

BASELINE SURVEY: PHASE VII

MAYURBHANJ DISTRICT

Special Program for Promotion of Millets in Odisha
(Shree Anna Abhiyan)



Submitted to
Directorate of Agriculture and Food Production,
Government Of Odisha
2025



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Nabakrushna Choudhury Centre for Development Studies
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Citation: “Baseline Survey: Mayurbhanj District 2023, Phase VII”, Special Programme for Promotion of Millets in Odisha or Shree Anna Abhiyan, SAA, Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar.

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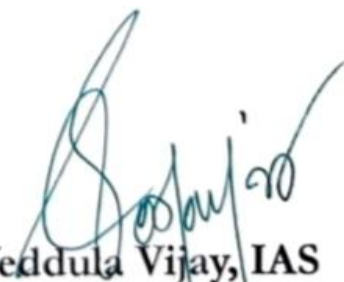
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FOREWORD

Sustainable Development Goal 2 seeks to end hunger, achieve food security, improve nutrition, and promote sustainable agriculture. Millets offer a promising solution to help accomplish these objectives. The Shree Anna Abhiyan (SAA) is a great initiative of Odisha government that shows the state's commitment to reviving the cultivation of millets that are not only climate-resilient but has significant implications on health and nutrition of people. The programme has brought different stakeholders to work together to reinstate the significance of millets in Odisha's agricultural landscape. I am delighted to have the opportunity to write this foreword for the 'Special Programme for Promotion of Millets in Odisha.'

The SAA programme has emerged from a consultation with diverse array of stakeholders including NCDS. A memorandum of understanding (MoU) was signed on February 27, 2017, bringing together key stakeholders including the Directorate of Agriculture and Food Production (DAFP), NCDS, and the Watershed Support Services and Activities Network (WASSAN). This MoU delineated the framework for concerted efforts towards implementing the SAA, with NCDS assuming the pivotal role of anchoring the research secretariat. NCDS embarked on a comprehensive survey initiative encompassing Baseline, Midterm, and End-line assessments in the designated blocks of the SAA. These surveys, designed to provide a situational analysis of the status of millet production, marketing, consumption, represent a critical step towards informed intervention and strategic decision-making. The findings of the baseline survey presented in the report would provide a situational analysis of the current status of the millet at the time of survey and a reference point to analyse the impact of intervention.

As the Director, I commend all the dedicated team members of NCDS for their unwavering commitment and tireless efforts in achieving the objectives of the SAA. Your hard work and perseverance have played a crucial role in turning our shared vision into reality. I also extend my heartfelt gratitude to our partners, stakeholders, and collaborators for their invaluable support and steadfast dedication in this direction.



Dr. Yeddula Vijay, IAS
Director, NCDS

ACKNOWLEDGEMENT

It gives me immense pleasure to extend my heartfelt gratitude to all those who contributed to the successful completion of the “Baseline Survey Report of Phase VII, 2023”. This endeavour was truly a collaborative effort, and I am deeply grateful for the unwavering support and dedication demonstrated by each individual and organization involved. First and foremost, I would like to express my sincere appreciation to the research team of Nabakrushna Choudhury Centre for Development Studies (NCDS), Bhubaneswar, for spearheading the preparation of this report. Your commitments to excellence and tireless efforts have been instrumental in ensuring the quality and accuracy of the findings presented.

I extend my heartfelt thanks to the related government departments, organizations, and stakeholders, including farmers' associations, whose invaluable support and cooperation played a pivotal role in the successful completion of this study. Special mention goes to Dr. Arabinda Kumar Padhee, Principal Secretary to the Government, Department of Agriculture & Farmers' Empowerment (DA&FE), Mr. Prem Chandra Choudhury, Director of Agriculture DA&FE, and the Joint Director of Agriculture for their invaluable contributions.

I would like to extend my sincere appreciation to our esteemed Director, Dr. Yeddula Vijay (IAS) Additional Secretary to the Government, Planning and Convergence Department, Government of Odisha, and Director of Nabakrushna Choudhury Centre for Development Studies (NCDS). Your guidance, wisdom, and valuable suggestions have been invaluable in shaping the direction of this study. Many thanks to NCDS administration for their continuous support for smooth functioning of the research work. I also wish to acknowledge the contributions of Dr. Biswabas Patra and Dr. (Ms.) Rashmi Misra for their valuable insights and assistance.

I would also like to express my appreciation to the members of the Programme Secretariat (Watershed Support Services and Activities Network, WASSAN), particularly Mr. Dinesh Balam, Programme Secretariat, and the facilitating agencies and staff of the concerned areas under study for their support and cooperation. I am particularly grateful to Mr. Sushil Kumar Senapati, Ms. Kalpana Pradhan and Mr. Bikash Pradhan, along with the dedicated staffs of the State Project Monitoring Unit (SPMU), for their unwavering support and assistance throughout the duration of this project.

My sincere gratitude goes out to the Chief District Agricultural Officer (CDAO) of Mayurbhanj district, the Scheme Officer, District Programme Coordinator, Block Coordinators, and other block-level officials for their invaluable support in providing crucial information. Once again, thank you all for your invaluable contributions, dedication, and support. It has been a privilege to work alongside each of you, and I look forward to continued collaboration in our future endeavours. I extend my best wishes for the success of the publication.

Dr. Sandhya R Mahapatro
Project Director, SAA

EXECUTIVE SUMMARY

Mayurbhanj district is one of the 17 districts where the “Special Programme for the Promotion of Millets in Odisha or (hereafter) Shree Anna Abhiyan (SAA)” Phase VII has to be implemented in its four blocks, namely, Bahalda, Gopabandhu Nagar, Jamda and Sukruli. The Baseline Survey 2023, Phase VII, conducted in Mayurbhanj district, collected data from 320 sample households. The survey revealed that among the surveyed households, 62.18 per cent belonged to Scheduled Tribes (STs), while only 3.12 per cent belonged to Scheduled Castes (SCs). Other Backward Classes (OBCs)/ Socially and Educationally Backward Classes (SEBCs) accounted for 34.69 per cent of the households.

As observed, the total population of the surveyed households is 1232, of which 53.25 per cent are male and 46.75 per cent are female. The religious composition of the surveyed households indicates that all the households (100 per cent) are Hindu. Out of 320 sample households, 93.13 per cent of households possess Ration Cards. As found, a significant portion of the population (25.89 per cent) is farmers. The share of wage laborers is 5.36 per cent; Government employees represent 0.81 per cent and private employees 2.84 per cent. It is also found that out of the total, 59.06 per cent have *Semi-Pucca* houses, 31.87 per cent have *Kutchha* houses, and only 9 per cent have *Pucca* house. Agriculture activities are mostly being carried out by both male and female members of the household and Paddy is the main crop produced across the four blocks along with maize and vegetable. However, not a single household are cultivating millets during the baseline survey. As found, the sample HHs are not aware about the exact process of millet cultivation and the other reasons for not cultivating millets in the study area are due to nor adequate land, and lack of knowledge about its health benefits as well.

As revealed in the Baseline Study, out of the total 18 HHs (5.63 per cent) consumes millets in different seasons and at different meals of the day. The average HH level consumption of millets in Bahalda Block is 8.44 Kg.; in Jamda Block it is 0.13 Kg, in Sukruli Block 1.19 Kg. and the most significant observation is that in Gopabandhu Nagar Block not single HH is consuming millets. It is also found that millets consumption is not same across the seasons. During summer season 5.31 percent of HHs consumes millets which are highest comparing rainy season (1.25 per cent) and winter season (4.38 per cent). As observed, the majority of people consume millets during their breakfast and lunch across the blocks and *Tampo/Pitha* and *Jau/Torani* are the most popular recipe among the surveyed households. Out of the surveyed households, none of the households process the millets for their consumption and also none of them marketing millets.

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ABBREVIATIONS

APL	: Above Poverty Line
BPL	: Below Poverty Line
CBO`	: Community Based Organization
CRP	: Community Resource Person
FGD	: Focused Group Discussion
FPO	: Farmer Producers Organization
Ha	: Hectare
HH(s)	: Household(s)
ICDS	: Integrated Child Development Scheme
LS	: Line Sowing
LT	: Line Transplantation
ITDA	: Integrated Tribal Development Agency
MDM	: Mid-Day Meal
MFP	: Minor Forest Produce
MSP	: Minimum Support Prices
NAL	: Non-Agricultural Labour
NCDS	: Nabakrushna Choudhury Centre for Development Studies
NSSO	: National Sample Survey Organization
OBC	: Other Backward Classes
OMM	: Odisha Millets Mission
SAA	: Shree Anna Abhiyan
PDS	: Public Distribution System
PVT	: Participatory Variety Trial
Qtls	: Quintals
SC	: Scheduled Caste
SRI	: System of Rice Intensification
ST	: Scheduled Tribe
WASSAN	: Watershed Support Services and Activities Network

Chapter I

INTRODUCTION

1.1. Background

Millets are cereal grain belongs to the Poaceae family, commonly known as the grass family. Millets are small, round whole grain grown in India, Nigeria, and other Asian and African countries. It is considered an ancient grain, used both for human consumption and livestock and bird feed. Millets have multiple advantages over other crops, including drought and pest resistance. It's also able to survive in harsh environments and less fertile soil. These benefits stem from its genetic composition and physical structure—for example, its small size and hardness. This crop is also divided into two categories — major and minor millets, with major millets being the most popular or commonly cultivated varieties. Major millets include: Pearl, Foxtail, Proso (or white), finger (or Ragi); Minor millets include: Kodo, Barnyard, Little Guinea, Brown top, Fonio, Adlay (or Job's tears). Like most cereals, millet is a starchy grain— meaning that it's rich in Carbs. Notably, it also packs several vitamins and minerals.

Therefore, it may offer multiple health benefits “Special Programme for Promotion of Millets in Odisha” is a flagship mission, popularly known as Shree Anna Abhiyan (SAA), launched by Department of Agriculture and Farmers Empowerment, Odisha in the year 2016. The broad aim of the Programme is to revive millets, widely consumed in tribal belt and other parts of the state traditionally, in farm and plates, after observing a changing pattern in agronomic practices and consumption pattern owing to government schemes and programmes inclined towards paddy cultivation. The intent to revive millets came from the environment sensitive approach that realizes millet as a climate resilient crop and has higher survival rate in rain-fed areas. Comparatively higher nutrition value of the produce is also an added factor contributing to the movement.

1.2 District Profile

Mayurbhanj is one of the Eastern districts of Odisha and is considered the third most populous district of the state as per Census 2011. Mayurbhanj is land locked with a geographical in the north east Jhargram district of West Bengal, West Singhbhum district of Jharkhand in the northwest, Balasore district in the southeast and by Keonjhar district in the southwest. Mayurbhanj district is proposed as one of the programme districts for promotion of Millets. The climatic condition is convenient for millets cultivation. The district has an area of 10418.00 sq.kms and 25,19 lakhs population. The district shares 6.00 per cent of the state's population. The density of population of the district is 241 per Sq. Km against 270 persons

per sq.km of the state. The district has 3950 villages covering 26 Blocks. The sex ratio of the district is estimated to be 1006 females per 1000 males. The literacy percentage of the district is 63.17 against 72.9 of the state. The languages spoken by the people of this district are Bengali, English, Hindi, Odia and tribal.

Fig. 1.1 Map of Mayurbhanj District with Blocks

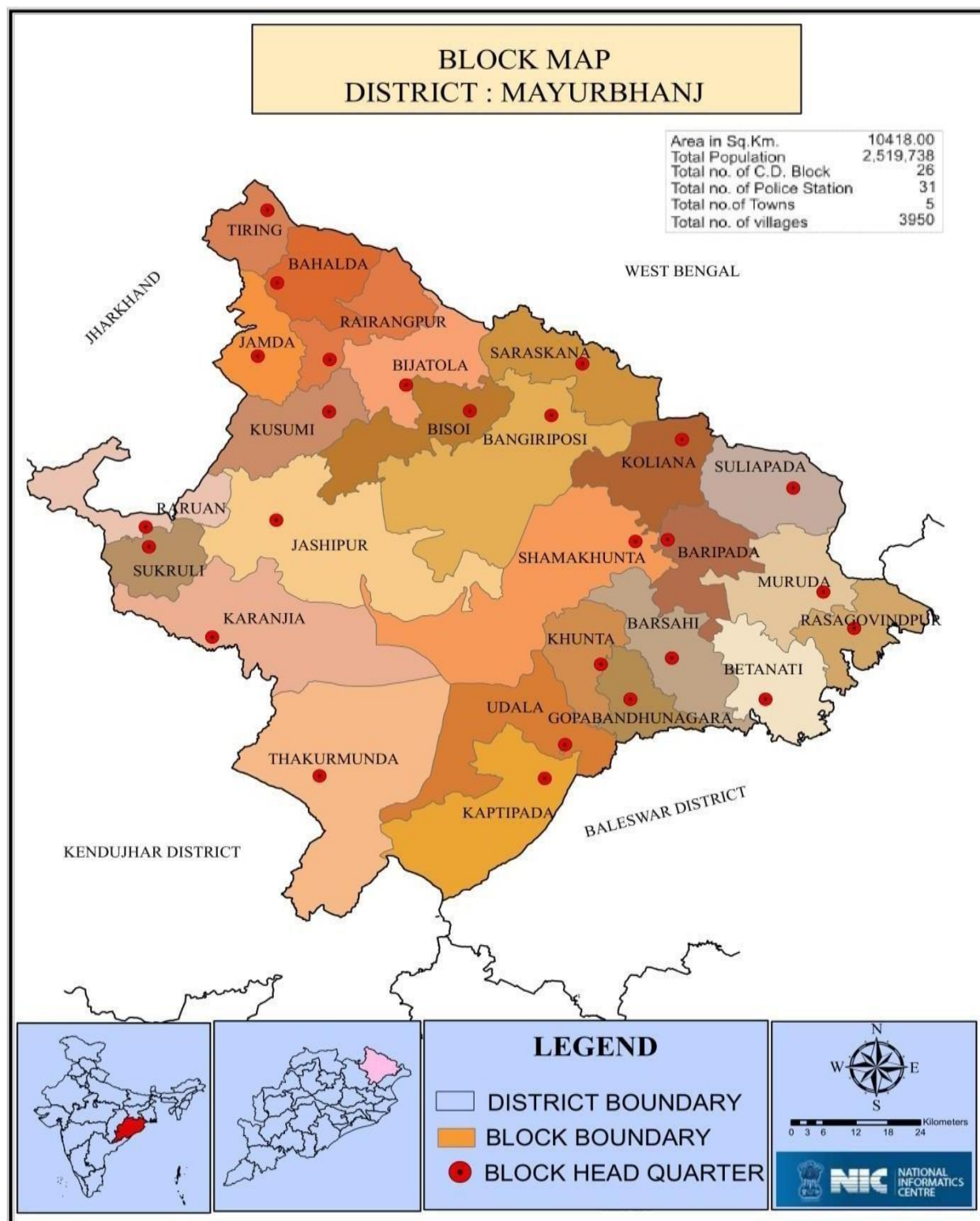


Table1.1: Socio-economic and Demographic Features of Mayurbhanj District	
Indicators	Values
Census 2011	
Population (in Lakh)	25.19
Males (in Lakh)	12.56
Females (in Lakh)	12.63
Scheduled Caste (in Lakh)	1.84
Scheduled Tribe (in Lakh)	14.79
HHs (in Lakh)	4.72
Average HH Size	45.31
Sex Ratio	1006
Workers	
Total Workers (in Lakh)	12.23
Main Workers (in Lakh)	5.48
Marginal Workers (in Lakh)	6.75
Non-Workers (in Lakh)	12.96
Work Participation Rate (WPR, %)	48.55
Cultivator as % of Total Worker	19.51
Agricultural Laborers as % of Total Workers	46.48
Literacy Rate (%)	63.17
Total Geographical Area (Sq. Km)	10418
Land Use Pattern (Area in '000 Ha) (2014-2015)	
Forest	72.33
Land put to Non-agricultural use	71.46
Barren and Non-Cultivable Land	18.12
Permanent Pasture and Other Agricultural Land	34.41
Net Area Shown	31.81
Cultivable Waste Land	50.35
Old Fellow	50.23
Current Fellows	57.56
Miscellaneous Trees and Groves	25.99
Agriculture, 2014-2015	
Fertilizer Consumption (Kg/ Ha)	41.39
Irrigation, Kharif ('000 Ha)	24.07
Irrigation, Rabi ('000 Ha)	14.44
Other Information	
No. of Village Electrified (as on March 2014)	3601
No. of Banks	247
No. of AWCs	4637
No. of BPL Families	89030
No. of Job Card Issued (cumulative, March 2015)	388598
No. of Beneficiaries provided Employment through MGNREGS	175962
<i>Source: District Statistical Handbook, Mayurbhanj, 2011</i>	
<i>*District At a Glance 2016</i>	

1.3 Objectives

The objectives of the baseline survey were to obtain information on proposed interventions under SAA around production, consumption, processing and marketing. It is also pertinent to have some background information of the HHs surveyed. The objectives are:

- a. To assess the socio-economic condition of the HHs;
- b. To outline millet production, productivity and package of practices;
- c. To examine the consumption pattern of millets and
- d. To elucidate the method of processing and mode of marketing.

1.4 Methodology

1.4.1 Universe and Sample Design

The Government of Odisha's Department of Agriculture and Farmers Empowerment introduced the "Special Programme for Promotion of Millets in Odisha" in 17 additional districts, including Mayurbhanj. Therefore, to undertake Baseline Survey 2023, Phase VII in the Mayurbhanj district four blocks, i.e., Bahalda, Gopabandhu Nagar, Jamda and Sukruli blocks were selected from Mayurbhanj district as part of the programme. The survey included potential millet farming households as the responded households from these blocks, selected in consultation with local farmers, NGOs, CSOs, being engaged as the Facilitating Agencies (FAs) and the District Agriculture Office (DAO), Government of Odisha.

From the list provided by the SAA Programme Secretariat, there were 2904 beneficiary households covering 4 blocks in the Mayurbhanj district. Four blocks were purposively selected in the first stage of sampling then two Gram Panchayats were randomly selected from each block in the second stage sampling, further two villages were selected from each selected Gram Panchayats in the third stage sampling. In the fourth stage of sampling, 20 households were randomly selected from each selected village, resulting in 80 households surveyed from each block. The Baseline Survey for 2023 under PhaseVII covered 320 households from the program households across the four Blocks of Mayurbhanj district. Along with household interviews, one Focused Group Discussion (FDGs) was conducted from each village.

Out of the total 2904 programme households in Mayurbhanj district, 700 HHs in Bahalda Block, 700 HHs in Gopabandhu Nagar Block, 704 HHs in Jamda Block, 800 HHs in Sukruli were to be covered under the SAA programme under Phase VII for the year 2022. Under the Baseline Survey 2023 Phase VII, a total of 320 Sample HHs were selected for primary data collection covering in the said

four Blocks in the Mayurbhanj district.

Table 1.2: Households surveyed in Mayurbhanj district			
<i>Blocks</i>	<i>Participant HHs (N)</i>	<i>Surveyed HHs (N)</i>	<i>Percentage of HHs covered</i>
Bahalda	700	80	11.42
GopabandhuNagar	700	80	11.42
Jamda	704	80	11.36
Sukruli	800	80	10.00
Total	2904	320	11.01

Source: Programme Secretariat and Field Survey, 2023

Note: HHs denotes households

4.2 Data collection, compilation and analysis

A total of sixteen villages were selected from four blocks, where two Gram Panchayats for data collection from each block in the Mayurbhanj district for the Baseline Survey of 2023, Phase VII. These villages were selected using the simple random sampling method based on data provided by the implementing agency, WASSAN, about the prospective villages to be included under Phase VII. Two Gram Panchayats were randomly selected from each block, and two villages were further selected from each of these Panchayats. This comprehensive baseline survey report is based on both secondary and primary data. Primary data was collected by utilizing a Pre-tested Interview Schedule (Annexure 1) with respondents from the concerned districts. Additionally, secondary data on geographical information, population, agriculture, education, irrigation, forest, and institutions was collected from various published and unpublished sources, including the 2011 Census. The Baseline Survey aimed to collect data on various socio-economic indicators such as household demographics, income, livelihoods, education, health, and also collected on production, consumption, processing and marketing. The findings of the survey were analyzed using appropriate statistical tools and techniques to generate a comprehensive report.

1.5 Limitations of the study

The present Baseline Survey focuses solely on four Blocks of the Mayurbhanj District. However, due to the onset of the harvesting season, coupled with both in and out- migration, some household heads and female respondents were found to be absent during the data collection process. Despite these challenges, it is important to acknowledge the limitations of the present study.

Firstly, due to logistical reasons and other difficulties, such as the non-availability of respondents, the study was limited to a random sample of 320 households. Secondly, there is the possibility of recall error, especially in cases involving the actual quantity of consumption and marketing, among

others. Lastly, in some instances, surveyed households, particularly non-participant farmer households, consumed millets without producing them. This was made possible by past stock and acquiring of millets through exchange and barter. Unfortunately, these details were not captured during the survey.

It is essential to consider these limitations while interpreting the findings of the survey. Future studies can address these gaps and improve the accuracy of the data collection process. Despite these limitations, the present survey provides valuable insights into the socio-economic conditions of the selected households and serves as a baseline to measure the progress made in the future.

1.6 Chapters

The “Baseline Survey Report 2023, Phase VII” has been divided into six Chapters, including the current introductory Chapter I, which provided a District Profile, Objectives, Methodology and Limitations. Chapter II provides the Socio-economic Profile of the surveyed Households. Chapter III provides details on the Production and Productivity of Millets. Chapter IV discusses the Consumption Pattern of Millets. Chapter V elucidates the Processing and Marketing of Millets.

Chapter II

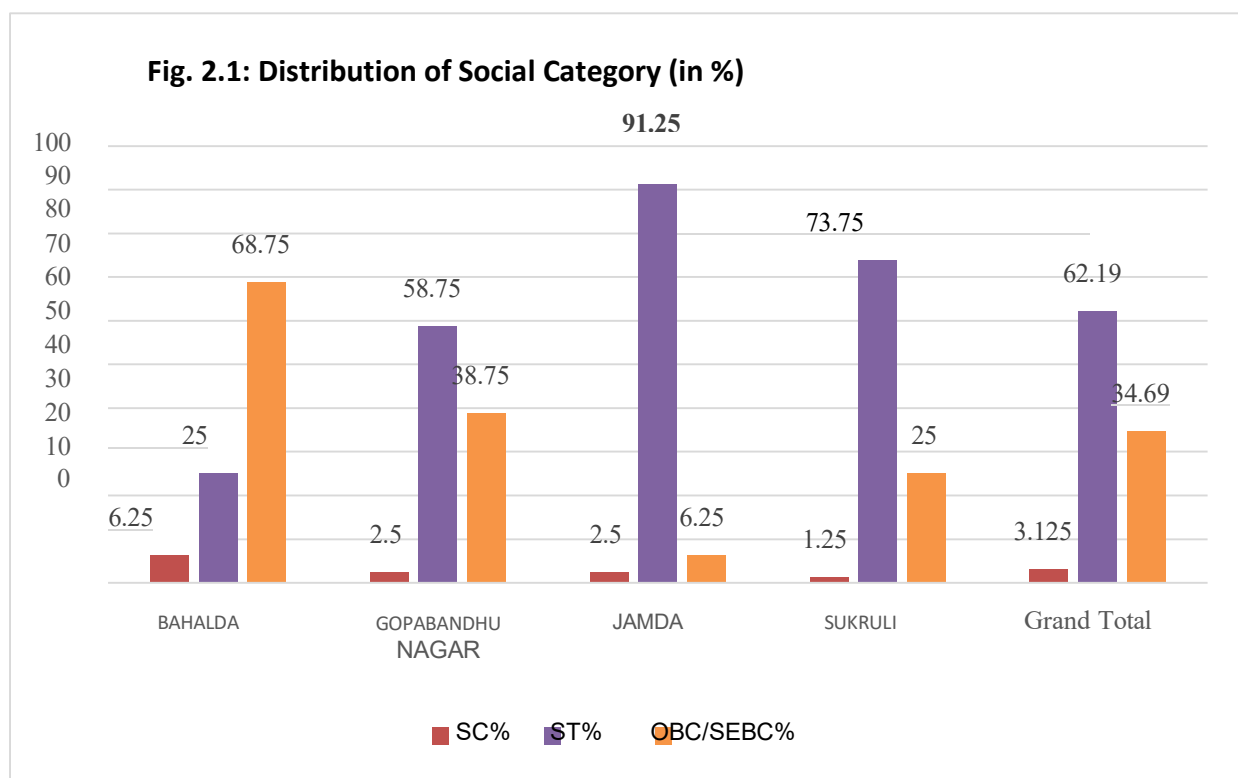
SOCIO-ECONOMIC PROFILE

2.1. Introduction

This chapter looks into social and demographic profile of the households surveyed; that is their distribution by social group and religion and distribution of population by gender. In addition, for the HHs surveyed, it provides the information about the distribution by poverty status (proportion below poverty line and proportion above), distribution by economic activities (not mutually exclusive, as a HH can have multiple economic activities), and distribution by house structure.

2.2. Social groups

As observed in the Baseline Survey the distribution of sample HHs by their social groups (Table 2.1 and Fig 2.1), indicate that 199 HHs (62.19 per cent) belong to ST, 10 HHs (3.12 per cent) belong to SC, and 111 HHs (34.69 per cent) belong to the Other Backward Caste (OBC/SEBC).



Source: Baseline Survey 2023

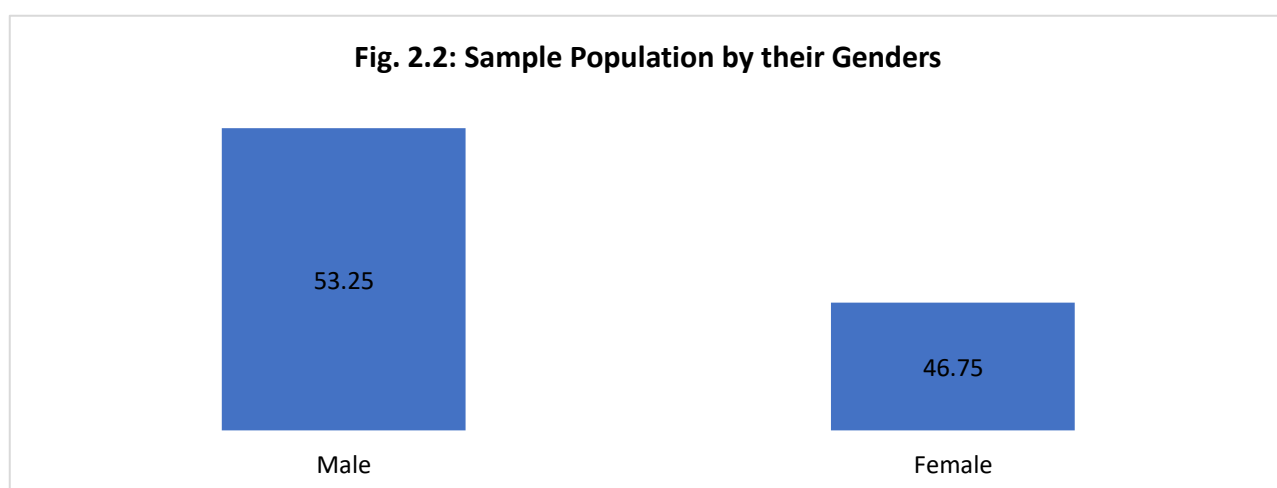
Table 2.1: Distribution of Sample HHs by their Social Category								
Blocks	SC		ST		OBC/SEBC		Total	
	N	%	N	%	N	%	N	%
Bahalda	5	6.25	20	25	55	68.75	80	100
GopabandhuNagar	2	2.5	47	58.75	31	38.75	80	100
Jamda	2	2.5	73	91.25	5	6.25	80	100
Sukruli	1	1.25	59	73.75	20	25	80	100
Total	10	3.12	199	62.19	111	34.69	320	100

Source: Baseline Survey 2023

Similarly, block-wise distribution of households in Bahalda block reveals that 25 per cent households belong to Scheduled Tribe (ST) category, 6.25 per cent of households belong to Scheduled Caste (SC), 68.75 per cent of households from Other Backward Classes or Socially and Educationally Backward Class (OBC/SEBC). Similarly, in Gopabandhu Nagar block, 58.75 per cent of total households ST, 2.5 per cent of them belong to SC, 38.75 per cent of them belong OBC/SEBC. In the similar way, in Jamda Block, about 91.25 percent belong to ST, 2.5 per cent belong to SCs, 6.25 per cent of them belongs OBC/SEBC. Social composition of surveyed households in Sukruli block shows that there are 73.75 per cent of households belong to ST, 1.25 per cent of them belong to SC, 25 per cent of them belong OBC/SEBC.

2.3. Sample HHs by their Genders

The total population from surveyed HHs is 1232 presented in Fig. 2.2 and Table 2.2. The share of male population is higher than the female population. From the total population, 53.25 per cent are male whereas 46.75 percent belong to female population.



Source: Baseline Survey 2023

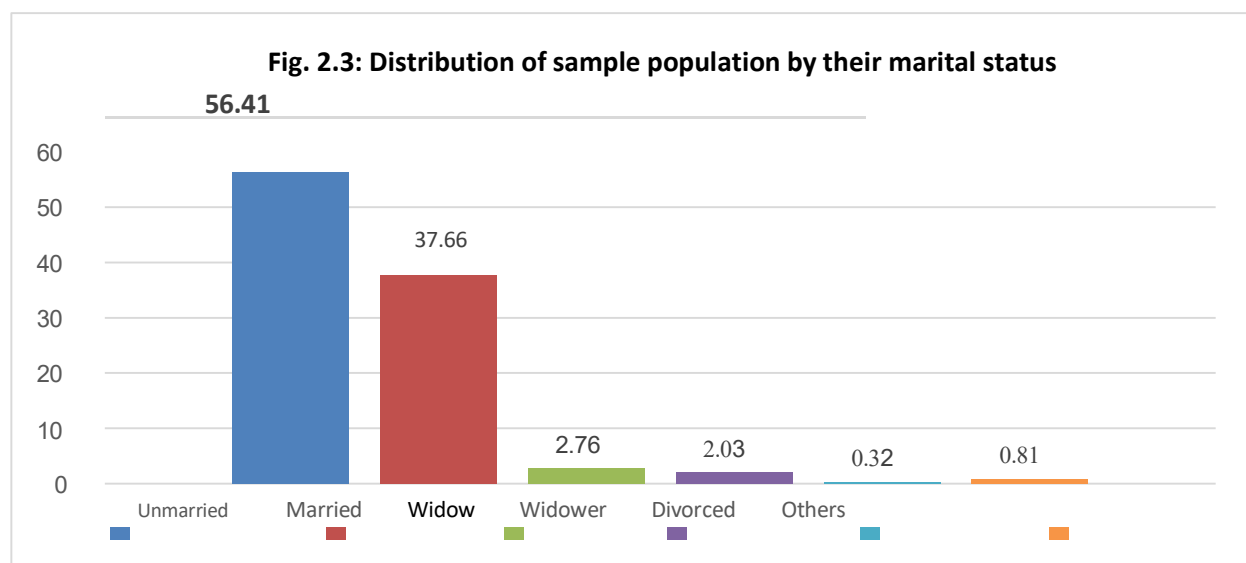
As per the gender distribution of each block presented in Table 2.2, in Bahalda block, the total populations of surveyed households, 157 (53.04 per cent) are male and 139 (46.96 per cent) are female. Likewise, in Gopabandhu Nagar block, out of 297 total populations of the surveyed households 162 (54.55 per cent) are male and 135 (45.45 per cent) are female. In Jamda block, out of total 316 sample populations, 174 (55.06 per cent) are male and 142 (44.94 per cent) are Female. In the same vein, in Sukruli block, out of total 323 sample populations, 163 (50.46 per cent) are male and 160 (49.54 per cent) are female.

Table 2.2: Sample HHs by their Genders						
Blocks	Male		Female		Total	
	N	%	N	%	N	%
Bahalda	157	53.04	139	46.96	296	100
Gopabandhu Nagar	162	54.55	135	45.45	297	100
Jamda	174	55.06	142	44.94	316	100
Sukruli	163	50.46	160	49.54	323	100
Total	656	53.25	576	46.75	1232	100

Source: Baseline Survey, 2023

2.4. Marital Status

As found in the Baseline Survey (Table 2.3& Fig.2.3) the marital status of the population across blocks. Out of the total population of the surveyed household, 695 (56.41 per cent) are Unmarried, 464 (37.66 per cent) Married; about 34 (2.76 per cent) Widow, 25 (2.03 per cent) are Widower, and another 4 (0.32 per cent) sample population are Divorced.



Source: Baseline survey, 2023

As per the marital status of each block presented in Table 2.3. In Bahalda block, the total population of sample HHs is 296 out of which 55.07 per cent unmarried, 37.50 per cent married, 5.07 per cent widow, 1.69

per cent widower, and 0.34 per cent divorced. Likewise, in Gopabandhu Nagar block, out of 297 total populations of the surveyed households, 59.93 percent unmarried, 36.03 percent married, 1.68 percent widow, and 1.35 percent widower. In Jamda block, out of total 316 populations, 52.22 percent unmarried, 40.82 percent married, 3.48 percent widow, 2.22 percent widower, and 0.63 percent divorced. In the same vein, in Sukruli block, out of total 323 populations, 58.51 per cent unmarried, 36.22 per cent married, 0.93 per cent widow, 2.79 per cent widower, and 0.31 per cent divorced.

Table 2.3: Distribution of Sample HHs by their Marital Status										
Marital Status/ Blocks	<i>Bahalda</i>		<i>Gopabandhu Nagar</i>		<i>Jamda</i>		<i>Sukruli</i>		<i>Total</i>	
	N	%	N	%	N	%	N	%	N	%
Unmarried	163	55.07	178	59.93	165	52.22	189	58.51	695	56.41
Married	111	37.50	107	36.03	129	40.82	117	36.22	464	37.66
Widow	15	5.07	5	1.68	11	3.48	3	0.93	34	2.76
Widower	5	1.69	4	1.35	7	2.22	9	2.79	25	2.03
Divorced	1	0.34	0	0.00	2	0.63	1	0.31	4	0.32
Others	1	0.34	3	1.01	2	0.63	4	1.24	10	0.81
Total	296	100	297	100	316	100	323	100	1232	100

Source: Baseline survey, 2023

2.5. Distribution of the Sample HHs by their Age Group

As revealed in the Baseline Survey (Table 2.4) out of the total sample population (1232) of the surveyed households, 19 (1.54 percent) are Infant (0-2 year), 47 (3.81 percent) population are Pre-school (3-5 year), 115 (9.33 percent) are Children (6-12 year), 122 (9.90 per cent) Adolescent (13-18 year), 535 (43.43 per cent) are Adults (19-44 year), 253 (20.54 per cent) Middle age group (45-59 year) and 141 (11.44 per cent) are Old age group (60 years and above). Distribution of sample population by their age group of each block is presented in Table 2.4. In Bahalda block, the total population of surveyed households are 296 out of which 1.69 percent Infant (0-2 year), 4.05 percent population are Preschool (3-5 year), 6.08 percent Children (6-12 year), 10.81 percent Adolescent (13-18 year), 44.59 percent Adults (19-44 year), 21.28 percent Middle age group (45-59 year) and 11.49 percent are old age group (60 years and above).

Likewise, in Gopabandhu Nagar block, out of 297 total population of the surveyed households' 0.34 percent infant (0-2 year), 3.70 percent population are preschool (3-5 year), 9.76 percent Children (6-12 year), 10.44 percent Adolescent (13-18 year), 43.43 percent Adults (19-44 year), 20.54 percent Middle age group (45-59 year) and 11.78 percent are Old Age group (60 and above year). In Jamda block, out of total 316 populations, 1.27 percent Infant (0-2 year), 3.16 percent population are Pre-school (3-5 year), 11.08 percent Children (6-12 year), 9.18 percent adolescent (13-18 year), 44.30 percent adults (19-44 year), 21.84 percent

Middle age group (45-59 year) and 9.18 percent are old age group (60 and above). In the same vein, in Sukruli block, out of total 323 populations, 2.79 percent Infant (0-2year), 4.33 percent population are Pre-school (3-5year), 10.22 percent Children (6-12year), 9.29 percent Adolescent (13-18 year), 41.49 percent adults (19-44 year), 18.58 percent Middle age group (45-59 year) and 13.31 percent are old age group (60 years and above).

Table 2.4: Distribution of Sample HHs by their Age Group										
Age Group/ Block	Bahalda		Gopabandhu Nagar		Jamda		Sukruli		Grand Total	
	No	%	No	%	No	%	No	%	No	%
Infant (0-2 year)	5	1.69	1	0.34	4	1.27	9	2.79	19	1.54
Pre-School (3-5 year)	12	4.05	11	3.70	10	3.16	14	4.33	47	3.81
Children (6-12 year)	18	6.08	29	9.76	35	11.08	33	10.22	115	9.33
Adolescent (13-18 year)	32	10.81	31	10.44	29	9.18	30	9.29	122	9.9
Adults (19-44 year)	132	44.59	129	43.43	140	44.30	134	41.49	535	43.43
Middle Age (45-59 year)	63	21.28	61	20.54	69	21.84	60	18.58	253	20.54
Old (60 Years &above)	34	11.49	35	11.78	29	9.18	43	13.31	141	11.44
Total	296	100	297	100	316	100	323	100	1232	100

Source: Baseline Survey, 2023

2.6. Sample HHs by their Educational Qualification

Education plays an important role in development, modernization and population progress. Education can not only directly affect attitudes, but also directly affect a person's awareness of rights. In this study, education is one of the important variables because it has a significant impact on the views and opinions of respondents. The level of education becomes more important because it can strongly influence your understanding of rights and privileges; the following Table 2.5 shows the education level of the surveyed households. As found in the Baseline Survey, out of the total sample population across the four blocks in Mayurbhanj District, 271 sample population (22.95 per cent) are illiterate, 240 sample population (37.84 percent) are Primary, 440 (35.71 percent) are Secondary, 106 (8.6 percent) Higher Secondary, 85 (6.9 percent) are Graduate and 11 (0.68 percent) are Post Graduate.

In Gopabandhu Nagar block the total sample population of the surveyed households are 297, out of which 68 (22.90 per cent) are illiterate, 71 (23.91 percent) primary, 126 (42.42 percent) secondary, 13 (4.38 percent) higher secondary and 4 (3.70) percent graduate. In Jamda block, out of total 316 sample populations, out of which 76 (24.05 per cent) are Illiterate, 63 (19.94 percent) Primary, 107 (33.86 percent) secondary, 21 (6.65 percent) higher secondary, 21 (6.65 percent) are graduate and 7 (2.22 percent) are

post-graduate. In the same vein, in Sukruli block, out of total 323 sample populations, 65 (20.12 per cent) are illiterate, 52 (16.10 percent) are Primary, 95 (29.41 per cent) Secondary, 54 (13.93 percent) higher secondary, 33 (10.22 percent) are Graduate and 2 (0.68 percent) are post-graduate.

Table 2.5: Sample HHs by their Educational Qualification								
Particulars	<i>Illiterate</i>	<i>Primary</i>	<i>Secondary</i>	<i>Higher Secondary</i>	<i>Graduation</i>	<i>Post-Graduate</i>	<i>Others</i>	<i>Total</i>
	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	<i>N (%)</i>	<i>N</i>
Bahalda	62 (20.95)	54 (18.24)	112 (37.84)	27 (9.12)	20 (6.76)	2 (0.68)	19 (6.42)	296 (100)
Gopabandhu Nagar	68 (22.9)	71 (23.91)	126 (42.42)	13 (4.38)	11 (3.7)	0	8 (2.69)	297 (100)
Jamda	76 (24.05)	63 (19.94)	107 (33.86)	21 (6.65)	21 (6.65)	7 (2.22)	21 (6.65)	316 (100)
Sukruli	65 (20.12)	52 (16.1)	95 (29.41)	45 (13.93)	33 (10.22)	2 (0.68)	31 (9.6)	323 (100)
Total	271 (22.95)	240 (19.48)	440 (35.71)	106 (8.6)	85 (6.9)	11 (0.89)	79 (6.41)	1232 (100)

Source: Baseline survey, 2023-24

Note: Children and other educational qualification have been included and calculated as others.

2.7. Religion

The religious distribution of the surveyed HHs across the four selected blocks reveals the overwhelming presence of Hindu HHs across the blocks. Out of total 320 surveyed households 320 are Hindu which constitutes 100 per cent of total households. Similarly, in all sample households across three blocks of the district belong to Hindu religious community.

2.8. Types of family among the Sample HHs

In Indian family structure was that a joint family, indicating every person of the same clan living together. This system change time to time and became divide. Out of the 320-sample household, 237 (74.06 percent) are nuclear family and 83 (25.94 per cent) belong to joint family. As per the type of family distribution of each block presented in Table 2.6. In Bahalda block, the total surveyed households are 80 out of which 77.5 per cent are nuclear and 22.5 per cent belong to joint family. Likewise, in Gopabandhu Nagar block, out of 80 total surveyed households 62.5 per cent are nuclear and 37.5 per cent are joint family. In Jamda block, out of total 80 HH, 80 percent are nuclear and 20 percent are joint families. In the same vein, in Sukruli block, out of total 80 HHs, 76.25 per cent are nuclear and 23.75 per cent belong to joint family.

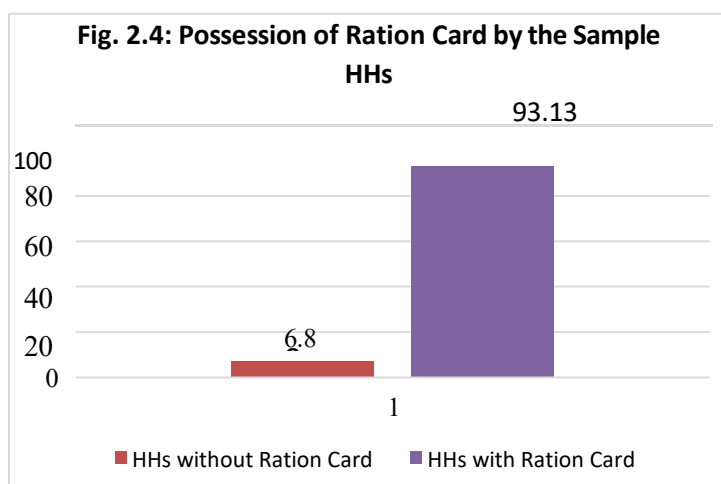
Table 2.6: Distribution of Sample HHs by their types of family						
Particulars	Nuclear		Joint		Total	
	No	%	No	%	No	%
Bahalda	62	77.5	18	22.5	80	100
GopabandhuNagar	50	62.5	30	37.5	80	100
Jamda	64	80	16	20	80	100
Sukruli	61	76.25	19	23.75	80	100
Total	237	74.06	83	25.94	320	100

Source: Baseline Survey 2023

2.9. Possession of Ration Card

As found in the Baseline Survey (Table 2.7 and Fig. 2.4) the distribution of sample households by their possession of ration card across the four selected blocks of Mayurbhanj district shows that out of total 320 sample households a very significant majority, i.e., 298 (93.13 percent) possess Ration Card.

The block wise distribution of sample households by their ration card possession reveals that in Bahalda block 77 (96.25 percent) possess ration card. While in Gopabandhu Nagar block, 79 (98.75 per cent) of the sample households possess ration card. Likewise, in Jamda block, 80 (80.00 per cent) of the sample households possess ration card. In Sukruli block 78 (97.5 percent) of the sample HHs possess ration Card.



Source: Baseline Survey 2023

Table 2.7: Distribution of Sample HHs by their Ration Card						
Blocks	Sample HHs without Ration Card		Sample HHs with Ration Card		Total	
	N	%	N	%	N	%
Bahalda	3	3.75	77	96.25	80	100
GopabandhuNagar	1	1.25	79	98.75	80	100
Jamda	16	20	64	80	80	100
Sukruli	2	2.5	78	97.5	80	100
Total	22	6.88	298	93.13	320	100

Source: Baseline survey 2023

2.10. Type of House among the Sample HHs

Type of house often considered as an important indicator of the social and economic status of the family. Data collected under the Baseline Survey 2023, Phase VII shows that out of 320 surveyed HHs across the four selected blocks in Mayurbhanj district majority of 189 HHs reported that they have Semi-Pucca houses which constitute about 59.06 percent of the total HHs (Table 2.8). While 102 HHs has Kutcha house which constitutes 31.87 per cent and only 29 has Pucca houses which constitute about 9.06 per cent of the total surveyed HHs.

Table 2.8: Distribution of Sample HHs by their Type of House						
Blocks	Kutcha		Semi-Pucca		Pucca	
	No	%	No	%	No	%
Bahalda	28	35	47	58.75	5	6.25
Gopabandhu Nagar	24	30	43	53.75	13	16.25
Jamda	26	32.5	48	60	6	7.5
Sukruli	24	30	51	63.75	5	6.25
Total	102	31.87	189	59.06	29	9.06

Source: Baseline Survey 2023

Similarly, the Block-wise distribution of HHs' house structure shows that in Bahalda block majority of HHs has Semi-Pucca houses, where out of total 80 sample households 28 HHs (35 per cent) have Kutcha houses, 75 HHs (58.75 per cent) have Semi-Pucca and while 5 (6.25 per cent) of households have Pucca houses. Likewise, in Gopabandhu Nagar block 24 (30 per cent) of households have Kutcha houses, 43 (53.75 per cent) of households have Semi-Pucca and 13 (16.25 per cent) of households have Pucca houses. While in Jamda block, majority of households, i.e., 48 (60 percent) of households have Semi-puce houses, 26 (32.5percent) of households have Kutcha houses and only 6 (7.5 per cent) of households have Pucca houses. In Sukruli block, 51 (63.75 per cent) Semi-Pucca houses, 24 (30 per cent) of households have Kutcha houses and 5 (6.25 per cent) of households have Pucca houses.

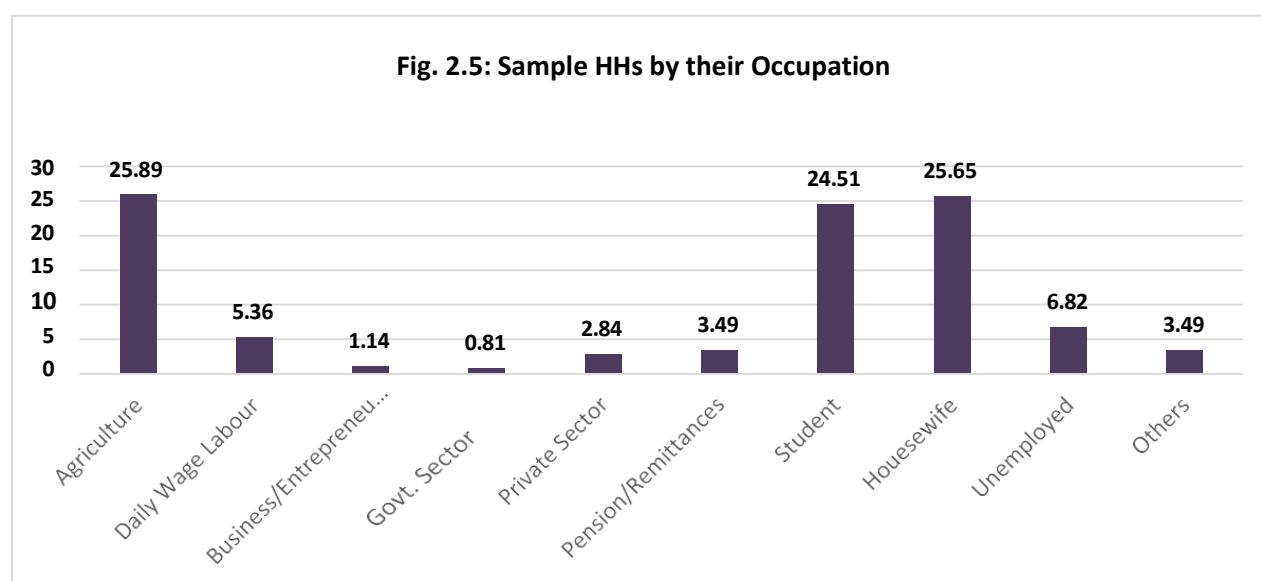
2.11. Occupational status

The survey of households in four selected blocks revealed the distribution of economic activities and population across blocks has been presented in (Table 2.9). It shows that out of the total population of 1232 persons, 319 (25.89) per cent are farmers/ agriculture, followed by housewife and students i.e., 316 (25.65 per cent) and 302 (24.51 percent) respectively. While only 66 (5.36 per cent) of them worked as wage laborers, and 14 (1.14 per cent) were business/entrepreneurship. Government employees accounted for 10 (0.81 per cent), while private employees were 35 (2.84 per cent). Pension holders made up of 43 (3.49 per cent) of the total population (Fig. 2.5).

Table 2.9: Distribution of Sample HHs by their Occupation										
Block	Bahalda		Gopabandhu Nagar		Jamda		Sukruli		Total	
	No	%	No	%	No	%	No	%	No	%
Agriculture	69	23.31	95	31.99	78	24.68	77	23.84	319	25.89
Daily Wage Labour	16	5.405	7	2.36	23	7.28	20	6.19	66	5.36
Business/Entrepreneurship	7	2.365	1	0.34	3	0.95	3	0.93	14	1.14
Govt. Sector	2	0.68	0	0	6	1.9	2	0.62	10	0.81
Private Sector	19	6.42	4	1.35	9	2.85	3	0.93	35	2.84
Pension/Remittances	12	4.05	11	3.7	9	2.85	11	3.41	43	3.49
Student	68	22.97	76	25.59	81	25.63	77	23.84	302	24.51
House wife	74	25	82	27.61	74	23.42	86	26.63	316	25.65
Unemployed	22	7.43	18	6.06	20	6.33	24	7.43	84	6.82
Others	7	2.36	3	1.01	13	4.11	20	6.19	43	3.49
Total	296	100	297	100	316	100	323	100	1232	100

Source: Baseline survey 2023

The block-wise distribution of population by their economic activities shows that in Bahalda, out of the 296 population, 23.31 percent are farmers followed by 23 percent of them are students. While only 5.40 per cent of them worked as wage laborers, and 2.36 per cent are business owners. The share of government and private employment in the total population accounts for 0.68 per cent and 6.42 per cent, respectively. While about 4.05 percent of them are pension holders and 25 per cent are housewives. About 7.43 per cent of populations under the working age group are unemployed. Likewise, in Gopabandhu Nagar out of the total population of 297 persons, 31.99 per cent are farmer, 25.6 per cent are students, 2.36 per cent are wage labourers, 1.35 per cent are private employees, 27.6 percent are housewives and 3.7 per cent are pension holders.



Source: Baseline survey 2023

While about 6.06 per cent of population under the working age group are unemployed. In the same vein in Jamda, out of 316 population 24.68 per cent are farmers, 25.6 per cent are students, 7.28 per cent are wage laborers, and 0.95 per cent are business owner. While about 2.85 per cent are private employees, 23.4 per cent are housewives, 2.85 per cent pension holders, and 6.33 per cent of them under the working age group are unemployed. In Sukruli, out of the total population of 323 persons, 23.84 per cent are farmer, 23.8 per cent are students, 6.19 per cent are wage labourers and 0.62 per cent of them are government and 0.93 percent are private employee. About 26.6 per cent are housewives, 3.41 per cent are pension holders, and 7.43 per cent of populations under the working age group are unemployed.

2.12. Land ownership

Land plays a crucial role for people's livelihood. The quantity of land plays a vital role in society and it furnish social status to a family/person and they know as Zamindar (land lord), big farmer. Small farmer, marginal farmer and land less people. The primary occupation of family depends on quantity of land what they possessed. Table 2.10 talks about the distribution of HHs by ownership of land (in Acre). The table reveals that out of total surveyed HHs i.e., 320, 1.88 percent landless, 62.81 percent marginal farmer, 23.44 percent small farmer, 10.94 percent medium farmer and 0.94 percent large farmers. In the study, it is found that large numbers of farmers are marginal farmers who are having land in between 0-2.5 acre.

Table 2.10: Distribution of the Sample HHs by their Land Ownership (in acre)												
Block	Landless		Marginal (0-2.5 Acre)		Small (2.5-5Acre)		Medium (5-10 Acre)		Large (10+Acre)		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Bahalda	5	6.25	55	68.75	13	16.25	7	8.75	0	0	80	100
GopabandhuNagar	0	0	46	57.5	21	26.25	12	15	1	1.25	80	100
Jamda	0	0	44	55	25	31.25	10	12.5	1	1.25	80	100
Sukruli	1	1.25	56	70	16	20	6	7.5	1	1.25	80	100
Total	6	1.88	201	62.81	75	23.44	35	10.94	3	0.94	320	100

Source: Baseline Survey 2023

2.13. Annual income

Household income is the total gross income received by all members of a household within a year. The survey of households in four selected blocks revealed the distribution of annual income of the households across blocks has been presented in (Table 2.11). It shows that out of the total households of 320 persons,

6.88 percent of HHs annual income is upto Rs.40000/-and 43.44 percent of HHs annual income in between Rs.40001-Rs.80000/-; 20 percent of HHs annual income in between Rs.80001-Rs.120000/-; 12.19 percent HHs annual income is in between Rs.120001- Rs.160000/-; 6.88 percent annual income is in between Rs180000- 200000; and 10.63 percent of household annual income is above Rs.200000/-.

Similarly, the Block-wise distribution of HHs' annual income shows that in Bahalda block majority of HHs has annual income in between Rs.40001-Rs.80000/-. Out of total 80 sample households in Bahalda blocks 8.75 per cent have annual income up to Rs. 40000/-; 38.75 per cent of households have income in between Rs.40001-Rs.80000/-;27.5 percent of HHs annual income in between Rs.80001-Rs.120000/-; 7.5 percent HHs annual income is in between Rs.120001- Rs.160000/-; 5 percent annual income is in between Rs180000- 200000; and 12.5 percent of household annual income is above Rs.200001/-. Likewise, in Gopabandhu Nagar block 1.25 per cent have annual income up to Rs. 40000/-; 52.5 per cent of households have income in between Rs.40001-Rs.80000/-; 22.5 percent of HHs annual income in between Rs.80001-Rs.120000/-; 8.75 percent HHs annual income is in between Rs.120001- Rs.160000/-; 5 percent annual income is in between Rs180000-200000; and 10 percent of household annual income is above Rs.200000/-.

In Jamda block 7.5 per cent have annual income up to Rs. 40000/-; 35 per cent of households have income in between Rs.40001- Rs.80000/-; 13.75 percent of HHs annual income in between Rs.80001-Rs.120000/-; 20 percent HHs annual income is in between Rs.120001-Rs.160000/-;7.5 percent annual income is in between Rs180000-200000; and 16.25 percent of household annual income is above Rs.200000/-. In Sukruli block 10 per cent have annual income up to Rs. 40000/-; 47.5 per cent of households have income in between Rs.40001-Rs.80000/-; 16.25 percent of HHs annual income in between Rs.80001-Rs.120000/-; 12.5 percent HHs annual income is in between Rs.120001-Rs.160000/-; 10 percent annual income is in between Rs180000-200000; and 3.75 percent of household annual income is above Rs.200000/-.

Table 2.11: Distribution of Sample HHs by their Annual Income (in Rs.)

Blocks	Up to 40000	40001- 80000	80001- 120000	120001- 160000	180000- 200000	Above 200000	Total
	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)	N (%)
Bahalda	7 (8.75)	31 (38.75)	22 (27.5)	6 (7.5)	4 (5)	10 (12.5)	80 (100)
Gopabandhu Nagar	1 (1.25)	42 (52.5)	18 (22.5)	7 (8.75)	4 (5)	8 (10)	81 (100)
Jamda	6 (7.5)	28 (35)	11 (13.75)	16 (20)	6 (7.5)	13 (16.25)	82 (100)
Sukruli	8 (10)	38 (47.5)	13 (16.25)	10 (12.5)	8 (10)	35 (3.7)	83 (100)
Total	22 (6.88)	139 (43.44)	64 (20)	39 (12.19)	22 (6.88)	34 (10.63)	320 (100)

Source: Baseline Survey 2023

Similarly, the Block-wise distribution of HHs' land ownership in acre shows in that Table 2.8 that in Bahalda block majority of HHs are marginal farmer having 0-2 acre constitute 68.75 percent. Out of total 80 sample households 6.25 per cent HH are landless, 68.75 percent of households are marginal farmers, 16.25 percent HH are small farmers and 8.75 percent medium farmer. Likewise, in Gopabandhu Nagar block 0 per cent HH are landless, 57.5 percent of households are marginal farmers, 26.25 percent HH are small farmers, 15 percent HH are medium farmer and 1.25 percent are large farmer HH. While in Jamda block, 0 per cent HHs are landless, 55 percent of households are marginal farmers, 31.25 percent HH are small farmers, 12.5 percent HHs are medium farmer and 1.25 percent are large farmer HH. In Sukruli block, 1.25 percent HH are landless, 70 percent of households are marginal farmers, 20 percent HHs are small farmers, 7.5 percent HHs are medium farmer and 1.25 percent are large farmer HHs.

2.14. Agricultural Credit by the Sample HHs

Agriculture loans are offered to farmers for various purposes, like farming and irrigation equipment purchases, crops for cultivation, and other agriculture-associated activities. Besides farmers, these loans are also available to individuals engaged in other agriculture related sectors like animal husbandry, horticulture, apiculture, aquaculture, silk farming, and floriculture. Table 2.12 presents the distribution of HHs by agricultural loan. The table reveals that out of total surveyed HHs i.e., 320, only 7 households have been taken the agricultural loan which constitutes 2.19 percent. In the study, it is found that large numbers of farmer are not availing agricultural loan.

Table 2.12: Distribution of Sample HHs by their Agricultural Credit				
Blocks	Yes		No	
	N	%	N	%
Bahalda	3	3.75	77	96.25
GopabandhuNagar	0	0	80	100
Jamda	3	3.75	77	96.25
Sukruli	1	1.25	79	98.75
Total	7	2.19	313	97.81

Source: Baseline Survey, 2023

2.15. Conclusion

This Chapter provides a broad overview of the demographic information of the respondents covered under Baseline Study. It discusses in specific details about the socioeconomic status of the respondents. It also reveals that large number of population and household belongs to STs. From the total population, 53.25 per cent are male whereas 46.75 per cent belong to female population. 74.06 percent are nuclear family and 25.94 percent are belonging to Joint family from out of the sample households. Further, across the four selected blocks in Mayurbhanj district majority of HHs have Semi-Pucca houses which constitute about

59.06 per cent of total HHs. It shows that out of the total population, 25.89 per cent are farmers/ agriculture while only 5.36 per cent of them worked as wage laborers, and 1.14 per cent were business/entrepreneurship, Government employees accounted for 0.81 per cent and private employees were 2.84 per cent. Pension holders made of 3.49 per cent of the total populations. In term of ownership of land (in Acre) by the HHs, 1.88 percent landless, 62.81 percent marginal farmer, 23.44 percent small farmer, 10.94 percent medium farmer and 0.94 percent large farmers. Large numbers of farmer are marginal farmers who are having land in between 0-2.5 acre.

Chapter III

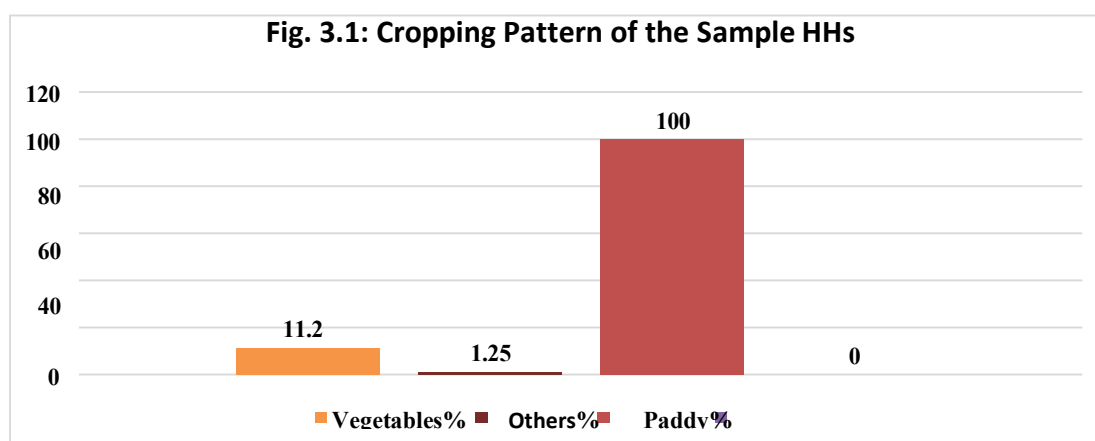
PRODUCTION OF MILLETS

3.1. Introduction

The Baseline Survey 2023 was conducted to assess the situation of millets production in the target villages before the implementation of the programme interventions. This chapter analyses the data collected from the four selected blocks of Mayurbhanj district, namely Bahalda, Gopabandhu Nagar, Jamda and Sukruli. The analysis focuses on the distribution of area under millets and other crops, the usage of seeds and agronomic practices, as well as the production and yield of millets in the sample villages.

3.2. Cultivation of different crops

The distribution of sample household cultivating different crops across blocks of Mayurbhanj district has been presented in Table 3.1. The table reveals that out of 320 households, all households were cultivating paddy. However, 11.12 percent of the sample households are cultivating vegetables and another 1.25 percent of households also cultivating other crops such as *muga, biri etc.* No household cultivating millets in the study area (Fig. 3.1).



Source: Baseline survey, 2023

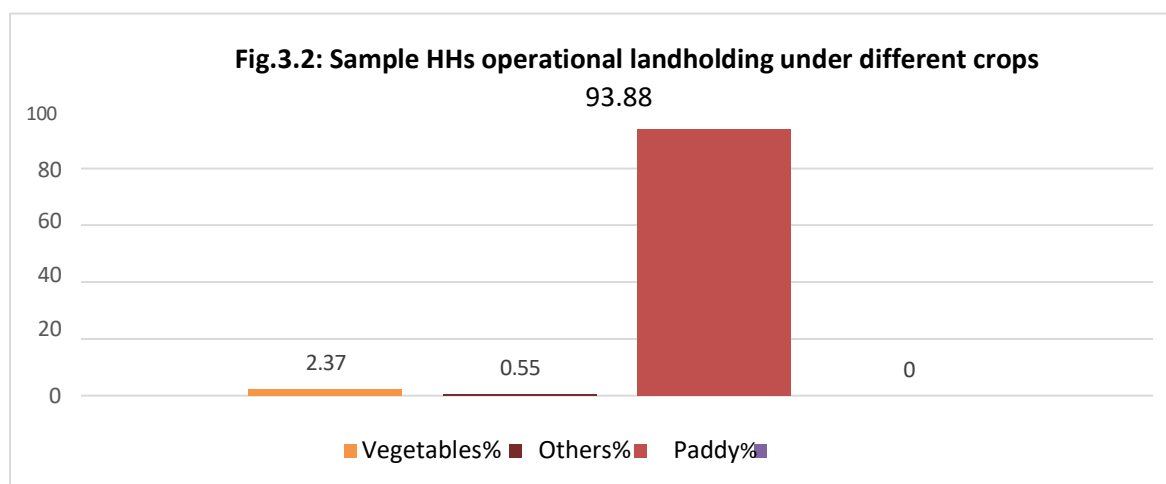
The block-wise distribution of the HHs cultivating crops has been presented in Table 3.1 shows that in Bahalda blocks, all households cultivating paddy and 1.25 percent vegetables. Like Bahalda block, in Gopabandhu Nagar, all households cultivating paddy and 1.25 percent cultivating other crops. In Jamda block, all households are cultivating paddy and 5 percent of HH are cultivating vegetables. In Sukruli blocks, all HH cultivating paddy, 38.75 percent HHs cultivating vegetables and 3.75 percent HHs cultivating other crops.

Table 3.1: Sample HHs by their different crops								
Blocks	Paddy		Millets		Vegetables		Others	
	N	%	N	%	N	%	N	%
Bahalda	80	100	0	0	1	1.25	0	0
GopabandhuNagar	80	100	0	0	0	0	1	1.25
Jamda	80	100	0	0	4	5	0	0
Sukruli	80	100	0	0	31	38.75	3	3.75
Total	320	100	0	0	36	11.25	4	1.25

Source: Baseline survey, 2023

3.3. Operational landholding under different crops

The distribution of operational area under millets and other crops across the four surveyed blocks in the Mayurbhanj district reveals that major portion of the operational areas in the district is under others crops i.e., mostly paddy (F. Out of the total 783.7 acres of operational areas about 735.7 acres (93.88 per cent) of total operational land area is under paddy cultivation, 18.6 acres (2.37 per cent) is under vegetables and 0.55 per cent is under others crops such as *Biri*, *Muga* and others crops. Also, the table reveals that not a single household is cultivating millets in the study area.



Source: Baseline survey 2023

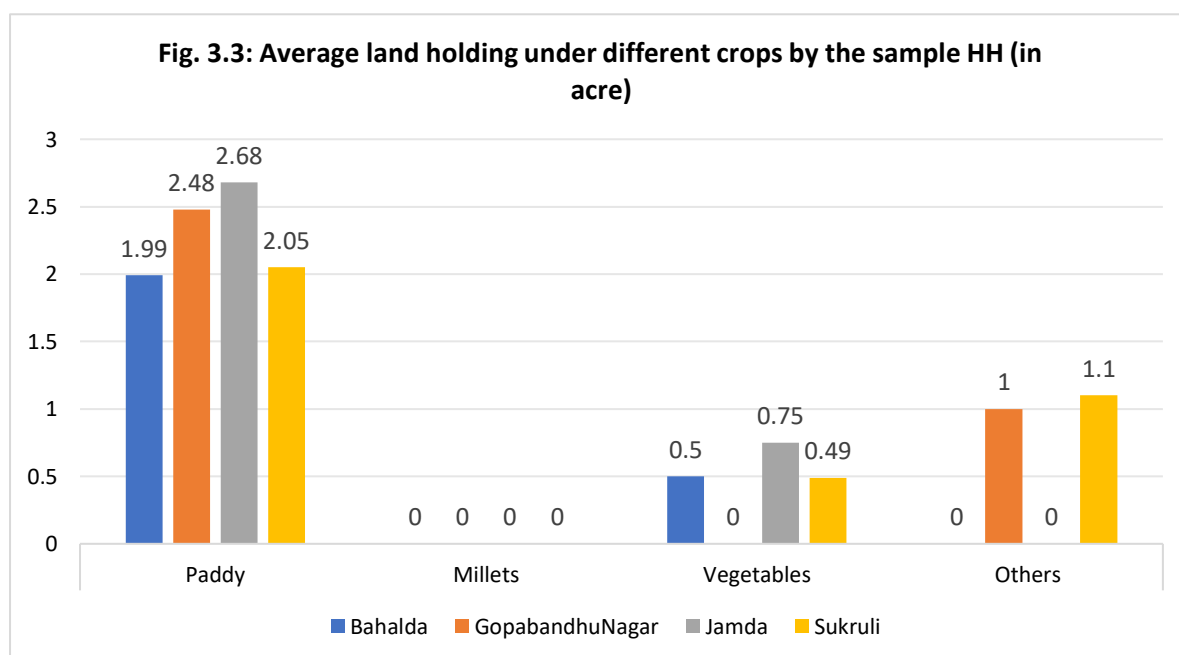
The block-wise distribution of operational land holding under different crops has been presented in Table 3.2 shows that in Bahalda blocks, out of total operational land holding i.e. 159.8 acres, 99.69 percentage of land are under paddy and 0.31 percentage of land are under vegetables. Like Bahalda block, in Gopabandhu Nagar, out of the total 233.3 acre of land 84.87 percentage of land under paddy and 0.43 percent of land under other crops. In Jamda block, out of the total land i.e., 218.1acres 98.17 percent land under paddy and 1.38 percent of land under vegetables. In Sukruli

blocks, out of the total land 172.5 acres, 95.25 percent of the land under paddy, 15.1 percent of land under vegetables and 1.91 percent land under other crops. Average operational land holding under different crops by per household in acre has been presented in Figure 3.3. The average operational land holding for the paddy is 2.30 acre, for vegetables 0.52 acre and 1.08 acre for other crops in the surveyed area of Mayurbhanj district.

Table 3.2: Operational land holding under different crops (In acres)										
Blocks	Paddy		Millets		Vegetables		Others		Total	
	N	%	N	%	N	%	N	%	N	%
Bahalda	159.3	99.69	0	0	0.5	0.31	0	0.00	159.8	100
GopabandhuNagar	198	84.87	0	0	0	0.00	1	0.43	233.3	100
Jamda	214.1	98.17	0	0	3	1.38	0	0.00	218.1	100
Sukruli	164.3	95.25	0	0	15.1	8.75	3.3	1.91	172.5	100
Total	735.7	93.88	0	0	18.6	2.37	4.3	0.55	783.7	100

Source: Baseline survey 2023

The block wise average operational land holding under different crops by per HHs (in acre) has been presented in the above table 3.3. The table reveals that in Bahalda block, the average operational land holding is 1.99 acre for paddy and 0.5 acre for vegetables. In Gopabandhu Nagar, 2.48 acre for paddy and 1 acre for other crops of average operational land holding under different crops. Similarly, in Jamda block, the average operational landholding for paddy is 2.68 acre and 0.75 acre for vegetables. While in Sukruli block, the average operational land holding for paddy is 2.05 acre for paddy, 0.49 acre for vegetables and 1.1 acre for other crops.



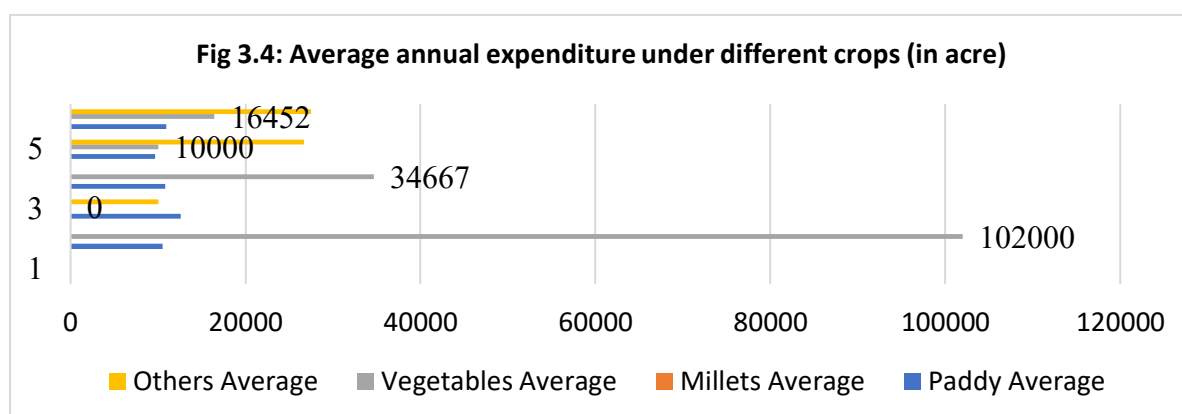
Source: Baseline survey 2023

Table 3.3: Average land holding under different crops by the Sample HH (in acre)					
Blocks	Paddy	Millets	Vegetables	Others	Total
Bahalda	1.99	0	0.5	0	2.00
GopabandhuNagar	2.48	0	0	1	2.92
Jamda	2.68	0	0.75	0	2.73
Sukruli	2.05	0	0.49	1.1	2.16
Total	2.30	0	0.52	1.08	2.45

Source: Baseline survey 2023

3.4. HHs Annual Expenditure under Different Crops

The distribution of household annual expenditure under different crops across the four surveyed blocks in the Mayurbhanj district reveals in the Figure 3.4 that for paddy production Rs.10971/- per acre, Rs.16452/- per acre for vegetables and Rs.27442/- for other crops.



Source: Baseline survey 2023

The block wise average annual expenditure under different crops by per acre has been presented in the above table 3.4. The table reveals that in Bahalda block, the average annual expenditure for paddy is Rs.10515/- and for vegetables, it is Rs.102000/-. In Gopabandhu Nagar Block the average annual expenditure is Rs.12572/- per acre for paddy and Rs.10000/- per acre for other crops. Similarly, in Jamda block, the average annual expenditure for paddy is Rs. 10841/- per acre and Rs. 34667/- per acre for vegetables. While in Sukruli block, the average annual expenditure for paddy is Rs.9653/- per acre for paddy, Rs.10000/- per acre for vegetables and Rs.88000/- per acre for other crops.

Table 3.4: Average annual expenditure under different crops (in Acre)								
Blocks	Paddy		Millets		Vegetables		Others	
	Total Expenditure	Average	Total Expenditure	Average	Total Expenditure	Average	Total Expenditure	Average
Bahalda	1675000	10515	0	0	51000	102000	0	0
GopabandhuNagar	2489200	12572	0	0	0	0	10000	10000
Jamda	2321000	10841	0	0	104000	34667	0	0
Sukruli	1586000	9653	0	0	151000	10000	88000	26667
Total	8071200	10971	0	0	306000	16452	118000	27442

Source: Baseline survey 2023

3.5. Production of millets and reasons for not cultivating it

The distribution of sample household cultivating millets across blocks of Mayurbhanj district has been presented in Table 3.5. The data reveals that out of 320 households, none of the households are cultivating millets in the study area. The reasons for not cultivating millets are explained in Table 3.5. Broadly, there are four reasons for not cultivating millets in the study area. The reasons are not profitable, shortage of land, non-availability of seed, lack of irrigation and others. The reasons are multiple and calculated from total. Out of the total households, the reason for not cultivating millets is 48 HHS (15 percent) reported that it's not profitable, 2 HHs (0.63 percent) reported about the shortage of land, and 317 HHs (99.06 percent) others informed about the non-availability of seeds i.e., that they don't cultivate millets as they do not get the seeds.

Table 3.5: Reasons for not cultivating millets by the Sample HHs								
Blocks	Not Profitable		Shortage of land		others (specify)		Total	
	N	%	N	%	N	%	N	%
Bahalda	16	20	0	0	79	98.75	80	100
GopabandhuNagar	0	0	0	0	80	100	80	100
Jamda	16	20	0	0	80	100	80	100
Sukruli	16	20	2	2.5	78	97.5	80	100
Total	48	15	2	0.63	317	99.06	320	100

Source: Baseline survey 2023

Note: multiple responses have been collected, other signifies here, don't know the millets cultivation.

3.6. Conclusion

Farmer HHs in Mayurbhanj district was found to be engaged largely in mono cropping. Paddy is the main crop produced in the area and also some farmer HHs produced vegetables. However, there is no evidence of millet cultivation in the district and all most all of the respondents

reported they don't know process of millet cultivation. However, out of 320 households, 84.69 percent HHs are willing to cultivating millets under SAA. No information could be obtained from field regarding processing and marketing of millets. In the next chapter, we will discuss consumption pattern of the respondents.

Chapter IV

CONSUMPTION OF MILLETS

4.1 Introduction

The Baseline Survey 2023 was conducted to assess the pattern of millets consumption in the target villages before implementing the programme in the selected blocks of Mayurbhanj district, namely Bahalda, Gopabandhu Nagar, Jamda and Sukruli. The main objective of this chapter is to analyze how the households that participated in the survey vary in their millets intake across different seasons, meals, times of the day and generations. The chapter also explores the diversity of millet varieties, recipes and dishes that are consumed by these households and how they prepare them. By doing so, the chapter aims to provide a comprehensive picture of the millets consumption patterns and preferences among the sample households in Mayurbhanj district, which is one of the focus areas of SAA.

4.2. Sample HHs Consuming Millets and its Source

Information obtained from field indicates that out of 320 HHs, 18 HHs are consuming millets. Data gathered from FGD further clarifies that there is limited awareness about millet in the area. Those who consume millets reveal that in some remote parts of Mayurbhanj district, millet in forms of Ragi is produced in forestlands and the local tribes consume it exclusively for HH consumption. It is noted that maximum percentage of HHS (5.63%) consuming millets overall. Further we can say that out of four blocks, only in three blocks consume millets are Bahalda, Jamda and Sukruli. In Bahalda blocks, the percentage of consumption is higher than rest of blocks. In Bahalda, 12.5 percent, Jamda 1.25 percent and Sukruli 8.75 percent millets consumed (Fig.4.1 and Table 4.1). IN Bahalda Block the average household consumption is 8.44 Kg, in Jamda Block 0.13 Kg, in Sukruli Block the average HH consumption is 1.19 Kg.

Table 4.1: Distribution of Sample HHs consumed Millets							Average HH Consumption in Kg.
Blocks	Yes		No		Total		
	N	%	N	%	N	%	
Bahalda	10	12.5	70	87.5	80	100	8.44
Gopabandhu Nagar	0	0	0	0	80	100	0
Jamda	1	1.25	79	98.75	80	100	0.13
Sukruli	7	8.75	73	91.25	80	100	1.19
Total	18	5.63	302	94.38	320	100	2.44

Source: Baseline Survey, 2023

Further, Table 4.2 reveals information about the sources of millets household consumed. The sources of millets are own production, purchased from market and borrowed/ exchange. Out of the total household consumption, 17 HHs (94.44 percent) of household consume millets by purchased from the market and only 1 HH has got his millets by Borrowing/ Exchange. They purchased the processed millets-based product like Chuna or Chhatua from the market and consume in household level.

Table 4.2: Distribution of Sample HHs by their sources of the millets being consumed						
Blocks	Purchased		Borrowed/ Exchange		Total	
	N	%	N	%	N	%
Bahalda	9	90	1	10	10	100
GopabandhuNagar	0	0	0	0	0	0
Jamda	1	100	0	0	1	100
Sukruli	7	100	0	0	7	100
Total	17	94.44	1	5.56	18	100

Source: Baseline Survey 2023

4.3. Consumption of Millets by the Sample HHs by their Age Groups

The patterns of millets consumption in four blocks of Mayurbhanj district, based on the age group has been presented in Table 4.3. Table 4.3 presents the millets consumption among the population in the sample households across four selected blocks in Mayurbhanj district, namely, Bahalda, Gopabandhu Nagar, Jamda and Sukruli by their age groups. The rate of millets consumption is lower among the younger population. About 15.79 percent of infant population of sample households consuming millets, the rate of millets consumption among the preschool children is 12.77 per cent. Among the children in the age group of 6-12 years, it is 3.48 percent, and among the adolescents it is 7.38 per cent, and middle aged and older age groups i.e., 8.30 per cent and 13.48 per cent consume millets respectively.

Table 4.3: Distribution of Millet Consuming Sample HHS by their Age Group												
Age Group	Bahalda			Jamda			Sukruli			Total		
	Total Person	Persons Consume	% Consume	Total Person	Persons Consume	% Consume	Total Person	Persons Consume	% Consume	Total Person	Persons Consume	% Consume
Infant (0-2 year)	5	1	20.00	4	1	25.00	9	1	11.11	19	3	15.79
Preschool (3-5 year)	12	2	16.67	10	1	10.00	14	3	21.43	47	6	12.77
Children (6-12 year)	18	1	5.56	35	0	0.00	33	3	9.09	115	4	3.48
Adolescent (13-18 year)	32	5	15.63	29	0	0.00	30	4	13.33	122	9	7.38
Adults (19-44 year)	132	17	12.88	140	2	1.43	134	27	20.15	535	46	8.60
Middle Age (45-59 Years)	63	8	12.70	69	0	0.00	60	13	21.67	253	21	8.30
Old (60 & Above)	34	5	14.71	29	0	0.00	43	14	32.56	141	19	13.48
Total	296	39	13.18	316	4	1.27	323	65	20.12	1232	108	8.77

Source: Baseline survey 2023

In Bahalda block, 20 percent of infant, 16.67 percent of preschool, 5.56 percent of children, 15.63 percent of adolescent, 12.88 percent adults, 12.70 percent of middle age and 14.71 percent of old age consume millets. In Gopabandhu Nagar block, not a single agegroup are consuming millets in the district. While in Jamda block, 25 percent of infant, 10 percent of preschool and 1.43 percent adults consume millets. In Sukruli block, 11.11 percent of infant, 21.43 percent of preschool, 9.09 percent of children, 13.33 percent of adolescent, 20.15 percent adults, 21.67 percent of middle age and 32.56 percent of old age consume millets.

4.4 Consumption of Millets by the Sample HHS across Seasons

The rate of millets consumption among the population of the sample household across the four selected blocks of Mayurbhanj. It reveals that the rate of millets consumption is highest in summer, i.e., 5.31 per cent, in rainy season it is 51.90 per cent and it is 45.05 per cent in during the winter season

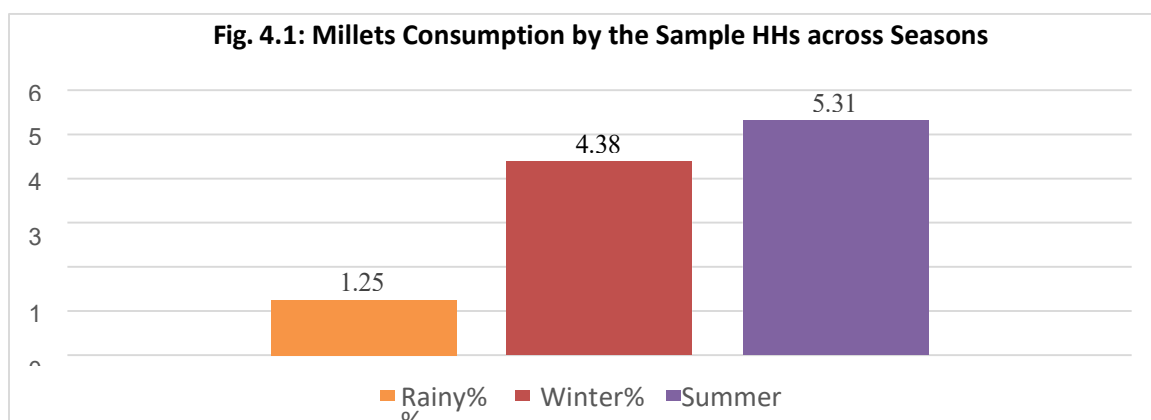


Table 4.4: Season-wise millets consumption by sample HHs									
Blocks	Total Population	Winter		Summer		Rainy		Total HHs	
		N	%	N	%	N	%	N	%
Bahalda	296	7	8.75	10	12.5	3	3.75	80	100
GopabandhuNagar	297	0	0		0	0	0	80	100
Jamda	316	1	1.25	1	1.25	0	0	80	100
Sukruli	323	6	7.5	7	8.75	1	1.25	80	100
Total	1232	14	4.38	17	5.31	4	1.25	320	100

Source: Baseline Survey 2023

The block wise distribution of population by millets consumption status is presented in Table 4.4. In Bahalda block, out of total HHs, about 8.75 per cent consume millets during winter, 12.5 per cent of them consume it during summer while 3.75 per cent of them consume it in Rainy season. Similarly, in Gopabandhu Nagar block, out of total households, none of the household consumes millets. In Jamda block, out of the total HHs, about 1.25 per cent of them consume millets in winter, 1.25 per cent of them consume in summer while none of them consume it in Rainy season. Likewise, in Sukruli block, out of the total households about 7.5 per cent of them consume millets in winter, 8.75 per cent of them consume it in summer while 1.25 per cent of them in Rainy season.

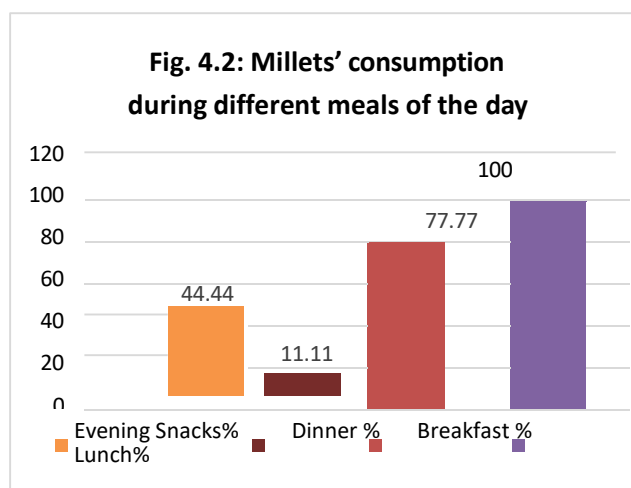
Table 4.5: Millets Consuming Sample HHs across Seasons				
Blocks	Winter (in kg)	Summer (in kg)	Rainy (in kg)	Total (in kg)
Bahalda	160	160	100	420
GopabandhuNagar	0	0	0	0
Jamda	0	2	0	2
Sukruli	0	20	0	20
Total	160	182	100	442

Source: Baseline Survey, 2023

Table 4.5 shows the season wise consumption of millets among the sample households across the four blocks. In Bahalda block, amount of millets consumption was same during summer season and winter season, i.e., 160 kg while 100 kg in rainy seasons. Similarly, in Jamda block, the rate of millets consumption was only summer season, i.e., 2 kg., while in winter and rainy season it was zero kg. Likewise, in Sukruli, it was 20 kg during summer, season.

4.5 Consumption of Millets during different Meals of the Day

The distribution of millets consumption during different meals of the day across seasons among the sample households of four selected blocks in Mayurbhanj District has been presented in figure 4.2. It shows that most of them consume millets during lunch. The consumption pattern of millets reveals; all the consuming households consume millets during lunch followed by breakfast (77.7 percent).

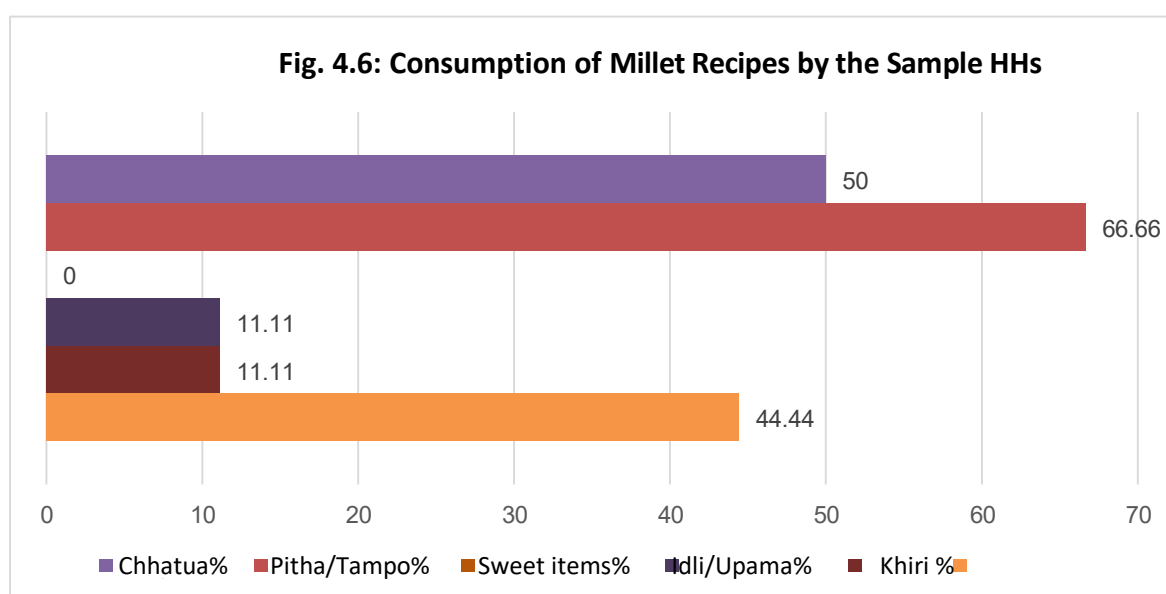


The block-wise pattern of millets consumption during different meals of the day represented in the Table 4.6 reveals that in Bahalda block, 7 HHs consume millets during breakfast, 10 HHs consume during lunch, 5 HHs consume during evening snacks and 2 HHs consume during dinner. In Gopabandhu Nagar block, none of the households consume millets. In Jamda block, 1HHs consume millets during breakfast, 1HHs consume during lunch, and 1 HHs consume during evening snacks. While in Sukruli block, 6 HHs consume millets during breakfast, 7 HHs consume during lunch, and 2 HHs consume during evening snacks.

Table 4.6: Millets' consumption in different meals of the day										
Blocks	Breakfast		Lunch		Evening Snacks		Dinner		Total HHs Consume	
	N	%	N	%	N	%	N	%	N	%
Bahalda	7	70	10	100	5	50	2	20	10	100
GopabandhuNagar	0	0	0	0	0	0	0	0	0	0
Jamda	1	100	1	100	1	100	0	0	1	100
Sukruli	6	85.71	7	100	2	28.57	0	0	7	100
Total	14	77.77	18	100	8	44.44	2	11.11	18	100
Source: Baseline survey, 2023										

4.6 Millet recipes

As found in the Baseline Survey (Figure 4.6 and Table 4.7), in Bahalda block, 7 households consume millets in the form of *Jau/ Torani*, 9 households consume in the form of *Tampo/Pitha*, 2 households consume in the form of *Khiri*, 2 households consume as *Idli/ Upma*. While in Gopabandhu Nagar block, none of the households consume millets. Similarly, in Jamda block, 1 household only consume as *Jau/Torani*, Likewise, in Sukruli block, 1 household consume in the form of *Jau/Torani*, 3 households each as *Tampo/Pitha*, and *Chhatua*.



Source: Baseline survey, 2023

Table 4.7: Consumption of Millet Recipes by the Sample HHs across blocks										
Blocks	Pitha/ Tampo		Chhatua		Jau/ Torani		Khiri		Idli/ Upama	
	N	%	N	%	N	%	N	%	N	%
Bahalda	9	90	6	60	7	70	2	20	2	20
Jamda	0	0	0	0.00	1	100	0	0	0	0
Sukruli	3	42.85	3	42.85	1	14.28	0	0	0	0
Total	12	66.66	9	50.00	8	44.44	2	11.11	2	11.11

Source: Baseline Survey 2023

4.7 Conclusion

Findings of the Baseline Survey 2023 observed that the pattern of millets consumption among the sample households across the four blocks of Mayurbhanj district – it is higher in the summer season. About 15.79 percent of infant population of sample households consuming millets, the rate of millets consumption among the preschool children is 12.77 per cent, among the children in the age group of 6-12 years, it is 3.48 per cent, and among the adolescents it is 7.38 per cent, and middle aged and older age groups i.e., 8.30 per cent and 13.48 per cent consume millets respectively. Most of the households consume millets during lunch. The households who consume millets purchased the same from market.

Chapter V

PROCESSING AND MARKETING OF MILLETS

5.1. Introduction

Marketing millets as well as all millets varieties-based products largely depends on the extent of millets produced in the locality and other accessible places in the State. This chapter discusses the various methods being adopted by the respondents on millet farming and processing, availability and the distance covered by the households to reach the processing and milling units. It discussed the various modes of marketing as well as the exact trend in utilization of millets by the sample respondent HHs.

5.2. Processing of millets

It is found that none of the household cultivating millets and 18 Sample Household consume millets in the study. However, none of the households are processing the millets. It means that all the household consume processed millets. They purchased the millets *Chuna* from the markets and consume.

5.3. Marketing

Adequate millets cultivation, its proper production and timely processing help the farming households. If the production is satisfactory or when the millets farmer produces more than their own consumption they usually go for marketing. In such a case, the producer has to take a right decision to whom and where to sell so that it would be profitable in income and savings. But in the case of all surveyed blocks of Mayurbhanj, no household cultivated millets and selling the products and value-added products (see Table 5.2 and Table 5.3).

5.4. Conclusion

During the Baseline Survey of Mayurbhanj district it was found that none of the sample's household process, selling the millets across the block. However, some households were consuming it through purchasing from market.

Annexure-1:

Mapping of baseline data of Mayurbhanj, Phase-VII, 2023

Sl.	Indicators	Unit	Baseline Data				
			Bahalda	Gopabandhu Nagar	Jamda	Sukruli	Total
1	% of Sample HHs Cultivating Millets	%	0	0	0	0	0
2	Types of Millets Cultivated		0	0	0	0	0
	a) Mandia		0	0	0	0	0
3	Avg. Area under Millets/ HH (Acre)	Acre	0	0	0	0	0
4	Millets/ Ragi Production per HHs	Qtls	0	0	0	0	0
5	% per of millets area to total Cultivated area	%	0	0	0	0	0
7	Yield Rate (Qtls./ Acre)	Qtl	0	0	0	0	0
8*	% of HHs Consuming Millets	%	12.5	0	1	8.75	5.63
	a) Breakfast	%	70	0	100	85.71	77.77
	b) Lunch	%	100	0	100	100	100
	c) Evening Snacks	%	50	0	100	28.57	44.44
	d) Dinner	%	20	0	0	0	11.11
9*	Popular Millets Recipes (%HHs)	%					
	a) Tampo/Pitha	%	90	0	0	42.85	66.66
	b) Chhatua	%	60	0	0	42.85	50.00
	c) Jau/Torani	%	70	0	100	14.28	44.44
	d) Khiri	%	20	0	0	0	11.11
	e) Idli/ Upma	%	20	0	0	0	11.11
10	% of HHs Processing Ragi	%	0	0	0	0	0
11	% of HH Selling Millets	%	0	0	0	0	0
	% of distress sale (% of HHs)	%	0	0	0	0	0

Annexure 2

Confidential and to Be Used for Research Purpose Only

Households Schedule for Baseline Survey 2023-24,

Phase VII of SHREE ANNA ABHIYAN (SAA)



Serial No.....

Date.....

Part-I: Socio-Economic Status

1. Profile of the Households

1.1. Name of the Households' Head:

1.2. Name of the Respondent:

1.3. Name of the (i) Village:

(ii) GP

(iii) Blocks:

(iv) District:

1.4. Category:

(i) SC

(ii) ST

(iii) OBC/SEBC

(iv) Others

(specify)

1.5. Religion

(i) Hindu

(ii) Muslim

(iii) Christian

(iv) Animism

(v) Others

1.6. Ration Card Holding:

(i) Ration Card

(ii) Antyodaya Card

(iii) Other

(iv) No Card

1.7. Type of Family:

(i) Nuclear

(ii) Joint

(iii) Extended

(iv) Others

(specify)

1.8. House
Structure:

(i) Katcha

(ii) Semi-Pucca

(iii) Pucca

3. HHs' Land ownership in Acre:.....

4. Operational Holdings Under Different Crops (in Acre)

Sl No.	Name of the Crops	Yes/ No	Own Land*	Leased-in*	Sl. No.	Name of the Crops	Yes / No	Own Land*	Leased-in*
a	Paddy				c	Vegetables			
b	Millets				d	Any Others Crops			
Total Operational Holding									

5. Annual Expenditure:

Sl. No	Source	Expenditure Heads						Total Amount (in Rs.)
	Agriculture	Land Preparation	Transplantation/ Sowing	Weeding	Fertilizers/ Pesticides	Harvesting	Others	
1	a) Millet							
	b) Paddy							
	c) Vegetables							
	d) Any Other Crops (Specify)							
3	Households Expenses							
4	Other HH Expenses							
	Total							

6. Annual income of the HH (last year.....)

7. Have you taken any agricultural loan?

1-Yes 2-No

If yes, please provide details.....

2. Household Particulars:

Sl. No	Name of the HH Members	Relationship with HoH (Use Code)	Age	Sex	Marital Status (Use Code)	Educational Qualification (Use Code)	Main		Subsidiary		Consume Millet (Yes/No)
							Occupation (Use Code)	Annual Income	Occupation (Use Code)	Annual Income	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											

Codes: Marital Status: 1- Married, 2- Unmarried, 3- Widow, 4- Widower, 5- Divorced, 6- Separated, 7- Any Others (pl specify)
Relationship: 1-Self, 2- Spouse, 3- Son, 4- Daughter, 5- Daughter-in-Law, 6- Son-in-Law, 7- Father, 8-Mother, 9-Brother, 10-Sister, 11- Grandson, 12- Granddaughter, 13- Father- in-Law, 14- Mother-in-Law, 15- Any Other (Specify)
Education: 1- Illiterate, 2- Up to Class 5, 3- Class 6-10, 4- Higher Secondary, 5- Graduate, 6- Post-Graduate, 7- Technical (Diploma/Degree), 8- Professional/Management, 9- Any Other (Specify)
Occupation: 1- Agriculture, 2- Daily Wage Labour, 3- Business/Entrepreneurship, 4- Govt sector, 5- Private Sector, 6- Pension/Remittances 7- Student 8- Housewife, 9- Unemployed, 10- Others (pl. specify)

Part-II: Production of Millets

8. Do you cultivate millets?

1-Yes 2-No

If yes, give millet-wise production details

Sl. No.	Millet Crops	Season	Area (in Acre)	Land Type Used	Sources of Irrigation	Type of Seed Used	Source of Seed	Quality of Seeds	Method of Cultivation	Use of Fertilizer	Use of Pesticides	Production (Qnt.)	Kept for Seed (Qnt.)	Kept for Consumption (Qnt.)	For Marketing (Qnt.)
a	Mandia	Kharif													
		Rabi													
		Summer													
b	Suan/ Kosla /Gurji	Kharif													
		Rabi													
		Summer													
c	Koda	Kharif													
		Rabi													
		Summer													
d	Any other (specify)	Kharif													
		Rabi													
		Summer													

Land Type Used: 1-Upperland, 2-Slope Land, 3-Middle Land, 4-Low Land.

Sources of Irrigation: 1. Rain, 2. Farm Pond, 3- Stream, 4- MIP/WS, 5-River, 6- Canal, 7- Bore well, 8-Others(Specify).

Type of Seed Used: 1-Local, 2- Certified, 3-HYV. Source of Seeds: 1-Own Seed, 2- Relatives, 3-Market, 4- NGO, 5- Govt./ Community Seed Centre, 6-Others (pl. specify)

Quality of Seeds: 1. Good, 2. Average, 3. Bad

Method of Cultivation: 1) SMI- System of Millets Intensification, 2) LT- Line Transplantation, 3) LS- Line Showing, 4) Broadcasting, 5) Others (specify)

Use of Fertilizer: 1) Organic Manure, 2) Chemical Fertilizers, 3) Both, 4) No Use. Pest Control: 1) Bio-Pesticides, 2) Chemical Pesticides, 3) Both, 4) No Use

9. Whether you follow mixed farming or mono farming system? **1. Mixed 2. Mono**
If mixed, with which are the crops(s)?
10. How do you store your seed and grain?
(i) Jute Bag (ii) Earthen Pot (iii) Bamboo Basket (iv) Pura (paddy rope)
(v) Open Hanging (vi) Other (Specify)
11. Had your seed or grain got damaged during last year? **1. Yes 2. No**
12. Have you done weeding for the millets cultivation? **1. Yes 2. No**
13. If Yes, Number of times you do weeding in your millet fields, by each method?
1) Manually _____ 2) By Weeder _____ 3) Both _____
14. If By Weeder, Sources of weeder?
i) Own ii) Rental iii) Borrowed from Neighbours iv) Govt. Provided v) Other
15. If HH is not cultivating any of the millets, what is the reason?
(i) Not profitable (ii) Shortage of land (iii) Non-availability of Seeds
(iv) Lack of Irrigation (v) Others (pl. specify)
16. How many years have you not cultivated Millets.....?
17. Do you like to cultivate Millets under this programme? **1. Yes 2. No**

Part-III: Consumption of Millets

18. Does your households consume millets? **1. Yes 2. No**

If Yes, Types of millets your HH consumed in different seasons (Put Tick Mark)

Sl. No.	Name of the Millets	Winter				Summer				Rainy			
		Breakfast	Lunch	Evening Snacks	Dinner	Breakfast	Lunch	Evening Snacks	Dinner	Breakfast	Lunch	Evening Snacks	Dinner
a	Mandia												
b	Suan/ Kosla / Gurji												
c	Koda												
d	Any Other Millets (Specify)												

19. Millets Requirements of the HH:

Sl. No.	Seasons	Millets Consumed (in Kg.)	Total Requirement of Millets (Kg.)	Sources of Millet Consumed by HH (in Kg)				Total
				Produced	Purchased	Borrowed / Exchanged	Other Sources	
a	Winter							
b	Summer							
c	Rainy							
d	Total							

20. Consumption of Millets in different Recipes (Put Tick Mark)

Sl. No.	Name of The Millets	Pitha/Tampo	Chhatua	Jau/Torani	Khiri	Idli/Upama	Sweets Items	Others (Specify)	Remarks
a	Mandia								
b	Suan/ Kosla/ Gurji								
c	Kodo								
d	Any Other Millets (Specify)								

21. Is there any special occasion when you prepare millets based items? **1. Yes 2. No**

If yes, what is/are the occasion(s) (specify)? _____

22. For this what type of millet is required (specify)? _____

23. Do you purchase Millet Based Products from market for consumption? **1.Yes 2.No**

24. If Yes, what are the millets-based items you usually purchase from the market?

1. Biscuit/Mixture 2. Idli/Upama 3. Chhatua 4. Pakoda 5. Others (Specify)

25. How do you like the taste of millet-based products you purchased from market?

1. Liked it 2. So-so 3. Do not Like it

Part-IV: Processing of Millets

26. Do you process the millet products in your house? **1.Yes 2.No**

27. If Yes, who among your family members involved in the processing of millets?

i). Nos. of Male members _____. ii). Nos. of Female members _____

28. How do you process the millets? a) Traditionally b) Machinery c) Both d) Others (Specify)

29. If traditionally, please elaborate the methods of processing.

30. If Machinery, how far is the location of the processing unit from your village? _____ km

Part-V: Marketing of Millets

Sl. No.	Millet Crops	Yes /No	Sources of Millets You Sale	Quantity	Price / Kg.	Govt. Price (MSP)	Where did you sell your millets	Distance in Km	Mode of Transportation Used for Millets Sale	Reason for Sale
a	Mandia									
b	Suan/ Kosla /Gurji									
c	Koda									
d	Any other (specify)									

Sources of Millets You Sell: 1. Own Produced, 2. Purchase from Farmers, 3. Others (Specify)

Where Sold Your Millets: 1. Govt. *Mandi*, 2. Middlemen/ Local Businessman, 3. Moneylender/ *Sahukar*, 4. Daily market/ Haat 5. Others (pl. specify)

Mode of Transportation: 1. Headload, 2. Cycle, 3. Cart, 4. Own Vehicle, 5. Hired Vehicle, 6. Public Transport, 7. Others (Specify)

Reason for Sale: 1. Better Price, 2. Immediate Need of Cash, 3. Loan Repayment, 4. Non-Availability of Market, 5. Any Others (specify)

31. Do you sell millets? 1. Yes 2. No

32. Types of Millets, you Sell and Quantity

33. Any instance of distress sale (less than the market price) of Millets? **1.Yes** **2.No**

34. If yes, what is the sale price.....and what is the market price.....

35. What are the marketing processes followed by you? a) Barter b) Money c) Others (specify)

36. Do you sell any millet based value-added products? **1.Yes** **2.No**

37. If yes, provide the details about the Millet Based Value Added Products you sale.

38. Remarks

Contact no of Respondent **Signature of the Researcher/Field Investigator**

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The Nabakrushna Choudhury Centre for Development Studies (NCDS), established in March 1987, is registered under the Societies Registration Act, 1860. It is being jointly funded by the Indian Council of Social Science Research (ICSSR), Ministry of Human Resource Development, Government of India and Planning & Convergence Department, Government of Odisha. Focussing on socio-economic research, this institute is the only one of its kind that serves as a policy think tank in the state of Odisha.



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