



MAHILA KISAN SASHAKTIKARAN PARIYOJANA BASE LINE REPORT



“Empowering Women Farmers in Kalahandi, Malkangiri & Khurdha district of Odisha”

Supported by
National Rural Livelihood Mission,
(Government of India) &
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Government of Odisha



Implemented by:
Madhyam Foundation,
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Acknowledgement

This baseline study was undertaken over a period of three months starting from January 2014 to establish a starting point on which the impact of the current program will be measured on long term basis in the target operational areas. The study gathered and assessed quantitative and qualitative data from a large and diverse sample of 9 blocks and 165 villages covering 4128 households from three districts (Kalahandi, Malkangiri and Khurda districts of Odisha. Its findings represent a first step in Madhyam Foundation's ongoing attempts to gain a deeper understanding of food security and livelihood issues in the operational villages.

The purpose of this brief document is to share our learning and findings of the base line survey undertaken in the operational areas of three districts. This document will be also helpful to us as it will strengthen our efforts, resources and skills to promote livelihood security of women farmers in some of the backward region of the state.

We sincerely hope that the findings of the study will be extremely useful to the various stake holders of the project as well as to all those who are involved in preparation of policy and programs for marginalized communities like the Dalit's, schedule tribe and caste, OBC, Minorities and marginal communities.

I would like to convey my heartiest thanks to all the partner NGOs without whose active support and cooperation this huge task could not have been materialized. I am also thankful to the community members and respondents who have given their valuable time to make the survey participatory and meaningful.

Lastly, I must thank my team members for completing the study process in stipulated time frame.

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List of Acronyms

BPL	Below poverty line
CBO	Community Based Organization
CRP	Community Resource Person
CSP	Community Service Provider
DRCS	District Registrar of Cooperative Society
HH	Household
FG	Farmer Group
KVK	Krushi Vigyan Kendra
MG	Marketing Group
MFI	Micro Finance Institution
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MKSP	Women Framers Empowerment Project
MIS	Management information System
NABARD	National Bank for Rural Development
NREGA	National Rural Employment Guarantee Act
NTFP	Non Timber Forest Products
PDS	Public Distribution System
PNGO	Partner Non-Governmental Organization
PRP	Para Professional
SGSY	Swarnajayanti Gram Swarozgar Yojana
SHG	Self Help Group
SC	Schedule Caste
ST	Scheduled Tribes
VDC	Village Development Committee
IPM	Integrated Pest Management
INM	Integrated Nutrient Management
PG	Primary Group
MKSP	Mahila Kisan Sashaktikaran Pariyojana
PTD	Participatory Technology Development

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Executive Summary

Madhyam foundation is currently implementing the Mahila Kisan Sashaktikaran Pariyojona (MKSP) of NRLM, Govt. of India in collaboration with 10 partner NGOs in the districts of Khurdha, Kalahandi and Malkangiri in Odisha. The project aims to benefit 6,000 women farmers across 169 Villages, of 35 Grampanchayats in 9 blocks of Odisha. This baseline survey was undertaken among 4128 women farmers (100% sample of all women farmers in the first year of project) from 162 villages 32 GPs in 9 blocks. The baseline survey, undertaken over a period of 4 months, was completed in a participatory manner involving the project staff of all 10 partner NGOs, involved.

Major findings of the Base line survey:

The baseline survey findings showed that majority of the women farmers belong to the scheduled tribe (53%) and in Malkangiri is the no of Schedule tribe women farmers is the highest i.e. 82.93%. Among, 4128 farmers 95% have Voter ID card, 74% have Ration and only 9% hold UID card. The dwelling pattern of the study region indicates that majority households (36%) have thatched house and only 2% have RCC building. 52% households have two rooms for living. In the entire study region, only 6% households have toilet facility. 98% Households in the study region meet their fuel consumption from firewood and 2% households use other sources for cooking fuel.

Through the baseline study, it was found that only 5.54% households have bullock cart as farming equipment where as 2% households have pump set. In the study region, 68% households have electricity connection under various schemes of the Govt.

As far as the sources of livelihoods are concerned, agriculture is found to be the major livelihood option for households followed by 82.41%, labour (10%) and livestock rearing (7%). This is in tune with the overall focus of the project on vegetable cultivation, as a potential economic activity for increasing household income.

Women in agriculture play a crucial role but in the present scenario their contribution is still not recognised. Through the study, it was found that 53.4% women farmers are engaged as agricultural labour, where as 7.4% women are engaged in nonfarm activities.

Regarding food habit it was found that 72% households consume of rice, dal and vegetable. Food security status is poor in Malkangiri district followed by Kalahandi and Khurda. On an average food security status found that 24% households are food secured for 6 months in a year where as 35% households are able to meet their food requirement for 7-9 months in a year.

With regard to family income it is found that 25% households earn between Rs10000/-Rs. 20,000 in a year. Saving status of women indicates that 48% women save with their WSHG, 17% make savings in bank and 35% women have no saving practices. 8% women avail credit from money lenders, 21% from WSHGs and 5% from bank and other sources. With this income the consumption needs outweigh the other needs and there is always credit requirement with most of the families. 57% of the households require credit for different purposes. Out of which 24% of the households use credit for agriculture purposes.

With regards to knowledge of women farmers on community institutions, 70.2% women farmers are aware about WSHG while only 2.7% know about producer cooperative. The baseline study attempted to find out the women farmers' knowledge on agriculture. It is found that 38% are aware about organic farming, 41% are aware about SRI/line transplanting and 25% are aware about goat rearing and animal health management.

In the study region the survey reviewed that 20.5% households migrate to different places in search of livelihood. Male migrants comprise 16% and female migrants comprise 4%. Land holding pattern of the study region reveals that average land holding per farmer was found to be 1.5 acres. Pattern of land are categorized in three types – up land, medium land and low land. 35% land fall under upland, 40% fall under medium land and 25% fall under low land in study area. 22% households have irrigated land while 78% have rainfed land. In the agriculture, seed is a vital input. It was found that that 55% households depend on local seed and 45% use other varieties of seed. The major sources of seed (47%) is market and 32% farmers use their own seed or procure from their neighborhood. In this project goat rearing is proposed as a livelihood activity for land less farmer. Through the baseline study it was found that only 34.59% households rear goat.

Large number of Women farmers are engaged in agricultural activities and perceive it to be their livelihood source although they are of the opinion that more can be done to update them with new ideas and information so that agriculture becomes more productive for their livelihood.

In the institutional building process, already platform is available where more number of women have knowledge on different forms of institutions in varying degrees and this can be tapped and put to use to enhance their collective bargaining power.

The findings of the baseline survey in study area clearly demonstrate that no major change is required in the existing project design to improve the well being of the women farmers. With appropriate skill, use of technology and strengthening a cadre of community resource persons, SRI and vegetable cultivation offer huge opportunities for enhancing food security and household income of small & marginal farmer households.

Chapter-I

Background & Objectives

1. Background

Odisha is the eleventh most populous state in India as per the 2011 Census with 41 million people contributing 3.47 percent to the total population of India. Over the last decade, the state has witnessed a 14 percent growth in its population. Most of this population is concentrated in the rural areas with the urban population constituting only 17 percent. According to the Planning Commission's Tendulkar Committee Report 2009, the poverty headcount ratio of Odisha, at 57.2 percent, is the worst among all Indian states and way above the national average of 37.2 percent. If factors beyond income are considered (Multidimensional Poverty Index)¹, about 63.2 percent of the people in Odisha live below the poverty line. Rural poverty, at 60.8 percent, is also significantly higher than the urban poverty, which is 37.6 percent, and the worst in India. Further, the extent of poverty is not evenly distributed in all the regions and among all social groups of Odisha. The Scheduled Castes and Scheduled Tribes of the state also have a high incidence of poverty as compared to the SCs and STs in the country as a whole².

Madhyam Foundation, Odisha set up during 2004, is a state level NGO, exclusively focused on promotion of livelihoods among members of women self help groups and Producers Cooperatives. One of its key modes of engagement has been to work with small and medium level NGOs in backward pockets of the state. Madhyam has a successful track record of promoting SHGs and co-operatives and diversifying their livelihood options in sub sectors such as vegetable cultivation, SRI, dairy and poultry. Since last 4 years, Madhyam has been implementing a project with 10 NGO partners in three districts of Odisha to promote vegetable cultivation among women farmers and collectivize them into Producer co-operatives. Madhyam Foundation, had approached NRLM to upscale vegetable cultivation by women farmers in new, adjoining areas of these three districts (Kalahandi, Malkangiri and Khurda) in collaboration with the existing 10 NGO partners for improving their livelihoods security. In view of the demonstrated impact of Madhyam's work in vegetable subsector, NRLM sanctioned a project under its flagship programme called MKSP in the month of March, 2013. The project is being implemented by Madhyam Foundation in partnership with ten civil society organisations across 169 revenue villages of 9 CD blocks in 3 districts. The duration of the project is for 3 years from 2013 to 2016.

¹ Human Index Report 2010

² Human Index Report 2011

1.1 About MKSP

Agriculture, the single largest production endeavour in the country contributing around 16 percent of G.D.P. is increasingly being recognized as a female activity. Agriculture sector employees 80 percent of all economically active women, they comprise 33 percent of agriculture labour force and 48 percent of self employed farmers.³

Despite such extensive involvement of women in agriculture, their access to extension services and production assets like seed, water, credit, subsidy etc is very much constrained. Most of them are not recognized as farmers for want of ownership of land, they are not considered as beneficiaries of various government schemes. Further due to multiple roles that women have to perform within the household and in agriculture, her access to knowledge and information is also constrained and her opportunities get limited. Therefore, to improve the present status of women in agriculture, the GOI in MoRD announced MKSP as sub-component of National Rural Livelihood Mission (NRLM) with the primary objective to empower women in agriculture by making systematic investment to enhance their participation and productivity, as also create and sustain agriculture based livelihoods of rural women. Once the production capacities of women in agriculture improve, food security will follow for their families and communities.

1.2 Objectives

The primary objective of the MKSP is to empower women in agriculture by making systematic investments to enhance their participation and productivity, as also create and sustainable agriculture based livelihoods for rural women.

The specific objectives of MKSP are as follows:

- To enhance the productive participation of women in agriculture;
- To create sustainable agricultural livelihood opportunities for women in agriculture;
- To improve the skills and capabilities of women in agriculture to support farm and non- farm-based activities;
- To ensure food and nutrition security at the household and the community level;
- To enable women to have better access to inputs and services of the government and other agencies;
- To enhance the managerial capacities of women in agriculture for better management of bio-diversity;
- To improve the capacities of women in agriculture to access the resources of other institutions and schemes within a convergence framework.

The basic objective of MKSP being improving the quality of life of the women cultivators at large, the following parameters have been identified for comparing the livelihood status at the starting and terminal points of Pariyojna which will specifically show the achievement of the project.

³ Govt of India, Agriculture department web site

Chapter-II

Research Design

2.1 Objective of the study

The baseline survey is intended to generate first hand information on the contemporary situation of the operational area. As the project will be implemented for a period of three years, a definitive comparison would be made with that of the project findings to understand whether changes as desired/mandated has been made and the impact visible as a part of project intervention is desired and well directed. The data from the baseline study would generate a set of indicators which will be closely monitored over time to time to assess the direction and pace of project.

However the study has the following specific objectives:

1. To capture the present demographic and socio-economic profile of the project area
2. To assess the existing livelihood pattern and identify various sustainable agricultural practices in the project area
3. To figure out the coverage of Mahila Kisans under various social and economic security schemes of the Government
4. To assess the role women in agriculture and her importance

2.2 Research Design

Before describing the research methodology, it would be contextual to highlight the parameters identified for measuring the livelihoods status of Mahila Kisans. The basic objective of MKSP being improving the quality of life of the women cultivators at large, the following parameters have been identified for comparing the livelihood status at the starting and terminal points of Mahila Kisan Sahaktikarana Pariyojona which will specifically show the achievement of the project or its failure or even a level of status-quo:-

- Sources of earning
- Ownership of assets
- Status of livestock ownership
- BPL status
- Migration status
- Crop-wise area and their productivity
- Total area under cultivation with the break-up of irrigated and un-irrigated area
- Basic facilities for Irrigation structure available
- Use of fertilizer and pesticide
- Levels of skills and performance by women in agriculture

- Increased access of women in agriculture to productive technology and information
- Drudgery reduction for women in agriculture through use of tools/technologies
- Improved market access for women's produce/product
- Pool of bare-foot experts for knowledge dissemination
- Nutritional security of women/child

The aim of this study was to identify the socio-economic profile dominated by primary and secondary types of occupation, to prioritize issues and problems that shape and reshape the agricultural profile of the community residing in the operational areas. It also aimed at making a scoping exercise of identifying linkage that exists between different set of institutions as well as resource units so that elimination of poverty through linkage of resources can be done. Hence, a interview schedule based survey was adopted in these four districts to find out the field situation in the project areas. In-depth interviews of head of the household were carried out to identify the important parameters that really shape the livelihood of the people. Apart from this, Focused Group Discussion (FGD), interview with key informants, cross checking and triangulation of data/information were also conducted during the whole process of data collection. Besides respondents, PRI representatives; Anganwadi workers, Health workers, school teachers, village head and experienced senior staff were also consulted during the primary data collection process.

In the base line survey, emphasis was given to find out the present status of women farmers located in four districts in terms of their caste composition, economic development, association with different institutions, agricultural development, irrigation facility, infrastructures availability, source of income, patterns of migration, size of landholdings, cropping pattern, availability of forest produce and animal population, etc. The information reflects on their needs and gaps present in their socio economic development. All these information are collected with the help of structured household schedule. In the present survey 4128 households of 165 villages in nine blocks are covered.

The survey work was carried out by the local animators who were supervised and guided by the qualified and experienced field staff of partner organizations. Even the household schedule was examined by the respective supervisor to ensure the quality of survey work. The information of these schedules was transferred to excel sheets for data analysis. The checking of data entry was confirmed at several stages The baseline survey work was carried out between March to July-2014. The table below shows the geographical coverage of the baseline study.

2.3 Sampling and sample size

As per the project proposal, 100% households in the 1st year of project intervention are covered under the study. The details of the sample are given in the table no. 2.1 .

Table No: 2.1

Geographical Coverage under MKSP Baseline study:

Table –2 Study Area							
District	Block	Partner NGO	# HH Covered under Study	GP	Village Covered	Average Sample	
						per GP	per Village
Kalahandi			1776	10	35	178	51
	Bhawanipatna	DAPTA	449	1	6	449	75
	Golamunda	Lok Yojana	413	3	8	138	52
	Junagarh	Parivartan	400	4	9	100	44
	M.Rampur	Mahashakti Foundation	514	2	12	257	43
Khurda			330	2	8	165	41
	Balipatna	DSS	330	2	8	165	41
Malkangiri			2022	20	122	101	17
	Korukonda	SOMKS	422	3	44	141	10
	Kudumulugumma	Parivarttan	400	3	19	133	21
	Malkangiri	PUSPAC	400	5	26	80	15
	Mathili	SDS	400	5	17	80	24
		ODC	400	4	16	100	25
Total			4128	32	165	129	25

The above table shows about the sample size taken from different districts. It has been decided during the process of study that the interview schedule will be administered only to women as the women are the principal target group for the project. However, among the age groups itself, the representation of above 35 years dominates the distribution followed by representation from above 18-35 years age group. As the project is concerned with the livelihood aspects, a higher percentage of samples from 18 years and above are taken considering the case that these age groups are economically most vibrant and majority of them are engaged in the agricultural production.

2.4 Tools for the data collection

Three tools were administered during the process of primary data collection. These are as follows:

Household Survey: The household survey was carried out as per the sample finalized in consultation with partner NGO staff. While the household survey provides essential quantitative figures, the case study and FGD supplemented evidence to the findings. Apart from household survey, specified guidelines were developed for Focused Group Discussion and In-depth interview with various other stakeholders associated with the process.

Village Profile: Village profiling was conducted in all the sample villages using semi structured interview with key informants from the village. During the exercise we focused on listing the resources, its usages, productivity and economic analysis and the existing gaps.

2.4.1 Implementation Process

The study was carried out in three phases each having its own requirement:

Phase 1: Preparatory phase

Preparation of study design: The study design was shared to all 10 Partner NGOs which was finalized after a series of consultations. Accordingly the data collection tools and matrices developed.

Finalization of Interview Schedule: The baseline interview schedule was developed and reviewed by partner NGOs to address the study objectives. Based on the feedback from partner NGOs the interviews schedule was revised and finalized for training. Along with the interview schedule, guidance notes were prepared for focused group discussion.

Baseline Study Action Plan: In consultation with all stakeholders, an action plan was developed and it was agreed by all the partners that the timeline has to be adhered as per the plan of action. Activities mentioned in Action plan include completion of data entry, data collection, data analysis, submission of report, consolidation and finalization of report at Madhyam Foundation level, and submission to ministry. Responsibility was also fixed on project staff for completion of each activity.

Phase 2: Data Collection

Fieldwork: Field work was carried out within 4 month, in between March to July, 2014. Each PNGO formed two teams comprising two members each. Along with the team, partner NGO chiefs were also involved in the process of data collection to ensure the quality of the information.

Back check: After the interviews were completed, supervisor conducted back checks i.e. go to the household where interviews were completed and back check information recorded by administering certain sections of the interview schedule on ample basis.

Phase 3: Analysis and Report Writing

Data Entry and Tabulation: The filled in interview schedules were edited and scrutinized in the office by the field investigators. All open ended questions were then coded and entered in excel. For the closed ended questions a program was developed using excel sheet. The data were entered ensuring the accuracy. The data analysis was done in Excel (Pivotal table) and tables generated as per the analysis plan that was finalized in consultation with PNGOs.

Data presentation: The analyzed data was presented in the form of a report.

2.5 Structure of the report

This report summarizes the key findings of the data collected through the above process. The report also briefly discusses the livelihood activities pursued by the households and the livelihood outcomes as a result. The detailed information and analysis are being compiled, which would highlight geographical variances, construct poverty profiles and would identify key trends effecting poor.

The report is broadly compartmentalized in to four sections. The first sections of the report represent the background and objective of the project. The second sections of the report represent the research design and process. The third sections of the report depict the infrastructure availability in the villages, community socio economic condition, livelihood status, migration status, agriculture status and other details. The report concludes with a set of broad findings and recommendation for the next phase of the project implementation.

Chapter-III

Findings of the Study

The objective of this chapter is to understand the village profile, demographic profile, infrastructural facilities etc across the 165 villages covered under the sample of the study. The chapter is the result of the analysis obtained in the village profile tool. For better understanding of the geographical area, all the tables were generated on the basis of data gathered at each partner level.

3.1 Household Profile

This section portrays complete information about the profile of the households surveyed, i.e. different social category, economic status, type of houses that they reside in, availability of drinking water and toilet facilities. In addition to this, the chapter highlights on the educational profile of the household member with special focus on women work participation

This chapter depict the profile of the area in accordance with different socio-economic indicators found out in the data collected and analysis thereafter. This shows majority of the program area falls under the poorest region of the state. The housing pattern, food habit, livelihoods engagement etc considered as major indicators of wellbeing, are considered in the study. The major findings of such indicators are discussed and analysed here.

Table: 3.1 Caste wise Households

District Name	PNGO Name	Total HH Covered	General	OBC	SC	ST	Total
Malkangiri	ODC	400		24	20	356	400
Malkangiri	PARIBARTTAN (M)	400		1	112	287	400
Malkangiri	PUSPAC	400			59	341	400
Malkangiri	SDS	400	76	7	22	295	400
Malkangiri	SOMKS	422	1	2	21	398	422
Kalahandi	DAPTA	449	1	218	58	172	449
Kalahandi	LOK YOJANA	413	3	281	71	58	413
Kalahandi	MAHASHAKTI FOUNDATION	514	7	196	94	217	514
Kalahandi	PARIVARTTAN (K)	400	21	223	83	73	400
Khurdha	DSS	330	14	205	108	3	330
	Total	4128	123	1157	648	2200	4128
	% Total	100%	3%	28%	16%	53%	100%

As shown in the table,82.93% of Mahila Kisan in Malkangiri are tribal followed by 29.79% in Kalahandi and Khurdha, being a coastal district, percentage of tribal is negligible

3.2 Socio-Citizenship Status:

Considering the basic identity of households surveyed, it was found, 95% have Voter Identity Card, 74% have Ration Card and only 9% have their Unique Identity Card (Aadhar Card). The district and block wise details of such basic identity cards are presented in the table below.

District	Block	Total HH	Voter ID	Ration Card	Adhar Card
Kalahandi	Bhawanipatna	449	282	204	1
	Golamunda	413	392	215	
	Junagarh	400	399	398	100
	M.Rampur	514	499	365	7
Khurda	Balipatna	330	312	152	221
Malkangiri	Korukonda	422	391	260	
	Kudumulugumma	400	399	400	
	Malkangiri	400	400	396	27
	Mathili	800	728	661	9
Total		4128	3802	3051	365

3.3 Living Conditions:

Shelter being the prime need of every family has been considered in the study as a major indicator of wellbeing. Kucha type rural housing pattern mostly dominated the entire area .

3.3.1 Dwelling Pattern:

Several types of housing pattern are found in the area dominated by traditional mud and thatched roofing houses(36%).followed by tin and tile housing(25%) and ACC houses(21%)

Roof Type						
Wall Type	Thatched	Tin/Tile	ACC	RCC	Other	Total
Mud/Wood	781	239	74		62	1156
Stone Cement	81	43	31		13	168
Bricks & Cement	242	227	86	48	23	626
Bricks & Mud	341	293	661		136	1431
Cemented	247	156	74	52	129	658
Other	13	45	5		26	89
Grand Total	1479	1019	869	99	389	4128
% Total	36%	25%	21%	2%	9%	100%

There are hardly 2% houses found in the area with RCC roofing and stone and cemented wall.

Table 5 – No of Living Room per Household						
No of Living Room		1	2	3	4	Total
Kalahandi	Bhawanipatna	210	96	115	28	449
	Golamunda	21	184	159	49	413
	Junagarh	89	224	65	22	400
	M.Rampur	39	197	198	80	514
Khurda	Balipatna	164	113	45	8	330
Malkangiri	Korukonda	4	414	4		422
	Kudumulugumma	97	165	87	51	400
	Malkangiri	15	281	95	9	400
	Mathili	272	493	31	4	800
	Total	911	2167	799	251	4128
	% Total	22%	52%	19%	6%	100%

Above table shows the availability of living room in the dwellings of surveyed household. It is found out that 22% of households have one room which double up as living room and kitchen. Majority of surveyed households (52%) have two rooms and percentage of households having more than two rooms are 25%.

Table 6 – Toilet Facility				
District/ Block	Domestic Toilet	Open defecation	Total	% of HH uses Toilet
Kalahandi	106	1634	1776	6%
Bhawanipatna	22	427	449	5%
Golamunda	29	384	413	7%
Junagarh	32	368	400	8%
M.Rampur	23	491	514	4%
Khurda	55	275	330	17%
Balipatna	55	275	330	17%
Malkangiri	93	1938	2022	5%
Korukonda	21	401	422	5%
Kudumulugumma	19	381	400	5%
Malkangiri	28	372	400	7%
Mathili	25	775	800	3%
Grand Total	254	3239	4128	6%

As mentioned in the table, only 6% of the families have own toilet and rest (94%) go for open defecation. Toilet uses is high in khurda district which is 17% where as in Kalahandi it is 6% and 5% in Malkangiri.

3.4 Household Assets:

Basic household items like utensils are available with every household. 89% of households have bi-cycles, 56.51% own a TV set and 63.68% are having fans at home

Table 7 – Household Assets Ownership					
District	Block	Utensils	Cycle	TV	Fan
Kalahandi	Bhawanipatna	440	281	134	122
	Golamunda	413	386	39	37
	Junagarh	400	335	173	213
	M.Rampur	514	444	128	129
Khurda	Balipatna	330	327	307	317
Malkangiri	Korukonda	422	422	422	422
	Kudumulugumma	400	397	399	397
	Malkangiri	400	400	400	400
	Mathili	800	712	331	592
Total		4128	3704	2333	2629

3.4.1 Fuel Source:

Fire wood is the commonly used fuel source all over the study area, 98% of the households use it as the main source of cooking. Rest 2% use electricity, bio-gas, kerosene and LPG all combined. As shown in the table only 23 families use LPG for cooking

Table 8 – Sources of Fuel							
District	Block	Electricity	Firewood	Gobar gas/bio-fuel	Kerosene	LPG	Grand Total
Kalahandi	Bhawanipatna		448			1	449
	Golamunda		410			2	413
	Junagarh		392		1	7	400
	M.Rampur		512	1		1	514
Khurda	Balipatna		321			9	330
Malkangiri	Korukonda		422				422
	Kudumulugumma	2	397	1			400
	Malkangiri		400				400
	Mathili		772	25		3	800
Grand Total		2	4074	27	1	23	4128

3.4.2 Farming Equipments:

There are basic farming equipments available with the households regarding which the table here displays in details.

District	Block	Bullock Cart	Tractor	Power Tiller	Pump set	Weeder
Kalahandi	Bhawanipatna	28	0	0	19	1
	Golamunda	11	0	0	12	2
	Junagarh	58	0	0	6	4
	M.Rampur	38	0	0	11	2
Khurda	Balipatna	12	0	0	2	
Malkangiri	Korukonda	27	0		9	
	Kudumulugumma	21	0	0	12	
	Malkangiri	19	0	0	2	
	Mathili	15	0	0	7	8
Grand Total		229	0	0	80	17
		5.54%		0	2%	.4%

The above table depicts agri assets availability in study area. There are only 5.54% households which have bullock cart, 2% households have pump set and .4% households have weeders

3.4.3 Electricity Connection:

68% households of the study area have electricity and of out of these 80% have got connections through Biju Gramay Jyoti Yojana (BGJY) or RGGJY under BPL category schemes.

District	Block	No Electricity	Having Electricity			Total
			BGJY	General	RGJY	
Kalahandi	Bhawanipatna	210	26	213		239
	Golamunda	272	140	1		141
	Junagarh	215	104	81		185
Khurda	Balipatna	12	318			318
Malkangiri	Korukonda		422			422
	Kudumulugumma		400			400
	M.Rampur	285	62	167		229
	Malkangiri	182	152	5	61	218
	Mathili	128	626	46		672
Total		1304	2250	513	61	2824
% Total		32%				68%

3.5 Livelihood Status:

Farming is common to most of the household of the area with a support income from wage earning either from different government run wage labour activities or engagement in nonfarm based labour activities. As farming become unpredictable and high input based activity, many families earn their livelihoods from wage earning.

3.5.1 Sources of Livelihood:

The table here presents the primary sources of livelihoods option of women farmer families of the program area.

Table 11 - Primary Livelihoods Sources								
District	Block	Agriculture	Labour	Livestock Rearing	Small Business	Pvt. Job	Other	Total
Kalahandi	Bhawanipatna	228	58	159		3	1	449
	Golamunda	303	13	96			1	413
	Junagarh	376	19	4		1		400
	M.Rampur	430	71	5	7		1	514
Khurda	Balipatna	326	2	1		1		330
Malkangiri	Korukonda	418	3	1				422
	Kudumulugumma	391	8	1				400
	Malkangiri	399		1				400
	Mathili	531	246	22			1	800
	Total	3402	420	290	7	5	4	4128
	% Total	82.41%	10%	7%	.16%	.12%	.1%	100%

82.4% families are dependent on agriculture based livelihoods followed by 10% and 7% from wage earning and livestock rearing. Rest 1% households have small business activities and unorganized private jobs as their sources of livelihood.

3.5.2 Engagement of Women Farmers

The status of women in agriculture is presented in the table and diagram below. It is found that 53% of total women are engaged in agriculture and agriculture based wage earning. While 29% do household activities along with engagement in agricultural activities. 7% of them are engaged in unorganised private jobs and 8% households are engaged in nonfarm wage labour. The table below describe the engagement of women how they spare their time all such activities.

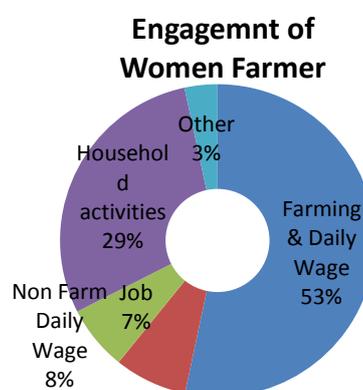


Table 12- Women Framers' Engagement						
Row Labels	Agri & Daily Wage	Non Farm Daily Wage	Job	Household Activities	Other	Total
Kalahandi	1012	89	117	540	18	1776
Bhawanipatna	152	22	29	239	7	449
Golamunda	181	6	15	204	7	413
Junagarh	325	25	43	6	1	400
M.Rampur	354	36	30	91	3	514
Khurda	53	4	8	143	122	330
Balipatna	53	4	8	143	122	330
Malkangiri	1133	215	151	518	5	2022
Korukonda	418	1	2			422
Kudumulugumma	191	1	2	206		400
Malkangiri	126	44	9	217	4	400
Mathili	398	169	138	94	1	800
Total	2198	308	276	1201	139	4128
% Total	53.24%	7.4%	6.68%	29%	3.36%	100%

3.5.3 Duration of Engagement of Women:

Table 13 - Duration of Engagement of Women Farmer						
Row Labels	Agri Labour	Non Farm & Daily Labour	Pvt. Job	Own Farming	Domestic Work	Total
Up to 100 days	1043	93	41	524	37	1738
201 to 300 days	1020	77	66	377	102	1643
301 to 365 days	95	132	168	41	6	442
Round the Year	40	6	1	10	248	305
Total	2198	308	276	952	144	4128
% Total	53.24%	7.46%	6.68%	23.06%	3.48%	100%

As shown in the table, 53.24% of women are engaged as agriculture labour while only 23.06% women work in their own field

3.5.4 Level of Satisfaction in Current Farming:

Table 14- Level of Satisfaction in Agriculture					
Row Labels	Satisfied	Manageable	Dissatisfied	No Association with Agriculture	Grand Total
Kalahandi	399	671	441	265	1776
Khurda	48	70	200	12	330
Malkangiri	814	958	183	67	2022
Grand Total	1261	1699	824	344	4128
% Total	30.54%	41.15%	20%	8.3%	100%

As the above table reveals that the satisfaction level of women farmers on agriculture farming. This table show 30.54% of the households are satisfied with agriculture farming where as 20% households are dissatisfied, followed by 41.15% household said it is manageable. Throug the baseline study found 8.3% households are not associated with agriculture farming.

3.5.4 Engagement in Forest based livelihoods Activity

Table 15 – Forest based livelihoods Activity					
Row Labels	Mahua	Fire wood	Tamarind	honey	Leaf Collection
Kalahandi	115	688	84	47	122
Bhawanipatna	10	89	2	1	2
Golamunda	36	102			40
Junagarh	12	187	26	22	1
M.Rampur	57	310	56	24	79
Khurda					0
Balipatna					0
Malkangiri	1730	1467	713	62	1368
Korukonda	232	421	98	23	340
Kudumulugumma	400	400	62	20	400
Malkangiri	362	311	362	8	362
Mathili	736	335	191	11	266
Total	1845	2155	797	109	1490
% Total	44.69%	52.20%	19.30%	2.6%	36%

A major part of the program areas falls in backward region of the state and with close proximity to forest. Different forest products such as mahua, firewood and leaves largely contribute to the livelihoods support system of the households.

3.6 Food and its availability

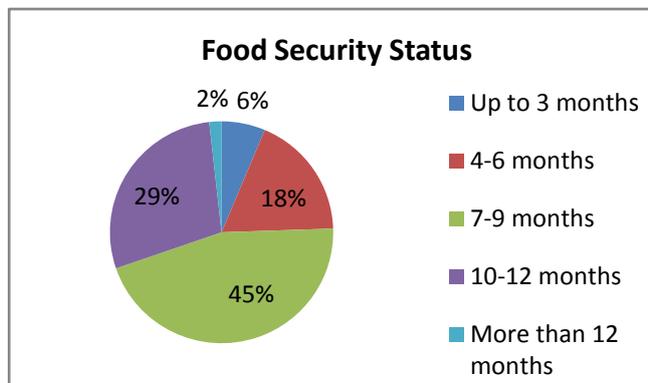
Rice, dal and locally available vegetables are the common food habit of majority of people in the state and the program area as well. Whatever the households earn, they ensure their basic food need from those. Following table shows how common people have their assured food and its duration.

3.6.1 Common Food Habit:

Period	Only Ragi	Ragi with rice	Ragi, rice and dal	Ragi, rice, dal and vegetable	Total
0-3 months	28	70	73	81	252
4-6 months	8	63	23	146	240
7-9 months	7	137	382	430	956
10-12 months	36	12	219	1996	2263
More than 12 months	57		4	356	417
Total	136	282	701	3009	4128

3.6.2 Food Security Status:

In most of the program area, there is no round the year food-security. As explored from the study, only 31% families have assured food for the entire year while 24% of the families face crises beyond 3 to 6 months. As found, 40% of total households have 7-9 months of food security.



District	Block	Up to 3 months	4-6 months	7-9 months	10-12 months	More than 12 months	Total
Kalahandi		105	287	819	531	34	1776
% Total		6%	16%	46%	30%	2%	100%
	Bhawanipatna	27	87	202	121	12	449
	Golamunda	25	62	178	142	6	413
	Junagarh	19	71	172	129	9	400
	M.Rampur	34	67	267	139	7	514

Khurda		5	43	131	140	11	330
% Total		2%	13%	40%	42%	3%	100%
	Balipatna	5	43	131	140	11	330
Malkangiri		151	419	887	543	22	2022
% Total		7%	21%	44%	27%	1%	100%
	Korukonda	41	121	134	121	5	422
	Kudumulugumma	45	78	175	97	5	400
	Malkangiri	26	79	163	125	7	400
	Mathili	39	141	415	200	5	800
Total		261	749	1837	1214	67	4128
% Total		6%	18%	45%	29%	2%	100%

The baseline study reveals that food security status is very poor in Malakangiri & Kalahandi districts. Up to 6 month food security is found among 28% households in Malkangiri, where as Kalahandi it is 22% and in Khurda it is 15%. Only 29% of households are food secured for 10-12 months.

3.7 Income Status:

Majority of households i.e 54.67% have annual income ranging between Rs 10,000- 20,000 per annum while only 1.2% of households earn more than Rs 50,000 per annum.

Level of Income

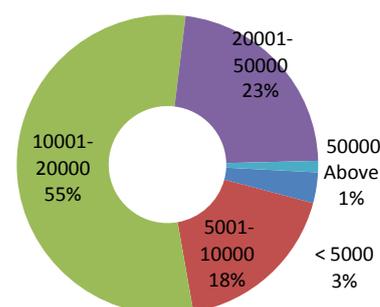


Table 18 – Income Levels

Income Level	< 5000	5001-10000	10001-20000	20001-50000	50000 Above
Kalahandi	5	226	914	592	39
Bhawanipatna	2	139	279	29	
Golamunda	2	41	369	1	
Junagarh		26	80	263	31
M.Rampur	1	20	186	299	8
Khurda	3	21	258	44	4
Balipatna	3	21	258	44	4
Malkangiri	129	500	1085	300	8
Korukonda	4	74	274	63	7
Kudumulugumma	3	62	219	115	1
Malkangiri	2	130	153	115	
Mathili	120	234	439	7	
Total	137	747	2257	936	51
% Total	3.3%	18.09%	54.67%	22.67%	1.2%

3.8 Knowledge of Women Farmer on Institutions:

Knowledge of women farmers on different grassroots institution has also been traced and found that very few have known about producers cooperative(2.7%) Large chunks of women farmer have the understanding on SHG and as mentioned 70% of families are involved in SHGs.

District/Block	SHG	Producer Cooperative	SHG Federation
Kalahandi	930	50	614
Bhawanipatna	130	14	82
Golamunda	189	9	66
Junagarh	200	8	200
M.Rampur	411	19	266
Khurda	325	14	41
Balipatna	325	14	41
Malkangiri	1646	48	703
Korukonda	420	10	
Kudumulugumma	400	9	400
Malkangiri	206	15	5
Mathili	620	14	298
Grand Total	2901	112	1358
% Total	70.27%	2.7%	32.89%

3.8.1 Knowledge of Women Farmers on Agricultural practices:

District/Block	Organic agriculture	ITKs	SRI/line transplanting	Collective Farming and marketing	Goat and Health Management	Rearing Animal
Kalahandi	462	53	383	18	114	
Bhawanipatna	28	2	47		10	
Golamunda	104		105		29	
Junagarh	111	31	32	3	4	
M.Rampur	219	20	199	15	71	
Khurda	39	2	69	0	10	
Balipatna	39	2	69	0	10	
Malkangiri	1106	4	1269	24	929	
Korukonda	197		122		318	

Kudumulugumma	400		400		400
Malkangiri	400		390	4	193
Mathili	109	4	357	20	18
Grand Total	1607	59	1721	42	1053
% Total	38.92%	1.42%	41.69%	1%	25.50%

The table above shows the knowledge of women farmers on different agricultural practices. 38.8% women farmers know about organic manure and 41.6% farmers are aware about line transplanting and SRI. 25.5% of women farmers are aware about goat rearing and animal health management.

3.9 Savings Status:

Farmers do save in several places like women SHGs, Cooperatives, Post Offices and Banks. The table below. Shows different saving option for the women farmers

District/Block	WSHG	Co-Operative	Post office	Bank
Kalahandi	482	54	44	123
Bhawanipatna	174	0	15	19
Golamunda	196			10
Junagarh	116	51	24	67
M.Rampur	168	3	5	27
Khurda	303	0	32	119
Balipatna	303	0	32	119
Malkangiri	1233	3	43	293
Korukonda	296			103
Kudumulugumma	358			87
Malkangiri	182	3	5	69
Mathili	397		38	67
Total	2018	57	119	535
% Total	48%	1.3%	2.8%	12.96%

This baseline study found 48% women households save with Women SHGs of their village, while 17% save with formal institutions like Bank, Post Office and Co-operatives. 35% have no account in any such category.

3.9.1 Credit:

3.9.1 Credit Sources:

Similar to savings the major credit sources are informal sources such as local money lender and WSHG. As banks and other formal sources do not lend smaller amount of credit, so the number of borrower family in those cases are very small.

District	Money Lender	WSHG	Cooperative	Bank	Other
Kalahandi	120	183	15	74	24
Khurda	95	203	1	3	1
Malkangiri	116	358	3	21	74
Grand Total	331	878	19	98	99
% Total	8%	21%	.4%	2.3%	2.3%

As the above table shows the majority sources of credit are from WSHG (21%), followed by 8% from money lenders, 2% from banks, and 2.7% from other sources like cooperative, neighbours, MFI etc.

3.9.2 Need of Credit:

Need of credit has been explored and as depicted in the table majority of credit need are for agriculture purpose and seasonal in nature. Productive and high value credit needs are down in the series other than need for food, education, consumption, health etc.

Row Labels	Kalahandi	Khurda	Malkangiri	Total	% Total
Agriculture	151	319	529	999	24.2%
Education	30	1	217	248	6%
Food	58		179	237	5.7%
Hand Loan for consumption purpose	39		166	205	5%
Health	280	1	142	423	10.2%
Other purpose	2		272	274	6.6%
Grand Total	560	321	1505	2386	57%

As the table shows, 24% women farmers seek credit for agricultural purpose while 10 % for health, and 5-6% households seek credit for education, food, consumption, and other in each category.

3.9.3 Insurance:

To meet the shock of any unseen event several families also prefer to go for insurances. As mentioned in the table, number of high value life insurance is as low as 55 and crop insurances are only 20 in number. But the low valued Rastriya Swasthya Bima Yojana provided by govt is bit higher in number covering around 48% of households.

3.9.4 Insurance Status:

Table 24 – Insurance Status			
Row Labels	Life insurance	Crop insurance	Health insurance
Kalahandi	54	20	614
Bhawanipatna	26	12	123
Golamunda			205
Junagarh	28	8	128
M.Rampur			158
Khurda	23	0	167
Balipatna	23	0	167
Malkangiri			1208
Korukonda			322
Kudumulugumma			400
Malkangiri			377
Mathili			109
Grand Total	77	20	1989
% Total	1.8%	.5%	48%

The table shows the insurance status of women farmers. Here it is found that 48% women farmers are having health insurance under RSBY, while 1.8% has life insurance and .5% have only crop insurance specially in kalahandi district. No livestock insurance was found in any of the family. And very few are aware about it.

3.10 Migration:

Seasonal Migration to different places within the state and outside is found in almost all the program area but, the number is not as high as compared to the other areas of the state. The following table and diagram provides all such details on migration.

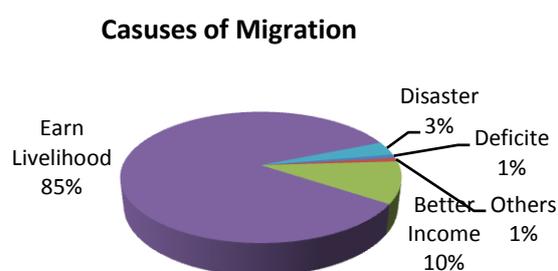


Table 25 – Migration Status		
Row Labels	Male	Female
Kalahandi	222	61
Bhawanipatna	79	10
Golamunda	38	23
Junagarh	46	17
M.Rampur	59	11
Khurda	17	0
Balipatna	17	0

Malkangiri	456	92
Korukonda	113	23
Kudumulugumma	67	34
Malkangiri	147	19
Mathili	129	16
Grand Total	695	153

Only 20.5% households migrate for searching alternative livelihood. Out of 20.5%, Male migrants are 16.54% and female migrants are 4%.

3.11 Land Pattern:

Row Labels	Irrigated	Rain fed	Irrigated	Rain fed	Irrigated	Rain fed
	Up Land in acres		Medium in acres		Low Land in acres	
Kalahandi	127.8	972.8	257.51	759	178.5	277.9
Bhawanipatna	31.5	267.3	72	202.2	49.2	73.4
Golamunda	32	230.8	60.2	187.9	42.2	53.2
JUNAGARH	26.5	203.5	68.2	145.5	34.9	63.4
M.Rampur	37.8	271.2	57.11	223.4	52.2	87.9
Khurda	34.5	182.15	42.78	125.6	36.61	59.34
Balipatna	34.5	182.15	42.78	125.6	36.61	59.34
Malkangiri	224.8	701.6	306.1	1138.1	243.5	787.9
Korukonda	47.2	167.8	62	141.2	45	137.2
Kudumulugumma	51.1	147.7	78	251.6	53.5	129.1
Malkangiri	57.8	160.2	77.6	341	55.7	230.4
Mathili	68.7	225.9	88.5	404.3	89.3	291.2
Grand Total	387.1	1856.55	606.39	2022.7	458.61	1125.14
% Total	6%	28%	9%	30%	7%	17%

Land holding pattern of the study region reveals that average land holding per farmer was found to be 1.5 acres. Pattern of land are categorized in three types – up land, medium land and low land. 35% land fall under upland, 40% fall under medium land and 25% fall under low land in study area. 22% households have irrigated land while 78% have rainfed land.

3.11.1 Cropping Practices:

Different crop practices and its intensity are presented in the table below. Kharif is the major crop dominated by paddy. Potato and brinjal are the major vegetable crop followed by Tomato. Cropping intensity in winter and summer is very low as compare to ain season. Intensity of cropping area and household is presented in the table below.

3.11.2 Cropping Intensity:

Row Labels	HH Kharif	Area in Kharif in acres	HH in Rabi	Area in Rabi acres	HH in Summer	Area in Summer acres
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Kalahandi	1274	1761.31	457	691.2	10	7.3
Bhawanipatna	233	275.13	50	52	2	2
Golamunda	342	399.6	20	37.3	1	0.5
Junagarh	328	532.4	333	536.4	6	4.8
M.Rampur	371	554.18	54	65.5	1	0
Khurda	281	297.92	131	190.64	43	87
Balipatna	281	297.92	131	190.64	43	87
Malkangiri	1994	2998.4	277	181	26	15.5
Korukonda	422	509.5	275	179	26	15.5
Kudumulugumma	400	641.2				
Malkangiri	400	592				
Mathili	772	1255.7	2	2	3	5
Grand Total	3549	5057.63	865	1062.84	79	188.8

3.11.3 Seed Variety:

Majority of seed used for crop is of local variety followed by hybrid and hi-yield variety. For all such hybrid and hi-yield variety people depend on the local market and other govt and no governmental sources.

Row Labels	Hybrid	High Yield Variety	Local	Certified	Breeder	Foundation
Kalahandi	98	569	1076	28	1	4
Bhawanipatna	23	197	224	3	1	1
Golamunda	41	138	217	14		3
Junagarh		67	322	11		
M.Rampur	34	167	313			
Khurda	1	33	287	0	1	8
Balipatna	1	33	287		1	8
Malkangiri	559	80	925	458	0	0
Korukonda	146	21	255			
Kudumulugumma		14	65	321		
Malkangiri	183		217			
Mathili	230	45	388	137		
Grand Total	658	682	2288	486	2	12
% Total	15.94%	16.52%	55.43%	11.77%	0.05%	0.29%

The above table shows 55% of households are using local variety of seed, followed by 15.9% hybrid seeds, 16.5% HYV seeds and 12% only certified and other seeds.

3.11. 4 Seed Source:

Row Labels	Market	Cooperatives	NGO	Self/Neighbour	Agl Dept	Total
Kalahandi	1038	35	27	551	125	1776
Bhawanipatna	239	2	8	177	23	449
Golamunda	223	22	15	119	34	413
Junagarh	289	0	0	90	21	400
M.Rampur	287	11	4	165	47	514
Khurda	63	0	47	77	143	330
Balipatna	63		47	77	143	330
Malkangiri	838	58	102	709	315	2022
Korukonda	178	0	0	188	56	422
Kudumulugum						
ma	171	0	0	189	40	400
Malkangiri	135	0	0	91	174	400
Mathili	354	58	102	241	45	800
Grand Total	1939	93	176	1337	583	4128
% Total	47%	2%	4%	32%	14%	100%

The above table indicates that the major sources of seed are market (47%,) while 32% procure from their own sources and only 14% from Agri. Dept. It indicates that farmers are not much aware about seed preservation practices and dependant on market and other sources.

3.11.5 Seed Treatment:

Table 29 - Seed Treatment Practices

Treatment Type 	Chemical	Organic	Pre Treated	No Treatment
Seed Type 				
Hybrid	78	156		424
High Yield Variety	72	67	14	567
Local	123	545		1610
Certified			472	
Total	273	768	486	2601
% total	6.61%	18.60%	11.77%	63.01%

The above table depicts the seed type and treatment practices followed by beneficiaries. 6.6% farmer's practices chemical seed treatment, 18.6% follow organic way of seed treatment. While 63% women farmers do not follow any other seed treatment practices

before sowing the crop though a total of 55.43 % farmers use local seeds for which treatment is required. However the seeds are pre treated in case of Hybrids, HYV and certified types.

3.11.6 Vegetable Crop:

Vegetable crop is dominant in khurda district in comparison to other two .Potato is the main vegetable crop of the district by potal to some extent. Across all vegetables field of mix variety like brinjal, cowpea, bean, pumpkin, radish and chilly are major.

Table 30 – Vegetable Crop Intensity						
Row Labels	HH in Kharif	Area in Kharif	HH in Rabi	Area in Rabi	HH in Summer	Area in Summer
Kalahandi	178	48.22	188	47.7	121	17.24
Bitter guard	2	2	2	2		
Brinjal	9	6.72	11	9.7		
Ladies Finger	1	0.2	2	0.3		
Long bean			2	2		
Tomato	25	10.3	13	5.6		
mix	141	29	158	28.1	121	17.24
Khurda	153	193.3	165	391.14	64	207.82
Brinjal	1	0.1	1	0.1		
Ladies Finger	5	0.34	1	0.1	4	9.1
Long bean	1	0.05				
Potala	8	1.84			9	17
Potato	130	190.03	158	390.54	51	181.72
Pumpkin			3	0.12		
Radish	6	0.86				
Saru			2	0.28		
Tomato	2	0.08				
Malkangiri	385	364.9	342	263	2	4
Brinjal	29	32.5	1	2	1	2
Potato	1	0.5	1	1		
Tamato & Brinjal	1	0.5				
Tomato	2	1.2				
mix	352	330.2	340	260	1	2
Grand Total	716	606.42	695	701.84	187	229.06

3.11.7 Other non cereal base Crop:

Table 31 – Other Non Cereal base Crop							
Crop	District	HH in Kharif	Area in Kharif	HH in Rabi	Area in Rabi	HH in Summer	Area in Summer
Black gram	Kalahandi	96	63.6	61	57.1	2	4
	Khurda	1	0.2	49	13.35	2	3
	Malkangiri	112	16.1				
	Sub Total	209	79.9	110	70.45	4	7
Green gram	Kalahandi	118	95.62	166	175.77	5	3.5
	Khurda	1	0.8	173	74.41	7	21
	Malkangiri	52	27				
	Sub Total	171	123.42	339	250.18	12	24.5
Pigeon pea	Kalahandi	208	155.35	52	41.65	4	2.1
	Khurda	1	0				
	Malkangiri	1	1.5				
	Sub Total	210	156.85	52	41.65	4	2.1
Onion	Kalahandi	61	31.1	59	31.6	20	6.92
	Khurda	10	1.84	2	0.12	9	27
	Malkangiri	2	31				
	Sub Total	73	63.94	61	31.72	29	33.92

Like vegetables non cereal based crop is dominant in khurda district and green gram is dominant among crops. Most of these crops are for household consumption and few of the households sell their surplus in local open market.

3.12 Livestock Rearing:

Table 31 – Goat Rearing Status		
Row Labels	No of HH	No of Animal
Kalahandi	431(24%)	719
Khurda	66(20%)	221
Malkangiri	1122(55%)	9887
Total	1428 (34.59%)	10827

Livestock rearing as another side of livelihood, the study reveals that only 34.59% households are having 10827 goats. In Malkangiri district goat rearing is high which represents 55%, while it is 24% in Kalahandi and 20% in Khurda district.

3.12.1 Status of Shed:

Row Labels	Shed with Roof	Open Space with Boundary	Traditional with thatched	No Shed
Kalahandi	95	31	30	39
Bhawanipatna	5	3		1
Golamunda	34	2	11	30
Junagarh	3	18	2	
M.Rampur	53	8	17	8
Khurda	63	9	142	12
Balipatna	63	9	142	12
Malkangiri	15	41	936	14
Korukonda			422	
Kudumulugumm				
a			294	
Malkangiri			121	
Mathili	15	41	220	14
Total	173	81	1229	53
% Total	4.19%	1.9%	29.7%	1.2%

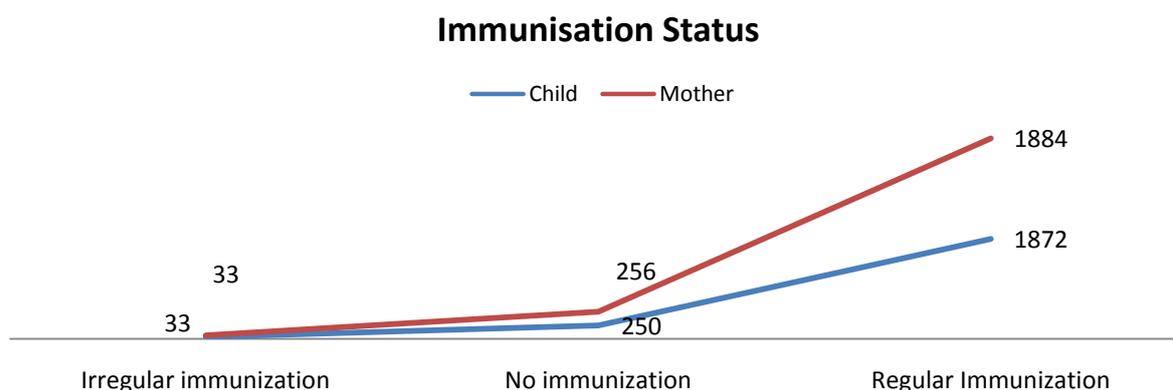
The study found that 35% farmers have goat shed for their animal. Out of which 29% have thatched shed and only 4% have proper roof for their animal.

3.13 Health Status:

43% of total family surveyed have some or other health ailments. These are of common fevers, cold and cough malaria at large. Considering the district wise status the occurrence of such health hazards is higher in Khurdha with 67% and lowest is in Kalahandi with 35%. In Malkangiri district the percentage of household with different health problem is 39%. Amongst all ailments malaria dominates with 27% of household and higher in the districts of Malkangiri.

On the side of treatment 97% household preferred treatment at Government run Hospitals, PHC, CHC or District Head Quarter Hospitals.

3.13.1 Status of Immunization:



Immunization a common indicator of awareness and access safe health practices found to cover almost 87 % of eligible mother and child. 87.9% eligible child and 87.7% of eligible mother has completed their immunization cycle, while 11.5% of both the group have not availed the facility at all. Rest 1.5% from both the group have not completed the cycle as derived from the study.

3.13. 2 Hygienic Practices:

The findings on different hygienic practices are placed in the table above and it is found that 73% of families uses mosquito net as majority of the program area falls under malaria prone area. This happened because of mass awareness created by National Health Mission

Table 34 – Status of Different Hygienic Practices		
Hygienic Practices	No (%)	Yes (%)
Use mosquito net	27	73
Household Waste Management	73	27
Well ventilated House	15	85
Backyard cowshed	32	68
Use of Toilet	94	6
Institutional Delivery	20	80
Addiction to Smoke/Tobacco/Drink	8	92

and the NGOs working in the area. Still there is a gap of 27%. 73% of families need to aware on managing the waste from their houses, those are daily kitchen waste, animal excretes, farm waste and other non degradable waste accumulated like polythene and poly packs from daily consumables.

As most of the settlements are scattered and situated beneath forest area and farm lands people considered those open and ventilated. But, there still 15% of houses those do not have sufficient to allow open air. Use of toilet is an area of concern, 94% household doesn't have any toilet facility. They usually go for open defecation.

Chapter -IV

Conclusion & Recommendations

Conclusions:

Crop failure and Droughts: Agriculture in these regions is highly vulnerable to the vagaries of nature. Drought-like conditions as well as the moisture stress due to erratic rain has made life difficult for the people. The moisture stress not only affects the monsoon season (Kharif) agriculture but also affects the winter season (Rabi) agriculture. The community confirmed that over the last decade or so, the climate has been acting in a highly unpredictable manner and the states have witnessed succession of severe drought conditions. This has added to the volatility in the agriculture production.

Irrigation: Water problem is an issue for almost all the villages of study area. It is evident that in almost all the villages the water is drawn from the tube wells but the depth of tube wells are limited to 100-120 ft. All the villages suffer from water scarcity during March to July. The womenfolk and children carry the water for the entire family from these sources located more than 200 meters from their main habitation. Another problem is that due to deforestation the water runoff prevents recharging of ground water reserves. With no rainfall till June this year, many of the perennial water sources have dried up.

Marginalization of Landholdings: Due to ever increasing population pressure in these villages, the landholdings are getting increasingly marginalized. The vast majority of landholdings have now become either marginal (that is, one acre or less) or small (1-3 acres). It would not be an exaggeration, therefore, to say that agriculture in these villages is dominated by large number of very small-sized holdings. A related problem is the fragmented nature of holdings. This factor is now threatening to become a serious problem in the sense that median size of landholding is now reaching the threshold beyond which it will become an 'uneconomic' proposition, particularly under the present production system.

Low agriculture productivity: The communities in the study area are mostly dependent on agriculture for their livelihood. However the productivity of land has gradually declined because of increasing cost of inputs, failing productivity of lands and regular occurrence of natural hazards. Lack of knowledge and information on improved agriculture or alternative agriculture deprive the youth to make their agriculture practice profitable.

There is no proper coordination between the Govt. schemes / programs and the farmers. From the FGDs it has been inferred that, over the last decade and half, the agriculture sector has witnessed a trend of increasingly low 'return on investment' from agricultural operations due to ever increasing cost of inputs (particularly, the costs of irrigation, fertilizer and labour) and stagnating output values. The combined effect of these factors is that, in the farmer's perception, agriculture is turning into 'unviable' economic activity. This, in

combination with the marginalization factor, is discouraging the farmers from making investments required to upgrade the factors of production.

The infrastructural and support/service systems needed for agricultural development, like credit, input supplies, post-production value addition and processing, storage, and marketing are in a very poor shape in the study area. Similarly, the credit delivery system is also highly inefficient. One of the critical bottlenecks that have hampered agricultural production/productivity is the lack of availability of timely seeds.

Unskilled labour (Low earning): Most of the youth go for daily labour works in agriculture, wage labour in non-farm sector and they earn miserably compared to their hard work. Some of the youth work as drivers without proper license. The youth realize that they are not well trained with different skills. So it is too difficult for them to get good wages for their work. The youth feel that training on livelihood skills can provide them with more earning opportunities. As they earn themselves, they were forced into early marriage. Even those who are idle, they are also forced into early marriage. Due to low earning and family burden, there are conflicts within the family. The other reason for early marriage is to bring the girl home to increase the work force. During the consultation process, the youth expressed that if they have better earning, they can have better living standard and they can take care of their own children in better way.

Agricultural wage labour households are the most livelihoods insecure: In terms of education/literacy, food insecurity, health, productive asset base and access to livelihood resources they are the most vulnerable. Nearly half of the agricultural labour households are in the always poor category, and there are no households located in the non-poor wealth group. Agricultural wage labourers are also the least likely to have savings and the most likely to take out loans. These households have limited asset ownership, particularly non-productive assets. Fewer of these households own land than any other group and, of those that do, the mean land value is less than any other occupation group. This group has less investment in perennial crops and almost no participation in business ventures.

Vegetable production is limited by technological constraints and marketing: Almost 50% of households in different occupation groups cultivate vegetables, but most of them follow traditional practices. The same holds true for seed preservation. Improved management practices, together with optimum utilization of homestead, can help these households in increasing vegetable production. The ability of households to garden is constrained by the lack of access to quality seed and lack of knowledge in seed preservation.

Access to markets is dependent upon rural infrastructure as well as economies of scale. In general poorer households have limited access to markets and sell their produce locally. The wealthier households are more likely to market production in urban markets and through middlemen. Although the majority of households cultivate vegetables, production is limited due to the traditional practices employed.

Trend in NTFP: Over the years, forest cover has been reduced to a great extent, having direct impact on the availability of NTFP in the study area. Rapid deforestation, uncertain rainfall and high temperature have made the situation more critical. The effects of climate change have also contributed a lot towards the shifting of livelihood of the community. Lack of value addition to NTFP Products: Most of the households do not process or add value (except drying) to the NTFP collected from the forest. This is due to lack of knowledge and technology at village level. As a result of this the households sell the product at lower rate to middlemen. The marketing mechanisms for the NTFP are almost nonexistent except few products.

Animal and People: The livestock sector has significant potential for improving the livelihoods of landless people and small and marginal farmers, who comprise the majority of rural poor in the operational villages. Many poor rural households own livestock and gain some income from it. At present, resource and institutional constraints prevent poor producers from realizing the full potential of their animals. However goat rearing, pig rearing and small-scale poultry are common among many tribal groups. Its products are used for exchange, localised sale; meet the emergency needs and domestic consumption. Thus, these items usually remain outside the scope of commercial marketing. After agriculture and NTFP, animal rearing is one of the major sources of livelihood in the area. From the discussion with the community, it has been observed that both agriculture and the small ruminants rearing have become increasingly risky pursuits and households have sought other sources of income, most notably through migration for daily labour.

Status of Women: Women's status in the region is significantly neglected. The burden of poverty is biased towards women, given their low literacy rates, poor nutrition, lack of income opportunities poor mobility, and discrimination. Efforts should be made to support interventions that increase women's empowerment and social mobility. Emphasis should be given to both social mobilization as well as group savings.

Recommendations

In general, their livelihoods and food security and other health or socio-economic problems, are even more endangered in the operational villages due to several factors. After a macro level analysis of the ground level situation has been made, a number of recommendations emerged. These recommendations are not only directed to make the individuals stronger but also empower the communities to which he/she belongs to become much more empowered.

A. Increase the Knowledge and skill base of people

Establish linkage with government programs and Policy: Necessary tie up with National Horticulture Mission, Krishi Vigyan Kendra, Agricultural department, Water Resource department, etc. can be done to promote different schemes mooted by Govt. among

farmers. This increasing knowledge base will facilitate the growth of farmers and restrict the impact of climate change on them.

Developing cadre at community level: It is felt that there is a need to supplement the orientation programs with developing a cadre of community youths to address current issues. This cadre can be links between the community and the Panchayat and other departments.

Developing micro-plans on each village: Micro-plans can be initiated in each village incorporating the adaptation strategy components to the effects of climate change.

Development of communication materials: IEC is important to increase the knowledge and skill of the community. It is seen that there is a dearth of literature and communication materials. Therefore development of different communication materials along with street plays will help in enhancing awareness and learning on climate change.

B. Empowering the Women

Formation and strengthening of SHGs: The women groups shall be promoted to take up massive small savings activity. This may be promoted by matching revolving grant support under the program. The SHG should be formally registered with a provision of investing the money reserved for the enterprise and livelihood promotion in the village or nearby villages. But this institution cannot be dissolved to share the resources (cash) among members. The cash reserve has been observed to be highly instrumental to act as a safety net during scarce periods. This institutional arrangement immediately acts before any other help reaches the village. Apart from this the cash reserve available in the village with the SHG would cater to needs of landed farmers for agricultural investment, the landless and poor for enterprising activities. Or else there have been instances of banks and financial institutions neglecting/ harassing these farm based investments and small enterprises or delaying the loan.

Involvement of Women in Agriculture: Despite the long-lasting experience of women in plant domestication and agriculture the study team observed that women farmers are not taken into account as key actors and stakeholders, although women play multiple roles in agricultural production and cope with different disasters. There is a great need to create awareness of the important role that traditional knowledge of women and indigenous people can play in the promotion of sustainable development.

Corporate – SHG linkage for rural market: Corporate linkage will foster secured income for the SHGs. There will be skill enhancement for members and there will be an upliftment in their social status.

C. Increasing agricultural productivity

The analysis found that most of the families rely on agriculture. However, per acre productivity and yield has not increased in recent years. In most of the cases, per acre returns are confined to 10 quintals for paddy, which are quite insignificant in comparison to other area of the state. Similarly, even within the region itself, a great variety of differentiations are marked between agricultural practice and productivity. The study has also given to understand that the people residing in these areas are poor, so they cannot afford to further invest in agriculture. Following interventions can be undertaken to address the need of the farmers in the study villages:

- Promoting farming methods suitable for adaptation to rain-fed farming
- Continuing the promotion of agro-forestry and mixed farming to protect local flora
- Promoting bio-diverse organic farming based on agro-ecological principles by combining traditional agricultural knowledge with innovative farming methods. This leads to improved food self-sufficiency and food security at farm and community levels
- Giving more emphasis to the cultivation of vegetables, primarily for home consumption but also for sale
- Encouraging community farming, especially regarding vegetable production with availability of quality planting materials, INM, IPM, water management and use of technology

Biodiversity based organic farming: The experience with small holders in different states of India confirms the importance and role of biodiversity based organic farming. It not only ensures better yields but also reduces the risks related to climate change. Organic farming and the use of local crops and varieties reduces water demand and use significantly, making production less vulnerable to draught. It has been widely recognized now that the small and poor are much more vulnerable to climate change, therefore organic farming is capable of reducing their risk as the examples in the box indicate.

Fodder cultivation: In order to address the scarcity of natural animal fodder, it is recommended that there should be promotion of cultivation of grass and other fodder plants in and around the villages.

D. Diversification of crops

Promotion of Second crop: Barring Kharif crops (Mostly confined to Paddy, Arahara, Til) and some vegetable cultivation no other crops are seen in the study area. Both these crops are depending too much on weather condition. Due to small holding size, the productivity is limited. In these conditions second crop can be taken by using the moisture of the soil after harvesting of paddy.

Focus on Horticulture: Horticulture can be used as a supplementary source of income with one small nursery in each block. There will be tie up with the National Horticulture Mission. Floriculture can also be looked into for supplementary income in addition to horticulture.

E. Improved water resources management for agriculture

Improving water availability in rural communities by rejuvenating the old water sources and reintroducing or expanding rainwater harvesting and traditional irrigation systems in the village;

Rejuvenating the dying springs and streams by raising plantations in the catchment areas and adopting the traditional watershed approach;

Develop water users group and a mechanisms to manage efficiently the water bodies and tube wells in the villages;

Promote land based activities to harvest the water in the upland. Simply the major step would be to put a diversion bund at the principal location along which the runoff from the non-arable area enters the cultivated lands. Some water may be impounded upstream of it and then led out along two guide bunds extending in either side. The graded (0.5%) guide bund would be created along the interface of the cultivated and non arable land. Only the intense and long showers will be able to reach the outfall point. The uplands being located immediately below the guide bund will get the first benefit and thus will escape the effect of drought. Water harvesting structure(WHS), Ponds and Sunken ponds would be developed as found suitable when guide bund runs across different terrains (when it passes over a gully there will be a WHS and when it passes through a low swampy land it would be a pond or sunken structure. Dug wells shall be dug out in the downstream of guide bund to harvest seepage water for crop production.

NRM, integrated watershed development programs and restructuring field extension set up.

F. Improved governance of social safety net programs

The recent thrust on creating durable and productive assets through convergence of MGNREGA works with programs of agriculture and allied sectors are leading to enhanced yields. With the scope of works under NREGA expanded to include lands of small and marginal farmers, it is possible to significantly enhance the irrigation potential in rain-fed areas and drought-proof small-holder agriculture, leading to sustainable, higher yields. Conservation technologies — stress-tolerant, climate-resilient varieties of seeds, zero-tillage, raised-bed planting, Systems of Rice Intensification (SRI), can build adaptive capacities to cope with increasing water stress, providing “more crop per drop”.

G. Access to savings, credit and other financial services

Linkages with institutional finance: The absence of well-defined institutionalized financial services for the small and marginal farmer has been an open invitation for moneylenders to entrap needy farmers into huge debt burdens. And many times it is this moneylender who graduates to function as the middleman and exploits the farmer with both low prices for his crop and usurious interest rates for loans. Any effort at livelihood strategies to offer complete solutions to farmers without eliminating the role of the middleman and replacing him with institutional financial services for the farmer would not only be incomplete but counter-productive as well. Lower interest rates from banks automatically reduces the debt burden, and freedom from the compulsion of selling their crop to money lenders further enhances increased income possibilities. Overall, financial security and long-term planning of cash flows through their cooperatives that are trained to offer these inputs to their members becomes a definite possibility for these farmers. Hence, project should promote and establish linkage with micro finance institutional for the small and marginal farmers.