BASELINE SURVEY:

KALAHANDI 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
(an ICSSR Institute in Collaboration with Government of Odisha)

2019

BASELINE SURVEY:

KALAHANDI 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
(an ICSSR Institute in Collaboration with Government of Odisha)

2019

Citation: NCDS, "Baseline Survey: Kalahandi 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, June 2019.

STUDY TEAM

Lead Author
Dr. Chita Ranjan Das

Project Coordinator
Dr. Biswabas Patra

Reaserch Assistant
Mr. Arakshit Patra

Computer Operator
Mr. Bikash Pradhan

Post-Doctoral Fellow
Dr. Narayani Rajashree Kanungo

PhD Scholars
Ms. Diptimayee Jena
Ms. Rashmi Rekha Samal

Field Investigators
Mr. Asish Kumar Sahu (Narla)
Mr. Chandrasena Naik (Th.Rampur)
Mr. Gobinda Naik (Lanjigarh)
Mr. Kamalakanta Bhoi (Lanjigarh)

Principal Investigator
Prof. Srijit Mishra

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 then 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 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+ households during October/November of 2017. The information collected from these households in 27 blocks spread across seven districts are being put up as baseline reports.

The current baseline report is that of Kalahandi and the lead author for this has been Dr. Chita Ranjan Das, Senior Research Officer, NCDS. As Principal Investigator, I compliment him 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; Mr. Anjan Kumar Manik, IAS, former Collector-cum-District Magistrate, Kalahandi; Mr. Gavali P. Harshad, IAS, Collector-cum-District Magistrate, Kalahandi; Mr. Kashinath Khuntia, Joint Director Agriculture (JDA), Millets & Integrated Farming, DAFP; Dr. Ananda Chandra Sasmal, Agronomist, DAFE; Mr. Ansuman Pattnayak, 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 Kalahandi district, particularly to Mr. Antaryami Mallick, Deputy Director Agriculture (DDA)–cum-Project Director (PD), Agriculture Technology Management Agency (ATMA), Ms. Pujarani Bag, Scheme Officer, Mr. Sudhansu Meher, AAO, Lanjigarh Block (also in charge of Narla Block at the time of survey), Ms. Sibani Pradhan, AAO, Narla Block, and Mr. Soubhagya Behera, AAO, Th. Rampur Block.

We express our gratitude to our other colleagues at NCDS, particularly, Ms. Sumati Jani (Odisha Finance Service, OFS), Secretary, Mr. Srikanta Rath, former Administrative Officer, Mr. Niranjan Mohapatra, Librarian; Ms. S. M. Pani, Computer Programmer; Mr. D. B. Sahoo, P.A to Director; Mr. P. K. Mishra, Senior Assistant; Mr. P. K. Mohanty, Junior Accountant; Mr. N. K.Mishra, Jr.Stenographer and Mr. P. K. Mallia, Computer Literate Typist; Mr. S. B. Sahoo, Xerox Operator for their support, help and cooperation.

Special thanks to the members of the Programme Secretariat (Watershed Support Services and Activities Network, WASSAN), particularly to Mr. Dinesh Balam, Consultant, Programme Secretariat; Ms. Aashima Choudhury, State Coodinator; Mr. Ramani Ranjan Nayak, Regional Coodinator; and Mr. Aditya Singh Deo, District Coordinator, Kalahandi; who have helped in our data collection work and in addressing other queries.

Last but not the least, credit and special thanks are due to the members of the Facilitating Agencies (FA) working in these three blocks of the district, namely, Sahabhagi Vikash Abhiyan (SVA), The Human Development and Janasahay who have supported a lot during data collection.

We thank 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 all farmer households, without their cooperation, collection of data would not have been possible. Our sincere thanks to all of them.

Chita Ranjan Das

Biswabas Patra

EXECUTIVE SUMMARY

§1 Study Area

§1.1 Kalahandi is one of the seven districts where the "Special Programme for Promotion of Millets in Tribal Areas of Odisha (hereafter, Odisha Millets Mission, OMM)" was started in *kharif* 2017 in three blocks of the district, namely, Lanjigarh, Narla and Th. Rampur.

§1.2 Out of 499 households (HHs) covered under baseline survey because they cultivated millets (or were enrolled to cultivate millets) in *kharif* 2017 under OMM, 251 HHs are from Lanjigarh, 149 HHs are from Narla, and 99 HHs are from Th. Rampur. From among these, 17 HHs reported not cultivating millets in 2016-17, the period covered under baseline survey, which is the year preceding the intervention under OMM.

§2 Socio-Economic Profile

§2.1 From the surveyed HHs, 97.8 per cent are engaged in agricultural activities, 4.0 per cent are engaged in business, 1.6 per cent are engaged in service, 1.4 per cent are engaged in allied activities, 0.8 per cent are engaged in minor forest collection and 1.6 per cent in other activities.

§3 Production

§3.1 *Ragi* (finger millet) was cultivated by 482 HHs in 168.5 hectares (ha), *gurji* (or *suan* or little millet) was cultivated by 33 HHs in 11.6 ha and *kodo* was cultivated by 9 HHs in 2.0 ha.

§3.2 From the total millet production of 691.6 quintals, *ragi* was 654.5 quintals (94.6%), *gurji* was 34.8 quintals (5.0%), and *kodo* was 2.3 quintals (0.3%).

§3.3 The yield of millets was 3.8 quintals per hectare (qtls/ha). It was 3.9 qtls/ha for *ragi*, 3.0 qtls/ha for *gurji* and 1.1 qtls/ha for *kodo*.

§3.4 The average per HH millet production was 1.4 qtls/HH. It was 1.4 qtls/HH for *ragi*, 1.1 qtls/HH for *gurji*, and 0.3 qtls/HH for *kodo*.

§3.6 In Lanjigarh, 247 HHs cultivated millets and all of them cultivated *ragi* only in 69.8 ha producing 324.3 quintals. This gives yield of 4.6 qtl/ha and per HH production of 1.3 qtl/HH.

§3.7 In Narla, all the 138 HHs cultivating millets cultivated *ragi*, 33 HHs cultivated *gurji* and nine HHs cultivated *kodo*.

§3.8 In Narla, millets were cultivated in 78.7 ha that produced 212.2 quintals. This gives us a yield of 2.7 qtls/ha and per HH production of 1.5 qtls/HH.

§3.9 In Narla, *ragi* was produced is 65.1 ha that produced 175.0 quintals. This gives us a yield of 2.7 qtls/ha and per HH production of 1.5 qtls/HH.

§3.10 The cultivation of *gurji* and *kodo* for the district from the HHs surveyed is entirely from Narla.

§3.12 In Th. Rampur, 97 HHs who cultivated millets cultivated *ragi* only. *Ragi* was cultivated in 33.6 ha producing 155.1 quintals. This gives us a yield of 4.6 qtls/ha and 1.6 qtls/HH.

§4 Package of Practices

§4.1 From 482 HHs cultivating *ragi*, 315 HHs had adopted broadcasting in 101.9 ha producing 449.2 quintals with an yield of 4.4 qtls/ha, 77 HHs had adopted line sowing in 34.0 ha producing 91.6 quintals with an yield of 2.7 qtls/ha, 49 HHs had adopted transplanting in 15.1 ha producing 46.7 quintals with an yield of 3.1 qtl/ha, and 41 HHs had adopted a mixture of methods in 17.6 ha producing 67 quintals with an yield of 3.8 qtls/ha.

§4.2 From 33 HHs cultivating *gurji*, 17 HHs had adopted broadcasting in 6.4 ha producing 20.4 quintals with an yield of 3.2 qtls/ha, nine HHs had adopted line sowing in 3.1 ha producing 6.1 quintals with an yield of 2.0 qtls/ha, and seven HHs had adopted a mixture of methods in 2.1 ha producing 8.3 quintals with an yield of 3.9 qtls/ha.

§4.3 From nine HHs cultivating *kodo*, two HHs had adopted broadcasting in 0.6 ha producing 0.6 quintals with an yield of 1.0 qtls/ha, four HHs had adopted line sowing in 0.4 ha producing 1.1 quintals with an yield of 2.7 qtls/ha, and three HHs had adopted a mixture of methods in 1.0 ha producing 0.6 quintals with an yield of 0.6 qtls/ha.

§5 Consumption

§5.1 The season wise distribution (not mutually exclusive) on consumption of millets indicates that 87.0 per cent HHs consumed in summer, 67.3 per cent HHs consumed in winter and 57.3 per cent HHs consumed in rainy season.

§5.2 Findings regarding different meals of the day (not mutually exclusive) indicates that 94.4 per cent HHs consumed as breakfast, 78.6 per cent HHs consumed in lunch, 62.3 per cent HHs consumed as evening snacks, and 54.5 per cent HHs consumed as dinner.

§5.3 To a query on the form in which millets was consumed (not mutually exclusive), 64.7 per cent HHs indicated *jau* (porridge, particularly *ragi jau*), 59.9 per cent HHs indicated *roti*/*pitha* (bread/pancakes and other forms), 44.7 per cent HHs indicated *mandia torani* (fermented *ragi*), 28.1 per cent HHs indicated *tampo* (a semi-liquid recipe), and 4.4 per cent HHs indicated *ragi handia* (*ragi* beer, *handia* can also be prepared from rice)**.**

§6 Processing & Marketing

§6.1 The processing of millets was done as follows: manually by 73.6 per cent HHs, machines by 8.8 per cent HHs, and both manually as well in machines by 13.2 per cent HHs, while there was no response on processing methods by 4.4 per cent HHs.

§6.2 From the 77 HHs reporting that they processed millets in other's pulveriser, 74 HHs (96.1%) had to cover a distance within 10 kilometre (km) and the rest had to cover a distance of 11-20 km for processing their millets.

§6.3 A distribution of sale of millets (not mutually exclusive) indicates that 184 HHs (59.0%) sold at the weekly *hat* (market), 31.1 per cent HHs sold to local traders, 22.1 per cent HHs sold to mill owners, 15.1 per cent HHs sold to middlemen, and 13.5 per cent HHs sold to money lender towards repayment of debt.

§6.4 From the 312 HHs who sold millets, 295 HHs (95 %) are from the 482 HHs that produced millets in that year and another 17 HHs (5 %) sold either from their existing stock or from millets obtained through exchange/gift.

§6.6 On marketing one observes that per HH millets sold in 2016-17 is 106.8 kg/HH (kilogram per HH). It is 95.5 kg/HH in Lanjigarh, 123.8 kg/HH in Narla, and 114.7 kg/HH in Th. Rampur.

CONTENTS

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS

AAO	Assistant Agriculture Officer
ACS	Additional Chief Secretary
ASHA	Alliance for Sustainable and Holistic Agriculture
ATMA	Agricultural Technology Management Agency
DAFE	Department of Agriculture and Farmers' Empowerment
DAFP	Directorate of Agriculture and Food Production
DC	Development Commissioner
DDA	Deputy Director Agriculture
FGD	Focused Group Discussion
HH	Household
ha	Hectare
IAS	Indian Administrative Service
JDA	Joint Director Agriculture
kg	Kilogram
km	Kilometre
MoU	Memorandum of Understanding
MINI	Millets Network of India
NCDS	Nabakrushna Choudhury Centre for Development Studies
OFS	Odisha Finance Service
OMM	Odisha Millets Mission
PD	Project Director
qtl	Quintal
RRA	Revitalizing Rainfed Agriculture
SC	Scheduled Caste
SHG	Self-help Group
ST	Scheduled Tribe
SVA	Sahabhagi Vikash Abhiyan
Th. Rampur	Thuamul Rampur
WASSAN	Watershed Support Services and Activities Network

1
INTRODUCTION

1.1 Background

Kalahandi district has been drawing attention of national/international news agencies for malnutrition, poverty, sale of children, migration, or that of Mr. Dana Majhi, who had to travel miles from the district hospital to his village shouldering the corpse of his wife. It may be recalled that P. Sainath in his book *Everyone Loves A Good Drought* (1996), which also had some chapters covering Kalahandi, observes the problem of apathy in poorer regions. In a public meeting in Kalahandi, former Prime Minister Rajiv Gandhi had mentioned that if one rupee is sent from Delhi, only 15 paisa reaches the poor. To address some of these concerns, the government has also taken up many initiatives.

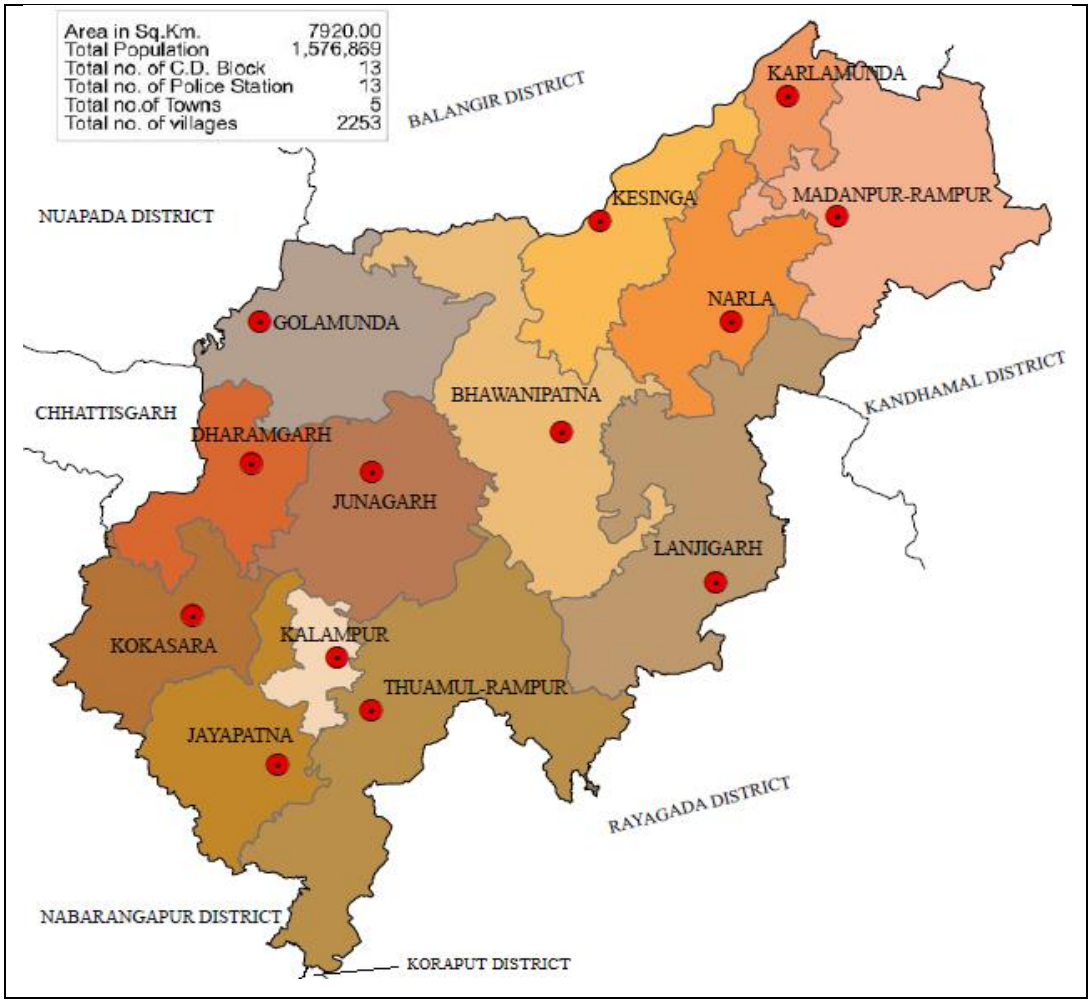
One such initiative is the "Special Programme for Promotion of Millets in Tribal Areas of Odisha (hereafter, Odisha Millets Mission, OMM)," which was started in Kharif 2017 in Kalahandi in three blocks, namely, Lanjigarh, Narla and Thuamul Rampur (Th. Rampur). Millets are small-seeded grains, which are now considered as nutri-cereals. Some of the millets cultivated in Kalahandi at the time of implementing OMM are *ragi* or finger millet (*Eleusinecoracana*), *gurji* or *suan* or little millet (*Panicumsumatrense*), and *kodo* millet (*Paspalumsetaceum*).

OMM has a novel organisational architecture with joint partnership of the Government of Odisha with involvement of functionaries in the concerned departments at the state and the district levels, the State Secretariat comprising the Programme Secretariat and the Research Secretariat, and the Non-Governmental Organisations as facilitating agencies at the Block level. Under OMM, focus has been given to production (including the agronomical package of practices to be adopted by the farmer HHs), consumption, processing, and marketing of millets. This baseline survey is an attempt to provide necessary information on some aspects of these before the implementation of the programme. Before elucidating the details from the baseline survey, we now provide some information on the district profile of Kalahandi.

1.2 District Profile

Kalahandi lies between 19.17° to 20.46° North latitude and between 82.61° to 83.80^0 East longitude. It is bounded by Bolangir district in the north, Kandhamal district in the east, Rayagada district in the east and south, Koraput district in the south, Nabrangpur district in the south and west, Chhattisgarh state as also Nuapada district in the west (Fig 1.1). The district of Kalahandi has an area of 7920 sq.km and 15.8 lakh of population as per 2011 Census. The district accounts for 5.1 per cent of the state's territory and 3.8 per cent of the state's population. The density of population of the district is 199 persons per sq. km as against 270 persons per sq.km for the state. The district has 2253 villages that are spread over 13 blocks.

Fig 1.1 Map of Kalahandi District with Blocks



Source: http://gisodisha.nic.in/Block/KALAHANDI.pdf

Table 1.1: Key Indicators of Kalahandi	
Indicators	**Value**
Census-2011	
Population (In Lakh)	15.7
Male (In Lakh)	7.8
Female (In Lakh)	7.9
Scheduled Caste (In Lakh)	2.9
Scheduled Tribe (In Lakh)	4.5
Others (In Lakh)	8.4
Household (In Lakh)	4.0
Average HH Size	3.9
Sex Ratio	1003
Total Worker (In Lakh)	7.5
Main Worker (In Lakh)	3.8
Marginal Worker (In Lakh)	3.7
Non-Worker (In Lakh)	8.2
Work Participation Rate (WPR, %)	47.7
Cultivator as % of Total Worker	19.3
Agricultural Labourers as % of Total Worker	58.1
Literacy Rate (%)	59.2
Total Geographical Area (sq.km)	7920
Land Use Pattern (Area in '000 ha), 2014-15	
Forest	101.2
Land put to Non-agricultural use	46.4
Barren and Non-Cultivable Land	34.5
Permanent Pasture and Other Agricultural Land	25.1
Net Area Sown	244.4
Cultivable Waste Land	25.5
Old Fallow	30.2
Current Fallows	70.9
Miscellaneous Trees and Groves	2.2
Total Area under Survey	580.4
Agriculture, 2014-15	
Average Fertilizer Consumption (kg/ha)	54.5
Irrigation, Kharif ('000 ha)	146.9
Irrigation, Rabi ('000 ha)	111.3
Other Information	
Proportion of Villages Electrified (as on March 2014)	100.0
Credit Deposit Ratio (as on December 2015)	68.1
No. of Aanganwadi Centres, 2014-15	2185
No. of Job Card Issued (cumulative, March 2015)	301865
HH provided employment as % of demand, MGNREGS, cumulative 2014-15	81.9
Source: *District Statistical Hand Book, Kalahandi, 2015* Note: MGNREGS is Mahatma Gandhi National Rural Employment Guarantee Scheme	

As per 2011 Census, the Scheduled Caste (SC) population is 17.7 per cent and Scheduled Tribe (ST) population is 28.7 per cent, Table 1.1. There are 36 communities from among SCs and 46 communities from among STs in the district. Among the STs, 12 tribal communities consisting of *Kandha*, *Gond*, *Shabar*, *Bhottada*, *Paroja*, Banjara, *Munda*, *Holva*, *Saora*, *Kondadora*, *Mirdha*, and *Binjhal* (mentioned in a descending order as per their share in the tribal population of the district and each of them having more than 1000 persons in the district) constitute more than 98 per cent of the total tribal population of the district. The literacy rate of the district is 59.2 per cent as against 72.9 per cent of the state. The languages spoken by the people of this district are Odia, Telugu, Hindi, English, and different tribal languages.

The characteristics of soil in the district is as follows: 54 per cent of clay and sandy loams soil, 32 per cent red soil and 14 per cent black soil (*District Human Development Report: Kalahandi*, Planning and Coordination Department, Government of Odisha, 2012, p.8). Land under cultivation in the district may be classified as: (a) *aatt* lands (unbounded low fertile rain fed uplands), (b) *maal* lands (bounded uplands terraced to catch run-off, low fertile and rain fed), (c) *berna* lands (medium lands with average fertility), (d) *bahal* lands (plain fertile land suitable for paddy cultivation), (e) *dongar* lands (lands in hill slopes occasionally used for slash and burn/shifting cultivation or *podu*, and (f) *bari* lands (adjacent to homesteads, generally used for growing kitchen gardens). From these, millets can be grown in *aatt*, *maal*, *berna*, and *dongar* lands.

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

1.4 Methodology

1.4.1 Universe

All the HHs who are covered under OMM, as per the list provided by Programme Secretariat, formed the universe. From the 542 HHs covered under the programme, only 499 HHs have been surveyed. From these, 482 HHs (97%) had cultivated millets and 17 HHs (3%) did not cultivate millets in 2016-17, that is, in the year before the intervention under OMM. Out of total 499 HHs surveyed, 251 HHs (50%) are from Lanjigarh block, 149 HHs (30%) are from Narla block and 99 HHs (20%) are from Th. Rampur block, Table 1.2.

Table 1.2: Households Surveyed in Kalahandi

Block	Programme HHs		Surveyed HHs		HHs Cultivated Millets in 2016-17		HHs did not Cultivate Millets in 2016-17	
	No	%	No	%	No	%	No	%
Lanjigarh	282	52.0	251	50.3	247	51.2	4	23.5
Narla	160	29.5	149	29.9	138	28.6	11	64.7
Th.Rampur	100	18.5	99	19.8	97	20.1	2	11.8
Total	542	100.0	499	100.0	482	100.0	17	100.0

Source: Field Survey
Note: HHs denotes households

1.4.2 Data Collection

This baseline survey report is based on both secondary and primary data. The primary data was collected from the respondents in the concerned districts by using pre-tested interview schedule (Annexure 1) and Focus Group Discussion (FGD), (Annexure 2). The secondary data has been collected from different published and unpublished sources.

1.5 Limitations

From the 542 programme HHs as per the list provided by the Programme Secretariat, only 499 HHs were surveyed and 43 HHs could not be surveyed for logistic reasons. In particular, one cluster with 36 HHs in Lanjigarh block could not be covered because of some difficulties at the level of the field investigators, and another 7 HHs could not be contacted due to non-availability of HH members during the survey period.

As some of the information was based on memory, there could be some recall error. This is particularly so for actual quantity of consumption, expenditure, investment, and marketing among others.

In some cases, a particular HH might have consumed or sold millets, but they did not produce. This was largely because they might have obtained the same through barter, gift, exchange, or stocks from production in an earlier year, which have not been detailed in the baseline survey.

1.6 Chapterization

The baseline survey has been divided into six chapters including the current introductory chapter, which provides district profile, objectives, methodology and limitations. Chapter 2 provides socio-economic profile of surveyed HHs. 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 summarizes the findings.

2
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 (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 and Demographic Profile

Out of 13 blocks in Kalahandi District, OMM is functional in three blocks, viz., Lanjigarh, Narla and Th. Rampur. In these, 499 HHs have been surveyed. The distributions across social groups, Table 2.1 and Fig 2.1, indicate that 264 HHs (52.9%) belong to STs, 163 HHs (32.7%) belong to SCs, and 57 HHs (14.4%) belong to Other Caste (OC).

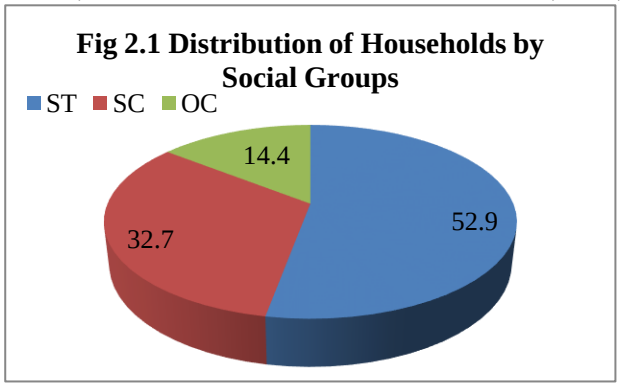


Table 2.1: Distribution of Households by Social Groups across Blocks

Social Group	Lanjigarh		Narla		Th. Rampur		Total	
	No.	%	No.	%	No.	%	No.	%
Scheduled Tribe (ST)	148	59.0	70	47.0	46	46.5	264	52.9
Scheduled Caste (SC)	88	35.0	23	15.4	52	52.5	163	32.7
Other Caste (OC)	15	6.0	56	37.6	1	1.0	57	14.4
Total	251	100.0	149	100.0	99	100.0	499	100.0

Source: Field Survey

The respondents of the survey belong to two religious communities such as Hindus (98.6%) and Christians (1.4%), Table 2.2. There were seven Christian HHs, one in Lanjigarh and six in Th. Rampur.

Table 2.2: Distribution of Households by Religion across Blocks

Religion	Lanjigarh		Narla		Th. Rampur		Total	
	No.	%	No.	%	No.	%	No.	%
Hindu	250	99.6	149	100.0	93	93.9	492	98.6
Christian	1	0.4	0	0.0	6	6.1	7	1.4
Total	251	100.0	149	100.0	99	100.0	499	100.0

Source: Field Survey

The total population from surveyed HHs is 1565, Table 2.3. The share of female population is little higher than the male population. From the total population, 53.4 per cent belong to Lanjigarh block, 28.8 per cent belong to Narla block and 17.8 per cent belong to Th. Rampur block.

Table 2.3: Distribution of Population by Gender across Blocks

Gender	Lanjigarh		Narla		Th. Rampur		Total	
	No.	%	No.	%	No.	%	No.	%
Male	412	49.3	227	50.3	139	49.8	778	49.7
Female	423	50.7	224	49.7	140	50.2	787	50.3
Total	835	100.0	451	100.0	279	100.0	1565	100.0
	(53.4)		(28.8)		(17.8)		(100.0)	

Source: Field Survey
Note: Figures in parentheses represent the column total as a percentage of the row total (1565).

2.3 Poverty Status

Our field survey data also shows that more than four-fifths of the HHs (81.0%) lives below poverty line (BPL). The incidence of poverty is more than 80 per cent in all blocks. The block wise and social group-wise distribution of BPL and above poverty line (APL) HHs has been given in Table 2.4.

Table 2.4: Distribution of Households by Poverty Status across Blocks

Economic	Lanjigarh		Narla		Th. Rampur		Total	
Category	No.	%	No.	%	No.	%	No.	%
BPL	201	80.1	121	81.2	82	82.8	404	81.0
APL	50	19.9	28	18.8	17	17.2	95	19.0
Total	251	100.0	149	100.0	99	100.0	499	100.0

Source: Field Survey
Note: BPL is below poverty line and APL is above poverty line

2.4 Economic Activities

Economic activities of surveyed HHs, Table 2.5, shows that 97.8 per cent HHs are engaged in agriculture activities, 4 per cent HHs are engaged in business, 1.6 per cent HHs are in services, 1.4 per cent HHs are engaged in allied activities, 0.8 per cent HHs are engaged in minor forest collection, and 1.6 per cent HHs are engaged in other activities. Agriculture is the main occupation of HHs surveyed in all blocks.

Table 2.5: Distribution of Households by Economic Activities across Blocks

Activities	Lanjigarh		Narla		Th. Rampur		Total	
	No.	%	No.	%	No.	%	No.	%
Cultivation	243	96.8	148	99.3	97	98.0	488	97.8
Allied	7	2.8	0	0.0	0	0.0	7	1.4
Service	1	0.4	6	4.0	1	1.0	8	1.6
Business	4	1.6	9	6.0	7	7.1	20	4.0
Minor Forest Produce	4	1.6	0	0.0	0	0.0	4	0.8
Others	0	0.0	6	4.0	2	2.0	8	1.6
Total	251	100.0	149	100.0	99	100.0	499	100.0

Source: Field Survey
Note: Activities total are not additive, as activities are not mutually exclusive.

2.5 Structure of House

House structure is another important indicator to assess the economic condition of HHs, Table 2.6 and Fig 2.2. Out of the total HHs surveyed, 64 per cent have kutcha houses, 32 per cent have semi-pucca houses and 4 per cent have pucca houses. The percentage of kutcha houses is the highest in Lanjigarh (79.3%) whereas the the percentage of pucca houses is the highest in Narla (7.4%).

Fig 2.2 Distribution of Households by House Structure

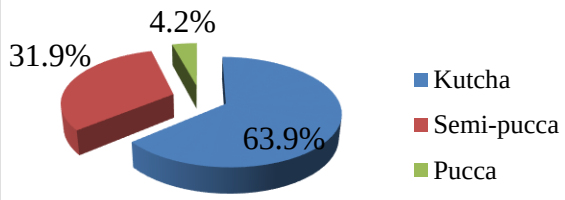


Table 2.6: Distribution of Households by House Structure across Blocks

Block	Lanjigarh		Narla		Th. Rampur		Total	
	No.	%	No.	%	No.	%	No.	%
Kutcha	199	79.3	53	35.6	67	67.7	319	63.9
Semi-Pucca	43	17.1	85	57.1	31	31.3	159	31.9
Pucca	9	3.6	11	7.4	1	1.0	21	4.2
Total	251	100.0	149	100.0	99	100.0	499	100.0

Source: Field Survey

2.6 Conclusion

The socio-economic profile of the HHs surveyed indicate that more than half (52.9%) are STs and nearly one-third (32.7%) are SCs. Almost all (98.6%) HHs are Hindus, and seven are Christians. More than four-fifths (1.0%) of HHs are of BPL Category. All HHs surveyed, except for 11, and have indicated cultivation as one of their economic activity. More than three-fifths (63.9%) of the HHs stay in kutcha house, more than three-tenths (31.9%) HHs resides in semi-pucca house and less than one-twentieths (4.2%) of HHs reside in pucca house. The next chapter, Chapter 2, looks into aspects related to millets production.

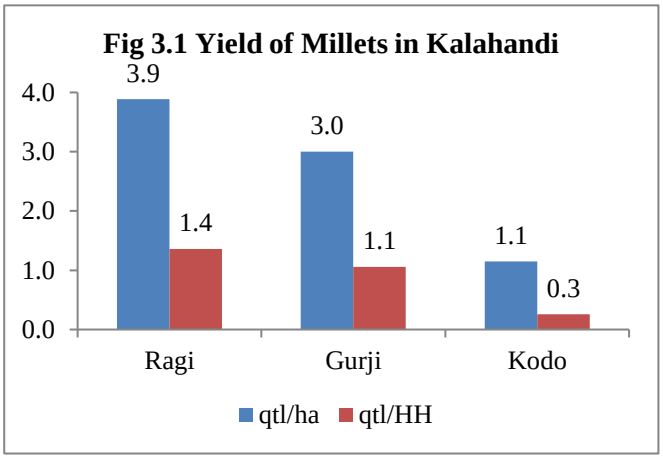
3
PRODUCTION

3.1 Introduction

In this chapter an attempt has been made to throw some light on the status of production and productivity of millets, usage of seeds, and package of practices in Kalahandi district. These are based on baseline data for 2016-17 from HHs surveyed in Lanjigarh, Narla and Th. Rampur, the blocks where OMM has been operational since *Kharif* 2017.

3.2 Area, Production and Yield

Broadly there are three types of millets cultivated in 2016-17 by HHs surveyed in Kalahandi district, vis., *ragi*, *gurji* and *kodo*, Table 3.1. The total production of different types of millets by 482 HHs surveyed comes to 691.6 quintals. *Ragi* was cultivated by all the 482 HHs and its production was 654.5 quintals (94.6% of the total millet production). *Ragi* is known as *mandia* in the local language. There are different types of *mandia* such as *badamandia*, *sanamandia*, *kalamandia*, etc., which are cultivated in the district. *Gurji* production was 34.8 quintals, which was produced by 33 HHs. *Kodo* production was 2.3 quintals, which was produced by 9 HHs.



The total area under millets was 182.1 ha. From this, 168.5 ha (92.5%) is *ragi*, 11.6 ha (6.4%) is *gurji*, and 2.0 ha (1.1%) is *kodo*.

The yield of all millets was 3.8 qtls/ha, *ragi* was 3.9 qtls/ha, *gurji* was 3.0 qtls/ha, and *kodo* was 1.1 qtls/ha, Table 3.1 and Fig 3.1. The production all millets was 1.4 qtls/HH, *ragi* was 1.4 qtls/HH, *gurji* was 1.1 qtls/HH, and *kodo* was 0.3 qtls/HH. Across social groups, yield of *ragi* and *gurji* was highest among SC HHs, whereas in case of *kodo* the yield was highest among ST HHs.

Table 3.1: Area, Production and Yield of Millets by Social Groups in Kalahandi

Millets	Social Groups	HHs		Area		Production		Yield	
		No.	%	Ha	%	qtl	%	qtl/ha	qtl/HH
Ragi	All	482	100.0	168.5	92.5	654.5	94.6	3.9	1.4
	ST	258	53.5	89.4	53.1	351.4	53.7	3.9	1.4
	SC	157	32.6	49.8	29.5	226.0	34.5	4.5	1.4
	Others	67	13.9	29.3	17.4	77.1	11.8	2.6	1.2
Gurji	All	33	6.9	11.6	6.4	34.8	5.0	3.0	1.1
	ST	5	15.2	1.8	15.7	2.0	5.6	1.1	0.4
	SC	6	18.2	2.4	21.0	7.0	20.1	2.9	1.2
	Others	22	66.7	7.3	63.3	25.9	74.3	3.5	1.2
Kodo	All	9	1.9	2.0	1.1	2.3	0.3	1.1	0.3
	ST	6	66.7	1.4	70.0	1.7	73.9	1.2	0.3
	SC	1	11.1	0.2	10.0	0.2	8.7	1.0	0.2
	Others	2	22.2	0.4	20.0	0.4	17.4	1.0	0.2
All Total		482	100.0	182.1	100.0	691.6	100.0	3.8	1.4

Source: Field Survey

Note: ST is Scheduled Tribe and SC is Scheduled Caste. The area and production figures are rounded up to the first decimal, and hence, may not add up to all values across social groups or all total across crops..

Area, production and yield of *ragi* in Lanjigarh across social groups are shown in Table 3.2. There are 247 HHs cultivating *ragi* in Lanjigarh, which was cultivated in 69.8 ha of land producing 324.3 quintals with a yield of 4.6 qtls/ha and production 1.3 qtls//HH. Social group-wise data indicates that the yield of *ragi* for other HHs was highest at 5.9 qtls/ha, as compared to 5.0 qtls/ha for SC HHs and 4.4 qtls/HHs for ST HHs. The surveyed HHs in Lanjigarh did not grow other millets in 2016-17.

Table 3.2: Area, Production and Yield of Ragi by Social Groups in Lanjigarh

Social Groups	HHs		Area		Production		Yield	
	No.	%	Ha	%	qtl	%	qtl/ha	q/HH
Scheduled Tribe (ST)	147	59.5	42.1	60.3	183.4	56.6	4.4	1.2
Scheduled Caste (SC)	85	34.4	23.9	34.2	118.2	36.4	5.0	1.4
Others	15	6.1	3.8	5.5	22.8	7.0	5.9	1.5
Total	247	100.0	69.8	100.0	324.3	100.0	4.6	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 total across social groups..

Area, production and yield of millets in Narla across social groups are shown in Table 3.3. There are 138 HHs cultivating millets - all of them have cultivated *ragi*, 33 HHs have cultivated *gurji* and nine HHs have cultivated *kodo*. The total area cultivated under millets was 78.7 ha of which *ragi* was cultivated in 65.1 ha, *gurji* was cultivated in 11.6 ha and *kodo* was cultivated in 2.0 ha land. From the total production of 212.2 quintals of millets, the production of *ragi* was 175.1 quintals, *gurji* was 34.8 quintals,

and *kodo* was 2.3 quintals. The yield was 2.7 qtls/ha for all millets; it was 2.7 qtls/ha for *ragi*, 3.0 qtl/ha for *gurji*, and 1.1 qtls/ha for *kodo*. The production per HH was 1.5 qtls/HH for all millets. It was 1.3 qtls/HH for *ragi*, 1.1 qtls/HH for *gurji*, and 0.3 qtls/HH for *kodo*.

Table 3.3: Area, Production and Yield of Millets by Social Groups in Narla

Millets	Social Groups	HHs		Area		Production		Yield	
		No.	%	Ha	%	qtl	%	qtl/ha	qtl/HH
Ragi	All	138	100.0	65.1	82.7	175.1	82.5	2.7	1.3
	ST	65	47.1	31.7	48.8	99.8	57.0	3.1	1.5
	SC	22	15.9	8.3	12.7	22.0	12.6	2.7	1.0
	Others	51	37.0	25.1	38.6	53.3	30.4	2.1	1.1
Gurji	All	33	23.9	11.6	14.7	34.8	16.4	3.0	1.1
Kodo	All	9	6.5	2.0	2.6	2.3	1.1	1.1	0.3
All Total		138	100.0	78.7	100.0	212.2	100.0	2.7	1.5

Source: Field Survey

Note: ST is Scheduled Tribe and SC is Scheduled Caste. Social group wise data for Gurji and Kodo are not provided, as they are similar to that of Kalahandi (Table 3.1), as all HHs producing Gurji and Kodo are from Narla. The area and production figures are rounded up to the first decimal, and hence, may not add up to all values across social groups or to all total across crops.

Table 3.4: Area, Production and Yield of Ragi by Social Groups in Th.sRampur

Social Groups	HHs		Area		Production		Yield	
	No.	%	Ha	%	qtl	%	qtl/ha	qtl/HH
Scheduled Tribe (ST)	46	47.4	15.6	46.5	68.3	44.0	4.4	1.5
Scheduled Caste (SC)	50	51.6	17.6	52.4	85.9	55.4	4.9	1.7
Others	1	1.0	0.4	1.2	1.0	0.6	2.5	1.0
All	97	100.0	33.6	100.0	155.1	100.0	4.6	1.6

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 across social groups.

Area, production and yield of *ragi* in Th. Rampur across social groups are shown in Table 3.4. There are 97 HHs cultivating *ragi* in Th. Rampur, which was cultivated in 33.6 ha of land producing 155.1 quintals. The yield was 4.6 qtls/ha and 1.6 qtls/HH. The surveyed HHs in Th. Rampur did not grow other millets in 2016-17.

3.3 Perception on Quality of Seeds Used

Seed is an important input that determines the production, yield and quality of millets. The HHs surveyed in Kalahandi used local varieties of seeds. All the HHs cultivating millets in 2016-17 have reported about their perception on quality of seed used in their fields for millet cultivation, Table 3.5 and Fig 3.2. It shows that 83 per cent

HHs used good quality seeds, 16 per cent used average quality seeds and one per cent used bad quality seeds.

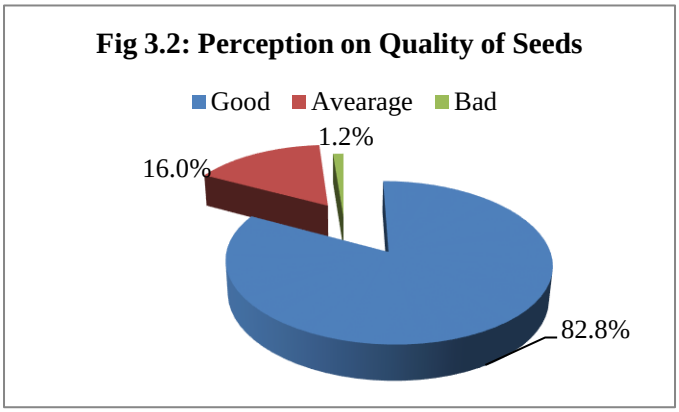
Table 3.5: Perception of Respondents regarding Quality of Seeds Used

Quality	Lanjigarh		Narla		Th. Rampur		Total	
	No	%	No	%	No	%	No	%
Good	187	75.7	122	88.4	90	92.8	399	82.8
Average	55	22.3	15	10.9	7	7.2	77	16.0
Bad	5	2.0	1	0.7	0	0.0	6	1.2
Total	247	100	138	100	97	100	482	100

Source: Field Survey

Block-wise data on perception of seed quality reveals that the perception of the quality of seed being good was highest in Th. Rampur (92.0%), that the perception of the quality of the seed being average and bad was the highest in Lanjigarh (22.0% and 2.0%, respectively). In particular six HHs (five in Lanjigarh and one in Narla) perceived their seed to be bad.

Fig 3.2: Perception on Quality of Seeds



3.4 Package of Practices

The different agronomic practices (broadcasting, line sowing, and transplanting) used by HHs surveyed are presented in Table 3.6. Out of the 482 HHs cultivating *ragi*, 315 HHs had adopted broadcasting method covering an area of 101.9 ha producing 449.2 quintals with a yield of 4.4 qtls/ha, 77 HHs had used line showing method in 34 ha producing 91.6 quintals with a yield of 2.7 qtls/ha, and 49 HHs had adopted transplanting method in 15.1 ha producing 46.7 quintals with a yield of 3.1 qtls/ha. There are 41 HHs that have used more than one method (but without information on break-up of area under each method, we refer to this as 1+ methods) in 17.6 ha producing 67 quintals with a yield of 3.8 qtls/ha.

Table 3.6: Package of Practices for Ragi Cultivation in Kalahandi

Package of practice	HHs		Area		Production		Yield
	No	%	ha	%	qtl	%	qtl/ha
Broadcasting	315	65.4	101.9	60.5	449.2	68.6	4.4
Line Sowing	77	16.0	34.0	20.2	91.6	14.0	2.7
Transplanting	49	10.2	15.1	9.0	46.7	7.1	3.1
1+ Methods	41	8.5	17.6	10.4	67.0	10.3	3.8
Total	482	100.0	168.5	100.0	654.5	100.0	3.9

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 33 HHs that have cultivated *Gurji*, 17 HHs had adopted broadcasting method in 6.4 ha producing 20.4 quintals with a yield of 3.2 qtls/ha, nine HHs had adopted line sowing in 3.1 ha producing 6.1 quintals with a yield of 2.0 qtls/ha, and seven HHs had used 1+ methods in 2.1 ha producing 8.3 quintals with a yield of 3.9 qtls/ha, Table 3.7.

Table 3.7: Package of Practices for Gurji Cultivation in Kalahandi

Package of practice	HHs		Area		Production		Yield
	No	%	ha	%	qtl	%	qtl/ha
Broadcasting	17	51.5	6.4	54.9	20.4	58.6	3.2
Line Sowing	9	27.3	3.1	26.9	6.1	17.5	2.0
1+ Methods	7	21.2	2.1	18.2	8.3	23.9	3.9
Total	33	100. 0	11.6	100.0	34.8	100.0	3.0

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.

Table 3.8: Package of Practices for Kodo Cultivation in Kalahandi

Package of practice	HHs		Area		Production		Yield
	No	%	ha	%	qtl	%	qtl/ha
Broadcasting	2	22.2	0.6	30.0	0.6	24.8	1.0
Line Sowing	4	44.5	0.4	20.0	1.1	49.1	2.7
1+ Methods	3	33.3	1.0	50.0	0.6	26.1	0.6
Total	9	100.0	2.0	100.0	2.3	100.0	1.1

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.

Millet cultivating HHs in selected blocks have adopted various packages of practices for *kodo* cultivation. Out of the nine HHs that have cultivated *kodo*, two HHs

had adopted broadcasting in 0.6 ha producing 0.6 quintals with a yield of 1.0 qtls/ha, four HHs had adopted line sowing in 0.4 ha producing 1.1 quintals with a yield of 2.7 qtls/ha, and three HHs had adopted 1+ methods in 1.0 ha producing 0.6 quintals with a yield of 0.6 qtls/ha, Table 3.8.

The FGDs pointed out that some of the millets are still grown in the hilly slopes under slash and burn (*podu*) cultivation. It is one of their traditional practices of crop production. The FGDs also pointed out that land with low moisture retention capacity are suitable for growing millets. The FGDs, as also information from package of practices discussed above, indicate that none of the HHs had adopted the system of millet intensification (SMI) method, an agronomic practise that is being taken up under OMM.

3.5 Conclusion

Three types of millets, viz, *ragi*, *gurji* and *kodo* were cultivated in Kalahandi during the period covered under baseline survey, 2016-17. The predominant crop grown is *ragi* (92.5% of area and 94.6% of produce). *Gurji* and *kodo* are grown by some HHs surveyed in Narla. More than four-fifths (82.8%) of them perceived the seed quality they used to be good, another four-twenty fifths (16.0%) considered it to be average, and only six HHs (1.2%) perceived it to be bad. Most HHs cultivated millets through broadcasting and some by line sowing or transplanting. None of the HHs had adopted SMI in Kalahandi for the period covered under baseline survey. In the next chapter we discuss consumption of millets.

4
CONSUMPTION

4.1 Introduction

Demand for any product arises due to consumption. Hence, consumption plays a vital role in production and marketing. Efforts are made in this chapter to assess consumption of millets across seasons, consumption of millets during different meals of the day, and on different types of millet recipes consumed by the HHs surveyed.

4.2 Season-wise Consumption

From the HHs surveyed, 87.0 per cent consumed millets during summer, 67.3 per cent consumed millets during winter and 57.3 per cent consumed millets during monsoon, Table 4.1. Greater consumption during summer is due to their perception that consumption of millet reduces the chances of feeling thirsty and hungry. It may be noted that availability of drinking water reduces to a great extent during the summer season in Kalahandi.

Table 4.1: Season-wise Consumption of Millets

Seasons	Lanjigarh		Narla		Th. Rampur		Total	
	No.	%	No.	%	No.	%	No.	%
Summer	206	82.1	136	91.3	92	92.9	434	87.0
Monsoon	155	61.7	79	53.0	52	52.5	286	57.3
Winter	205	81.7	83	55.7	48	48.5	336	67.3
Total	246	100.0	138	100.0	93	100.0	499	100.0

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

4.3 Consumption during Different Meals of the Day

Consumption of millets by HHs during different meals of the day revealed that 94.4 per cent HHs consume it in their breakfast, 78.6 per cent HHs consume it in lunch, 62.3 per cent HHs consume it in evening snacks and 54.5 per cent HHs consume it in dinner, Table 4.2.

Table 4.2: Millets Consumption during different Meals of the Day

Meal Time	Lanjigarh		Narla		Th. Rampur		Total	
	No.	%	No.	%	No.	%	No.	%
Breakfast	246	98.0	133	89.3	92	92.9	471	94.4
Lunch	186	74.1	134	89.9	72	72.7	392	78.6
Evening snacks	145	57.8	112	75.2	54	54.6	311	62.3
Dinner	144	57.4	81	54.4	47	47.5	272	54.5
Total	251	100.0	149	100.0	99	100.0	499	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.

4.4 Millet Recipes Consumed

Consumption of millets, especially ragi, as a staple food in Kalahandi is years-old practice that still continues. People are consuming millets in several ways in the form of porridge, bread, cake, steamed and beverage among others.

Table 4.3: Consumption of Millet Recipes

Millet Recipes	Lanjigarh		Narla		Th. Rampur		Total	
	No.	%	No.	%	No.	%	No.	%
Jau	179	71.3	51	34.2	93	93.9	323	64.7
Pitha	151	60.2	58	38.9	90	90.9	299	59.9
Tampo	126	50.2	9	6.0	5	5.1	140	28.1
Mandia Torani	109	43.4	95	63.8	19	19.2	223	44.7
Handia	5	2.0	10	6.7	7	7.1	22	4.4
Total	251	100.0	149	100.0	99	100.0	499	100.0

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

Table 4.3 showed that 64.7 per cent HHs consumed millets as porridge, locally called as *jau* which is popularly known in Odisha as *mandia jau* (finger millet porridge). Nearly three-fifths of the people (59.9%) consumed millet in the form of *roti* (bread) or *pitha* (pancake). Close to three-tenths (28.1%) consumed millet in the form of *tampo* (a gruel recipe). *Tampo* is a semi liquid recipe prepared by adding sugar/jiggery, and grated coconut. People from all ages, particularly children, prefer this recipe compared to other food items. Another popular millet food recipe is *mandia torani* (fermented *ragi*). This recipe is prepared by adding water with the cooked finger millet that is kept overnight or longer for fermentation. It has been a common food for nearly nine-twentieths (44.7%) of HHs. Less than one-twentieth (4.4%) of HHs also consumed millets in the form of *handia* (a form of beer). It is prepared by adding different types of herbs to the cooked

mandia and kept for few days for fermentation. This recipe gives them physical and mental relaxation and people who do more physical work normally take this recipe.

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 make an analysis of millets produced, consumed, sold and stored.

5.2 Processing Units

Processing of millet grains is necessary for storage and for preparation of different recipes. The processing of grains may be in the form of decorticating/dehusking, grinding, malting, fermentation, roasting, and flaking to improve their edible, nutritional, and sensory properties. Traditionally, the burden of processing grains and the associated drudgery has largely been borne by women.

Two locally available traditional instruments that facilitate processing are *dhenki*, made up of wooden logs, and *chakki*, made up of two round stone plates. *Dhenki* is used for dehusking and *chakkki* is used for grinding. Both these instruments are operated manually. The distribution of surveyed HHs by method of processing (for dehusking and grinding) is as follows: 73.6 per cent process millets manually, 8.8 per cent use machines, 13.2 per cent process both manually and machines and 4.4 per cent have not spelt out any processing methods, Table 5.1. The FGD indicate that inaccessible tribal villages, traditional belief that machine processed millets are less qualitative, distance of processing units, and less amount being required for HH consumption are some of the important contributory factors for greater proportion of HHs resorting to process manually.

Table 5.1: Method of Processing Millets

Processing Method	Lanjigarh		Narla		Th. Rampur		Total	
	No.	%	No.	%	No.	%	No.	%
Manually	154	61.4	129	86.6	84	84.9	367	73.6
Machine	41	16.3	2	1.3	1	1.0	44	8.8
Both	51	20.3	7	4.7	8	8.0	66	13.2
No response	5	2.0	11	7.4	6	6.1	22	4.4
Total	251	100.0	149	100.0	99	100.0	499	100.0

Source: Field Survey

Among the HHs that reported processing of millets by machine, 30 per cent of the HHs have their own machine. The other 70 per cent HHs are processing millets by using pulverize owned by others, Table 5.2.

Table 5.2: Availability and Accessibility of Processing Unit

Processing units	Lanjigarh		Narla		Th. Rampur		Total	
	No.	%	No.	%	No.	%	No.	%
Own machine	29	31.5	2	22.2	2	22.2	33	30.0
Others pulverize	63	68.5	7	77.8	7	77.8	77	70.0
Total	92	100.0	9	100.0	9	100.0	110	100.0

Source: Field Survey

From the 63 HHs that processed millets in pulverisers owned by others, 74 HHs (96.1%) could do that within 10 kilometre (km) distance and seven HHs (3.9%) could do that in 10-20 km, Table 5.3.

Table 5.3: Distance to Processing Unit

Distance	Lanjigarh		Narla		Th. Rampur		Total	
	No.	%	No.	%	No.	%	No.	%
0-10 km	61	96.8	6	85.7	7	100.0	74	96.1
11-20 km	2	3.2	1	14.3	0	0.0	3	3.9
Total	63	100.0	7	100.0	7	100.0	77	100.0

Source: Field Survey

5.3 Marketing

Marketing of millets is considered important for millet producing HHs to earn income by selling their surplus produce. Better marketing opportunities generate hope and interest to cultivate millets among these HHs. Out of the total 312 HHs surveyed who reported marketing of millets during 2016-17, 59.0 per cent sold millets in weekly hat, 31.1 per cent to local traders, 22.1 per cent sold to mill owners, 15.0 per cent farmers sold to middlemen, and 13.5 per cent sold to money lenders against loan taken before harvest, Table 5.4. These figures are not mutually exclusive and would not add up as a particular HH can sell at multiple places. It is further revealed from the field survey that from the 312 HHs that sold millets, 295 HHs had produced millets in 2016-17 and the remaining 17 HHs sold from their previous stock or from millets obtained through exchange and/or gift (also see Table 1.2).

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

Blocks	Weekly Hat		Local Trader		Mill Owner		Middleman		Money Lender		Total	
	No	%	No	%	No	%	No	%	No	%	No	%
Lanjigarh	122	69.3	48	27.3	52	29.6	43	24.4	30	17.1	176	100.0
Narla	61	61.0	30	30.0	7	7.0	4	4.0	6	6.0	100	100.0
Th. Rampur	1	2.7	19	52.8	10	27.8	0	0.0	6	16.7	36	100.0
Total	184	59.0	97	31.1	69	22.1	47	15.1	42	13.5	312	100.0

Source: Field Survey

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

5.4 Production, Consumption, Sale and Storage

The FGDs indicated that since the inception of 'Green Revolution' there has been a shift to more and more areas for production of rice. The rain fed crops (millets, pulses and traditional varieties of rice) that were grown in these areas earlier have declined. As the area is rain fed, the current rice crops cultivated are adversely affected by natural hazards leading, at times, to crop failures. The older generation people continue to consume millets, which is one of the reasons for the cultivation of millets in some areas.

The production, consumption, sale and storage of millets per HH are given in Table 5.5. The production of millets per HH is 143.5 kg. Across blocks, the production per HH is 131.3 kg in Lanjigarh, 153.8 kg in Narla, and 159.9 kg in Th. Rampur.

The consumption per HH is 66.1 kg. Across blocks, consumption per HH is 58.4 kg in Lanjigarh, 52.4 kg in Narla, and 106.3 kg in Th. Rampur. In fact, out of 482 HHs that cultivated millets in the year 2016-17, only five HHs have not consumed any millet as they sold their entire produce.

The per HH millets marketed or sold is 106.8 kg. Across blocks, it is 95.5 kg in Lanjigarh, 123.8 kg in Narla and 114.7 kg in Th. Rampur. As conveyed earlier, from the 312 HHs who sold millets 17 HHs had not produced millets during 2016-17, but sold the millets stock they had from earlier years or from millets obtained through exchange/gift.

The per HH millet storage is 9.3 kg. Across blocks it is 5.2 kg in Lanjigarh, 11.9 kg in Narla, and 16.8 kg in Th. Rampur.

From the total production of 691.8 quintals (Table 3.1), if one uses the average per HH consumption, sale and storage (Table 5.5) then the HHs consumed around 315.3 quintals (45.6%) of the produce, the HHs sold (including the amount by the 17 HHs that

did not produce that year) around 333.2 quintals (48.2%) of the produce, and stored around 4.3 quintals (6.1%) of the produce.

Table 5.5: Production, Consumption, Sale and Storage of Millets per Household

Blocks	Production (kg) N=482	Consumption (kg) N=477	Sale (kg) N=312	Storage (kg) N=463
Lanjigarh	131.3	58.4	95.5	5.2
Narla	153.8	52.8	123.8	11.9
Th. Rampur	159.9	106.3	114.7	16.8
Total	143.5	66.1	106.8	9.3

Source: Field Survey

5.5 Conclusion

During baseline survey, before implementation of OMM, 73.6 per cent of the HHs processed their millets (particularly for dehusking and grinding) manually. From those who processed through machines, almost all of them (96.1%) accessed it within 10 kilometres and remaining HHs accessed it within 10-20 kilometres. The HHs sold their millets in multiple ways: weekly hat (59.0%), local trader (31.1%), mill owner (22.1%), middle man (15.1%), and moneylender (13.5%). From the total production of millets, nine-twentieths (45.6%) is consumed, nearly half (48.2%) is sold, and one-twentieth (6.1%) is stored.

6
MAJOR FINDINGS

6.1 Agriculture is one of the important economic activities of almost all HHs (97.8%). Across blocks, it is as follows: 96.81 per cent are engaged in agricultural activities in Lanjigarh, 99.3 per cent in Narla, and 98.0 per cent in Th. Rampur.

6.2 The total production of millets is 691.6 quintals, of which *ragi* is 654.5 quintals (94.6%), *gurji* is 34.8 quintals (5.0%), and *kodo* is 2.3 quintals (0.3%).

6.3 The yield of millets is 1.5 qtl/ha. Across millet crops, the yield of *ragi* is 3.9 qtls/ha, the yield of *gurji* is 3.0 qtls/ha, and the yield of *kodo* is 1.1 qtls/ha.

6.4 The quality of seeds used by the farmers is completely based on their local availability and accessibility.

6.5 In this district, farmers had not adopted system of millet intensification (SMI) method during the baseline survey.

6.6 Millets are consumed in all seasons and in all meals during the day.

6.7 The millet consumption per HH is 66.1 kg. Across blocks, it is 58.4 kg in Lanjigarh, 52.8 kg in Narla, and 106.3 kg in Th. Rampur.

6.8 Nearly half of the millets produced (48.2%) is sold. Per HH sale of millets is 95.5 kg in Lanjigarh, 123.8 kg in Narla, and 114.7 kg in Th. Rampur.

ସଂଯୁକ୍ତ ଗୃହ - ୧

ଓଡିଶାର ଆଦିବାସୀ ଅଞ୍ଚଳରେ କ୍ଷୁଦ୍ରଶସ୍ୟର 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 ପଛୁଆବର୍ଗ(iv) ସାମାଜିକ ଏବଂ ଆର୍ଥିକ ଅନଗ୍ରସର ଶ୍ରେଣୀ
(v ସାଧାରଣ(ଉଲ୍ଲେଖକର)

(ଘ) ଉପଜାତି (ଉଲ୍ଲେଖକର) _____

ଙ) ଧର୍ମ: (i) ହିନ୍ଦୁ (ii) ମୁସଲମାନ (iii) ଖ୍ରୀଷ୍ଟିଆନ(iv) ଅନ୍ୟାନ୍ୟ(ଉଲ୍ଲେଖକର)

(ଚ) ବି. ପି.ଏଲ ଶ୍ରେଣୀରେ ଅନ୍ତର୍ଭୁକ୍ତକି ? ହଁ/ ନା

(ଛ) ଘରରପ୍ରକାର ଏବଂ କୋଠାରୀ ସଂଖ୍ୟା: ପକ୍କା- ଆଶିଂକପକ୍କା - ମାଟି-

୨. ସରକାରଙ୍କ କ୍ଷୁଦ୍ରଶସ୍ୟ ମିଶନରେ ଭାଗୀଦାର ଅଛନ୍ତିକି? ହଁ/ ନା

୩. ପରିବାରର ମୋଟ ସଦସ୍ୟଙ୍କ ସଖ୍ୟା:

ଲିଙ୍ଗ	ବୟସବର୍ଗ(ବର୍ଷରେ)		
	୧୪ବର୍ଷ ପର୍ଯ୍ୟନ୍ତ	୧୫-୬୦ବର୍ଷ ମଧ୍ୟରେ	୬୦ବର୍ଷରୁ ଉର୍ଦ୍ଧ
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 ଠାରୁଋଣ କରିଛନ୍ତିକି? 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. କ୍ଷୁଦ୍ରଶସ୍ୟ 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 ଯଥେଷ୍ଟଥିଲା କି? ହଁ/ ନା

(ଗ) ବିହନକୁ ବିଶୋଧନ କରିଥିଲେ କି? ହଁ/ ନା

(ଘ) ବିହନରମାନ କିପରିଥିଲା? i) ଭଲii) ସାଧାରଣiii) ଖରାପ

୯. କ୍ଷୁଦ୍ରଶସ୍ୟଚାଷପ୍ରଣାଳୀ(ଗତବର୍ଷ)

ଚାଷ ପ୍ରଣାଳୀ	ଠିକ ଚିହ୍ନ ଦିଅନ୍ତୁ	ଚାଷ ପ୍ରଣାଳୀ	ଠିକ ଚିହ୍ନ ଦିଅନ୍ତୁ
ଅଙ୍କୁରୋଦ୍ଗମ ପରୀକ୍ଷଣ		ମେସିନ୍ ଦ୍ୱାରା ଘାସବଛା	

ଛଟାବୁଣା		କେତେଥର ଘାସବଛା ହୋଇଥିଲା(ସଂଖ୍ୟାରେ)	
ଧାଡିବୁଣା		ଜୈବିକ ସାରର ବ୍ୟବହାର	
ରୁଆ		ଜୈବିକ କୀଟନାଶକର ବ୍ୟବହାର	
ଏସ.ଏମ.ଆଇ ପ୍ରଣାଳୀ		ରାସାୟନିକ ସାରର ବ୍ୟବହାର	
ହାତରେ ଘାସବଛା		ରାସାୟନିକ କୀଟନାଶ କରବ୍ୟବହାର	

୧୦ .କ୍ଷୁଦ୍ରଶସ୍ୟରଉତ୍ପାଦନଏବଂବ୍ୟବହାର(ଗତବର୍ଷ)

କ୍ଷୁଦ୍ରଶସ୍ୟର ପ୍ରକାର	କେତେ ଜମିରେ ହୋଇଥିଲା (ଏକରରେ)	ମୋଟଉତ୍ପାଦନ (କ୍ୱିଣ୍ଟାଲରେ)	ଘରେ ବ୍ୟବହୃତ (କ୍ୱିଣ୍ଟାଲରେ)	ବିହନପାଇଁରଖିଥିବା ପରିମାଣ (କିଲୋଗ୍ରାମରେ)	ବିକ୍ରିକରିଥିବା ପରିମାଣ (କ୍ୱିଣ୍ଟାଲରେ)	ମୂଲ୍ୟ (କ୍ୱିଣ୍ଟାଲପିଛା/ ଟଙ୍କାରେ)

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

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

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

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

୧୪. ଆବଶ୍ୟକ ପଡିଲେ କେଉଁଠାରୁ କ୍ଷୁଦ୍ରଶସ୍ୟ କିଣିଥାଆନ୍ତି?

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

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

ଯଦି ଉତ୍ତର, ମେସିନ୍ ସାହାଯ୍ୟରେହୋଇଥାଏ ? ନିଜର ମେସିନ୍ ଅଛି କି? ହଁ/ ନା

୧୬. ଆପଣ କ୍ଷୁଦ୍ରଶସ୍ୟରେ କିପ୍ରକାରର ଖାଦ୍ୟ ପ୍ରସ୍ତୁତି କରିଥାଆନ୍ତି ?

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

୧୭. ମହିଳାମାନେ କ୍ଷୁଦ୍ରଶସ୍ୟ ପ୍ରସ୍ତୁତି କରିବାରେ କିଛି ଅସୁବିଧାର ସମ୍ମୁଖୀନ ହେଉଛନ୍ତିକି? ହଁ/ ନା

୧୮. କ୍ଷୁଦ୍ରଶସ୍ୟର ବିକ୍ରୟ ପ୍ରଣାଳୀ:

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

୧୯. ବିକ୍ରୟସ୍ଥାନ ଏବଂ ଗ୍ରାମ ମଧ୍ୟରେ ଦୁରତ୍ୱ (କିଲୋମିଟରରେ)

ତଦନ୍ତକାରୀଙ୍କ ସ୍ୱାକ୍ଷର

ସଂଯୁକ୍ତ ଗୃହ - ୨

ନବକୃଷ୍ଣ ଚୌଧୁରୀ ଉନ୍ନୟନ ଗବେଷଣା କେନ୍ଦ୍ର ଭୁବନେଶ୍ୱର

ଗୋପନୀୟ, କେବଳ ଗବେଷଣା ନିମିତ୍ତ

ଓଡିଶାର 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:

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

ବି. ଦ୍ର: ଗ୍ରାମମୁଖିଆ, 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:

ସୂଚାଙ୍କ	ପୂର୍ବରୁ	ଗତବର୍ଷ
ଜମିର ପରିମାଣ (ଏକରରେ)		
କିସମ		
ଅଧିକ ଅମଳକ୍ଷମ		
ପାରମ୍ପରିକ		
ଚାଷପ୍ରଣାଳୀ		
ଛଟାବୁଣା		
ଧାଡିବୁଣା		
ଏସ.ଏମ.ଆଇ		
ବଛାବଛି (ଲୋକମାନଙ୍କଦ୍ୱାରା)		

ବଛାବଛି (ମେସିନ୍ ସାହାଯ୍ୟରେ)		
କେତେଥର ବାଛନ୍ତି		
କେଉଁ ଖତସାର ବ୍ୟବହାର କରନ୍ତି (କମ୍ପୋଷ୍ଟଖତ)		
ରାସାୟନିକସାର		
କ୍ଷୁଦ୍ରଶସ୍ୟ ବୁଣାଠାରୁ ଅମଳ ପର୍ଯ୍ୟନ୍ତ କେତେ ସମୟ ଲାଗେ(ଦିନ)		
କେଉଁ ଋତୁରେ		
ଖରିଫ ଋତୁ		
ରବି ଋତୁ		
ସମର ଋତୁ		
ଅମଳର ମାତ୍ରା (ହେକ୍ଟରପିଛାକ୍ୟୁଣ୍ଟାଲରେ)		
ପ୍ରକାର-୧		
ପ୍ରକାର-୨		

ବିଭାଗ:- ୨ (କ୍ଷୁଦ୍ରଶସ୍ୟର ବ୍ୟବହାର)

୧. କ୍ଷୁଦ୍ରଶସ୍ୟ ସମ୍ପର୍କିତ ପାରମ୍ପରିକ ଉତ୍ସବ କିଛି କରାଯାଏ କି? ହଁ/ ନା

ଯଦି ହଁ: ୧) ପାରମ୍ପରିକ ଉତ୍ସବ, ୨. ବିହନ ବଦଳ, ୩. ବିଭିନ୍ନ ପ୍ରକାରର ଖାଦ୍ୟପ୍ରସ୍ତୁତି, ୪. ପ୍ରଦର୍ଶନୀ କିମ୍ବା ମେଳାର ଆୟୋଜନ

୨. କେଉଁ ମାସ/ଋତୁରେ କ୍ଷୁଦ୍ରଶସ୍ୟର ଅଧିକ ବ୍ୟବହାର କରାଯାଇ ଥାଏ? ମାସ_____ଋତୁ_____

କାରଣ କଣ - ଉଲ୍ଲେଖକର

୩. କ୍ଷୁଦ୍ରଶସ୍ୟରୁ ପ୍ରସ୍ତୁତ ଖାଦ୍ୟକୁ ଅଙ୍ଗନୱାଡି ମାନଙ୍କରେ ଦିଆଯିବା ପାଇଁ ଆପଣ ଚାହୁଁଛନ୍ତି କି? ହଁ/ ନା

ଯଦି ହଁ, କାରଣ କଣ ଉଲ୍ଲେଖକର

୪. କ୍ଷୁଦ୍ରଶସ୍ୟରୁ ପ୍ରସ୍ତୁତି ଖାଦ୍ୟକୁ ବିଦ୍ୟାଳୟ ମାନଙ୍କରେ ଦିଆଯିବାପାଇଁ ଆପଣ ଚାହୁଁଛନ୍ତି କି? ହଁ/ ନା

ଯଦି ହଁ, କାରଣ କଣ ଉଲ୍ଲେଖକର

୫. କ୍ଷୁଦ୍ରଶସ୍ୟରୁ ପ୍ରସ୍ତୁତି ଖାଦ୍ୟକୁ ଛାତ୍ରାବାସ ମାନଙ୍କରେ ଦିଆଯିବା ପାଇଁ ଆପଣ ଚାହୁଁଛନ୍ତି କି? ହଁ/ ନା

ଯଦି ହଁ, କାରଣକଣ ଉଲ୍ଲେଖକର

୬. କ୍ଷୁଦ୍ରଶସ୍ୟକୁ ସହାୟକମୂଲ୍ୟ କେନ୍ଦ୍ରମାନଙ୍କରେ ଲୋକମାନଙ୍କୁ ବିତରଣ କରାଯିବାପାଇଁ ଆପଣ ଚାହୁଁଛନ୍ତିକି? ହଁ/ ନା

ଯଦି ହଁ, କାରଣକଣ ଉଲ୍ଲେଖକର

ବିଭାଗ: ୩ – କ୍ଷୁଦ୍ରଶସ୍ୟର ପ୍ରସ୍ତୁତିପ୍ରଣାଳୀ

୧.ସାଧାରଣତଃ ଲୋକମାନେ କିପରି କ୍ଷୁଦ୍ରଶସ୍ୟକୁ ପ୍ରକ୍ରିୟା କରଣକରନ୍ତି* ? ☐

୨.କେତେ ପରିବାର କ୍ଷୁଦ୍ରଶସ୍ୟର ପ୍ରକ୍ରିୟାକରଣ ନିଜ ହାତରେ କରନ୍ତି?

୩.ଗ୍ରାମରେ କିମ୍ବା ପଞ୍ଚାୟତରେ କ୍ଷୁଦ୍ରଶସ୍ୟକୁ ପ୍ରସ୍ତୁତ କରିବାପାଇଁ ମେସିନ୍ ଅଛିକି ? ହଁ/ ନା

ଯଦିହଁ, ତେବେ କେତୋଟି ମେସିନ୍ ଅଛି?_____

ଯଦିନା, ତେବେ କେତେ ଦୁରତ୍ୱରେ ମେସିନ୍ ଉପଲବ୍ଧ ହେଉଅଛି,(କିଲୋମିଟରରେ)_____

୪.ଗ୍ରାମଠାରୁ କେତେଦୂରରେ କ୍ଷୁଦ୍ରଶସ୍ୟକୁ ପ୍ରସ୍ତୁତି କରିବାପାଇଁ ଯନ୍ତ୍ରାଂଶ ଉପଲବ୍ଧ ଅଛି? (କିଲୋମିଟରରେ)

(i*ହାତରେଗୁଣ୍ଡକରିମେସିନ୍ଦ୍ୱାରାବଛାବଛିକରିବାଚୋପାଛଡାଇ (iv ,ହାତରେବଛାବଛିକରିବାଚୋପାଛଡାଇ (iii ,ମେସିନ୍ଦ୍ୱାରାଗୁଣ୍ଡକରି(ii ,

ବିଭାଗ: ୪ -ବିକ୍ରୟ ପ୍ରଣାଳୀ

୧ .ବର୍ତ୍ତମାନ ବିକ୍ରୟ କରାଯାଉଥିବା କ୍ଷୁଦ୍ରଶସ୍ୟର ପ୍ରଣାଳୀ* ☐

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

☐ ☐ ☐ ☐

୨. ଚାଷୀମାନେ ସାଧାରଣତଃ କେଉଁଠାରେ କ୍ଷୁଦ୍ରଶସ୍ୟକୁ ବିକ୍ରୟ କରିଥାଆନ୍ତି?*

ମିଲ୍ଲାଲିକଙ୍କୁ ii) ମଧ୍ୟସ୍ଥଙ୍କୁ iii) ସ୍ଥାନୀୟବ୍ୟବସାୟୀଙ୍କୁ iv) ବଜାର/ ହାଟରେ v) ସାହୁକାରଙ୍କୁ 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 ସାଥି, ii) ଗ୍ରାମ୍ୟ କୃଷି କର୍ମଚାରୀ, iii) ବ୍ଲକ 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