Lack of transporting facilities for carrying products</li> <li>Less contact with the direct market; much dependency upon middle man</li> <li>No knowledge on marketing know-how, dependence on traditional system of selling.</li> </ul>	<ul> <li>Smooth transportation facility will help the farmers to carry their products to the nearby markets.</li> <li>Generate highest market price by removing middle men.</li> <li>More knowledge about the current market situation as well as the current value of their products.</li> </ul>	Buyer seller meet

Table-12: Agriculture and Horticulture

## Table- 13: Livestock

Constraints	Reasons	Opportunities	Programme
Less grazing land	Not Applicable		
Availability of fodder	<ul> <li>Unable to buy fodder from market due to poor financial condition</li> <li>Trees fodder n crop residue are available only for 3-6 months. Green fodder is also not available for the whole year.</li> </ul>	<ul> <li>Faster growth of cattle</li> <li>Higher income from livestock rearing</li> </ul>	
Veterinary care facility	<ul> <li>No veterinary care clinic</li> <li>Lack of knowledge about the proper rearing of live stock</li> </ul>	<ul> <li>Disease control</li> <li>Increases the life span of cattle</li> <li>encourage livestock rearing for earning purpose</li> </ul>	
Production of milk	<ul> <li>Less availability of fodder</li> <li>No scientific knowledge about the cattle rearing for increasing milk production</li> </ul>	<ul> <li>High demand for milk products</li> <li>Availability of supplements to cattle like "Milk Booster, Milk Plus" etc. can increase the production of milk in the area.</li> </ul>	
Milk market	<ul> <li>Less contact with the direct market for milk</li> <li>Unaware of the market demand of different milk made products.</li> </ul>	• 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

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

## Table-15: Specialized Skills

Constraints	Reasons	Opportunities	Programme
Raw material availability	<ul> <li>Non-Availability of Raw Materials within reachable location</li> <li>No Storage</li> </ul>	<ul> <li>Common place for setting a raw material storage</li> <li>Strengthen the commercialisation</li> </ul>	• Setting up raw material bank
Product quality	<ul> <li>Lack of research on product quality</li> <li>Shortage of high quality materials</li> <li>Depend on traditional machineries. No use of modern machinery and equipment</li> <li>Lack of TQM techniques.</li> <li>Lack of innovation in product development</li> </ul>	<ul> <li>Increase productivity</li> <li>Optimal use of manpower</li> <li>Use of modern machinery and equipment</li> <li>Improvement of quality and designs by comparing their products with those of others' artisans in the fairs/seminars/ expos</li> </ul>	<ul> <li>Training on Modern Tools and Equipment.</li> <li>Providing modern technology to the villagers</li> </ul>
Marketing potential	<ul> <li>No proper market for hand made products</li> <li>No pricing policy</li> <li>No direct contact with the institutional buyers</li> </ul>	<ul> <li>Better price for the products</li> <li>Expansion of market</li> </ul>	<ul> <li>Establish link between buyers and sellers</li> <li>Marketing provision for participation in national and international seminars/expos</li> <li>Intervention in the</li> </ul>

			form of engagement of market consultant Introduction of product catalogues
Credit facilities	<ul> <li>No linkage with the banks or post office saving banks</li> <li>Unaware of the development schemes of banks and government</li> </ul>		<ul> <li>Microfinance, Term Loans, Working Capital Arrangement</li> </ul>
Product Diversification	<ul> <li>No Product Diversification or New Product Development.</li> <li>Lack of concept for product diversification.</li> </ul>	• Developing Demand Based Products, as per the needs of the modern day market.	• Skill Up gradation & Training on New Product Development and Product Diversification

### Table-16: Credit Facility

Constraints	Reason	Opportunities	Programme
Indebtness	Nil	• Setting up modern financial institution in the nearby areas.	
Rate of interest	Higher lending rates charged by the private money lender	Subsidised credit     arrangement	
Availability of loan	<ul> <li>Fear of risk taking</li> <li>No knowledge of documentation</li> </ul>	• Start-ups entrepreneurial venture	<ul> <li>Microfinance, Term Loans, Working Capital Arrangement</li> </ul>
Mortgage difficulty	• Unavailability of proper documentation of mortgaged property.	Proper awareness about documentation in the area	

Divisional forest Officer Doomdooma Division Doomdooma Officer

