BASELINE SURVEY:

NUAPADA 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

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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 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 Rain fed 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 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 Nuapada and the lead author for this has been Ms Diptimayee Jena, PhD Scholar, NCDS, whose PhD 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. Poma Tudu, IAS, former collector Mrs. Madhusmita Sahoo IAS, Present Collector, Nuapada District, 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 Nuapada District, particularly to Mr. MD. Jahed, Deputy Director Agriculture (DDA), Mr. Bishnu Prasad Nayak, District Agriculture Officer (DAO), Mr. Sudhansu Sekhar Sahoo, Scheme Officer, Mr. Yogeswar Triwedi, Assistant Agriculture Officer(AAO), Boden Block, Mr. Tankadhar Tanti, AAO, Komna Block, Mr. Sanjay Kumar Sahoo, AAO, Sinapali Block.

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Last but not least, credit and special thanks to the members of the Facilitating Agencies (FAs) working in the three blocks of the District, namely, Palli vikash of Boden Block, Ahinsha Club of Komana Block and Sahabhagi Vikash Abhiyan (SVA) of Sinapali Block who have supported a lot during data collection.

Credit also goes to 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 have worked in the Project as Research Assistants. We also thank Ms Sidheswari Sahoo, Field Investigator and Forest Fire Project, who have supported in report. We would like to sincerely thank all farmer households, without their cooperation, collection of data would not have been possible.

Diptimayee Jena

EXECUTIVE SUMMARY

$1 Study Area

$1.1 The study area is confined to the selected three tribal blocks namely Boden, Komna and Sinapali Block of Nuapada District. Total number of surveyed Households (HHs) is 799, out of which 693 HHs are millets growers and 106 HHs are non-millets growers. Out of total 799 surveyed HHs under baseline survey, 323 HHs are from Boden, 192 HHs are from Komna and 284 HHs are from Sinapali. Out of 799 surveyed HHs, 106 HHs have not cultivated millet crops in 2016-17.

$1.2 To undertake the study, multi stage sampling method has been used to select the surveyed HHs. In the first stage, Nuapada District has been selected purposively for the study as it is one of the seven districts where state Government has introduced this programme. In the second stage, the three blocks namely Boden, Komna and Sinapali have been selected purposively. In the third stage, all the surveyed HHs from these blocks have been selected in consultation with district officials and local people. Again some of the surveyed HHs have been selected randomly for detailed analysis.

$2 Socio-Economic Profile

$.2.1 Agriculture is the main occupation of the surveyed HHs. It is found that 86.7 per cent are involved in agricultural activities. Data reveal that in Boden and Komna, 93.2 per cent and 92.2 per cent are involved in agricultural activities respectively. While in Sinapali 94.7 per cent are non-agricultural labour and 75.7 per cent are dependent on agriculture.

$.3 Production and Productivity

$.3.1 Two types of millets were cultivated such as *ragi* (finger millet) and *kodo*. It is observed that 689 HHs have cultivated *ragi* where as *kodo* is cultivated by 58 HHs. Cultivation of *kodo* is very less in comparison to *ragi.* Out of total cultivated area, *ragi* is cultivated in 291.7 hectare of land and *kodo* is cultivated in 15.8 hectare of land.

$.3.2 In case of *ragi* cultivation it is observed that out of 689 *ragi* cultivator HHs, 486 HHs have broadcasted, 157 HHs have cultivated through line sowing, 24 HHs have cultivated through transplanting and three HHs have used System of Millets Intensification (SMI) method. Remaining 19 HHs have adopted multiple methods for *ragi* cultivation.

$.3.3 Out of 58 *kodo* cultivator HHs, 33 HHs have adopted broadcasting, 14 HHs have cultivated through line sowing, two HHs have cultivated through transplanting and two HHs have used SMI method for cultivation of *kodo*. Remaining seven HHs have adopted 1+ methods for *kodo* cultivation.

$.4 Consumption

$4.1 It is observed from the distribution on time of millets meal (not mutually exclusive) on consumption of millets that 92.6 per cent HHs prefer to consume millets at lunch, 18.3 per cent HHs at breakfast, 1.2 per cent HHs consume as evening snacks and 0.3 per cent HHs consume at dinner.

$4.2 Season-wise performance (not mutually exclusive) reveals that consumption of millet is more in summer season compared to rainy and winter season. It is observed that 93.5 per cent HHs consumed millets during summer season, 8.9 per cent HHs consumed during rainy season and 13.8 per cent HHs consumed during winter season.

$4.3 Popular millet food recipe is water finger millet (*mandia torani).* It is consumed by 75.8 per cent HHs.

$5 Processing & Marketing of Millets

$5.1 Out of 799 HHs, 606 HHs processed millets manually and 51 HHs process both manually and by machine. Rest 37 HHs did not respond to the question.

$5.2 Out of total 156 HHs, who processed millets through machine, five HHs have their own machine and 151 HHs went to other pulverisers to process millets.

$5.3 Out of 151 HHs, 100 HHs have access to processing unit within ten kilometre (km) radius. 44 HHs have access within 11-20 km distance and 12 HHs have access to machine which is more than 20 km distance from their village.

$5.4 It is found that 67 per cent have sold millet to local traders, 22.9 per cent have sold millets in local *haat* and 9.1 per cent have sold to money lenders. 6.1 per cent have sold to mill owners and only 2.5 per cent to middlemen. Rest four per cent have sold through other channels.

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ABBREVIATIONS

AAO	: Assistant Agriculture Officer
BPL	:Below Poverty Line
DDA	: Deputy Director Agriculture
HH	Household
ha	Hectare
km.	Kilometre
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
NCDS	Nabakrushna Choudhury Centre for Development Studies
OBC	Other Backward Classes
OMM	Odisha Millets Mission
SC	Scheduled Caste
SMI	System of Millet Intensification
ST	Scheduled Tribe
SVA	Sahabhagi Vikash Abhiyan
WASSAN	Watershed Support Service and Activities

1
INTRODUCTION

1.1 Background

The southern region of the state of Odisha has been exposed to natural calamities like drought frequently over the centuries (Odisha Economic survey 2016-17). It is also observed that in some of the districts of Odisha, especially in tribal areas, malnutrition levels are higher than the national average (National Family Health Survey- 4, 2015-16). To mitigate drought and secure nutrition, the state government of Odisha has announced the "Special Programme for Promotion of Millets in Tribal Areas of Odisha" in the Agricultural Budget 2016-17, which has been grounded as 'Odisha Millets Mission' (OMM) in Kharif 2017.

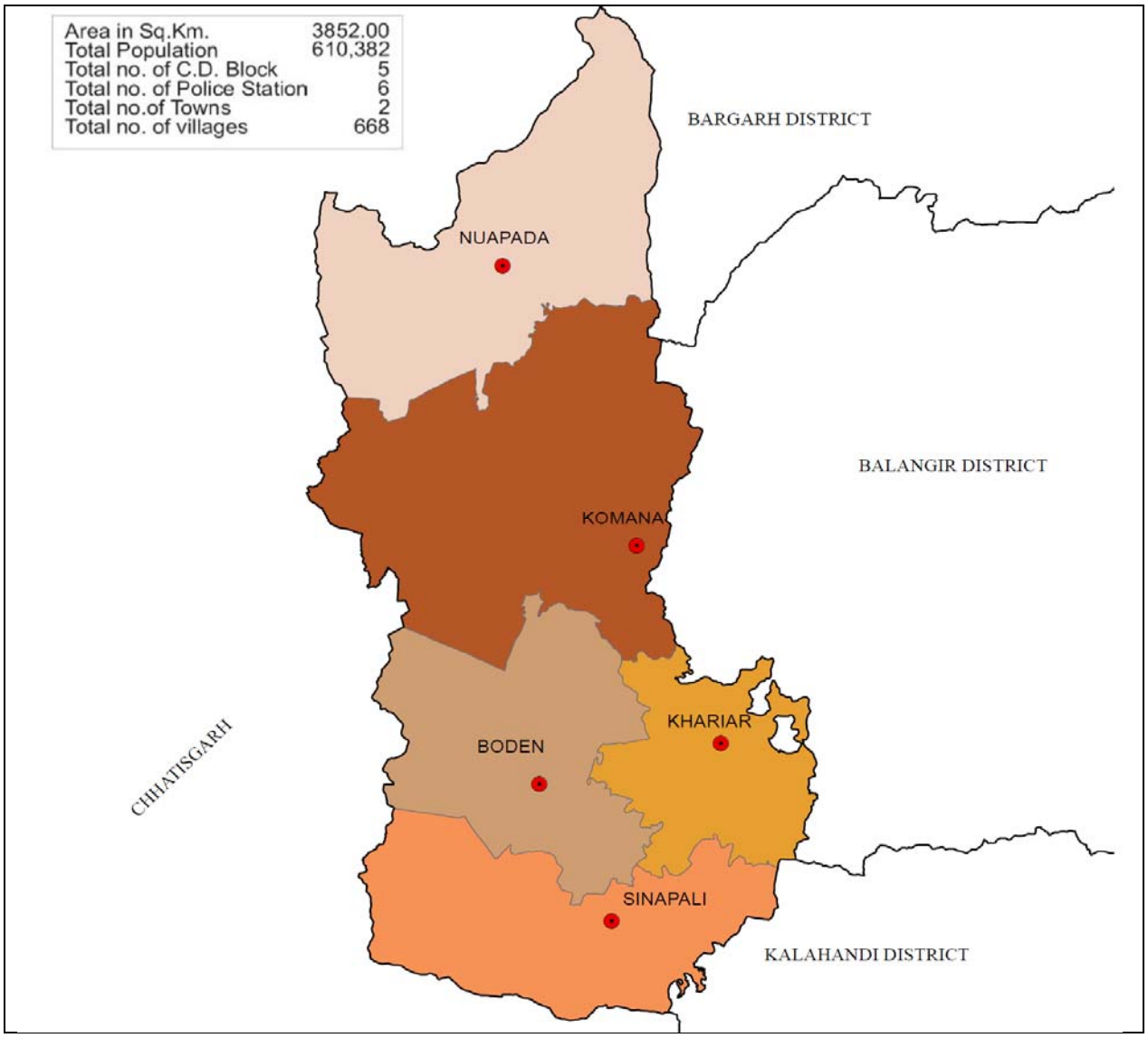
The programme envisages revival of millets through interventions in four dimensions, such as production, consumption, processing and marketing in tribal districts of Odisha. So the baseline study of "Special Programme for promotion of Millets in Tribal areas of Odisha" in Nuapada district is an attempt to provide necessary information on millets production, including the agronomical package of practices followed by the sample households (HHs) and to understand the utilisation of millets in the sample HHs. It's aim is to assess the impact of the Programme on household, employment, income, productivity, consumption, processing and marketing of millets after implementation.

1.2 District Profile

The district has geographical area of 3852 square kilometres (Sq.kms) and 6.1 lakhs of population as per 2011 Census which accounts for 2.47 per cent of the state's territory and shares 1.45 per cent of the state's population. As per 2011 Census, the literacy rate of the district is 57.3 per cent.

The agricultural data of the year 2016-17 shows that the net area shown in the district was 1,89,000 hectares. Other key indicators of Nuapada District are given in Table 1.1.

Fig 1.1 Map of Nuapada with Blocks



Source: **http://gisodisha.nic.in/Block/NUAPADA.pdf**

Table 1.1: Key Indicators of Nuapada

Indicators	Value
Census-2011	
Population (In Lakh)	6.1
Male (In Lakh)	3.0
Female (In Lakh)	3.1
Scheduled Caste (In Lakh)	0.8
Scheduled Tribe (In Lakh)	2.1
Others(In Lakh)	3.2
Household (HH) (In Lakh)	1.5
Average HH Size	4.0
Sex Ratio	1021
Total Worker (In Lakh)	3.1
Main Worker(In Lakh)	1.5
Marginal Worker(In Lakh)	1.5
Non-Worker(In Lakh)	3.0
Work Participation Rate (WPR)	50.1
Literacy Rate (%)	57.3
Total Geographical Area (sq.km)	3852
Land Use Pattern (Area in '000 ha), (2014-15)*	
Forest	43
Land put to Non-agricultural use	25
Barren & Non-Cultivable Land	8
Permanent Pasture	17
Net Area Sown	109
Cultivable waste Land	9
Other Fallow	10
Current Fallows	23
Misc. Trees and Groves	1
District at a Glance 2016*	
Average Fertilizer Consumption (Kg/ha)	38.2
Irrigation Potential ('000 ha)	104.4
Other Information (Odisha Economic Survey (2014-15)	
Proportion of Villages Electrified (as on March 2014)	100.0
Credit Deposit Ratio (2012)	34.8
No. of Aanganwadi Centres (AWCs), 2016	1356
No. of Job Card Issued	123295
HH provided employment in MGNREGS	79857

Source: District Statistical Hand book, Nuapada-2011
*District at a Glance-2016
Note: MGNREGS is Mahatma Gandhi National Rural Employment Guarantee Scheme

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

Nuapada District is one of the districts among the proposed seven tribal districts where it is planned to conduct a baseline survey. The study area is confined to the selected three tribal blocks namely Boden, Komna and Sinapali. Out of total 799 surveyed HHs under baseline survey, 323 HHs are from Boden, 192 HHs are from Komna, 284 HHs are from Sinapali. Out of 799 surveyed HHs, 106 HHs have not cultivated millet crops during 2016-17. (Table-1.1)

1.4.2 Sampling

To undertake the study, multistage sampling method has been used to select the samples. In the first stage, Nuapada district has been selected purposively for the study as it is one of the seven districts where state Government has introduced this programme. In the second stage, the three blocks namely Boden, Komna and Sinapali have been selected purposively. In the third stage, the surveyed HHs from these blocks have been selected in consultation with district officials and local people. Again some of the surveyed HHs have been selected randomly for detailed analysis.

The basic information collected from all the HHs are covered under the programme. In addition to this, detailed information has also been collected from the sample HHs which are covered under the study and from the controlled HHs from the same/adjacent villages those who are not covered under the programme. We have randomly selected ten per cent of the intervened HHs as sample and equal number of HHs from the list of non intervened HHs as controlled sample. In case of non availability of information the sample was not replaced. We have collected information from the entire surveyed HHs of beneficiary and non-

beneficiary HHs. Table-1.2 explains that total number of surveyed HHS is 799, out of which 693 HHs are millets growers and 106 HHs are Non-millets growers.

Table 1.2: Surveyed HHs in Nuapada District

Block	Programme HHs		Surveyed HHs		HHs Cultivated Millets in 2016-17		HHs did not Cultivate Millets in 2016-17	
	No	%	No	%	No	%	No	%
Boden	389	44.3	323	40.4	301	43.4	22	20.8
Komna	196	22.3	192	24.0	177	25.6	15	14.2
Sinapali	294	33.4	284	35.6	215	31.0	69	65.0
Total	879	100.0	799	100.0	693	100.0	106	100.0

Source: Field Survey
Note: HHs denotes households

1.4.3 Data Collection

This baseline survey report is based on both primary and secondary 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 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 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

Table 2.1 shows that out of 799 sample HHs, 651 HHs (81.5%) belong to ST, 27 HHs (3.4%) belong to SC and 121 HHs (15.1%) belong to other social category.

Table 2.1: Distribution of Households by Social Group across Blocks

Social Group	Boden		Komna		Sinapali		Total	
	No.	%	No.	%	No.	%	No.	%
ST	323	100.0	160	83.3	168	59.2	651	81.5
SC	0	0.0	2	0.1	25	8.8	27	3.4
Others	0	0.0	30	15.6	91	32.0	121	15.1
Total	323	100.0	192	100.0	284	100.0	799	100

Source: Field Survey

Table 2.2 explains, across blocks out of the total population as per the surveyed HHs 37.3 per cent HHs belong to Boden, 23.1 per cent HHs belong to Komna and 39.6 per cent HHs belong to Sinapali.

Table 2.2.: Distribution of Population by Gender across Blocks

Gender	Boden		Komna		Sinapali		Total	
	No.	%	No.	%	No.	%	No.	%
Male	457	49.8	290	51.1	490	50.3	1237	50.3
Female	461	50.2	277	48.9	485	49.7	1223	49.7
Total	918	100.0	567	100.0	975	100.0	2460	100.0
	(37.3)		(23.1)		(39.6)		(100.0)	

Source: Field Survey

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

2.3 Poverty Status

Figure 2.1 shows that across blocks the incidence of poverty is highest in Boden i.e. 40.9 per cent HHs and it is observed to be a little lower in Komna and Sinapali as 22.4 per cent and 36.8 per cent respectively.

2.4 Economic Activities

It is evident from Table 2.3 that across blocks agriculture is the main occupation of HHs. It is found that 86.7 per cent HHs are involved in agricultural activities. Data reveals that in Boden and Komna, 93.2 per cent HHs and 92.2 HHs respectively are involved in agriculture. While in Sinapali, 94.7 per cent HHs are non-agricultural labourers and 75.7 per cent HHs are dependent on agriculture.

Fig-2.1: Percentage Distribution of Households by economic category across Blocks

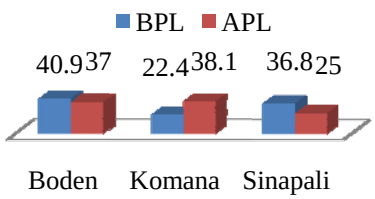


Table-2.3: Distribution of Households by Economic Activities across Blocks

Activities	Boden		Komna		Sinapali		Total	
	No.	%	No.	%	No.	%	No.	%
Agriculture	301	93.2	177	92.2	215	75.7	693	86.7
Non-Agricultural Labour	24	7.4	19	9.9	269	94.7	312	39.0
Service holder	1	0.3	2	1.0	2	0.7	5	0.6
Business	3	0.9	5	2.6	1	0.4	9	1.1
Agricultural Labour	269	83.3	67	34.9	2	0.7	338	42.3
Total	323	100.0	192	100.0	284	100.0	799	100.0

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

Structure of House

Table 2.4 reveals that out of the total surveyed HHs in the three blocks, 98.4 per cent HHs have *pucca* houses. 0.3 per cent HHs have semi-*pucca* houses and 1.4 per cent HHs have *kutcha* houses.

Table-2.4: Distribution of Households by House Structure across Blocks

House Structure	Boden		Komna		Sinapali		Total	
	No.	%	No.	%	No.	%	No.	%
Pucca	310	96.0	192	100.0	284	100.0	786	98.4
Semi-Pucca	2	0.6	0	0.0	0	0.0	2	0.3
Kutcha	11	3.4	0	0.0	0	0.0	11	1.4
Total	323	100.0	192	100.0	284	100.0	799	100.0

Source: Field Survey

2.6 Conclusion

The socio-economic factors of the HHs surveyed indicate that more than 81 per cent HHs are STs and others are OBCs and SCs. The incidence of poverty was found more in Boden block. Around 87 per cent HH surveyed, have indicated cultivation as one of their economic activity. More than 98 per cent HHs stay in a *kutcha* houses.

3
PRODUCTION

3.1 Introduction

In this chapter an attempt has been made to understand the status of production and yield of millets in Nuapada district including usage of seeds and package of practices in Nuapada district.

3.2 Area, Production and Yield

Table 3.1 explains that production of *ragi* is 1.2 quintals per HH (qtls/ HH) and that of *kodo* is 0.6 qtls/ HH. The yield rate of *ragi* is 2.9 qtls/ha and for *kodo* the yield rate is 2.3 qtls/ha.

Table-3.1: Area, Production and Yield of Millets in Nuapada District

Millets	HHs		Area		Production		Yield	
	No.	%	ha	%	qtl	%	qtl/ha	qtl/HH
Ragi	689	99.4	291.7	94.9	851.6	95.9	2.9	1.2
Kodo	58	8.4	15.8	5.1	36.2	4.1	2.3	0.6
Total	693	100.0	307.5	100.0	887.8	100.0	2.9	1.3

Source: Field Survey

Note: HHs totals is not additive as 4 HHs have cultivated exclusively *kodo* and 54 HHs have cultivated both *ragi* and *kodo*

Table-3.2 explains that the yield rate of *ragi* is 2.9 qtls/ha and for *kodo* the yield rate is 5.7 qtls/ha in Boden block. Production of *ragi* is 1.4 qtls/ HH and that of *kodo* is 0.9 qtls/ HH in Boden block.

Table-3.2: Area, Production and Yield of Millets in Boden Block

Millets	HHs		Area		Production		Yield	
	No	%	ha	%	qtl	%	qtl/ha	qtl/HH
Ragi	301	100.0	147.8	99.5	427.4	99.0	2.9	1.4
Kodo	5	1.7	0.7	0.5	4.3	1.0	5.7	0.9
Total	301	100.0	148.6	100.0	431.6	100.0	2.9	1.4

Source: Field Survey

Note: HHs totals is not additive as 5 HHs have cultivated exclusively *kodo*

Table-3.3 explains that the yield rate of *ragi* is 2.4 qtls/ha and for *kodo* the yield rate is 2.1 qtls/ha in Komna block. Production of *ragi* is 1.2 qtls/ HH and that of *kodo* is 0.6 qtls/ HH in Komna block.

Table-3.3: Area, Production and Yield of Millets in Komna Block

Millets	HHs		Area		Production		Yield	
	No	%	ha	qtl/ha	qtl/ha	%	to/ha	qtl/HH
Ragi	173	97.7	85.7	87.3	203.7	88.7	2.4	1.2
Kodo	46	26.0	12.4	12.7	26.0	11.3	2.1	0.6
Total	177	100.0	98.1	100.0	229.6	100.0	2.3	1.3

Source: Field Survey

Note: HHs totals is not additive as 4 HHs have cultivated exclusively *kodo* and 42 HHs have cultivated both *ragi* and *kodo*

Table-3.4 explains that the yield rate of *ragi* is 3.8 qtls/ha and for *kodo* the yield rate is 2.3 qtls/ha in Sinapali block. Production of *ragi* is one qtls/HH and that of the *kodo* is 0.9 qtls/ HH in Sinapali block.

Table 3.4: Area, Production and Yield of Millets in Sinapali Block

Millets	HHs		Area		Production		Yield	
	No	%	ha	%	qtl	%	qtl/ha	qtl/HH
Ragi	215	100.0	58.2	95.7	220.5	97.4	3.8	1.0
Kodo	7	3.3	2.6	4.3	6.0	2.6	2.3	0.9
Total	215	100.0	60.8	100.0	226.5	100.0	3.7	1.1

Source: Field Survey

Note: HHs totals is not additive as 7 HHs have cultivated exclusively *kodo*

3.3 Perception on quality of seed used

Table 3.5 explains that highest 65.7 per cent HHs have used average quality of seed, 34.2 per cent HHs have used good quality seeds and 0.1 per cent HHs have used bad quality seeds.

Table-3.5: Perception of Millets farmers regarding quality of Seed

Seed Quality	Boden		Komna		Sinapali		Total	
	No.	%	No.	%	No.	%	No.	%
Good	4	1.3	28	15.8	205	95.3	237	34.2
Average	297	98.7	148	83.6	10	4.7	455	65.7
Bad	0	0.0	1	0.6	0	0.0	1	0.1
Total	301	100.0	177	100.0	215	100.0	693	100.0

Source: Field Survey

3.4 Package of Practices

This section explains different agronomic practices followed by HHs in the surveyed blocks of Nuapada district. The different agronomic practices are broadcasting, line sowing, transplanting, SMI method and 1+ methods.

Table 3.6 explains that total 689 surveyed HHs cultivated *ragi* in 291.7 ha of land, 486 HHs adopted broadcasting in 228.8 ha of land with production of 643.8 quintals and yield is 2.8 qtls/ha. 157 HHs have cultivated through line showing in 37.9 ha of land with production 142 quintals and yield of 3.7 qtls/ha. 24 HHs have cultivated through transplanting in 3.5 ha of land with production of 18.7 quintals and yield is 2.2 qtls/ha. Three HHs have adopted SMI method in 1.3 ha of land with four quintals of production and yield rate is three qtls/ha. Rest 19 HHs have followed 1+ methods of cultivation in 15.2 ha of land with 43.1 quintals of production and yield rate of 2.8 qtls/ha.

Table-3.6: Package of Practices for *Ragi* Cultivation

Package of practice	HHs		Area		Production		Yield
	No	%	ha	%	qtl	%	qtl/ha
Broadcasting	486	70.5	228.8	78.4	643.8	75.6	2.8
Line Showing	157	22.8	37.9	13.0	142.0	16.7	3.7
Transplant	24	3.5	8.5	2.9	18.7	2.2	2.2
SMI method	3	0.4	1.3	0.5	4.0	0.5	3.0
1+ Methods	19	2.8	15.2	5.2	43.1	5.1	2.8
Total	689	100.0	291.7	100.0	851.6	100.0	2.9

Source: Field Survey

Table 3.7 explains that total 58 surveyed HHs cultivated *kodo* in 15.8 ha of land, 33 HHs have adopted broadcasting in 8.3 ha of land with production of 19.3 quintals and yield is 2.3 qtls/ha. 14 HHs have cultivated through line showing in 4.5 ha of land with production of 11.65 quintals and yield of 2.6 qtls/ha. Two HHs have cultivated through transplanting in 0.4 ha of land with production of one quintal and yield is 2.5 qtls/ ha. Two HHs have adopted SMI method in 0.4 ha of land with one quintal of production and yield rate is 2.5 qtls/ha. Rest seven HHs have followed 1+ methods of cultivation in 2.2 ha of land with 3.25 quintals of production and yield rate of 1.5 qtls/ha.

Table-3.7: Package of Practices for *Kodo* Cultivation

Package of practice	HHs		Area		Production		Yield
	No	%	ha	%	qtl	%	qtl/ha
Broadcasting	33	56.9	8.3	52.6	19.3	53.3	2.3
Line Showing	14	24.1	4.5	28.2	11.65	32.2	2.6
Transplant	2	3.4	0.4	2.6	1	2.8	2.5
SMI method	2	3.4	0.4	2.6	1	2.8	2.5
1+ Method	7	12.1	2.2	14.1	3.25	9.0	1.5
Total	58	100.0	15.8	100.0	36.2	100.0	2.3

Source: Field Survey

3.5 Conclusion

There are two types of millets crop such as *ragi*, and *kodo* found to be cultivated in the study area. Among the crops, production of *ragi* is more in comparison to *kodo* millet. Around 65 per cent HH uses average quality seeds.

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 Consumption during different Meals of the Day

Table 4.1 explains that 18.5 percent HHs consumed millet items in their breakfast, 93.9 per cent HHs consumed as lunch, two per cent HHs consumed as evening snacks and 0.6 per cent HHs consumed at their dinner.

Table-4.1: Millets Consumption during different Meals of the Day

Food Pattern	Boden		Komna		Sinapali		Total	
	No.	%	No.	%	No.	%	No.	%
Breakfast	59	18.3	82	42.7	7	2.5	148	18.5
Lunch	299	92.6	171	89.1	280	98.6	750	93.9
Evening snacks	4	1.2	9	4.7	3	1.1	16	2.0
Dinner	1	0.3	1	0.5	3	1.1	5	0.6
Total	323	100.0	192	100.0	284	100.0	799	100.0

Source: Field Survey
Note: Column totals are not additions across different meals of the day.

4.3 Season wise Consumption of Millets

It is observed from the Table 4.2 that 93.5 per cent HHs consumed millet during summer season, 8.9 per cent HHs consumed during rainy season and 13.8 per cent HHs consumed during winter season.

Table-4.2: Season-wise Consumption of Millets

Seasons	Boden		Komna		Sinapali		Total	
	No.	%	No.	%	No.	%	No.	%
Summer	297	92.0	173	90.1	277	97.5	747	93.5
Rainy	5	1.5	21	10.9	45	15.8	71	8.9
Winter	6	1.9	45	23.4	59	20.8	110	13.8
Total	323	100.0	192	100.0	284	100.0	799	100.0

Source: Field Survey
Note: Column totals are not additions across seasons.

4.4 Types of Millets Recipes

It is observed from table 4.3 that 15.9 per cent HHs consumed millets as porridge, locally called as '*jau*'. 23.9 percent HHs consumed millet in the form of cake/bread. Locally

it is called '*pitha*'. Only four per cent HHs consumed millet as **'***tampo'*, mostly HHs from Boden and Komna consumed this recipe. Another popular millet food recipe is 'Water finger millet or *mandia torani.* It *is* a common food for 75.8 per cent HHs of selected three blocks and very few people were using millet as beverages in the form of millet beer locally called *handia* and 0.5 percent HHs make punji rice out of millets.

Table-4.3: Consumption of Millet Recipes

Recipes	Boden		Komna		Sinapali		Total	
	No.	%	No.	%	No.	%	No	%
Jau	21	6.5	35	18.2	71	25.0	127	15.9
Cake	86	26.6	68	35.4	37	13.0	191	23.9
Tampo	27	8.4	5	2.6	0	0.0	32	4.0
Mandia-Torani	281	87.0	138	71.9	187	65.8	606	75.8
Punji Rice	3	0.9	1	0.5	0	0.0	4	0.5
Total	323	100.0	192	100.0	284	100.0	799	100.0

Source: Field Survey

Note: Column totals are not additions across different recipes

.

4.5 Conclusion

Around 93 per cent HHs consumed millets in summer season and around 94 per cent HHs also take as lunch. Around 75 per cent HHs preferred to consume millets in form of *mandia torani.*

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

Table 5.1 explains that out of 762 HHs, 606 HHs processed millets manually, 51 HHs processed by machine and 105 HHs processed both manually and by machine.

Table-5.1: Method of Processing of Millets

Processing	Boden		Komna		Sinapali		Total	
	No.	%	No.	%	No.	%	No.	%
Manually	260	86.4	169	95.5	177	62.3	606	79.5
Machine	14	4.7	7	4.0	30	10.6	51	6.7
Both	27	9.0	1	0.6	77	27.1	105	13.8
Total	301	100.0	177	100.0	284	100.0	762	100.0

Source: Field Survey

It is observed from table 5.2 that out of total 156 HHs, who processed millets by machine, five HHs have their own machines and 151 HHs went to other's pulverisers to process the millets.

Table-5.2: Availability and Accessibility of Processing Unit

Processing units	Boden		Komna		Sinapali		Total	
	No.	%	No.	%	No.	%	No.	%
Own machine	0	0.0	1	12.5	4	3.7	5	3.2
In other pulveriser	41	100.0	7	87.5	103	96.3	151	96.8
Total	41	100.0	8	100.0	107	100.0	156	100.0

Source: Field Survey

It is observed from Table 5.3 that out of 151 HHs, 100 HHs had access to processing unit within ten kilometres (km) radius. 44 HHs have access within 11-20 kms distance and 12 HHs had access to machine which is more than 20 kms distance from their village.

Table-5.3: Distance to Access Processing Unit

Distance In	Boden		Komna		Sinapali		Total	
Km	No.	%	No.	%	No.	%	No.	%
0-10	40	97.6	5	71.4	50	48.5	100	66.2
11-20	1	2.4	1	14.3	42	40.8	44	29.1
20 to Above	0	0.0	1	14.3	11	10.7	12	7.9
Total	41	100.0	7	100.0	103	100.0	151	100.0

Source: Field Survey

5.3 Marketing of Millets

It is observed from Table 5.4 that highest 67 per cent HHs sold millets to local traders, 22.9 per cent HHs sold millets in local haat and 9.1 per cent HHs sold millets to money lenders. 6.1 per cent HHs sold millets to mill owners and only 2.5 per cent HHs sold millets to middlemen. Rest 0.6 per cent HHs have sold millets through other channels. Block-wise data reveals that among the HHs, millets sold to mill owners are 4.4 per cent HHs in Boden, 8.5 per cent HHs in Komna and 6.4 per cent HHs in Sinapali. Among the surveyed HHs millets sold to middlemen are 1.3 per cent HHs in Boden, 4.3 per cent HHs in Komna and 2.8 per cent HHs in Sinapali. Among the farmers millets sold to local traders are 96.2 per cent HHs in Boden, 85.1 per cent HHs in Komna and 9.2 per cent HHs in Sinapali. Among the HHs, millets sold in local market are 3.5 per cent HHs in Boden, 10.1 per cent HHs in Komna and 61.9 per cent HHs in Sinapali. Among the farmers millets sold to money lenders are 0.9 per cent HHs in Boden, 3.7 per cent HHs in Komna and 25.7 per cent HHs in Sinapali. In Boden two per cent HHs, in Komna 0.5 per cent HHs in Sinapali and 0.5 per cent HH have sold millets by other channels.

Table 5.4: Distribution of HHs by mode of selling across Blocks

Block	Mill owner		Middle-man		Local trader		Market/ Weekly Haat		Money lender		Others		Total	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Boden	14	4.4	4	1.3	304	96.2	11	3.5	3	0.9	2	0.6	316	43.8
Komna	16	8.5	8	4.3	160	85.1	19	10.1	7	3.7	1	0.5	188	26.0
Sinapali	14	6.4	6	2.8	20	9.2	135	61.9	56	25.7	1	0.5	218	30.2
Total	44	6.1	18	2.5	484	67.0	165	22.9	66	9.1	4	0.6	722	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 Conclusion

Around 80 per cent HHs process their millets manually. 66 per cent HH have access to processing units within 10 kms. distance. Highest 67 per cent HHs sell their millets to local traders.

6
MAJOR FINDINGS

¥6.1 Out of 799 surveyed HHs, 81.5 per cent HHs belong to ST, 3.4 per cent HHs belong to SC and 15.1 per cent HHs belong to other category.

¥6.2 Agriculture is the main occupation of HHs. It is found that 86.7 per cent HHs are involved in agricultural activities.

¥6.3 Cultivation of *kodo* is very less in comparison to *ragi*. Out of total cultivated area, *ragi* is cultivated in 291.7 ha of land and *kodo* is cultivated in 15.8 ha of land.

¥6.4 Average production of *ragi* per HH is 1.24 quintals and that of *kodo* is 0.62 quintals.

¥6.5 Out 689 *ragi* cultivator HHs, 486 HHs have broadcasted, 157 HHs have cultivated through line sowing, 24 HHs have cultivated through transplanting and three HHs have used SMI method. Remaining 19 HHs hve adopted 1+ methods for *ragi* cultivation.

¥6.6 Out of 58 *kodo* cultivator HHs, 33 HHs have adopted broadcasting, 14 HHs have cultivated through line sowing, two HHs have cultivated through transplanting and two HHs have used SMI method for cultivation of *kodo*. Rest seven HHs have adopted 1+ methods for *kodo* cultivation.

¥6.7 92.57 per cent HHs prefer to consume millets at lunch, 18.27 per cent HHs at breakfast, 1.24 per cent HHs at evening snacks and 0.31 per cent HHs at dinner.

¥6.8 Season-wise performance reveals that consumption of millets is more in summer season compared to rainy and winter seasons. It is observed that 93.5 per cent HHs consume millets during summer season.

¥6.9 Popular millet food recipe is water finger millet or *mandia torani.* It is consumed by 75.8 per cent HHs.

¥6.10 Out of 799 HHs, 606 HHs processed millets manually and 51 HHs processed both manually and through machine. Rest 37 HHs did not respond to the question.

¥6.11 It is found that 67 per cent HHs soldl millets to local traders, 22.9 per cent HHs sold millets in local haat and 9.1 per cent HHs sold millets to money lender. 6.1 per cent HHs sold millets to mill owners and only 2.5 per cent HHs sold millets to middlemen. Rest four per cent HHs have sold millets through other channels.

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 ଉର୍ଦ୍ଧ୍ୱ
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 ଠାରୁରଣ 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 ଦ୍ୱାରାଘାସବଛା	
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/ ସମ୍ପର୍କୀୟଠାରୁiii) ଅନ୍ୟାନ୍ୟ(ଉଲ୍ଲେଖକର)

୧୫. ଆପଣ କ୍ଷୁଦ୍ରଶସ୍ୟକୁ କିପରି ପ୍ରସ୍ତୁତ କରନ୍ତି? i) ହାତରେii) 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