

**BASELINE SURVEY:**  
**KANDHAMAL DISTRICT-2016-17, Phase 1**  
**(Special Programme for Promotion of Millets in Tribal Areas of Odisha**  
**or Odisha Millets Mission, OMM)**



**Nabakrushna Choudhury Centre for Development Studies, Bhubaneswar, Odisha**  
**(anICSSR Institute in Collaboration with Government of Odisha)**

**2019**



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## FOREWORD

The seeds for the "Special Programme for Promotion of Millets in Tribal Areas of Odisha" (or, Odisha Millets Mission, OMM) were sown at a consultation meeting held on 27 January 2016 at Nabakrushna Choudhury Centre for Development Studies (NCDS) under the Chairmanship of the Development Commissioner-cum-Additional Chief Secretary (DC-cum-ACS), Government of Odisha, and Chairperson, NCDS, Mr. R Balakrishnan. The consultation meeting had representatives from different line departments of the Government of Odisha, members of different civil society groups from across the country and from within the state (which, among others, included the Alliance for Sustainable and Holistic Agriculture (ASHA), the Millets Network of India (MINI), the Revitalizing Rainfed Agriculture (RRA) Network of India, that brought in their experiences, and the academia that included among others Dr. T Prakash, Chairperson, Karnataka Agricultural Price Commission.

As per the decision taken at the consultation meeting, NCDS submitted a proposal to the Government of Odisha on the revival of millets. Lo and behold, there was an announcement in the budget speech of 18 March 2016 conveying that the Government of Odisha intends to revive millets. This led to a series of interactions and a memorandum of understanding (MoU) was signed on 27 February 2017 between the Directorate of Agriculture and Food Production (DAFP) as the state level nodal agency that would monitor and implement the programme, NCDS as the state secretariat that would also anchor the research secretariat, and Watershed Support Services and Activities Network (WASSAN) that would anchor the programme secretariat as part of the state secretariat.

It was in 2017-18 that budget was apportioned and after the selection of facilitating agencies, the programme was implemented in *kharif* 2017 in 27 of the 30 blocks that were selected to be part of OMM. To help us better assess OMM, the baseline scenario of 2016-17, that is, prior to intervention in *kharif* 2017 is important.

After obtaining a list of farmers households (HHs) that were growing millets, as part of the programme in *kharif* 2017, a survey design was firmed up, and a baseline survey was conducted among 7000+ HHs during October/November of 2017. The information collected from these HHs in 27 blocks spread across seven districts are being put up as baseline reports.

The current baseline report is that of Kandhamal and the lead author for this has been Ms. Rashmi Rekha Samal, Ph. D. Scholar, NCDS, whose Ph. D. work is on a related theme and some of the aspects reported here also form part of her thesis. As Principal Investigator, I compliment her and all the members of the team for taking up this arduous work and in bringing the results into completion.

The preliminary results from the baseline survey and the outcome from *kharif* 2017 has been encouraging. Production, yield and returns from millets have more than doubled in areas under OMM. It is this and a demand from the communities that led the government to increase the scope of OMM from 30 blocks in 2017-18 to 55 blocks (an addition of 25 blocks in the second phase) in 2018-19 and will have 72 blocks (a further addition of another 17 blocks in the third phase) in 2019-20. It is for this that the seven district-specific baseline survey reports and an aggregate state-level report are being referred to as first phase baseline survey reports.

Concurrently, the scope of OMM has also led to convergence with other departments. Some of these being the involvement of women self-help groups (SHGs) in putting up a stall of *Mandia Café* at the Hockey World Cup 2018, the procurement of *ragi* (finger millets) in *kharif* 2018, the plans to pilot millet meals and provide millet *ladoos* in *Aanganwadis* in 2019. There has been interest in OMM from the central as also other state governments. OMM has also raised curiosity among scholars within the country as also abroad. And, so they say, the proof of OMM is in its reverberation.

**Srijit Mishra**  
**Director, NCDS**



## ACKNOWLEDGEMENTS

Preparation of this report required concerted efforts of a number of individuals and institutions. First and foremost, we would like to express our sincere gratitude to farmers, farmers' representatives/associations, senior officers from the state Government, particularly to Mr. R Balakrishnan, Indian Administrative Service (IAS), former Development Commissioner cum Additional Chief Secretary (DC-cum-ACS) and former Chairman, Nabakrushna Choudhury Centre for Development Studies (NCDS); Mr. Asit Kumar Tripathy, IAS, DC cum ACS, Government of Odisha and Chairman, NCDS; Mr. Manoj Ahuja, IAS, former Principal Secretary, Department of Agriculture and Farmers' Empowerment (DAFE); Dr. Saurabh Garg, IAS, Principal Secretary, DAFE; Mr. Bhaskar Jyoti Sarma, IAS, Special Secretary, DAFE; Mr. Hari Ballav Mishra, IAS, former Director, Directorate of Agriculture and Food Production (DAFP); Dr. M. Muthukumar, IAS, Director, DAFP; Dr Brundha D. IAS, Collector, Kandhamal District, Mr. Kashinath Khuntia, Joint Director Agriculture (JDA), Millets & Integrated Farming, DAFP; Dr. Ananda Chandra Sasmal, Agronomist, DAFE; Mr. Ansuman Pattanayak, Assistant Agriculture Officer (AAO), Farm, Millets, DAFP; and Mr. Sanjay Kumar Pani, AAO, DAFP.

We also express our sincere thanks and gratitude to district level officers of Kandhamal District, particularly to Mr. Pradeep Kumar Rath, DDA-cum-PD ATMA, Mr. Hemant Kumar Das, Scheme Officer; Mr. Sudeepta Pradhan, AAO, Raikia Block, Mr. Sabyasachi Das, AAO, Phiringia, Mr. Pabitra Mohan Sahoo, AAO, Daringibadi, Mr. Jyoti Ranjan Mishra AAO, Kotgarh Block.

We also express our gratitude to Mrs. Sumati Jani, Odisha Finance Service, (OFS), Secretary, NCDS; Mr. Srikanta Rath, former Administrative Officer; Mrs. S.M. Pani, Computer Programmer; Mr. D.B. Sahoo, P.A to Director; Mr. P.K. Mishra, Senior Assistant; Mr. P.K. Mohanty, Jr. Accountant; Mr. N.K. Mishra, Jr. Stenographer and Mr. P.K. Mallia, Computer literate Typist; Mr. Niranjana Mohapatra, Librarian; Mr. S.B. Sahoo, photocopy Operator for their support, help and cooperation.

Special thanks are due to the members of the Programme Secretariat, Watershed Support Services and Activities Network (WASSAN), particularly to Mr. Dinesh Balam, Consultant, Programme Secretariat; Mrs. Aashima Choudhury, State Coordinator, Mr. Ramani Ranjan Nayak, Regional Coordinator, Mr. Chitrasen Pradhan, Former District Coordinator, Mr. Ramachandra Tosh and Mr. Yasobanta Baliarsing,

present District Coordinators in Kandhamal district who have helped in our data collection work and in addressing other queries.

We would like to thank to the members of the Facilitating Agencies (FAs) working in these four blocks of the district, namely, Agrabamee, JAGRUTI and SWATI who have supported a lot during data collection. We also express our hearty thankfulness to our Field Investigators Mr. Biren Mitra Nayak, Mr. Utkal Dandasena, Mr. Nabin Digal, Mr. Utkal Keshari Nāyāk and Mr. Naresh Pradhan, who have tirelessly collected the data from difficult tribal areas.

We also would like to thank Mr. Arakshit Patra, Research Assistant, Mr. Bikash Pradhan, Computer Assistant, who have supported in the preparation of this report and Mr. Sarat Kumar Khandai who has helped in data entry work. We also thank Mr. Manoranjan Mishra, Ms. Rajadarshini Patra and Mr. Lokanath Sahoo, who worked in the Project as Research Assistants. We would like to sincerely thank them all farmer households, without their cooperation, collection of data would not have been possible. Our sincere thanks to all of them.

**Rashmi Rekha Samal**

## EXECUTIVE SUMMARY

### §1 Study Area

§1.1 The study area in Kandhamal district constitutes of four blocks out of twelve blocks in the district namely Daringbadi, Kotgarh, Phiringia and Raikia.

§1.2 Out of 628 millet growing HHs under baseline survey, 346 HHs from Daringbadi, 58 HHs from Kotgarh, 52 HHs from Phiringia and 136 HHs from Raikia are covered under this programme.

### §2 Socio-Economic Profile

§2.1 Four social categories were found in the surveyed blocks. Out of 628 HHs, 523 HHs belongs to ST, 41 HHs belongs to SC, 64 HHs belongs to OC. These four blocks are tribal dominated area.

§2.3. From the surveyed HHs, people belong to two religious communities such as Hindus (54.3%) and Christians (45.7%).

§2.4 Incidence of poverty is very high in surveyed blocks, BPL (91.4 %). Raikia Block is highest among the four blocks with 95.6 percent being in below poverty line.

§2.5 In the surveyed blocks, 94.4 percent HHs are engaged in agriculture activities, 5.7 percent HHs are engaged in non-agricultural activities, 0.8 percent HHs are engaged in Minor Forest Produce (MFP) and in other activities, only 0.5 percent engaged in business and 0.3 percent HHs are service holder.

§2.6 From the total surveyed HHs, 2.5 percent have *pucca* house, 52.7 percent have semi-*pucca* house and 44.7 percent have *kutch*a house.

### §3. Production and productivity

§3.1 The total production of different types of millets cultivated by 592 HHs is around 411.7 quintals.

§3.2 All 592 HHs have cultivated *ragi* (finger millet) in 163.2 ha (hectares). Next is *jahna* in 8.6 hectares cultivated by 61 HHs, 46 HHs have cultivated *kangu* in 9.2 ha and 51 HHs have cultivated *suan* (little millet) in 5.3 ha of land.

§3.3 From the total production of 411.7 quintals, *ragi* was 360.6 quintals, *jahna* was 18.2 quintals, *kangu* was 10.8 quintals and *suan* was 22.1 quintals.

§3.4 The per HH average millet yield rate in four selected blocks is 0.7 quintal, where average production of *ragi* per HH is 0.6 quintal, *jahna* is 0.3 quintal and *kangu* is lowest among the four types i.e. 0.2 quintal and *suan* is 0.4 quintal.

- §3.5 Per hectare average millet yield rate in four surveyed blocks is 2.2 quintal. It was 2.2 qtls/ha for *ragi*, 2.2 qtls/ha for *janha*, 1.2 quintals for *kangu* and 4.2 qtls/ha for *suan*.
- §3.6 In Daringbadi, 346 HHs (all the HHs) have cultivated millets in 87.1 hectares producing 163.1 quintals. This gives a yield of 1.9 qtl/ha and per HH production of 0.5 qtl/HH.
- §3.7 In Kotagarh, 58 HHs have cultivated millets in 28.7 hectares producing 64.8 quintals. This gives a yield of 2.2 qtls/ha and per HH production of 1.1 qtl/HH.
- §3.8 In Phiringia, 52 HHs have cultivated millets in 31.6 hectares producing 66.8 quintals. This gives a yield of 2.1 qtls/ha and per HH production of 1.3 qtls/HH.
- §3.9 In Raikia, 136 HHs have cultivated millets in 38.6 hectares producing 117.2 quintals. This gives a yield of 3.1 qtls/ha and per HH production of 0.9 qtl/HH.

#### §4 **Package of Practices**

- §4.1 From 592 HHs cultivating *ragi* in 163.2 hectares of land, 447 HHs have used broadcasting method in 119.1 ha with production of 242.3 quintals with the yield rate 2 qtls/ha, 86 HHs have used line sowing method in 20.6 hectares of land with production of 61.5 quintals with the yield rate of 3 qtls/ha, 23 HHs have used transplanting method in 4.4 ha of land with production of 18.2 quintals with the yield rate of 4.2 qtls/ha, 3 HHs have used System of Millet Intensification (SMI) method in 0.6 hectares of land with 2.6 quintals production with a yield rate of 4.2 qtls/ha.
- §4.2 From 61 HHs cultivating *janha* in 8.6 hectares with 18.3 quintals production, 53 HHs have adopted broadcasting method in 6.7 hectares of land with production 13.3 quintals and yield rate was 2 qtls/ha, 7 HHs have cultivated through line sowing in 1.6 hectares of land with production 4.8 quintals and yield rate was 3 qtls/ha and only 1 HH has used both broadcasting and line transplanting method in 0.2 hectares of land with production 0.2 quintal and yield rate was 1 qtl/ha.
- §4.3 From 46 HHs cultivating *kangu* in 9.2 hectares of land with 10.8 quintals production with the yield rate of 1.2 qtl/ha.
- §4.4 From 51 HHs cultivating *suan* in 5.2 hectares of land with 22.1 quintals production, 43 HHs have adopted broadcasting method in 3.8 hectares of land with production 16.7 quintals and yield rate was 4.2 qtls/ha, 5 HHs have cultivated through line sowing in 1.1 hectare of land with production 4.3 quintals and yield rate was 3.7 qtls/ha, only 1 HH has used SMI method in 0.2 hectare of

land with production 0.2 quintal and yield rate was 1 qtl/ha, 2 HHs have adopted both line sowing and SMI method in 0.1 ha of land with production 1 quintal and yield rate was 12.5 qtls/ha.

## **§5 Consumption**

**§5.1** The consumption of millet is more in summer season than rainy and winter seasons.

**§5.2** Findings regarding different meals of the day (not mutually exclusive) the total HHs, 60.7 percent HHs consumed millet as breakfast, 87.4 percent HHs consumed in lunch, 36 percent HHs consumed as evening snacks and 4.3 percent HHs consumed as dinner.

**§5.3** People consume millets in different forms in the surveyed blocks. 71.7 per cent HHs consume millets as *jau* (*ragi* porridge). 54.1 per cent HHs consume millet in the form of *pitha* (cake or bread). 24.2 percent HHs consume millets in the form of *tampo* (semi-liquid sweet dish). Another popular millet recipe is *mandia torani*, and it is a common food for 82.0 percent HHs and 1.6 percent HHs consume millet in the form of *handia* (*ragi* beer).

## **§6 Processing and Marketing**

**§6.1** The processing of millets was done as follows: manually by 52.4 percent HHs, machines by 35.0 percent HHs and both manually as also machines by 12.6 percent HHs.

**§ 6.2** 60.3 per cent HHs are able to access processing unit within 10 kms distance. 38.6 per cent HHs can access within 11-20 kms distance and 1.1 per cent HHs can access which is more than 20 kms distance from their village.

**§6.3** 51 HHs sold their millet to mill owner, 12 HHs sold their millets to middlemen, 67 HHs sold their millet to local traders, 52 HHs sold in the weekly market and highest 82 HHs sold their millet to the money lenders.



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## **ABBREVIATIONS**

AL	: Agricultural Labour
ATMA	: Agricultural Technology Management Agency
AWC	: Anganwadi Centre
CCD	: Centre for Community Development
FGD	: Focused Group Discussion
Ha	: Hectares
HHs	: Households
ICDS	: Integrated Child Development Scheme
MDM	: Mid Day Meal
MFP	: Minor Forest Produce
MGNREGA	: Mahatma Gandhi National Rural Employment Guarantee Act
NCDS	: Nabakrushna Choudhury Centre for Development Studies
OFS	: Odisha Finance Service
OBC	: Other Backward Classes
OC	: Other Castes
OMM	: Odisha Millet Mission
PDS	: Public distribution system
SC	: Scheduled Caste
SMI	: System of Millet Intensification
SP	: Sale Price
ST	: Scheduled Tribe
WASSAN	: Watershed Support Service and Activities Network



## INTRODUCTION

### 1.1 Background

The Odisha Millets Mission (OMM), a recent unique innovative arrangement of government, civil society and academia, has wide ranging implications for the production and consumption of millets. To revive millets, a flagship programme called “Special Programme for Promotion of Millets in Tribal Areas” is being launched and implemented to promote food security and nutrition security in the indigenous parts of Odisha by Department of Agriculture and Farmers Empowerment, Odisha. This programme intends to revive millets in rainfed farming systems and household consumption with specific objectives including i) inclusion of millets in State Nutrition Programmes such as ICDS, MDM, ITDA, Welfare Hostels and PDS; ii) increasing HHs consumption by setting up decentralized processing units at Panchayat and Block level; iii) improving productivity through improved agronomic practices and organic inputs; iv) increased availability of millet seeds through community managed/community owned seed centres with focus on local varieties; v) strengthening of farmer Cooperatives/ Farmer Producers Organizations for better marketing of millets. At present, the programme intervention area coverage expands to 72 Blocks in 14 Districts benefiting 31,099 farmer HHs in 12,334 hectare area.

### 1.2 District profile

Kandhamal Revenue District came into instance on 1<sup>st</sup> January 1994 after Phulbani District was divided into Kandhamal and Boudh District of Odisha. The district lies between 19 degree 34’ to 20 degree 36’ North Latitude and 83 degree 34’ to 84 degree east longitude.

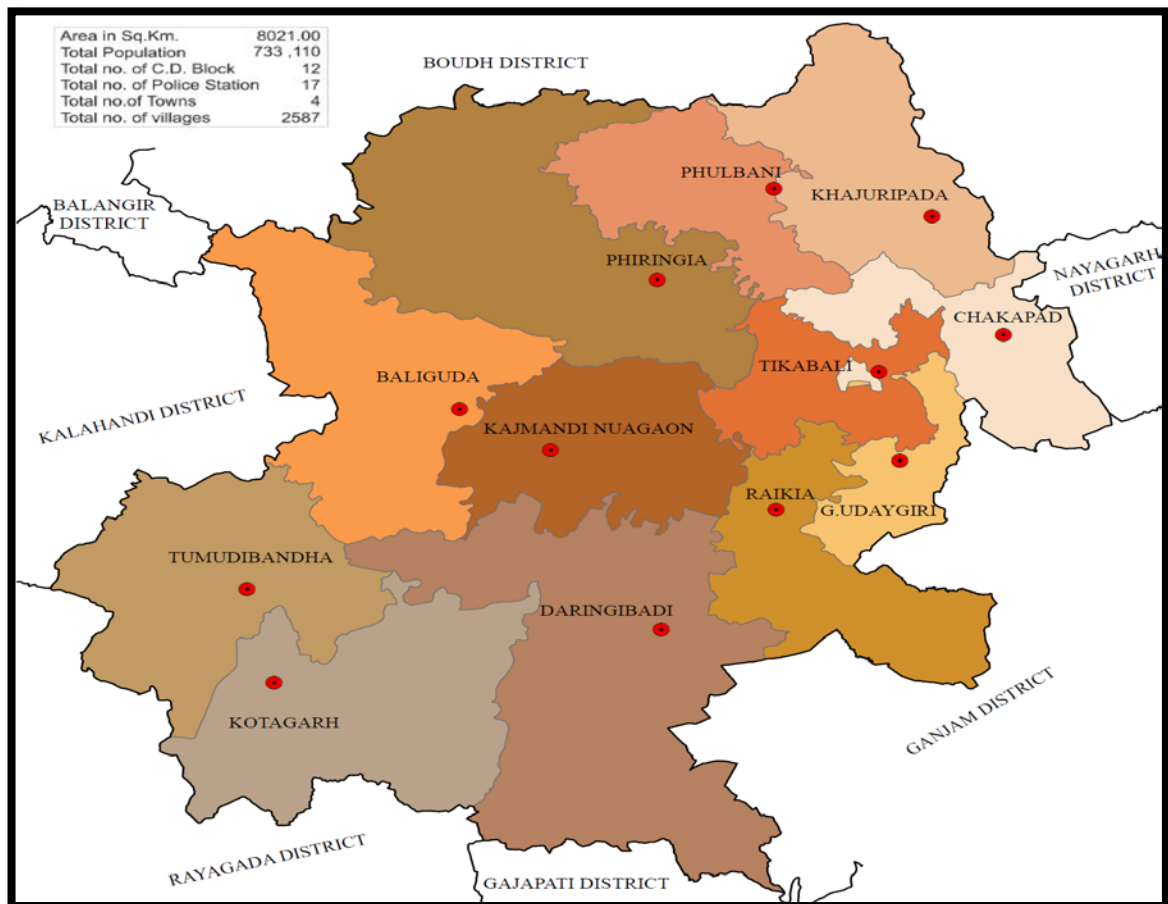
Kandhamal experiences sub-tropical hot and dry climate in summer and dry and cold climate in winter. The maximum temperature recorded in the district is 45.5 degree C and minimum temperature is 2.0 degree C. The average annual rainfall recorded is 1522.95 mm. The kandhamal district covering a geographical area of 7654sq. kms is surrounded by Boudh district in the North, by Rayagada district in the South, by Ganjam and Nayagarh district in the East and Kalahandi district in the West.

The soil in the district is mostly wet-laterite group, having organic matters contents. As such, the water holding capacity is very low. The PH value of the soil varies 5.3 to 6.5, this is acidic in nature. The Big chunk of land consists of red laterite sandy loam soils being exposed to constant soil erosion and run off devoid of humus contents

render in fertile and turn into barren waste lands. The important crops grown in the district during *kharif* season is paddy, maize and niger. In irrigated areas, crops like potato, vegetable and mustard are cultivated.

Kandhamal has two sub divisions viz. Phulbani and Baliguda with 12 Tahasils, 12 blocks and 153 Gram Panchayats.

**Fig 1.1 Map of Kandhamal District with Blocks**



Source: <http://gisodisha.nic.in/Block/KANDHAMAL.pdf>

### 1.3 Objectives

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

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

**Table 1.1: Key Indicators of Kandhamal District**

<b>Indicators</b>	<b>Value</b>
<b>Census 2011</b>	
Population (In Lakh)	7.3
Male(In Lakh)	3.6
Female(In Lakh)	3.7
Scheduled Caste(In Lakh)	1.2
Scheduled Tribe(In Lakh)	3.9
No.of HHs (In Lakh)	1.7
Average HH Size	4.3
Sex Ratio	1037
Total Worker (In Lakh)	3.3
Main Worker(In Lakh)	1.7
Marginal Worker(In Lakh)	1.9
Non-Worker(In Lakh)	3.8
Work Participation Rate (WPR)	48.5
Literacy Rate (%)	64.1
<b>Land Use Pattern (Area in '000 ha), 2014-15 *</b>	
Forest	170
Land put to Non-agricultural use	21
Barren & Non-Cultivable Land	103
Permanent Pasture	13
Net Area Sown	57
Cultivable waste Land	19
Other Fallow	28
Current Fallows	28
Misc. Trees and Groves	1
<b>District at a Glance 2016*</b>	
Average Fertilizer Consumption (Kg/ha)	8.3
Avg. Size of Holding per HH(In Nos.)	1.01
Irrigation Potential ('000 ha)	101.2
No. of villages electrified(In Nos.)	1044
No. of banks(In Nos.)	09
No. of AWCs(In Nos.)	2243
No. of BPL families(In Nos.)	154217
No. of Job Cards Issued(In Nos.)	142830
No. of Beneficiaries Provided Employment in MGNREGA (In Nos.)	130020
Source: District Statistical Hand book- Kandhamal, 2011	
*District at a Glance-2016	
Note: MANGERS is Mahatma Gandhi National Rural Employment Guarantee Scheme	

## **1.4 Methodology**

### **1.4.1 Study Area**

Kandhamal district is proposed by OMM to study on promotion of Millets. The climatic condition is convenient for millets cultivation, for which Kandhamal District is selected for the survey. Out of twelve blocks, four blocks have been surveyed and they are Daringbadi, Kotgarh, Phiringia and Raikia.

### 1.4.2 Universe

All the HHs covered under OMM, as per the list provided by Programme Secretariat, formed the universe. Out of 628 millets growing HHs under baseline survey, 346 HHs from Daringbadi, 58 HHs from Kotagarh, 52 HHs from Phiringia and 136 HHs from Raikia are covered under this programme. Out of 628 millet HHs, 36 HHs were not cultivating millets during 2016-17 (Table-1.2).

**Table 1.2: Households Surveyed in Kandhamal District**

Block	Programme HHs		Surveyed HHs		HHs Cultivated Millets in 2016-17		HHs did not Cultivate Millets in 2016-17	
	No	%	No	%	No	%	No	%
Daringbadi	348	54.5	346	55.1	346	58.4	0	0
Kotgarh	97	15.2	94	15.0	58	9.8	36	100
Phiringia	52	8.2	52	8.3	52	8.8	0	0
Raikia	141	22.1	136	21.7	136	23.0	0	0
Total	638	100.0	628	100.0	592	100.0	36	100

Source: WASSAN & Field Survey

### 1.4.3 Data Collection

The study is largely based on baseline survey. Some information are based on the secondary data for the introductory chapter. The primary data is collected from the respondents in concern districts by using pre-tested interview schedule (Annexure 1 and 2). The basic information from all the intervened HHs was collected through household schedule and Focused Group Discussions (FGDs).

### 1.5 Chapterization

The baseline survey has been divided into six chapters including the current Chapter 1, which provided introduction, district profile, objectives and study design. Chapter 2 provides demographic features and distribution of HHs by economic activity of HHs surveyed. Chapter 3 provides details on production and productivity of millets. Chapter 4 discusses consumption pattern of millets. Chapter 5 elucidates on processing and marketing of millets. Chapter 6 indicates the major findings and conclusion.

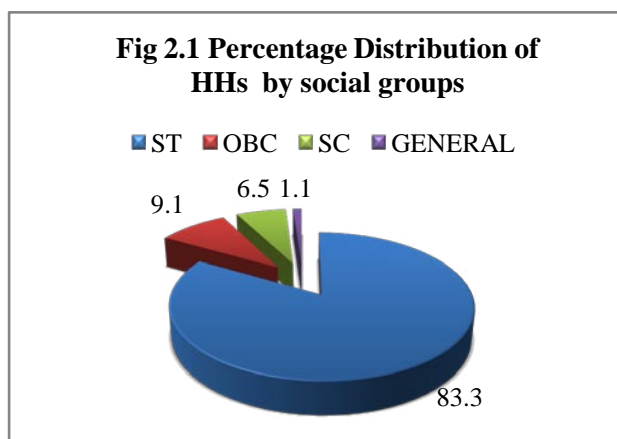
## SOCIO-ECONOMIC PROFILE OF HOUSEHOLDS SURVEYED

### 2.1 Introduction

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

### 2.2 Demographic Profile

Out of 12 blocks in Kandhamal district, OMM programme started first phase programme in four blocks such as Daringbadi, Kotagarh, Phiringia and Raikia. 628 millet HHs are covered under this programme. The distributions of social group-wise millet farmer HHs are shown in table 2.1. It shows that out of 628 HHs, 523 HHs (83.3%) belong to ST, 64 HHs (10.2%) belong to OC and 41 HHs(6.5%) belong to SC category. It is observed that these four blocks are tribal dominated area. This data reveals that millet farmers HHs are more in Daringbadi block (55.1%), 21.7 percent are in Raikia block, 15 per cent are in Kotgarh block and 8.3 per cent are in Phiringia block (Fig-2.1).



**Table 2.1: Distribution of Households by Social Group across Blocks**

Social Groups	Daringbadi		Kotagarh		Phiringia		Raikia		Total	
	No	%	No	%	No	%	No	%	No	%
SC	10	2.9	16	17	2	3.8	13	9.6	41	6.5
ST	325	93.9	74	78.7	50	96.2	74	54.4	523	83.3
OC	11	3.2	4	4.3	0	0	49	36	64	10.2
Total	346	100.0	94	100	52	100	136	100	628	100
	(55.1)		(15.0)		(8.3)		(21.7)		(100.0)	

Source: Field Survey

N.B.: Figures in parentheses represent percentage to the respective total

The total population as per the surveyed HHs is around 2246. The share of female population is little higher than the male population. 50.6 per cent are female and 49.4 per

cent are male from the total population. Daringbadi has the highest number of population among all the surveyed blocks (Table-2.2).

**Table 2.2: Distribution of Population by Gender across Blocks**

Gender	Daringbadi		Kotagarh		Phiringia		Raikia		Total	
	No	%	No	%	No	%	No	%	No	%
Male	653	49.4	175	48.7	72	48.6	209	50.0	1109	49.4
Female	668	50.6	184	51.3	76	51.4	209	50.0	1137	50.6
Total	1321	100.0	359	100.0	148	100.0	418	100.0	2246	100.0

Source: Field Survey

From the surveyed HHs, people belong to two religious communities such as Hindus (54.3%) and Christians (45.7%) (Table 2.3).

**Table 2.3: Distribution of Households by Religion across Blocks**

Religion	Daringbadi		Kotagarh		Phiringia		Raikia		Total	
	No	%	No	%	No	%	No	%	No	%
Hindu	137	39.6	17	18.1	52	100.0	135	99.3	341	54.3
Christian	209	60.4	77	81.9	0	0.0	1	0.7	287	45.7
Total	346	100.0	94	100.0	52	100.0	136	100.0	628	100.0

Source: Field Survey

### 2.3 Poverty Status

Table 2.4 shows that incidence of poverty is very high in surveyed blocks, more than two third of the population live below poverty line (91.4%). And Raikia block is highest among the four blocks with 95.6 per cent.

**Table 2.4: Distribution of Households by Poverty Status across Blocks**

Economic Category	Daringbadi		Kotagarh		Phiringia		Raikia		Total	
	No	%	No	%	No	%	No	%	No	%
BPL	313	90.5	86	91.5	45	86.5	130	95.6	574	91.4
APL	33	9.5	8	8.5	7	13.5	6	4.4	54	8.6
Total	346	100.0	94	100.0	52	100.0	136	100.0	628	100.0

Source: Field Survey

Note: BPL is below poverty line and APL is above poverty line

### 2.4 Economic Activities

Table 2.5 shows that 94.4 per cent HHs are engaged in agriculture activities, 5.7 per cent HH are engaged in non-agricultural activities, 0.8 per cent HHs are engaged in Minor Forest Produce (MFP) and in other activities such as labour, cow grazing and HH activities etc, only 0.5 per cent HHs are engaged in business and 0.3 per cent HHs are service holders. The data revealed that agriculture is the main occupation of HHs in all blocks.



**Table 2.5: Distribution of Households by Economic Activities across Blocks**

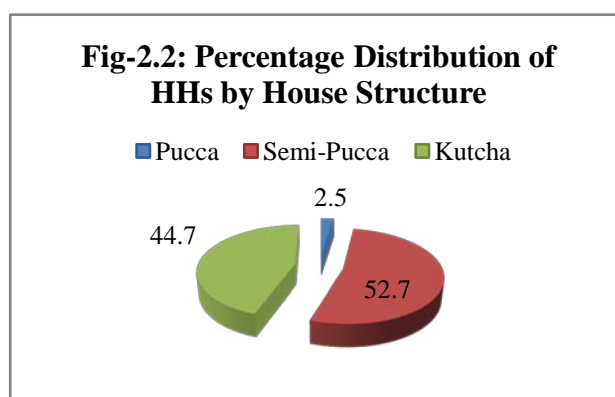
Economic Activity	Daringbadi		Kotagarh		Phiringia		Raikia		Total	
	No	%	No	%	No	%	No	%	No	%
Agriculture	346	100.0	59	62.8	52	100.0	136	100.0	593	94.4
Non- Agricultural Work	1	0.3	33	35.1	0	0.0	2	1.5	36	5.7
Service holder	1	0.3	1	1.1	0	0.0	0	0.0	2	0.3
Business	1	0.3	1	1.1	1	1.9	0	0.0	3	0.5
MFP	2	0.6	3	3.2	0	0.0	0	0.0	5	0.8
Others	1	0.3	0	0.0	0	0.0	4	2.9	5	0.8
<b>Total</b>	<b>346</b>	<b>100.0</b>	<b>94</b>	<b>100.0</b>	<b>52</b>	<b>100.0</b>	<b>136</b>	<b>100.0</b>	<b>628</b>	<b>100.0</b>

Source: Field Survey

Note: Activities total are not additive, as activities are not mutually exclusive

## 2.5 Structure of House

Out of the total surveyed HHs in the district, 2.5 per cent have *pucca* house, 52.7 per cent have *semi-pucca* house and 44.7 per cent have *kutchha* house. From the surveyed blocks, Raikia block only have *pucca* house. The percentage of *kutchha* house is also highest in the same block (Table-2.6).

**Table 2.6: Distribution of Households by House Structure across Blocks**

House Types	Daringbadi		Kotgarh		Phiringia		Raikia		Total	
	No	%	No	%	No	%	No	%	No	%
Pucca	0	0.0	0	0.0	0	0.0	16	11.8	16	2.5
Semi-Pucca	194	56.1	89	94.7	28	53.8	20	14.7	331	52.7
Kutchha	152	43.9	5	5.3	24	46.2	100	73.5	281	44.7
<b>Total</b>	<b>346</b>	<b>100.0</b>	<b>94</b>	<b>100.0</b>	<b>52</b>	<b>100.0</b>	<b>136</b>	<b>100.0</b>	<b>628</b>	<b>100.0</b>

Source: Field Survey

## 2.6 Conclusion

The socio-economic condition of the HHs surveyed indicate that majority are ST population with 83.3 per cent and only 1.1 per cent is from general category. Two religious communities reside there, such as Hindus (54.3%) and Christians (45.7%). 91.4 per cent HHs are from BPL category. Agriculture seems to be their main occupation with other allied activities. The next chapter, Chapter 2, looks into aspects of production and productivity of millets.

## 3 PRODUCTION

### 3.1 Introduction

In this chapter an attempt has been made to understand the status of area, production and productivity of millets, usage of seeds and package of practices in Kandhamal district. These are based on baseline data of 2016-17 from HHs surveyed in Daringbadi, Kotagarh, Phiringia and Raikia, the blocks where OMM has been operational since *kharif* 2017.

### 3.2 Area, Production and Yield

Table-3.1 shows during the year 2016-17 there are four types of millets cultivated in the surveyed blocks of Kandhamal district. These are *ragi*, *jahna*, *kangu* and *suan*. The total production of different types of millets by 592 HHs, covered under the OMM programme is around 411.7 quintals. All 592 HHs have cultivated *Ragi*, locally called as *mandia*. There are different types of *mandia* including *badamandia*, *sana mandia* and *kala mandia* cultivated in the surveyed blocks. Next is *jahna* cultivated by 61 HHs, 46 HHs have cultivated *kangu* and 51 HHs have cultivated *suan*. All HHs have cultivated *ragi*, but all the HHs have not cultivated *suan*, *kangu* and *jahna*. It is observed that out of total cultivated area, *ragi* was cultivated in 163.2 ha of land, *jahna* cultivated in 8.6 ha of land, *kangu* cultivated in 9.2 ha of land and *suan* cultivated in 5.3 ha of land. Table 4.1 shows the area, production and yield rate of different types of millets during 2016-17 before the implementation of OMM.

Out of the total production of 411.7 quintals, the share of *ragi* is highest that is 360.6 quintals (87.6%), 18.2 quintals of *jahna* production (4.4%) and 10.8 quintals of *kangu* production (2.6%) and 22.1 quintals of *suan* production (5.4%). If we see per HH average, millet yield rate in four selected blocks is 0.7 quintal, where average production of *ragi* is 0.6 qtl/HH, *jahna* is 0.3 qtl/HH and *kangu* is 0.2 qtl/HH and *suan* is 0.4 qtl/HH. Per hectare average millet yield rate in four selected blocks is 2.2 qtls/ha, *ragi* was 2.2 qtls/ha, *jahna* was 2.2 qtls/ha, *kangu* was 1.2 qtl/ha and *suan* was 4.2 qtls/ha.

**Table 3.1: Area, Production and Yield Rate of Millets in Kandhamal District**

Millets	HHs		Area		Production		Yield	
	No	%	ha	%	qtl	%	qtl/ha	qtl/HH
Ragi	592	100.0	163.2	87.6	360.6	87.6	2.2	0.6
Jana	61	10.3	8.6	4.6	18.2	4.4	2.2	0.3
Kangu	46	7.8	9.2	5.0	10.8	2.6	1.2	0.2
Suan	51	8.6	5.3	2.8	22.1	5.4	4.2	0.4
<b>Total</b>	<b>592</b>	<b>100.0</b>	<b>186.3</b>	<b>100.0</b>	<b>411.7</b>	<b>100.0</b>	<b>2.2</b>	<b>0.7</b>

Source: Field Survey

Note: The area and production figures are rounded up to the first decimal, and hence, may not add up to all values.

As shown in Table-3.2, it is observed that out of total millets cultivated HHs in Daringbadi block, 346 HHs (all the HHs) have cultivated *ragi*, 37 HHs (10.7%) have cultivated *jahna*, 43 HHs (12.4%) have cultivated *kangu* and 40 HHs (11.6%) have cultivated *suan*.

In case of area cultivated, out of total area which is 87.1 hectares of land, *ragi* was cultivated in 71.6 hectare of land, *jahna* was cultivated in 3.6 hectares of land, *kangu* was cultivated in 8.6 hectares of land and *suan* was cultivated in 3.3 hectares of land.

In case of production, out of total production which is 163.12 quintals, the production of *ragi* was 128.0 quintals, production of *jahna* was 9.78 quintals, production of *kangu* was 10.4 quintals and the production of *suan* was 15.0 quintals.

In case of per hectares yield rate, the total yield was 1.9 qtl/ha, particularly the yield rate of *ragi* was 1.8 qtls/ha, *jahna* was 2.7 qtls/ha, *kangu* was 1.2 qtls/ha and *suan* was 4.7 qtls/ha. Per HH yield rate of millet was 0.5 qtl/HH yield rate of *ragi* was 0.4 qtl/HH, *jahna* was 0.3 qtl/HH, *kangu* was 0.2 qtl/HH and *suan* was 0.4 qtl/HH.

**Table 3.2: Area, Production and Yield Rate of Millets in Daringbadi**

Millets	HHs		Area		Production		Yield	
	No	%	ha	%	qtl	%	qtl/ha	qtl/HH
Ragi	346	100.0	71.6	82.2	128.0	78.5	1.8	0.4
Jana	37	10.7	3.6	4.2	9.8	6.0	2.7	0.3
Kangu	43	12.4	8.6	9.8	10.4	6.4	1.2	0.2
Suan	40	11.6	3.3	3.7	15.0	9.2	4.7	0.4
<b>Total</b>	<b>346</b>	<b>100.0</b>	<b>87.1</b>	<b>100.0</b>	<b>163.1</b>	<b>100.0</b>	<b>1.9</b>	<b>0.5</b>

Source: Field Survey

Note: The area and production figures are rounded up to the first decimal, and hence, may not add up to all values.

Table-3.3 shows that in Kotagarh block, out of total 58 millets cultivated HHs, all the HHs have cultivated *ragi* only and not other millets. *Ragi* was cultivated in 28.7 hectares of land with 64.8 quintals production; per hectare yield rate was 2.2 qtls/ha and per HH yield rate was 1.1 quintal.

**Table 3.3: Area, Production and Yield Rate of Millets in Kotagarh**

Millets	HHs		Area		Production		Yield	
	No	%	ha	%	qtl	%	qtl/ha	qtl/HH
Ragi	58	100.0	28.7	100.0	64.8	100.0	2.2	1.1
Total	58	100.0	28.7	100.0	64.8	100.0	2.2	1.1

Source: Field Survey

Table-3.4, shows that in Phiringia block out of total 52 millets cultivated HHs, all the HHs have cultivated *ragi* and among them 24 HHs have cultivated *jahna* and 9 HHs have cultivated *suan*. In case of area cultivated, out of total area which is 31.6 hectares of land, *ragi* was cultivated in 25.1 hectares of land, *jahna* was cultivated in 4.9 hectares of land and *suan* was cultivated in 1.6 hectares of land. In case of production, out of total production which is 66.8 quintals, production of *ragi* was 51.8 quintals, *jahna* was 8.5 quintals and *suan* was 6.6 quintals. In the context of per hectares yield rate, the total yield was 2.1 quintals, out of which the yield rate of *ragi* was 2 qtls/ha, *jahna* was 1.7 qtl/ha and *suan* was 4 qtls/ha. In case of per HH yield rate of millet was 1.3 qtls/HH, the yield rate of *ragi* was 1.0 qtl/HH, *jahna* was 0.4 qtl/HH and *suan* was 0.7 qtl/HH.

**Table 3.4: Area, Production and Yield Rate of Millets in Phiringia**

Millets	HHs		Area		Production		Yield	
	No	%	ha	%	qtl	%	qtl/ha	qtl/HH
Ragi	52	100.0	25.1	79.2	51.8	77.5	2	1.0
Janha	24	46.2	4.9	15.7	8.5	12.7	1.7	0.4
Suan	9	17.3	1.6	5.1	6.6	9.8	4	0.7
Total	52	100.0	31.6	100.0	66.8	100.0	2.1	1.3

Source: Field Survey

Note: The area and production figures are rounded up to the first decimal, and hence, may not add up to all values.

In Raikia block, Table-3.5, indicates that out of total 136 millets cultivated HHs, all the HHs (100%) have cultivated *ragi*, 3 HHs (2.2%) have cultivated *kangu* and only 2 HHs (1.5 %) have cultivated *suan*. In case of area cultivated, out of total area of 38.6 hectares of land, *ragi* was cultivated in 37.6 hectares of land, *kangu* was cultivated in 0.6 hectares of land and *suan* was cultivated in 0.4 hectares of land. In case of production, out of total production (117.2 quintals), the production of *ragi* was 116.1 quintals, *kangu* production was 0.5 quintal and production of *suan* was 0.6 quintal. In the case of yield, the total per hectare yield of millet was 3.1 qtls/ha, out of which productivity of *ragi* was 3.2 qtls/ha, *kangu* was 0.7 qtl/ha and *suan* was 1.5 qtls/ha. The per HH yield rate of millet was 0.9 qtl/HH, out of which per HH yield rate of *ragi* was 0.9 qtl/HH, *kangu* was 0.2 qtl/HH and *suan* was 0.3 qtl/HH.

**Table 3.5: Area, Production and Yield Rate of Millets in Raikia**

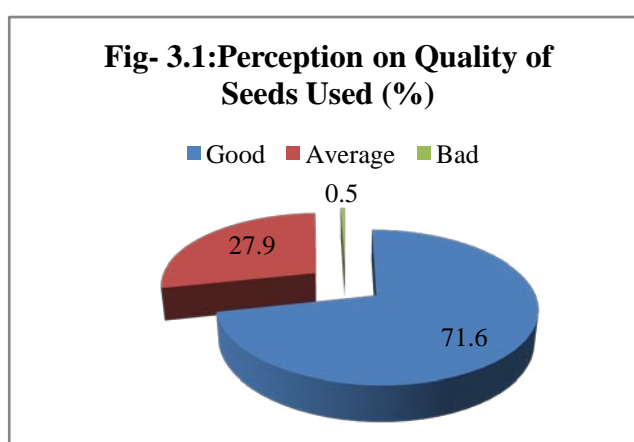
Millets	HHs		Area		Production		Yield	
	No	%	ha	%	qtl	%	qtl/ha	qtl/HH
Ragi	136	100.0	37.6	97.3	116.1	99.1	3.2	0.9
Jahna	0	0.0	0	0.0	0.0	0.0	0.0	0.0
Kangu	3	2.2	0.6	1.7	0.5	0.4	0.7	0.2
Suan	2	1.5	0.4	1.0	0.6	0.5	1.5	0.3
Total	136	100.0	38.6	100.0	117.2	100.0	3.1	0.9

Source: Field Survey

Note: The area and production figures are rounded up to the first decimal, and hence, may not add up to all values.

### 3.3 Perception on Quality of Seeds Used

All the HHs have provided response about the quality of seed used in their fields for millet cultivation. It is observed that out of total millet cultivators, 424 HHs used good quality seeds, 165 HHs used average quality seeds and 3 HHs have used bad quality seeds for millet cultivation (Table-3.6).

**Table 3.6: Perception of Respondents regarding Quality of Seeds Used**

Seed Quality	Daringbadi		Kotgarh		Phiringia		Raikia		Total	
	No	%	No	%	No	%	No	%	No	%
Good	318	91.9	14	24.1	52	100.0	40	29.4	424	71.6
Average	25	7.2	44	75.9	0	0.0	96	70.6	165	27.9
Bad	3	0.9	0	0.0	0	0.0	0	0.0	3	0.5
Total	346	100.0	58	100.0	52	100.0	136	100.0	592	100.0

Source: Field Survey

Note: The area and production figures are rounded up to the first decimal, and hence, may not add up to all values.

### 3.4 Package of Practices

Table-3.7 shows different agronomic practices used by farmers in the surveyed blocks of Kandhamal such as broadcasting, line sowing, transplanting, SMI method. Out of the total surveyed HHs, all HHs have cultivated *ragi* in 163.2 hectares of land. Out of them, 447 HHs have used broadcasting method in 119.1 hectares of land with production of 242.3 quintals with the yield rate 2 qtls/ha, 86 HHs have used line sowing method in 20.6 ha of land with production of 61.5 quintals with the yield rate of 3 qtls/ha, 23 HHs

have used transplanting method in 4.4 ha of land with production of 18.2 quintals with the yield rate of 4.2 qtls/ha, 3 HHs have used SMI method in 0.6 ha of land with 2.6 quintals production with yield rate of 4.2 qtls/ha.

**Table 3.7: Package of Practices for Ragi Cultivation in Kandhamal**

Package of practice	HHs		Area		Production		Yield
	No	%	ha	%	qtl	%	qtl/ha
Broadcasting	447	75.5	119.1	73.0	242.3	67.2	2.0
Line Showing	86	14.5	20.6	12.6	61.5	17.0	3.0
Transplant	23	3.9	4.4	2.7	18.2	5.0	4.2
SMI method	3	0.5	0.6	0.4	2.6	0.7	4.2
Multiple Methods	33	5.6	18.4	11.3	36.0	10.0	1.9
<b>Total</b>	<b>592</b>	<b>100.0</b>	<b>163.2</b>	<b>100.0</b>	<b>360.6</b>	<b>100.0</b>	<b>5.4</b>

Source: Field Survey

Note: The area and production figures are rounded up to the first decimal, and hence, may not add up to the total values across package of practices

The total HHs cultivating *jahna* is 61 in 8.6 hectares of land with 18.3 quintals production with 2.1 quintals of yield rate. Among them, 53 HHs have adopted broadcasting method in 6.7 hectares of land with production of 13.3 quintals and yield rate was 2 qtls/ha, 7 HHs have cultivated through line sowing in 1.6 hectares of land with production 4.8 quintals and yield rate was 3 qtls/ha and only 1 HH has used both broadcasting and line transplanting method in 0.2 hectares of land with production 0.2 quintal and yield rate 1 qtl/ha in surveyed blocks (Table-3.8).

**Table 3.8: Package of Practices for Jahna Cultivation in Kandhamal**

Package of practice	HHs		Area		Production		Yield
	No	%	ha	%	qtl	%	qtl/ha
Broadcasting	53	86.9	6.7	78.8	13.3	72.9	2.0
Line Showing	7	11.5	1.6	18.8	4.8	26.0	3.0
Multiple Methods	1	1.6	0.2	2.4	0.2	1.1	1.0
<b>Total</b>	<b>61</b>	<b>100.0</b>	<b>8.6</b>	<b>100.0</b>	<b>18.3</b>	<b>100.0</b>	<b>2.1</b>

Source: Field Survey

Note: The area and production figures are rounded up to the first decimal, and hence, may not add up to the total values across package of practices

Out of the total surveyed HHs, 46 HHs have cultivated *kangu* in 9.2 hectares of land with 10.8 quintals production with the yield rate of 1.2 qtls/ha in the surveyed blocks (Table-3.9).

**Table 3.9: Package of Practices for Kangu Cultivation in Kandhamal**

Package of practice	HHs		Area		Production		Yield
	No	%	ha	%	qtl	%	qtl/ha
Broadcasting	46	100.0	9.2	100.0	10.8	100.0	1.2
<b>Total</b>	<b>46</b>	<b>100.0</b>	<b>9.2</b>	<b>100.0</b>	<b>10.8</b>	<b>100.0</b>	<b>1.2</b>

Source: Field Survey

Out of the total surveyed HHs, 51 HHs have cultivated *suan* in 5.2 hectares of land with 22.1 quintals production and 4.2 quintals yield rate. Among them, 43 HHs have adopted broadcasting method in 3.8 hectares of land with production 16.7 quintals and yield rate was 4.2 qtls/ha, 5 HHs have cultivated through line sowing in 1.1 hectares of land with production 4.3 quintals and yield rate was 3.7 qtls/ha, only 1 HH has used SMI method in 0.2 hectares of land with production of 0.2 quintal and yield rate was 1 qtl/ha, 2 HHs have adopted both line sowing and SMI method in 0.1 hectares of land with production of 1 quintal and yield rate 12.5 qtls/ha in surveyed blocks (Table-3.10).

**Table-3.10: Package of Practices for Suan Cultivation in Kandhamal district**

Package of practice	HHs		Area		Production		Yield	
	No	%	ha	%	qtl	%	qtl/ha	
Broadcasting	43	84.3	3.8	73.5	16.7	75.4	4.2	
Line Showing	5	9.8	1.1	21.1	4.3	19.2	3.7	
SMI method	1	2.0	0.2	3.8	0.2	0.9	1	
All Method	2	3.9	0.1	1.5	1.0	4.5	12.5	
Total	51	100.0	5.2	100.0	22.1	100.0	4.2	

Source: Field Survey

Note: The area and production figures are rounded up to the first decimal, and hence, may not add up to the total values across package of practices

### 3.5 Conclusion

Four types of millets, viz *ragi*, *jahna*, *kangu* and *suan* were cultivated in Kandhamal during the period covered under baseline survey, 2016-17. The predominant crop grown is *ragi*. Majority of the HHs (71.6%) perceived the seed quality they used to be good. Most of the HHs cultivated millets through broadcasting and some by line sowing or transplantation. Only 4 HHs have adopted SMI method in Kandhamal for the period covered under baseline survey in the surveyed blocks. In the next chapter we discuss consumption of millets.

## 4 CONSUMPTION

### 4.1 Introduction

In this chapter an attempt has been made to assess consumption of millets across seasons, consumption of millets during different meals of the day, and on different types of millet recipes/items consumed by the HHs surveyed.

### 4.2 Consumption during different Meals of the Day

From the total surveyed HHs, it is observed that around 60.7 per cent HHs consume millet items in their breakfast, 87.4 per cent HHs consume millet items in their lunch, 36 per cent HHs take millets as evening snacks and only 4.3 per cent HHs consume millet items in their dinner as shown in Table-4.1.

**Table 4.1: Millets Consumption during different Meals in a Day**

Food Pattern	Daringbadi		Kotgarh		Phiringia		Raikia		Total	
	No	%	No	%	No	%	No	%	No	%
Breakfast	131	37.9	90	95.7	30	57.7	130	95.6	381	60.7
Lunch	319	92.2	93	98.9	39	75.0	98	72.1	549	87.4
Evening snacks	36	10.4	84	89.4	0	0.0	106	77.9	226	36.0
Dinner	23	6.6	0	0.0	0	0.0	4	2.9	27	4.3
Total	346	100.0	94	100.0	52	100.0	136	100.0	628	100.0

Source: Field Survey

Note : Column totals are not additions across meals, as a household can consume millets during all meals of the day.

### 4.3 Season-wise Consumption

Table 4.2 shows that the consumption of millet is more in summer season than rainy and winter seasons. During summer season the availability of other food items reduce and consumption of millets in this situation help them quench hunger and thirst and is also considered as energy giving food.

**Table 4.2: Season-wise Consumption of Millets**

Food Pattern	Daringbadi		Kotgarh		Phiringia		Raikia		Total	
	No	%	No	%	No	%	No	%	No	%
Summer	345	99.7	94	100.0	52	100.0	136	100.0	627	99.8
Rainy	19	5.5	48	51.1	26	50.0	127	93.4	220	35.0
Winter	40	11.6	12	12.8	16	30.8	99	72.8	167	26.6
Total	346	100.0	94	100.0	52	100.0	136	100.0	628	100.0

Source: Field Survey

Note : Column totals are not additions across seasons, as a household can consume millets in all seasons.



#### 4.4 Millet Recipes Consumed

In the surveyed blocks people are consuming millets in different forms, like porridge, bread, cake, snacks, steamed goods and beverage. It is observed that 71.7 per cent HHs consumes millets as porridge, locally called as *jau* or ‘mandiajau’ (*ragi* porridge). 54.1 per cent HHs consume millet in the form of cake or bread. Basically finger millet is used to make flat bread and cake called *pitha*. 24.2 percent HHs consume millets in the form of *tampo*. It is a semi liquid recipe prepared by adding sugar, jaggery, coconut chips, etc. People of all ages particularly children prefer this recipe more compared to other locally made millet items. Another popular millet recipe is *mandia torani*, prepared by adding water in the cooked finger millet. It is a common food for 82 per cent HHs of surveyed blocks and 1.6 per cent HHs consume millet in the form of *millet beer* locally called as *handia* (Table-4.3)

**Table 4.3: Consumption of Millet Recipes**

Millet Recipes	Daringbadi		Kotgarh		Phiringia		Raikia		Total	
	No	%	No	%	No	%	No	%	No	%
Jau	245	70.8	84	89.4	0	0.0	121	89.0	450	71.7
Pitha	101	29.2	86	91.5	18	34.6	135	99.3	340	54.1
Tampo	17	4.9	6	6.4	0	0.0	129	94.9	152	24.2
MandiaTorani	313	90.5	90	95.7	52	100.0	60	44.1	515	82.0
Handia	9	2.6	1	1.1	0	0.0	0	0.0	10	1.6
<b>Total</b>	<b>346</b>	<b>100.0</b>	<b>94</b>	<b>100.0</b>	<b>52</b>	<b>100.0</b>	<b>136</b>	<b>100.0</b>	<b>628</b>	<b>100.0</b>

**Source: Field Survey**

Note: Column totals are not additions across recipes, as a household can prepare all recipes.

#### 4.5 Conclusion

Millets are consumed across all seasons, but relatively more in summer. There are different recipes that are popular and millets are consumed at all meal times. The next chapter looks into processing and marketing of millets.

## 5 PROCESSING AND MARKETING

### 5.1 Introduction

This chapter looks into processing of millets by traditional manual methods and by machines, and the mode by which millets are sold. It also attempts to understand whether the machines for processing millets are accessible or not.

### 5.2 Processing Units

There are two ways by which millet is being processed for consumption, manually and through machine. Table-5.1 shows that 52.4 per cent HHs process millets manually using an instrument called *Chaki*. 35.0 per cent HHs process millet by using machine, 12.6 per cent HHs process using both manual and machine.

**Table 5.1: Method of Processing of Millets**

Processing Units	Daringbadi		Kotgarh		Phiringia		Raikia		Total	
	No	%	No	%	No	%	No	%	No	%
Manually	116	33.5	88	93.6	31	59.6	94	69.1	329	52.4
Machine	168	48.6	0	0.0	14	26.9	38	27.9	220	35.0
Both	62	17.9	6	6.4	7	13.5	4	2.9	79	12.6
Total	346	100.0	94	100.0	52	100.0	136	100.0	628	100.0

Source: Field Survey

Table-5.2 shows that 91 per cent HHs depend on other pulveriser, but those units are very far from their own villages. Only 9.0 per cent HHs use own machine for the processing millets.

**Table 5.2: Availability and Accessibility of Processing Unit**

Processing units	Daringbadi		Kotgarh		Phiringia		Raikia		Total	
	No	%	No	%	No	%	No	%	No	%
Own machine	18	7.8	1	16.7	7	33.3	1	2.4	27	9.0
In other pulveriser	212	92.2	5	83.3	14	66.7	41	97.6	272	91.0
Total	230	100.0	6	100.0	21	100.0	42	100.0	299	100.0

Source: Field Survey

### 5.3 Accessibility to Processing Unit

It is observed that 60.3 per cent HHs are able to access processing unit within 10 km distance. 38.6 per cent can access within 11-20 km distance and 1.1 per cent use machine, which is more than 20 km distance from their village shown in Table 5.3.

**Table 5.3: Distance to Access Processing Unit**

Distance	Daringbadi		Kotgarh		Phiringia		Raikia		Total	
	No	%	No	%	No	%	No	%	No	%
0-10 Km	126	59.4	3	60.0	2	14.3	33	80.5	164	60.3
11-20 Km	86	40.6	2	40.0	12	85.7	5	12.2	105	38.6
20 Km Above	0	0.0	0	0.0	0	0.0	3	7.3	3	1.1
<b>Total</b>	<b>212</b>	<b>100.0</b>	<b>5</b>	<b>100.0</b>	<b>14</b>	<b>100.0</b>	<b>41</b>	<b>100.0</b>	<b>272</b>	<b>100.0</b>

Source: Field Survey

## 5.4 Marketing

Table 5.4 shows that 51 HHs sold their millets to mill owner, 12 HHs sold to middlemen, 67 HHs sold to local traders, 52 HHs sold in weekly market and highest 82 HHs sold their millets to the money lenders.

**Table 5.4: Distribution of Households by Mode of Selling Millets across Blocks**

Blocks	Mill -Owner		Middleman		Local Trader		Weekly-Hat		Money-Lender		Total	
	No	%	No	%	No	%	No	%	No	%	No	%
Daringbadi	27	52.9	7	58.3	8	11.9	45	86.5	3	3.7	67	30.3
Kotgarh	1	2.0	0	0.0	46	68.7	0	0.0	1	1.2	47	21.3
Phiringia	1	2.0	0	0.0	4	6.0	2	3.8	32	39.0	38	17.2
Raikia	22	43.1	5	41.7	9	13.4	5	9.6	46	56.1	69	31.2
<b>Total</b>	<b>51</b>	<b>100.0</b>	<b>12</b>	<b>100.0</b>	<b>67</b>	<b>100.0</b>	<b>52</b>	<b>100.0</b>	<b>82</b>	<b>100.0</b>	<b>221</b>	<b>100.0</b>

Source: Field Survey

Note: The row totals are not additions across mode of selling millets, as a household can sell in multiple ways

## 5.5 Conclusion

Before implementation of OMM, more than 60 per cent HHs could access the processing machine within 10 kms. Because it is not easily accessible, they are bound to process their millets manually at home with traditional equipment called *chakki* locally known as *ghuruna*. The farmers sold their millets in multiple ways such as weekly haat, local trader, mill owner, middle man and money lenders.

## 6 MAJOR FINDINGS

- \$6.1** Agriculture is one of the important economic activities of almost all HHs (94.4%) in the study area. Across blocks, it is as follows: 100 percent in Daringbadi, Phiringia and Raikia and 62.8 per cent in Kotagarh.
- \$6.2** The total production of millets is 411.7 quintals, of which *ragi* is 360.6 quintals, *jahna* is 18.2 quintals, *kangu* is 10.8 quintals and *suan* is 22.1 quintals.
- \$6.3** The yield of millets is 2.2 qtls/ha. Across millet crops, the yield of *ragi* is 2.2 qtls/ha, the yield of *jahna* is 2.2 qtls/ha, the yield of *kangu* is 1.2 qtl/ha and *suan* is 4.2 qtls/ha.
- \$6.4** The HHs were using locally available seeds in the study area.
- \$6.5** Only 4 HHs were found to have adopted SMI method during the baseline survey.
- \$6.6** Millets are consumed in all seasons and in all meals during the day.



ସଂଯୁକ୍ତ ଗୃହ - ୧

## ଓଡ଼ିଶାର ଆଦିବାସୀ ଅଞ୍ଚଳରେ କ୍ଷୁଦ୍ରଶିକ୍ଷା ବିକାଶ ନିମିତ୍ତ ସ୍ୱତନ୍ତ୍ର କାର୍ଯ୍ୟକ୍ରମ ପରିବାର ସମ୍ବନ୍ଧୀୟ ପ୍ରଶ୍ନାବଳୀ

୧. ପରିବାରର ଚିହ୍ନଟ: ସାଙ୍କେତିକ ସଂଖ୍ୟା:
- (କ) ଚାଷୀଙ୍କ ନାମ: \_\_\_\_\_  
ଉତ୍ତରଦାତାଙ୍କ ନାମ: \_\_\_\_\_
- (ଖ) ଗ୍ରାମ: \_\_\_\_\_ ଗ୍ରାମପଞ୍ଚାୟତ: \_\_\_\_\_ ବ୍ଲକ: \_\_\_\_\_ ଜିଲ୍ଲା: \_\_\_\_\_
- (ଗ) ବର୍ଗ: (i) ହରିଜନ (ii) ଆଦିବାସୀ (iii) ଅନ୍ୟାନ୍ୟ ପଛଆବର୍ଗ (iv) ସାମାଜିକ ଏବଂ ଆର୍ଥିକ ଅନଗ୍ରସର ଶ୍ରେଣୀ  
(v) ସାଧାରଣ (ଉଲ୍ଲେଖକର)
- (ଘ) ଉପଜାତି (ଉଲ୍ଲେଖକର) \_\_\_\_\_
୬. ଧର୍ମ: (i) ହିନ୍ଦୁ (ii) ମୁସଲମାନ (iii) ଖ୍ରୀଷ୍ଟିଆନ (iv) ଅନ୍ୟାନ୍ୟ (ଉଲ୍ଲେଖକର)
- (ଚ) ବି. ପି. ଏଲ ଶ୍ରେଣୀରେ ଅନ୍ତର୍ଭୁକ୍ତ କି? ହଁ/ ନା
- (ଛ) ଘରର ପ୍ରକାର ଏବଂ କୋଠା ସଂଖ୍ୟା: ପଟ୍ଟା- \_\_\_\_\_ ଆଶିକପଟ୍ଟା \_\_\_\_\_ - ମାଟି- \_\_\_\_\_
୨. ସରକାରଙ୍କ କ୍ଷୁଦ୍ରଶିକ୍ଷା ମିଶନରେ ଭାଗୀଦାର ଅଛନ୍ତି କି? ହଁ/ ନା
୩. ପରିବାରର ମୋଟ ସଦସ୍ୟଙ୍କ ସଂଖ୍ୟା: \_\_\_\_\_

ଲିଙ୍ଗ	ବୟସବର୍ଗ (ବର୍ଷରେ)		
	୧୪ ବର୍ଷ ପର୍ଯ୍ୟନ୍ତ	୧୫-୨୦ ବର୍ଷ ମଧ୍ୟରେ	୨୦ ବର୍ଷରୁ ଊର୍ଦ୍ଧ୍ୱ
ମହିଳା			
ପୁରୁଷ			

୪. ପରିବାରର ଅର୍ଥନୈତିକ କାର୍ଯ୍ୟକ୍ରମ (ଗତବର୍ଷ):
- (କ) ଚାଷ/ଆନୁସଂଗିକ କାର୍ଯ୍ୟ/ ଚାକିରୀ (ସରକାରୀ/ଘରୋଇ)/ବ୍ୟବସାୟ/ଜଙ୍ଗଲଜାତ ଦ୍ରବ୍ୟ ସଂଗ୍ରହ/ଅନ୍ୟାନ୍ୟ (ଉଲ୍ଲେଖକର)
- (ଖ) ପରିବାରର ଆନୁମାନିକ ବାର୍ଷିକ ଆୟ (ଟଙ୍କାରେ): \_\_\_\_\_
୫. ଆପଣ କୌଣସି ଠାରୁ ଋଣ କରିଛନ୍ତି କି? ହଁ/ ନା
- ଯଦି ହଁ, କେତେ ଟଙ୍କା ----- କେଉଁ ସଂସ୍ଥାରୁ ଆଣିଛନ୍ତି? -----
୬. ମୋଟ ଜମିର ପରିମାଣ (ଗତବର୍ଷ) (ହେକ୍ଟରରେ):
- (କ) ନିଜସ୍ୱ-----ସ୍ଥାନୀୟ ଏକକ-----
- (ଖ) ଚାଷ କରିଥିବା ଜମିର ପରିମାଣ (ସ୍ଥାନୀୟ ଏକକରେ) -----
- (ଗ) ମୋଟ ଜଳସେଚିତ ଜମିର ପରିମାଣ (ସ୍ଥାନୀୟ ଏକକରେ) -----
୭. କ୍ଷୁଦ୍ରଶିକ୍ଷା କିପରି ଚାଷ କରିଥିଲେ? (କ) କେବଳ ଗୋଟିଏ ଶସ୍ୟ (ଖ) ଅନ୍ୟଶସ୍ୟ ସହିତ (ଅନ୍ୟଶସ୍ୟର ନାମଲେଖ)
୮. ବିହନର ବ୍ୟବହାର (ଗତବର୍ଷ)
- (କ) ବ୍ୟବହାର କରିଥିବା ବିହନର ପରିମାଣ (କିଲୋଗ୍ରାମରେ) -----
- (ଖ) ବିହନର ପରିମାଣ ଯଥେଷ୍ଟ ଥିଲା କି? ହଁ/ ନା
- (ଗ) ବିହନକୁ ବିଶୋଧନ କରିଥିଲେ କି? ହଁ/ ନା
- (ଘ) ବିହନର ମାନ କିପରି ଥିଲା? i) ଭଲ ii) ସାଧାରଣ iii) ଖରାପ

୯. କ୍ଷୁଦ୍ରଶିକ୍ଷାପ୍ରଣାଳୀ(ଗତବର୍ଷ)

ଗଣ ପ୍ରଣାଳୀ	ଠିକ୍ ଚିହ୍ନ ଦିଅନ୍ତୁ	ଗଣ ପ୍ରଣାଳୀ	ଠିକ୍ ଚିହ୍ନ ଦିଅନ୍ତୁ
ଅକ୍ଷରୋତ୍ସୁମ ପରୀକ୍ଷଣ		ମେସିନ୍ ସ୍ଵାରାଘାସବନ୍ଧା	
ଛଟାବୁଣା		କେତେଥର ଘାସବନ୍ଧା ହୋଇଥିଲା(ସଂଖ୍ୟାରେ)	
ଧାଡ଼ିବୁଣା		ଜୈବିକ ସାରର ବ୍ୟବହାର	
ରୁଆ		ଜୈବିକ କୀଟନାଶକର ବ୍ୟବହାର	
ଏସ.ଏମ.ଆଇ ପ୍ରଣାଳୀ		ରାସାୟନିକ ସାରର ବ୍ୟବହାର	
ହାତରେ ଘାସବନ୍ଧା		ରାସାୟନିକ କୀଟନାଶ କରବ୍ୟବହାର	

୧୦ .କ୍ଷୁଦ୍ରଶିକ୍ଷାପ୍ରଣାଳୀ(ଗତବର୍ଷ)

କ୍ଷୁଦ୍ରଶିକ୍ଷା ପ୍ରକାର	କେତେ ଜମିରେ ହୋଇଥିଲା (ଏକରରେ)	ମୋଟଉତ୍ପାଦନ (କିଣ୍ଟାଲରେ)	ଘରେ ବ୍ୟବହୃତ (କିଣ୍ଟାଲରେ)	ବିହନପାଇଁରଖିଥିବା ପରିମାଣ (କିଲୋଗ୍ରାମରେ)	ବିକ୍ରିକରିଥିବା ପରିମାଣ (କିଣ୍ଟାଲରେ)	ମୂଲ୍ୟ (କିଣ୍ଟାଲପିଛା/ଟଙ୍କାରେ)

୧୧. ଗତବର୍ଷ ଆପଣଙ୍କ ଘରେ କ୍ଷୁଦ୍ରଶିକ୍ଷା ପରିମାଣ ଯଥେଷ୍ଟ ଥିଲା କି? ହଁ/ ନା

(କ) ହାରାହାରି ବାର୍ଷିକ ବ୍ୟବହୃତ ପରିମାଣ ----- ଖ) ହାରାହାରି ବାର୍ଷିକ ଆବଶ୍ୟକତା-----

୧୨. କେଉଁ ସମୟରେ କ୍ଷୁଦ୍ରଶିକ୍ଷା ବ୍ୟବହାର କରିଥାଆନ୍ତି? i) ସକାଳେ ii) ଖରାବେଳେ iii) ସଂଧ୍ୟାବେଳେ iv) ରାତିରେ

୧୩. କେଉଁ ଋତୁରେ କ୍ଷୁଦ୍ରଶିକ୍ଷା ବ୍ୟବହାର କରିଥାଆନ୍ତି? i) ଗ୍ରୀଷ୍ମଋତୁ ii) ବର୍ଷାଋତୁ iii) ଶୀତଋତୁ

୧୪. ଆବଶ୍ୟକ ପଡ଼ିଲେ କେଉଁଠାରୁ କ୍ଷୁଦ୍ରଶିକ୍ଷା କିଣିଥାଆନ୍ତି?

i) ବାହାରୁ ii) ପଡୋଶୀ/ ସାଙ୍ଗସାଥୀ/ ସମ୍ପର୍କୀୟଠାରୁ iii) ଅନ୍ୟାନ୍ୟ(ଉଲ୍ଲେଖକର)

୧୫. ଆପଣ କ୍ଷୁଦ୍ରଶିକ୍ଷାକୁ କିପରି ପ୍ରସ୍ତୁତ କରନ୍ତି? i) ହାତରେ ii) ମେସିନ୍ ସାହାଯ୍ୟରେ

ଯଦି ଉତ୍ତର, ମେସିନ୍ ସାହାଯ୍ୟରେ ହୋଇଥାଏ ? ନିଜର ମେସିନ୍ ଅଛି କି? ହଁ/ ନା

୧୬. ଆପଣ କ୍ଷୁଦ୍ରଶିକ୍ଷାରେ କିପ୍ରକାରର ଖାଦ୍ୟ ପ୍ରସ୍ତୁତ କରିଥାଆନ୍ତି ?

ଜାଉ-୧, ପିଠା-୨, ତମ୍ପୋ-୩, ମାଣ୍ଡିଆ-ତୋରାଣୀ-୪, ହାଣ୍ଡିଆ-୫, ଅନ୍ୟାନ୍ୟ (ଉଲ୍ଲେଖକର)-୬

୧୭. ମହିଳାମାନେ କ୍ଷୁଦ୍ରଶିକ୍ଷା ପ୍ରସ୍ତୁତ କରିବାରେ କିଛି ଅସୁବିଧାର ସମ୍ମୁଖୀନ ହେଉଛନ୍ତିକି? ହଁ/ ନା

୧୮. କ୍ଷୁଦ୍ରଶିକ୍ଷା ବିକ୍ରୟ ପ୍ରଣାଳୀ:

i) ମିଳ୍ଲମାଲିକଙ୍କୁ ii) ମଧ୍ୟସ୍ଥଙ୍କୁ iii) ସ୍ଥାନୀୟ ବ୍ୟବସାୟୀଙ୍କୁ iv) ବଜାର v) ହାଟରେ/ସାହୁକାରଙ୍କୁ vi) ଅନ୍ୟାନ୍ୟ(ଉଲ୍ଲେଖକର)

୧୯. ବିକ୍ରୟସ୍ଥାନ ଏବଂ ଗ୍ରାମ ମଧ୍ୟରେ ଦୂରତ୍ଵ (କିଲୋମିଟରରେ)

ତଦନ୍ତକାରୀଙ୍କ ସ୍ଵାକ୍ଷର



ସଂଯୁକ୍ତ ଗୃହ - ୨

ନବକୃଷ୍ଣ ଚୌଧୁରୀ ଉନ୍ନୟନ ଗବେଷଣା କେନ୍ଦ୍ର ଭୁବନେଶ୍ୱର

ଗୋପନୀୟ, କେବଳ ଗବେଷଣା ନିମିତ୍ତ

ଓଡ଼ିଶାର ଆଦିବାସୀ ଅଞ୍ଚଳରେ କ୍ଷୁଦ୍ରଶସ୍ୟର ବିକାଶ ନିମିତ୍ତ ସ୍ୱତନ୍ତ୍ର କାର୍ଯ୍ୟକ୍ରମ

ଗୋଷ୍ଠୀ ଏବଂ ଦଳ ମାନଙ୍କ ସହିତ ଆଲୋଚନା

ଗ୍ରାମ: \_\_\_\_\_ ଗ୍ରାମପଞ୍ଚାୟତ: \_\_\_\_\_  
 ବ୍ଲକ: \_\_\_\_\_ ଜିଲ୍ଲା: \_\_\_\_\_  
 ତାରିଖ: \_\_\_\_\_ ସମୟ: \_\_\_\_\_

୧. ଆଲୋଚନାରେ ଅଂଶଗ୍ରହଣ କରିଥିବା ବ୍ୟକ୍ତି ମାନଙ୍କ ତଥ୍ୟାବଳୀ:

କ୍ରମ .	ନାମ	ଲିଙ୍ଗ	ବୟସ	ଜାତି/ଗୋଷ୍ଠୀ	ଶିକ୍ଷା	ବୃତ୍ତି	ସ୍ୱାକ୍ଷର/ଟିପଚିହ୍ନ

ବି. ଦ୍ର: ଗ୍ରାମମୁଖ୍ୟ, ଗ୍ରାମର ଶିକ୍ଷିତ ବ୍ୟକ୍ତି, ପଞ୍ଚାୟତର ନିର୍ବାଚିତ ସଭ୍ୟ, କ୍ଷୁଦ୍ରଶସ୍ୟ ଚାଷୀ ଏବଂ ଅନ୍ୟାନ୍ୟ ପ୍ରମୁଖ ତଥ୍ୟ ପ୍ରଦାନକାରୀ

### ବିଭାଗ-୧: କ୍ଷୁଦ୍ରଶସ୍ୟର ଉତ୍ପାଦନ

୧. ଗ୍ରାମର କେତେ ଘର କ୍ଷୁଦ୍ରଶସ୍ୟ ଚାଷ କରନ୍ତି :

ମାଣ୍ଡିଆ,  ଶୁଆଁ  କାଙ୍ଗୁ  କୋଦୋ,  ଅନ୍ୟାନ୍ୟ ଉଲ୍ଲେଖକର

୨. କ୍ଷୁଦ୍ରଶସ୍ୟ ଚାଷର ପରିବର୍ତ୍ତନ:

ସୂଚୀ	ପୂର୍ବରୁ	ଗତବର୍ଷ
ଜମିର ପରିମାଣ (ଏକରରେ)		
କିସମ		
ଅଧିକ ଅମଳକ୍ଷମ		
ପାରମ୍ପରିକ		
ଚାଷପ୍ରଣାଳୀ		
ଛତାବୁଣା		
ଧାଡ଼ିବୁଣା		
ଏସ.ଏମ.ଆଇ		
ବନ୍ଧାବନ୍ଧି (ଲୋକମାନଙ୍କଦ୍ୱାରା)		

ବଛାବଛି (ମେସିନ୍ ସାହାଯ୍ୟରେ)		
କେତେଥର ବାଛି		
କେଉଁ ଖତସାର ବ୍ୟବହାର କରନ୍ତି (କମ୍ପୋଷ୍ଟଖତ)		
ରାସାୟନିକସାର		
କ୍ଷୁଦ୍ରଶସ୍ୟ ବୁଣାଠାରୁ ଅମଳ ପର୍ଯ୍ୟନ୍ତ କେତେ ସମୟ ଲାଗେ(ଦିନ)		
କେଉଁ ରତ୍ନରେ		
ଖରିଫ ରତ୍ନ		
ରବି ରତ୍ନ		
ସମର ରତ୍ନ		
ଅମଳର ମାତ୍ରା (ହେକ୍ଟରପିଛାକୁ୍ୟୁଣ୍ଡାଲରେ)		
ପ୍ରକାର-୧		
ପ୍ରକାର-୨		

### ବିଭାଗ:- ୨ (କ୍ଷୁଦ୍ରଶସ୍ୟର ବ୍ୟବହାର)

୧. କ୍ଷୁଦ୍ରଶସ୍ୟ ସମ୍ପର୍କିତ ପାରମ୍ପରିକ ଉତ୍ପାଦନ କିଛି କରାଯାଏ କି? ହଁ/ ନା  
ଯଦି ହଁ: ୧) ପାରମ୍ପରିକ ଉତ୍ପାଦନ, ୨. ବିହନ ବଦଳ, ୩. ବିଭିନ୍ନ ପ୍ରକାରର ଖାଦ୍ୟପ୍ରସ୍ତୁତି, ୪. ପ୍ରଦର୍ଶନୀ କିମ୍ବା ମେଳାର ଆୟୋଜନ
୨. କେଉଁ ମାସ/ରତ୍ନରେ କ୍ଷୁଦ୍ରଶସ୍ୟର ଅଧିକ ବ୍ୟବହାର କରାଯାଇ ଥାଏ? ମାସ \_\_\_\_\_ ରତ୍ନ \_\_\_\_\_  
କାରଣ କଣ - ଉଲ୍ଲେଖକର
୩. କ୍ଷୁଦ୍ରଶସ୍ୟରୁ ପ୍ରସ୍ତୁତ ଖାଦ୍ୟକୁ ଅଜ୍ଞାନତା ମାନଙ୍କରେ ଦିଆଯିବା ପାଇଁ ଆପଣ ଚାହୁଁଛନ୍ତି କି? ହଁ/ ନା  
ଯଦି ହଁ, କାରଣ କଣ ଉଲ୍ଲେଖକର
୪. କ୍ଷୁଦ୍ରଶସ୍ୟରୁ ପ୍ରସ୍ତୁତ ଖାଦ୍ୟକୁ ବିଦ୍ୟାଳୟ ମାନଙ୍କରେ ଦିଆଯିବାପାଇଁ ଆପଣ ଚାହୁଁଛନ୍ତି କି? ହଁ/ ନା  
ଯଦି ହଁ, କାରଣ କଣ ଉଲ୍ଲେଖକର
୫. କ୍ଷୁଦ୍ରଶସ୍ୟରୁ ପ୍ରସ୍ତୁତ ଖାଦ୍ୟକୁ ଛାତ୍ରାବାସ ମାନଙ୍କରେ ଦିଆଯିବା ପାଇଁ ଆପଣ ଚାହୁଁଛନ୍ତି କି? ହଁ/ ନା  
ଯଦି ହଁ, କାରଣକଣ ଉଲ୍ଲେଖକର
୬. କ୍ଷୁଦ୍ରଶସ୍ୟକୁ ସହାୟକମୂଲ୍ୟ କେନ୍ଦ୍ରମାନଙ୍କରେ ଲୋକମାନଙ୍କୁ ବିତରଣ କରାଯିବାପାଇଁ ଆପଣ ଚାହୁଁଛନ୍ତି କି? ହଁ/ ନା  
ଯଦି ହଁ, କାରଣକଣ ଉଲ୍ଲେଖକର

### ବିଭାଗ: ୩ – କ୍ଷୁଦ୍ରଶସ୍ୟର ପ୍ରସ୍ତୁତିପ୍ରଣାଳୀ

୧. ସାଧାରଣତଃ ଲୋକମାନେ କିପରି କ୍ଷୁଦ୍ରଶସ୍ୟକୁ ପ୍ରକ୍ରିୟା କରନ୍ତି\* ?
୨. କେତେ ପରିବାର କ୍ଷୁଦ୍ରଶସ୍ୟର ପ୍ରକ୍ରିୟାକରଣ ନିଜ ହାତରେ କରନ୍ତି?
୩. ଗ୍ରାମରେ କିମ୍ବା ପଞ୍ଚାୟତରେ କ୍ଷୁଦ୍ରଶସ୍ୟକୁ ପ୍ରସ୍ତୁତ କରିବାପାଇଁ ମେସିନ୍ ଅଛି କି ? ହଁ/ ନା  
ଯଦିହଁ, ତେବେ କେତୋଟି ମେସିନ୍ ଅଛି? \_\_\_\_\_  
ଯଦିନା, ତେବେ କେତେ ଦୂରତରେ ମେସିନ୍ ଉପଲବ୍ଧ ହେଉଅଛି,(କିଲୋମିଟରରେ) \_\_\_\_\_
୪. ଗ୍ରାମଠାରୁ କେତେଦୂରରେ କ୍ଷୁଦ୍ରଶସ୍ୟକୁ ପ୍ରସ୍ତୁତ କରିବାପାଇଁ ଯନ୍ତ୍ରାଂଶ ଉପଲବ୍ଧ ଅଛି? (କିଲୋମିଟରରେ)  
(i\*ହାତରେଗୁଣ୍ଠକରିମେସିନ୍ସାରାବଛାବଛିକରିବାଚୋପାଛଡାଇ (iv ,ହାତରେବଛାବଛିକରିବାଚୋପାଛଡାଇ (iii ,ମେସିନ୍ସାରାଗୁଣ୍ଠକରି(ii ,



## ବିଭାଗ: ୪ -ବିକ୍ରୟ ପ୍ରଣାଳୀ

୧ .ବର୍ତ୍ତମାନ ବିକ୍ରୟ କରାଯାଉଥିବା କ୍ଷୁଦ୍ରଶସ୍ୟର ପ୍ରଣାଳୀ\*

i\*ଚାଷ ଜମିରୁ ସିଧା ବିନା ପ୍ରକ୍ରିୟା କରଣରେ,ii)ବନ୍ଧାବନ୍ଧିକରି,iii) ଚୋପା ଛଡାଇ, iv) ଗୁଣ୍ଡକରି, v) ଅନ୍ୟାନ୍ୟଉଲ୍ଲେଖକର

୨. ଚାଷୀମାନେ ସାଧାରଣତଃ କେଉଁଠାରେ କ୍ଷୁଦ୍ରଶସ୍ୟକୁ ବିକ୍ରୟ କରିଥାଆନ୍ତି?\*

ମିଲ୍ଲାଲିକକୁ ii) ମଧ୍ୟସ୍ଥକୁ iii) ସ୍ଥାନୀୟବ୍ୟବସାୟୀକୁ iv) ବଜାର/ ହାଟରେ v) ସାହୁକାରକୁ vi) ଅନ୍ୟାନ୍ୟ(ଉଲ୍ଲେଖକର)

୩. ପାଖ ବିକ୍ରୟ କେନ୍ଦ୍ରର ଦୂରତ୍ୱ କେତେ? (କିଲୋମିଟରରେ) \_\_\_\_\_

୪. ପରିବହନର ମାଧ୍ୟମ (କିଲୋମିଟରରେ) \_\_\_\_\_

## ବିଭାଗ: - ୫

୧ । କୃଷିରେ ବିକାଶ ନିମନ୍ତେ କୌଣସି ସରକାରୀ ଅଧିକାରୀ ଆପଣଙ୍କ ଗ୍ରାମକୁ ପରିଦର୍ଶନରେ ଆସିଥିଲେକି ? ହଁ/ ନା

ଯଦି ହଁ, କେଉଁ ସ୍ତରର ଅଧିକାରୀ ଆସିଥିଲା ?

i) କୃଷକ ସାଥୀ, ii) ଗ୍ରାମ୍ୟ କୃଷି କର୍ମଚାରୀ, iii) ବ୍ଲକ୍ ସ୍ତରୀୟ (ସହକାରୀ କୃଷି ଅଧିକାରୀ),

iv) ଜିଲ୍ଲା ସ୍ତରୀୟ (ଜିଲ୍ଲା କୃଷି ଅଧିକାରୀ / ଜିଲ୍ଲା ଉପ କୃଷି ନିର୍ଦ୍ଦେଶକ),

v) ଅନ୍ୟାନ୍ୟ ଉଲ୍ଲେଖକର \_\_\_\_\_

୨ । କ୍ଷୁଦ୍ରଶସ୍ୟର ଉତ୍ପାଦନ / ବ୍ୟବହାର / ପ୍ରସ୍ତୁତି ଏବଂ ବିକ୍ରିୟାର ଉନ୍ନତିପାଇଁ ଯଦି କିଛି ମତାମତ ଥାଏ, ତେବେ ଉଲ୍ଲେଖ କରନ୍ତୁ

ଦଳଗତ ଆଲୋଚନା ସଂଚାଳନ କରିଥିବା ବ୍ୟକ୍ତିଙ୍କ ସ୍ୱାକ୍ଷର