

BASELINE SURVEY: PHASE VI

KENDUJHAR DISTRICT

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



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



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Nabakrushna Choudhury Centre for Development Studies
ICSSR Institute in Collaboration with Government of Odisha

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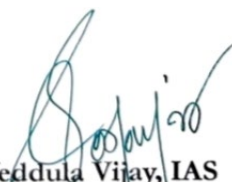
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FOREWORD

It is with great pleasure that I extend my warmest greetings to you through this foreword letter, reflecting on the remarkable journey of the "Special Programme for Promotion of Millets in Odisha," fondly referred to as the Shree Anna Abhiyan or SAA. The roots of the SAA delve deep into a significant consultation meeting convened on 27th January 2016 at the Nabakrushna Choudhury Centre for Development Studies (NCDS). Chaired by Mr. R. Balakrishnan, the then Development Commissioner-cum-Additional Chief Secretary (DC-cum-ACS) of the Government of Odisha and Chairperson, NCDS, this gathering brought together a diverse array of stakeholders. Representatives from various line departments of the Government of Odisha, esteemed members of civil society groups from across the nation and within the state, including notable organizations like the Alliance for Sustainable and Holistic Agriculture (ASHA), the Millets Network of India (MINI), and the Revitalizing Rain-fed Agriculture (RRA) Network of India, graced the occasion. Distinguished figures from academia, such as Dr. T. Prakash, the then Chairperson of the Karnataka Agricultural Price Commission, lent their expertise to the discourse.

NCDS took the initiative to submit a proposal to the Government of Odisha, emphasizing the imperative to revive millet production in the state. The resounding impact of this proposal was swiftly acknowledged, evident in the budget speech delivered on 18th March 2016 by the Government of Odisha, which articulated their commitment to reviving millets. This pivotal moment marked the inception of a journey marked by collaboration, dedication, and transformative action. Subsequently, a memorandum of understanding (MoU) was signed on 27th February 2017, bringing together key stakeholders including the Directorate of Agriculture and Food Production (DAFP), NCDS, and the Watershed Support Services and Activities Network (WASSAN). This MoU delineated the framework for concerted efforts towards implementing the SAA, with NCDS assuming the pivotal role of anchoring the research secretariat. NCDS embarked on a comprehensive survey initiative encompassing baseline, midterm, and end-line assessments in the target blocks of the SAA, especially the Baseline Study 2022. These surveys, designed to evaluate the status of millet production, marketing, consumption, and processing, represent a critical step towards informed intervention and strategic decision-making.

As the Director of NCDS, I extend my heartfelt appreciation to all the members of our dedicated team for their unwavering commitment and tireless efforts in realizing the objectives of the SAA. Your diligence and perseverance have been instrumental in bringing our collective vision to fruition. I extend my deepest gratitude to all our partners, stakeholders, and collaborators for their invaluable support and steadfast dedication to the cause of promoting millets in Odisha, especially completion of the Baseline Study, 2022. Together, let us continue to forge ahead, leaving an indelible mark on the landscape of sustainable agriculture and rural development.



Dr. Yeddula Vijay, IAS
Director, NCDS

ACKNOWLEDGEMENT

It gives me immense pleasure to extend my heartfelt gratitude to all those who contributed to the successful completion of the “Baseline Survey Report of Phase VI, 2022”. This endeavour was truly a collaborative effort, and I am deeply grateful for the unwavering support and dedication demonstrated by each individual and organization involved. First and foremost, I would like to express my sincere appreciation to the research team of Nabakrushna Choudhury Centre for Development Studies (NCDS), Bhubaneswar, for spearheading the preparation of this report. Your commitments to excellence and tireless efforts have been instrumental in ensuring the quality and accuracy of the findings presented.

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

I would like to extend my sincere appreciation to our esteemed Director, Dr. Yeddula Vijay (IAS), Director of Nabakrushna Choudhury Centre for Development Studies (NCDS). Your guidance, wisdom, and valuable suggestions have been invaluable in shaping the direction of this study. Many thanks to NCDS administration for their continuous support for smooth functioning of the research work. I want to acknowledge the contributions of Research team (Research Associates, Project Associates, Research Assistants) for their valuable insights and assistance.

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

My sincere gratitude goes out to the Chief District Agricultural Officer (CDAO) of Kendujhar district, the Scheme Officer, District Programme Coordinator, Block Coordinators, and other block-level officials for their invaluable support in providing crucial information, especially for the completion of the Baseline Study, 2022. Once again, thank you all for your invaluable contributions, dedication, and support. It has been a privilege to work alongside each of you, and I look forward to continued collaboration in our future endeavours. I extend my best wishes for the success of the publication.

Dr. Sandhya R. Mahapatro
Project Director

EXECUTIVE SUMMARY

Kendujhar district is one of the 17 districts where the “Special Programme for the Promotion of Millets in Odisha or (hereafter) Shree Anna Abhiyan (SAA)” Phase VI has begun in the Kharif 2021 in its four blocks, namely, Ghatgaon, Patna, Telkoi and Saharpada. Under Phase VI of Shree Anna Abhiyan (SAA), in Kendujhar district, 3207 programme households are identified, out of these, 320 households were selected through multi-stage sampling method and conducted Baseline Survey 2022, in Kendujhar district.

The Baseline Study, 2022 survey of four selected blocks revealed that majority of the sample households (67.81 per cent) belonged to STs Community, while SCs households constitute about 9.69 per cent and 22.50 per cent of them are OBCs households. Out of the total sample population 1309, of which 46.45 per cent are male and 53.55 per cent are female with all sample households across the four blocks are found to be Hindu and 99.06 per cent of them possess Ration Cards.

It is also found that agriculture is primary occupation (28.65 per cent), the share of wage labourer is 2.83 per cent, 0.15 per cent are business owners, while the share of government and private employees are only 0.38 per cent and 0.30 per cent, respectively. About 3.13 per cent of them are Old Age Pensioners, 2.06 per cent of them are associated with other occupations and 24.91 per cent of them in the working age group are unemployed. While about 29.79 per cent of them are housewives, 30.71 per cent are student and rest of the 5.12 per cent are children. Out of the total of 320 sample households, more than half of them (51.88 per cent) have *Kutcha* houses, about 41.56 per cent *Semi-Pucca* houses, and only 6.56 per cent have *Pucca* houses.

From the Baseline field survey, it is found that none of the sample households have cultivated millets in the year 2021. Baseline Study also indicates that the It is found that none of the sample households are consuming millets in any forms. They also reported that they do not know how to prepare different millets recipe for consumption.

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ABBREVIATIONS

AAO	: Assistant Agriculture Officer
AL	: Agricultural Labour
ATMA	: Agricultural Technology Management Agency
AWC	: Anganwadi Centre
CBOs	: Community Based Organisation
CCD	: Centre for Community Development
CRPs	: Cluster Resource persons
CSOs	: Civil Society Organisations
DAFP	: Directorate of Agriculture and Food Production
DDA	: Deputy Director, Agriculture
FA	: Facilitating Agencies
FGD	: Focused Group Discussion
FPC	: Farmer Producer Company
FPO	: Farmer Producer Organizations
GP	: Gram Panchayat
FAQ	: Fair Average Quality
Ha	: Hectares
HHs	: Households
ICDS	: Integrated Child Development Scheme
ITI	: Industrial Training Institute
LS	: Line Sowing
LT	: Line Transplanting
MDM	: Mid-Day Meal
MFP	: Minor Forest Produce
MGNREGA	: Mahatma Gandhi National Rural Employment Guarantee Act
MGNREGS	: Mahatma Gandhi National Rural Employment Guarantee Scheme
MSP	: Minimum Support Price
NCDS	: Nabakrushna Choudhury Centre for Development Studies
OBC	: Other Backward Classes
OC	: Other Castes
OFS	: Odisha Finance Service
SAA	: Shree Anna Abhiyan
PDS	: Public Distribution System
SC	: Scheduled Castes
SMI	: System of Millet Intensification
SP	: Sale Price
ST	: Schedule Tribes
WASSAN	: Watershed Support Service and Activities Network

CHAPTER I

INTRODUCTION

1.1 Background

Millets have been a staple food for millions of people in India for centuries, especially in the central tribal belts. They are drought-resistant, highly nutritious, and can be cultivated in a wide range of soil and climatic conditions. Millets are also low in Glycaemic Index and gluten-free, making them an ideal choice for people with various health conditions. In recent times, there has been a renewed interest in millets cultivation due to its numerous health benefits and its potential to address food security challenges in the country. The Government of India has been promoting the cultivation of millets as part of its efforts to increase farmers' incomes, reduce dependence on water-intensive crops like rice, and promote sustainable agriculture. In this context, it is essential to understand the significance of millets cultivation and its associated challenges and opportunities.

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

The United Nations General Assembly has designated 2023 as the International Year of Millets (IYM 2023), it gets further attentions of general public including the farmers. In the Indian state of Odisha, millets have always been an integral part of the traditional diet and have been cultivated for centuries, primarily among the tribal population. However, during last couple of decades, the popularity of millets has declined due to the increasing adoption of modern food habits and the promotion of high-yielding crops like rice, wheat and maize as well as cash crops like cotton. This shift has led to a decline in soil fertility and an increased vulnerability to climate change. To address these challenges, the Government of Odisha has launched several initiatives to promote the cultivation of millets, including “The Special Programme for Promotion of Millets in Odisha (also known as Shree Anna Abhiyan, SAA) with a novel organisational structure was initiated by the Government of Odisha in 2017-18 emphasising production, consumption, processing, and marketing of millets. The program aims to increase production, consumption, processing, and marketing of millets in tribal areas, where they have been a staple food for generations. In this context, it is crucial to understand the significance of millets cultivation in Odisha and its potential to promote sustainable agriculture and improve food security. Among other Millets found in Odisha, Mandia constitutes a significant share of about 95 per cent.

The Millet Mission program tried to revive these nutrient-rich millets in the agricultural landscape, which were fading away after its launch in 2017-18 by the Government of Odisha. It aimed to promote the production, consumption, processing, and marketing of millets, with a particular focus on tribal areas. The program had a unique structure that emphasized cultivating traditional millets such as Ragi, Gurji, Kosla (small millet), Kodo, Kangu (foxtail millet), and Jowars, which were forest dwellers' age-old foods. This initiative gave millet crops the much-needed attention they deserved and revived their growth across the state. In 2021, the implementation of SAA phase VI began in 17 districts, including Kendujhar district, and this baseline study aims to provide information on the program's dimensions in the district. The profile of the Kendujhar district is presented below.

1.2 District Profile

The Kendujhar District emerged as one of the District on 1st January, 1948. The District is bounded by Mayurbhanj District and Bhadrak District to the east, Jajpur District to the south, Dhenkanal District and Sundargarh District to the west and West Singhbhum district of Jharkhand State to the north.

1.2.1 Geography and Topography

Kendujhar district occupies a total area of 8303 Sq. Kms. (Geographical area supplied by Surveyor General of India) which accounts for 5.33 % of the state territory i.e. 155707 sq. km and keeps fourth position with regards to land area. The district has a population of 1801733 as per 2011 Census. The district lies between 21° 1'N and 22° 10'N latitude and 85° 11'E and 86° 22'E longitude. It is bounded on the north by the Singhbhum district of Jharkhand, on the east by Mayurbhanj, Baleswar and Bhadrak, on the south by Jajpur and Dhenkanal, on the west by Angul and Sundargarh.

The district Kendujhar is a part of Northern Odisha High lands division. This division is also known as micro-region and further divided into sub/micro divisions taking into consideration the characteristics like soil, topography and geography etc. The Kendujhar district is apportioned into three parts which comes under three sub micro regions. These include Kendujhar plateau, Kendujhar forested up lands and Anandapur plain. Areas of P.S. Joda, Champua, Baria, Patana, Kendujhar Sadar, Ghatgaon, Pandapada, Harichandanpur, Daitari, Sainkul, Anandapur and Soso are covered under Kendujhar Plateau and Kendujhar up lands sub/micro region whereas areas of Sainkul, Anandapur, Soso and Daitari are covered under Anandapur plain region.

The hill ranges of Kendujhar contain some of the very high peaks of Odisha i.e. Mankadanacha is 117 meters, Gonasika is 978 meters, Thakurani 915 meters, Khajaru 918 meters and Khandadhar Parbat 915 meters etc. The hill ranges serve as the watershed of the river Baitarani on the north and the Brahmani in the south. Also, there are some table lands on the summit of the hills, which are suitable for pasture and village. Till today the tribal like Juanga and Bhuyans prefer to stay in these hill ranges.

1.2.2 The Economy

Agriculture is the primary source of income for majority of the people in Kendujhar district. Around 80% of workforce earn their livelihood through a traditional agriculture and vegetables cultivation such as paddy, wheat, maize, moong, biri, kulthi, til, groundnut, mustard, jute, potatoes, sugarcane,

mango, tomato and earn a lot of money both during rabi and Kharif season. It has also two major irrigation projects under construction viz. Kanpur Irrigation Project and Anandapur Barrage Project which is likely to be completed shortly which will enhance the irrigational potential. Besides it has three medium irrigation projects i.e. Shalandi, Kanjhari, Remala Irrigation Project. As a result, the people of these areas produce the double crops and enhance their economy. The district has total cultivable land of 192391 hectares out of 649310 hectares of total area. There are also 178896 hectares and 50260 hectares and 54123 hectares of forest land, non-agricultural land, barren and non-cultivable land respectively. There is also an area of 4978 hectares covered with miscellaneous trees and groves. This district has forest resources/ produced like Mahua flowers, Kendu leaf, Sal leaf, Jhuna, Kusum, timbers both Sal and non-Sal in huge quantities. The people make Sal plate, Chaupati (Cups) and earn their livelihood with good amount of money.

Further, Kendujhar is one of the major minerals producing Districts of Odisha. Iron ore, Manganese ore, Chromate, Quartzite, Bauxite, Gold, Pyrophillite and Lime Stone are the major minerals found in this District. The Kalinga Iron Works (Barbil), Ferro Manganese Plant (Joda), IPITATA (Beleipada), Charge Chrome (Brahmanipal) are the major names in the industrial scene of Kendujhar. There are also engineering and metal-based industries (53 numbers), chemical and allied industries including plastic industries (48 numbers), agro and marine based industries (242 numbers) functioning in this District.

1.2.3 People and their Culture

The distribution of population in rural and urban areas in the district shows that majority of the population live in rural areas. The total population of the district is 1801733 (males 906487, females 895246). The rural population is 1548674 with 85.95% of total population and the urban population is 253059 which are 14.05% of total population of the district. There are 2123 villages out of which 59 were uninhabited.

There are tracts where the predominance of Scheduled Tribes mainly of Juanga and Bhuiyan are found in Gonasika hills. The ST is 45.45 per cent of total population whereas SC is 11.62 per cent. In spite of its mineral and forest wealth and man power, the district is still economically backward. Agriculture is the main stay in the district. Though the district provides vast potential for dairy development, people generally maintain dairy animals for their own consumption.

As per the 2011 Census of India, 78.88 per cent of the population in the district spoke Odia, 8.09 per cent Ho, 3.77 per cent Munda, 2.66 per cent Hindi, 1.69 per cent Juanga and 0.93 per cent Urdu as their first language. Around 30 per cent of the tribal belong to the Ho people and they speak the Ho language. Other languages include Bhunjia, which is spoken by approximately 7000 Bhunjia Adivasis. Only Bhunjia Tribal communities also speak Odia as a secondary language and other tribal communities use their own mother tongues.

The people of the district observe a number of festivals all the year round. These festivals are broadly divided into two categories viz. domestic festivals and public festivals. Sarhul is a tribal festival of flowers. In the month of March-April Sal flowers are brought to the Sarna or sacred grove. The priest (Pahang) propitiates all gods of the Munda. The celebration goes on for several days. Sohrai is another festival which is celebrated in the month of October-November. The Munda cattle owners

fast for the whole day. In the night, lamps are lighted. On the following morning the cattle-shed is washed and sprinkled with rice-beer. The cattle are fed in plenty.

The Karma Puja is celebrated mostly by the Adivasis in *Kandahar* and *Champua* Sub-divisions. The festival commences in the month of *Margasira* (November-December) and is celebrated for eight days. Every day they sprinkle water on pulses after taking bath in the stream. On the eight days, they plant two branches of Karama tree in front of the *Mandaghar* (dormitory). The grains, which have by now germinated, are brought and placed beside the branches of the *Karama* tree. The youngsters of the village then dance around the karma twigs. Next day two fowls are sacrificed there and the baskets containing grains along with the branches are carried in a procession to a nearby River or Nala and are immersed there.

Bodam is celebrated by all communities in general and the Adivasis in particular, before the eating of new fruits of the season. On a Thursday in the bright fortnight of *Pousha*, some new fruits and flowers are collected. The *Dehuri*, the village priest, prepares porridge in a new pot and offers the same along with curd, milk, new fruits and flowers to the goddess of the village. All the people take part in the festival, but 8 to 10 persons, besides the *Dehuri*, fast for the whole day. Every household contributes for the festival. Among the other festival celebrated in the districts are *Chaitra Parab* or *Uda Parab*, *Makar Sankranti*, *Nuakhai*, *Raja Parab*, *Barini Jatra*, *Shiva Ratri*, *Ram Navami*, *Dasahara*, *Dola Jatra*, *Rahas Purnima*, *Bada Osha* and *Chandan Jatra* etc.

On festive occasions dancing is indispensable. Most tribal villages have Akharas where men and women assemble together to dance to the tune of indigenous music. The *Changu* dance derives its name from a kind of drum called *Changu*, which invariably accompanies the dance. This dance is common to almost all the tribes but is more popular among the Bhuyans. The peculiar feature of the dance is that the men confront the girls with music and song and then recede backwards when the girls confront them. The girls dance standing in a row generally holding each other's hand. It is generally performed during the *Chaitra Parab* festival in the month of Chaitra. It is a dance with a strong folk character; almost like a dance drama. This dance originated in Mayurbhanj district of Orissa and Sareikela district of Bihar. In this dance footwork and body movement of the dancers are most artistic and virile. Facial expressions are generally absent.

Table 1.1:Socio-economic and Demographic Features of Kendujhar District	
Indicators	Value
Population (in Lakh.) (as per Census 2011)	18.01
Male (in Lakh.)	9.06
Female (in Lakh.)	8.95
Scheduled Castes (in Lakh.)	2.09
Scheduled Tribes (in Lakh.)	8.18
Others (in Lakh.)	10.28
Total Households (in Lakh.)	4.46
Average HH Size (in Nos.)	4.5
Sex Ratio	988
Workers	
Total Worker (in Lakh)	7.66
Main (in Lakh)	4.42
Marginal (in Lakh)	3.24
Non-Worker (in Lakh)	10.35
Work Participation Rate (WPR)	47.70
Literacy Rate	68.24
Land Use Pattern 2018-19 (Area in '000 Hectares)	
Total Geographical Area	830
Forest Area	310
Land Put to Non-Agricultural Use	77
Barren & Non-Cultivable Land	93
Permanent Pasture and Other Agricultural Land	20
Net Area Sown	259
Cultivable waste Land	26
Other Fallow	0
Current Fallows	39
Misc. Trees and Groves	6
Average Fertilizer Consumption per ha (in kg/ha)	48.44
Agriculture 2018-19*	
Total Production of Major Crops (In '000MT)	435.92
Total Ragi Production (in '000 MT)	0.05
Irrigation Potential Created – 2017-18* (Area in '000 Hectares)	
Kharif	99.24
Rabi	42.00
Other Information	
No. of Village Electrified (as on 31.03.21)	7020
No. of Bank	28
No. of AWC	2340
No. of PDS centres (2011)	
No. of Job Card Issued	301865
No. of HH provided employment under MGNREGA during 2017- 18 (in Lakh)	81.90

Source: District Statistical Handbook, Kendujhar 2018.

The Juanga dance is performed to the accompaniment of tambourines. Earlier they used to dance dressed in primitive leaf which is no more in practice. Men sing as the girls' dance being accompanied by deep sounding tambourines. In one form the girls move around in a single file keeping the right hand on the right shoulder of the girl in front. The Juanga also have what are called the bear dance and the pigeon dance. The Hos are a purely agricultural tribe. They have dances during Magha Festival which is held in the month of January when the granaries are full. The chief beverage taken during the celebrations is a kind of home brewed rice beer called Illi. During Ho celebrations all restrictions are set aside.

1.2.4 Administrative Structure

Kendujhar town serves as the administrative headquarters of Kendujhar district, encompassing three sub-divisions namely, Champua, Anandapur and Sadar Sub-Division. The population density of the district is 217 persons per sq.km which is lower than the state with 270 persons per sq.km. The sex ratio in the district is 988. For the convenience of Revenue Administration and development of rural areas, the district is divided into 13 blocks viz. Sadar, Ghatgaon, Harichandanpur, Telkoi, Banspal, Patna, and Saharpada blocks under the Sadar subdivision, Champua, Jhumpura and Joda blocks under Champua Sub-Division, while Anandapur, Ghasipur and Hatadihi blocks are under Anandapur Sub-Division.

1.3 Objectives

The Baseline Survey, 2022 intended to collect primary data from the millets farming households at the village level on the current practices on cultivation, including production, consumption, processing and marketing. The collected information would provide background information for planning and implementing the programme as a whole as well as it will be useful for evaluation of the programme in the future. The objectives are:

- 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 and
- To elucidate the method of processing and mode of marketing.

1.4 Methodology

1.4.1 Sample Design

The SAA programme has been implemented in phased manner. It started with 7 districts of the state in Phase I during 2017-18 however, later it has been expanded to all 30 districts in different phases. Under Phase VI of the implementation of the programme, the Government of Odisha's Department of Agriculture and Farmers Empowerment introduced the "Special Programme for Promotion of Millets in Odisha" included an additional 58 blocks across 17 districts of the state including four blocks of Kendujhar, namely, Ghatgaon, Patna, Telkoi, and Saharpada.

As per the list provided by the SAA Programme Secretariat, there are 3625 programme or target households across the selected four blocks covering 52 Gram Panchayats (GP). Under Phase VI of SAA, in Ghatgaon block there are 948 programme or target households' across 52 villages and 16

GPs who are willing to cultivate millets under the programme. In Patna block there are 800 target or programme households across the 41 villages and 13 GPs. Similarly, in Telkoi block there were 1058 target or programme households across 42 villages and 16 GPs. While in Saharpada block, there are 948 households across 44 villages and seven GPs. For conducting the Baseline Survey 2022, Phase VI, multi-stage sampling methods has been followed. In the first stage, four blocks, namely, Ghatgaon, Patna, Telkoi and Saharpada have been purposively selected for the study as SAA is going to be implemented in these four blocks in Phase VI.

In the second stage, two GPs of each block have been selected for the study in consultation with the respective facilitating agencies (FAs) and district level officials of the agriculture department. Tara and Paidapatna GPs from Ghatgaon block, Erendei and Palaghati GPs from Patna block, Chamunda and Khuttapada GPs from Telkoi block and Barbil and Gandabeda GPs from Saharpada block have been selected for the study.

In the third stage, two villages from each GP have been randomly selected for the study and in the final stage 20 households from each village have been randomly selected for the study. Therefore, as a total of 320 households from 16 villages, eight GPs and four blocks have been selected for the present study is presented in the Table 1.2.

Table 1.2: Sample Households in Kendujhar District			
Blocks	Programme Households (No.)	Sample Households (No.)	Households Covered under the Survey (%)
Ghatgaon	800	80	10.00
Patna	640	80	12.5
Telkoi	819	80	10.23
Saharpada	948	80	11.85
Total	3207	320	9.97

Source: Facilitating Agency and Field Survey, 2022

1.4.2 Data Collection, Compilation and Analysis

This comprehensive baseline survey report is based on both secondary and primary data. Primary data was collected by using a structured household interview schedule (Annexure II) and Focus Group Discussions (Annexure III) from the concerned villages of the districts. Additionally, secondary data on geographical information, population, agriculture, education, irrigation, forest, and institutions were collected from various published and unpublished sources, including the 2011 Census reports, Odisha Agricultural Statistics, and so on.

To supplement and complement the findings of the Baseline Survey, Focus Group Discussions were conducted in each sample village. The FGDs comprise of key respondents from the villages, including community leaders, village officials and other stakeholders to gather more information and insights about the villages, especially, the status, problems and opportunities of millets cultivation. This

qualitative data helped in providing a more holistic understanding of the local context, which was further used to triangulate and validate the findings of the quantitative data collected through the survey.

The Baseline Survey aimed to collect data on various socio-economic indicators such as household demographics, income, livelihoods, education, health, and access to basic amenities like water and sanitation facilities. The findings of the survey and FGDs were analysed using appropriate statistical tools and techniques to generate a comprehensive report.

The report provides an in-depth analysis of the current situation in the selected villages and serves as a reference point to measure the progress made during the implementation of various development interventions in the future. It also highlights the gaps and challenges in the existing systems and infrastructure. It provides recommendations for improving the overall development indicators of the region.

1.5 Limitations of the Study

The present Baseline Survey 2022 focuses solely on four blocks of the Kendujhar District. However, due to the daily activities of the households, including grazing of their livestock, coupled with both in and out-migration, some household heads and female respondents were found to be absent during the data collection process. Despite these challenges, it is important to acknowledge the limitations of the present study.

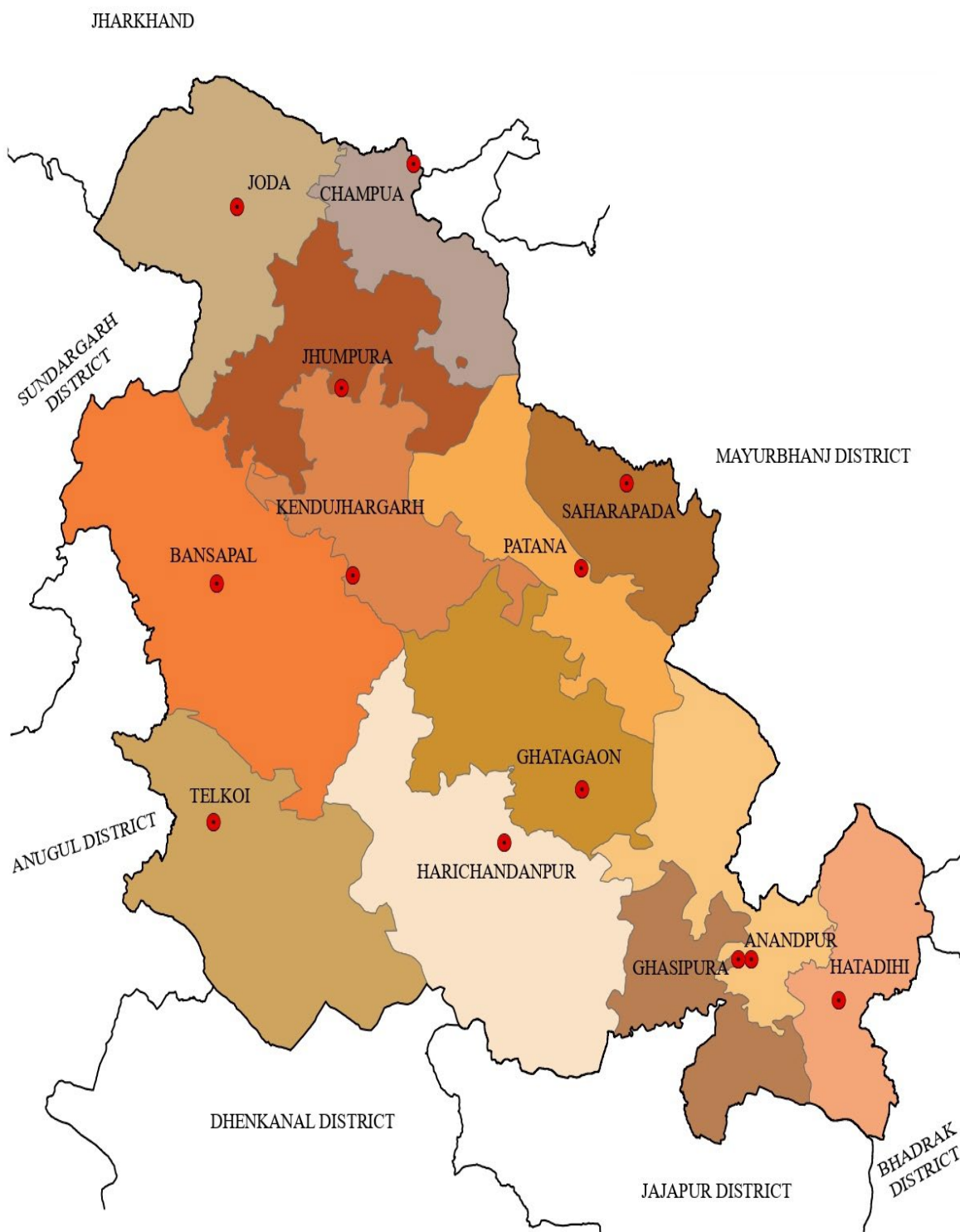
Firstly, due to logistical reasons and other difficulties, such as the non-availability of respondents, the study was limited to a random sample of 160 households. Secondly, there is the possibility of recall error, especially in cases involving the actual quantity of consumption and marketing, among others. Lastly, in some instances, sample households, particularly non-participant farmer households, consumed millets without producing them. This was made possible by past stock and acquiring of millets through exchange and barter. Unfortunately, these details were not captured during the survey.

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

1.6 Chapters

The “Baseline Survey Report 2022, Phase VI” has been divided into six Chapters, including the current Introductory Chapter I, which provided a District Profile, Objectives, Methodology and Limitations. Chapter II provides the Socio-economic Profile of Sample Households. Chapter III provides details on the Production and Productivity of Millets. Chapter IV discusses the Consumption Pattern of Millets. Chapter V elucidates the Processing and Marketing of Millets.

Fig. 1.1: Map of Kendujhar District



Source: Kendujhar District Website

CHAPTER II

SOCIO-ECONOMIC PROFILE

2.1 Introduction

This chapter looks into the social and demographic profile of households surveyed under Baseline Survey 2022, Phase VI, which includes the distribution of sample households by their social groups, and the distribution of the population by gender as well as the distribution of population, by their educational status across the four blocks of Kendujhar district. It also provides information about the distribution of households by their region. It also provides information regarding occupational distribution of population among the sample households. Additionally, it also provides information about the possession of ration cards by the sample households and distribution of households by their house structure.

2.2 Social and Demographic Profile

Under the Baseline Survey 2022, Phase VI in Kendujhar district, 16 selected villages were surveyed (for selection methodology, see section 1.4.1) across the four blocks of Kendujhar district. This section discussed the social composition of the surveyed households', their economic activities, poverty status and housing structures.

2.3 Social Composition

The analysis of social composition of sample households under the Baseline Survey 2022, Phase VI in Kendujhar district shows that majority of the sample households of all the four blocks belong to Scheduled Tribes (STs), i.e., 67.81 per cent, 22.50 per cent of them belong to other backward classes (OBC) community, while rest of the 9.69 per cent of them belong to Scheduled Caste (SC) community (Table 2.1)

Table 2.1: Distribution of the Respondent HHs by their Social Group								
Blocks	OBC		SC		ST		Total	
	OBC	%	SC	%	ST	%	Total	%
Ghatgaon	39	54.16	9	29.03	32	14.74	80	100
Patna	14	19.44	0	0	66	30.41	80	100
Saharpada	18	25	5	16.12	57	26.26	80	100
Telkoi	1	1.25	17	21.25	62	28.57	80	100
Total	72	22.50	31	9.69	217	67.81	320	100

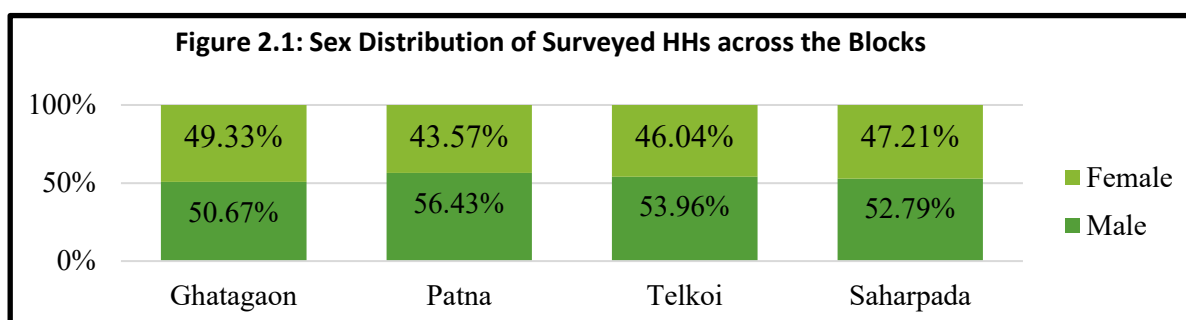
Source: Baseline Survey, 2022

While the block-wise distribution of sample households by their social groups shows that in Ghatgaon block majority of them belong to OBC community with 48.75 per cent, about 40 per cent are ST and 11.25 per cent are SC households. In Patna block most of the sample households i.e.,

82.50 per cent belong to ST Community while rest of the 17.50 households belong to OBC community. Similarly, in Telkoi block, out of the total sample households ST constitute about 77.50 per cent, 1.25 per cent OBC households while SC households constitute 21.25 per cent. Likewise, in Saharpada block also most of the sample households belong to ST Community, while the share of OBC and SC households constitute about 22.50 per cent and 6.25 per cent.

2.4 Distribution of Population by Sex

The sex distribution of population among the sample households presented in (Fig 2.1 and Table 2.2). The survey data reveals that out of total population of 1309 persons among the sample households 53.55 per cent of them are male and 46.45 per cent of them are female. The block-wise distribution of the share of male and female population shows that, in Ghatgaon block 50.67 per cent are male and 49.33 per cent are female. In Patna block, about 56.43 per cent of the population are male and 43.57 per cent are female, while in Telkoi block 53.96 per cent are male and 46.04 per cent are female. Similarly, in Saharpada block about 52.79 per cent are male and 47.21 per cent are female.



Blocks	Female		Male		Total	
	No	%	No	%	No	%
Ghatagaon	147	49.33	151	50.67	298	22.77
Patna	149	43.57	193	56.43	342	26.13
Telkoi	151	46.04	177	53.96	328	25.06
Saharpada	161	47.21	180	52.79	341	26.05
Total	608	46.45	701	53.55	1309	100

Source: Baseline Survey, 2022

2.5 Religious Distribution

The religious distribution of the sample households across the four selected blocks reveals presence of religious diversities that exist in both blocks under the Baseline Survey 2022, Phase VI of Kendujhar district. Surveyed data of the sample households in the Kendujhar district reveals that all of the sample households belong to Hindu religion.

2.6 Ration Card Holders

Table 2.3 presented the distribution of sample households by their possession of ration card across the four selected blocks of Kendujhar. It shows that out of total 320 sample households a significant majority, i.e., 99.06 per cent of them possess Ration card while rest of the 0.94 per cent of them do not possess any ration cards. While the block wise distribution of sample households by their ration card possession reveals that in Ghatgaon about 96.25 per cent of households possess ration card and 3.75 per cent of them do not possess any ration cards. However, in the rest of the blocks all the households possess ration cards.

Table 2.3: Distribution of the Respondent HHs by their Ration Card						
Blocks	HHs without Ration Cards		HHs with Ration Cards		Total	
	No	%	No	%	No	%
Ghatgaon	3	3.75	77	96.25	80	100
Patna	0	0	80	100	80	100
Saharpada	0	0	80	100	80	100
Telkoi	0	0	80	100	80	100
Total	3	0.94	317	99.06	320	100

Source: Baseline Survey, 2022

2.7 Education status

Table 2.4 presents the distribution of the population across four blocks—Ghatagaon, Patna, Saharpada, and Telkoi—based on their educational attainment. A total of 1,229 individuals were covered in the assessment. The proportion of illiterates stands at 14% overall, with Telkoi having the highest concentration at 17.25%, indicating a relatively larger educational gap in that block. On the other end of the spectrum, professional education holders constitute 15% of the total population, with Ghatagaon leading at 26.74%, suggesting higher exposure or access to professional courses. Graduates and those with higher secondary education form 17% each, reflecting a considerable share of the educated population. Saharpada has a particularly high share of higher secondary qualified individuals (39.05%), while Telkoi and Ghatagaon show stronger representation in graduation and postgraduate categories. Those with technical education account for 3% of the population, and postgraduates make up 11%, with Ghatagaon showing relatively higher attainment in both categories. Individuals educated up to class 5 are limited (4% overall), indicating that the majority have moved beyond primary-level education. Interestingly, Saharpada exhibits a unique pattern, with a large cluster in higher secondary but very low presence in technical and professional categories. In contrast, Ghatagaon and Telkoi display a more balanced spread across higher education and skill-based qualifications.

Table 2.4: Distribution of Population by their Education										
Education status	Blocks									
	Ghatagaon		Patna		Saharpada		Telkoi		Total	
	No	%	No	%	No	%	No	%	No	%
Illiterate	35	12.82	44	13.41	42	13.33	54	17.25	175	14
Up To Class 5	6	2.20	32	9.76	3	0.95	3	0.96	44	4
Class 6-10	9	3.30	77	23.48	66	20.95	14	4.47	166	14
Higher Secondary	5	1.83	47	14.33	123	39.05	30	9.58	205	17
Graduation	61	22.34	43	13.11	45	14.29	60	19.17	209	17
Post-Graduate	39	14.29	28	8.54	23	7.30	44	14.06	134	11
Technical	18	6.59	7	2.13	1	0.32	10	3.19	36	3
Professional	73	26.74	38	11.59	10	3.17	64	20.45	185	15
Others	27	9.89	12	3.66	2	0.63	34	10.86	75	6
Total	273	100.	328	100	315	100	313	100	1229	100

Source: Baseline Survey, 2022

2.8 Occupation

Table 2.5 presents the distribution of household members across various occupations in the four sample blocks—Ghatagaon, Patna, Saharpada, and Telkoi. The data reveals that the largest share of respondents is engaged as housewives (29.79%), followed closely by farmers (28.65%) and unemployed individuals (24.91%). Together, these three categories account for more than 80% of the total respondents, reflecting a rural and subsistence-based household structure in the region. Across blocks, Saharpada records the highest proportion of farmers (31.08%) and a considerable share of housewives (32.26%), indicating a traditional agrarian and domestic setup. Patna and Telkoi also report a significant proportion of housewives—33.04% and 33.53% respectively—emphasizing the dominant role of women in household management. The proportion of wage labourers (2.83%), pensioners (3.13%), and those engaged in other occupations (5.5%) is relatively low, suggesting limited access to diversified livelihood opportunities. Business (0.15%), government service (0.23%), and private service (0.30%) represent a negligible share of employment, pointing to a minimal presence of formal sector jobs in these areas.

Notably, no respondents were reported as students, which could be due to their classification under child or unemployed categories. The presence of children (4.51%) and those listed under others (5.5%) indicates some degree of occupational diversity, though not substantial.

Table 2.5: Distribution of HHs by their Occupation										
Occupation	Ghatagaon		Patna		Saharpada		Telkoi		Total	
	No	%	No	%	No	%	No	%	No	%
Farmer	81	27.18	99	28.95	106	31.08	89	27.14	375	28.65
Wage Labourer	27	9.06	2	0.58	1	0.29	7	2.14	37	2.83
Business	0	0	0	0	1	0.29	1	0.31	2	0.15
Govt.Service	0	0	1	0.29	2	0.58	0	0	3	0.23
PrivateService	0	0	0	0	3	0.88	1	0.31	4	0.3
Housewife	57	19.13	113	33.04	110	32.26	110	33.53	390	29.79
Pension	5	1.68	11	3.22	20	5.87	5	1.52	41	3.13
Unemployed	81	27.18	92	26.9	66	19.35	87	26.52	326	24.91
Child	22	7.38	8	2.34	18	5.28	11	3.35	59	4.51
Others	25	8.39	16	4.68	14	4.11	17	5.18	72	5.5
Total	298	100	342	100	341	100	328	100	1309	100

Source: Baseline Survey, 2022

2.9 Structure of House

The structure of the house often considered as an important indicator of the social and economic status of the family. Data collected under the Baseline Survey 2022, Phase VI in the four blocks of the Kendujhar district is presented in fig 2.2. It shows that out of 320 sample households most of them i.e., 51.88 per cent have *Kutcha* houses, about 41.56 per cent of them have *Semi-Pucca* houses, while rest of the 6.56 per cent of them have *Pucca* houses.

The distribution of households by their house structure in each selected blocks of

Kendujhar district shows that, in Ghatgaon block majority (68.75 per cent) of them have semi-*Pucca* houses, about 27.50 percent have *Kutcha* houses while only 3.75 per cent of them have *Pucca* houses. While in Patna block, the share of households with *Kutcha* houses is found to be higher than Semi-*Pucca* and *Pucca* houses, which are 42.50 per cent, 38.75 per cent and 18.75 per cent, respectively. In Telkoi block, the share of *Kutcha* houses among the sample households is higher (62.50 per cent) than the share of semi-*Pucca* houses which constitute about 37.50 per cent of the sample households in the block. In Saharpada block, about 75 per cent of the households have *Kutcha* houses, 21.25 per cent have semi-*Pucca* houses and rest of the 3.74 per cent have *Pucca* houses. (Table 2.6)

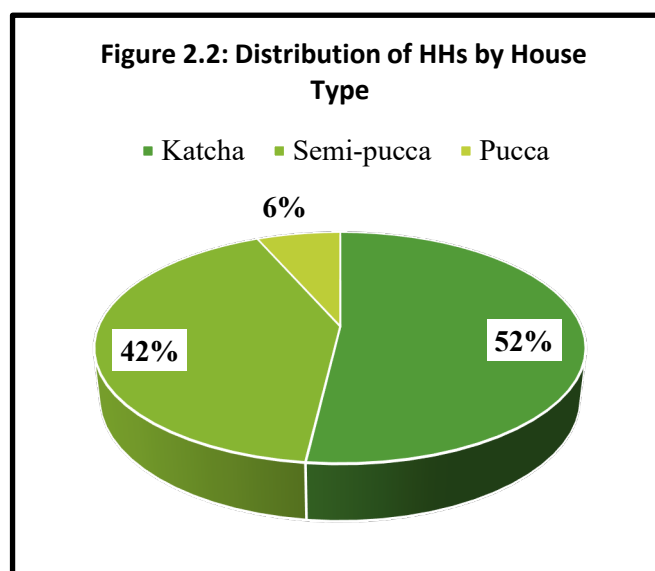


Table 2.6: Distribution of HHs by their House Structure								
Blocks	Kutcha		Semi-Pucca		Pucca		Total	
	No	%	No	%	No	%	No	%
Ghatgaon	22	27.50	55	68.75	3	3.75	80	100
Patna	34	42.50	31	38.75	15	18.75	80	100
Telkoi	50	62.50	30	37.50	0	0	80	100
Saharpada	60	75	17	21.25	3	3.75	80	100
Total	166	51.88	133	41.56	21	6.56	320	100

Source: Baseline Survey, 2022

2.10 Annual Income of Households

Table 2.7 illustrates the annual income distribution of 320 sample households across the four study blocks—Ghatagaon, Patna, Saharpada, and Telkoi. The data is classified into six income brackets ranging from up to ₹40,000 to above ₹2,00,000. A major proportion of households fall within the ₹40,000–₹80,000 income range, accounting for 201 households (62.81%). This range is particularly dominant in Telkoi (30.35%), Patna (23.38%), and Ghatagaon (27.36%). The ₹80,000–₹1,20,000 bracket comes next, with 33 households (10.31%), led by Patna and Ghatagaon. Saharpada stands out for having a high concentration (71.43%) of households in the lowest income category—up to ₹40,000, indicating significant economic vulnerability in that block.

Table-2.7 Distribution of Sample HHS by Annual Income														
Blocks	Up to		40000-		80000-		120000-		180000-		Above		Total	
	40000		80000		120000		160000		200000		200000			
	No	%	No	%	No	%	No	%	No	%	No	%	No	%
Ghatagaon	2	3.57	55	27.36	8	24.24	7	70	3	37.5	5	41.67	80	100
Patna	5	8.93	47	23.38	17	51.52	2	20	3	37.5	6	50.00	80	100
Saharpada	40	71.43	38	18.91	1	3.03	1	10	0	0	0	0.00	80	100
Telkoi	9	16.07	61	30.35	7	21.21	0	0	2	25	1	8.33	80	100
Total	56	100	201	100	33	100	10	100	8	100	12	100	320	100

Source: Baseline Survey, 2022

In contrast, Patna and Ghatagaon have better income diversity, with noticeable representation in higher income groups, including above ₹2,00,000, where Ghatagaon (5 households) and Patna (6 households) show relatively higher earnings. Households earning above ₹1,80,000 are rare overall, accounting for just 12 households (3.75%) across the total sample, reflecting a general trend of low to moderate income levels in the region. The ₹1,20,000–₹1,60,000 and ₹1,60,000–₹1,80,000 ranges are sparsely represented, with only 10 and 8 households, respectively, suggesting a sharp income drop-off beyond the ₹1 lakh threshold in most areas.

2.11 Conclusion

The distribution of social composition of the sample households across the four selected blocks of Kendujhar district shows that more than 68 per cent of them belong to Scheduled Tribes (STs) community, while more than 22 per cent of them belong to OBCs category and the presence of SCs households is very less. The religious distribution of the sample households shows that all of the sample households are Hindu. Agriculture is the primary occupation of a significant percentage of the population. Out of all 320 surveyed households across the four blocks Kendujhar district almost all of them possess ration cards and more than half of the sample households have *Kutcha* houses.

CHAPTER III

PRODUCTION OF MILLETS

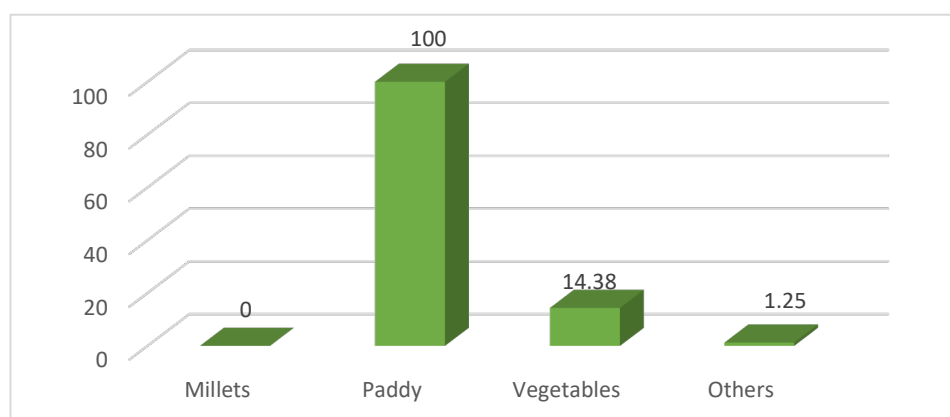
3.1 Introduction

The Baseline Survey 2022, Phase VI of SAA was conducted in four selected blocks of Kendujhar district to assess the situation of millets cultivation and its usage in the target villages before the implementation of the programme interventions. This chapter deals with the production of millets in Ghatgaon, Patna, Telkoi and Saharpada blocks of the district and analyses the data collected during the survey. The analysis focuses on the distribution of area under millets and other crops, the usage of seeds and agronomic practices, as well as the production and yield of millets in the sampled villages. The chapter also highlights the challenges and opportunities for promoting millets in the district.

3.2 Area, Production and Yield

As per the data collected from the sample households, none of the households in the district are cultivating millets. The distribution of operational area under paddy and vegetables across the four surveyed blocks in the Kendujhar district reveals that a major portion of the operational areas in the district is under paddy cultivation. Out of the total HHs, all of them cultivate paddy and not a single farmer was cultivating millets.

Fig 3.1: Percentage of Farmers Cultivating Different Crops



3.3 Reason for not Cultivating Millets

In Keonjhar district, the primary reason for not cultivating millets is that the activity is considered *not profitable*, reported by 200 households, accounting for 62.5% of the total. Additionally, 120 households (37.5%) cited *non-availability of seeds* as the major constraint. No households reported shortage of land, lack of irrigation, or other reasons. This pattern indicates that in Keonjhar, the main barriers to millet cultivation are economic unviability and limited access to quality seeds, suggesting a need for better market linkages and seed supply mechanisms to encourage revival of millet farming.

3.4 Conclusion

Although Kendujhar has a significant tribal population, the survey data of the four selected blocks under Phase VI reveals that unlike other tribal populated district in the state there is no millets cultivating households among the sample households. While it shows that around 85 per cent of total operational area of the district is under paddy only.

CHAPTER IV

CONSUMPTION OF MILLETS

4.1 Introduction

Baseline Survey 2022 was conducted to assess the trend and patterns of millets consumption in the target villages before the programme interventions in the four selected blocks of Kendujhar district, namely Ghatgaon, Patna, Telkoi and Saharpada. The chapter aims to provide a comprehensive picture of the millets consumption patterns and preferences among the sample households in Kendujhar district, which is one of the focus areas of SAA.

It is found that none of the sample households are consuming millets in any forms since last 30 to 40 years. They also reported that they do not know how to prepare different millets recipe for consumption.

CHAPTER V

PROCESSING AND MARKETING OF MILLETS

5.1 Introduction

Baseline Survey 2022, Phase VI aimed at recording the processing and marketing practice followed by the sample households in Kendujhar districts across the four selected blocks namely, Ghatgaon, Patna, Telkoi and Saharpada. This chapter explores about the practices used by the sample households for the processing of their millets, both by traditional methods as well as using machines such as Dehulling, milling, roasting, and popping. It also examines the availability and accessibility of processing units in the locality, and the factors that influence the choice of processing methods. Furthermore, this chapter analyses the different modes of selling their millets, such as selling in Mandi, cooperatives, middlemen, and others. It also evaluates the accessibility to different selling point and their distance including mode of transportation of their millets during the marketing process. The main objective of this chapter is to assess the status of processing and marketing of millets in the sample area and to identify the challenges and opportunities for improving the value chain of millets.

However, as discussed in the in the chapter three, there is no millets cultivation among the sample households in all four selected blocks. Thus, marketing of millets has not been found among the sample households. Further all of the sample households across four blocks in Kendujhar district process the millets using traditional methods.

5.2 Conclusion

The processing and marketing of millets among the sample households across the four selected blocks of Kendujhar district under Baseline Survey 2022, Phase VI reveals that as there was no production so no processing and marketing of millets has not been found.

ANNEXURE 1: Mapping of Baseline Survey 2022, Kendujhar District

Indicators	Unit	Baseline Data				
		Ghatgaon	Patna	Telkoi	Saharpada	Total
% of Sample households Cultivating Millets	%	0	0	0	0	0
Types of Millets Cultivated (2021)						
a) Mandia	%	0	0	0	0	0
Avg. Area under Millets/HH (Acre)	Acre	0	0	0	0	0
% Per of millets area to total cultivated area	%	0	0	0	0	0
Average Production Millets HHs	Qtls					
Package of Practice						
a) Broadcasting	%	0	0	0	0	0
b) LS	%	0	0	0	0	0
c) LT	%	0	0	0	0	0
d) SMI	%	0	0	0	0	0
e) No Response	%	0	0	0	0	0
Yield Rate (Qtls/Acre)	Qtls					
Percentage of Population Consuming Millets	%					
a) Breakfast	%	0	0	0	0	0
b) Lunch	%	0	0	0	0	0
c) Evening Snacks	%	0	0	0	0	0
d) Dinner	%	0	0	0	0	0
Popular Millets Recipes (% of HHs)						
a) Tampo/Pitha	%	0	0	0	0	0
b) Jau/Torani	%	0	0	0	0	0
Percentage of HH Processing Millets						
a) Manually	%	0	0	0	0	0
b) Machines	%	0	0	0	0	0
c) Both	%	0	0	0	0	0
Percentage of HH Selling Millets/ Ragi						
a) Mandi	%	0	0	0	0	0
b) Mill owners	%	0	0	0	0	0
c) Middleman	%	0	0	0	0	0
d) Sahukar/ Moneylenders	%	0	0	0	0	0

Annexure 2

Confidential and to Be Used for Research Purpose Only

Households Schedule for Baseline Survey 2022-23, Phase VI of SHREE ANNA ABHIYAN (SAA)

Serial No.....

Date.....

Part-I: Socio-Economic Status

1. Profile of the Households

1.1. Name of the Households' Head:

1.2. Name of the Respondent:

1.3. Name of the (i) Village:

(ii) GP

(iii) Blocks:

(iv) District:

1.4. Category: (i) SC (ii) ST (iii) OBC/SEBC (iv) Others (specify)

1.5. Religion (i) Hindu (ii) Muslim (iii) Christian (iv) Animism (v) Others

1.6. Ration Card Holding: (i) Ration Card (ii) Antyodaya Card (iii) Other (iv) No Card

1.7. Type of Family: (i) Nuclear (ii) Joint (iii) Extended (iv) Others (specify)

1.8. House Structure: (i) Katcha (ii) Semi-Pucca (iii) Pucca

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

4. Operational Holdings Under Different Crops (in Acre)

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

5. Annual Expenditure:

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

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

7. Have you taken any agricultural loan?
details.....

1-Yes 2-No If yes, please provide

2. Household Particulars:

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

Codes: Marital Status: 1- Married, 2- Unmarried, 3- Widow, 4- Widower, 5- Divorced, 6- Separated, 7- Any Others (pl specify)

Relationship: 1-Self, 2- Spouse, 3- Son, 4- Daughter, 5- Daughter-in-Law, 6- Son-in-Law, 7- Father, 8-Mother, 9-Brother, 10-Sister, 11- Grandson, 12- Granddaughter, 13- Father- in-Law, 14- Mother-in-Law, 15- Any Other (Specify)

Education: 1- Illiterate, 2- Up to Class 5, 3- Class 6-10, 4- Higher Secondary, 5- Graduate, 6- Post-Graduate, 7- Technical (Diploma/Degree), 8- Professional/Management, 9- Any Other (Specify)

Occupation: 1- Agriculture, 2- Daily Wage Labour, 3- Business/Entrepreneurship, 4- Govt sector, 5- Private Sector, 6- Pension/Remittances 7- Student 8- Housewife, 9- Unemployed, 10- Others (pl. specify)

Part-II: Production of Millets

8. Do you cultivate millets?

1-Yes 2-No

If yes, give millet-wise production details

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

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

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

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

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

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

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

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

Part-III: Consumption of Millets

18. Does your households consume millets? **1. Yes 2. No**
If Yes, Types of millets your HH consumed in different seasons (Put Tick Mark)

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

19. Millets Requirements of the HH:

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

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

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

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

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

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

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

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

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

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

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

Part-IV: Processing of Millets

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

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

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

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

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

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

Part-V: Marketing of Millets

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

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

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

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

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

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

32. Types of Millets, you Sell and Quantity

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

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

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

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

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

38. Remarks

Contact no of Respondent

Signature of the Researcher/Field Investigator

CONTRIBUTORS

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ନବକୃଷ୍ଣ ଚୌଧୁରୀ ଉନ୍ନୟନ ଗବେଷଣା କେନ୍ଦ୍ର
Nabakrushna Choudhury Centre for Development Studies
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About NCDS, Bhubaneswar

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