ISB | Bharti Institute of Public Policy

ODISHA
MILLETS MISSION

A TRANSITION TO A JUST FOOD SYSTEM



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Published by
Bharti Institute of Public Policy, Indian School of Business, Sec 81, Knowledge City, SAS Nagar. Mohali-140 306.

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Citation: BIPP. 2023. Odisha Millets Mission, A Transition to a Just food System. Bharti Institute of Public Policy, Indian School of Business, Mohali, India.

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Shri. Ranendra Pratap Swain
Hon'ble Minister of Agriculture and
Farmers' Empowerment
Government of Odisha



— MESSAGE —

Considering the importance of millet crops as nutri-cereals, Government of Odisha has decided to celebrate 10th of November each year as Millet Divas. It is because of the tireless efforts of our beloved farmers and various stakeholders, Odisha has emerged as one of the forerunners in millet promotion at the national and international levels. The unique millet initiative of Odisha has garnered widespread accolades/recognition globally.

Odisha is one of the pioneering states for promoting millets in the country. The state has become a source of inspiration and model for many states to revive millets. Odisha has been awarded as 'Best Millet Promoting State' under 'Poshak Anaj Awards in the national convention of millets being organized by Nutrihub, Indian Institute of Millets Research (IIMR) and UN-Food and Agriculture Organisation (FAO). The Ministry of Agriculture & Farmers' Welfare, Government of India, and NITI Aayog recognized OMM as an exemplar, urging other state governments to emulate its remarkable approach to millet promotion.

In several parts of Odisha, a wide range of millets are grown including finger millet, little millet, foxtail millet, bamyard millet, sorghum, pearl millet, kodo millet and others. Millets are cultivated in rainfed areas by Small and Marginal farmers. In 2017-18, under the guidance of our Hon'ble Chief Minister we launched Odisha Millets Mission to provide support and encourage these farmers to revive millets on farm and plate.

For the smooth expansion and extension of Odisha Millets Mission in the next five years, the government has approved a budget of Rs.2808 Crore. As a result, our farmers in 177 blocks spread across all 30 districts are getting assistance and support under Odisha Millets Mission programme.

OMM has helped revive the importance of Millets which was lying low due to multiple reasons. Amidst the changing climate, millets could be a blessing in disguise for millions of farmers in the rainfed and dry-land areas. Millets are climate-resilient and rich in multivitamins/micronutrients. It can play a critical role in addressing nutrition deficiency/malnutrition and strengthen food security.

This report by ISB reflects vividly the key roles played by government, civil society organizations, research institutes and our farmers to revive and popularize millets across the globe through Odisha Millets Mission.

Bhubaneswar

Shri. Ranendra Pratap Swain

Dr. Arabinda Kumar Padhee, IAS
Principal Secretary

Government of Odisha
Department of Agriculture and Farmers' Empowerment



— MESSAGE —

The United Nations had declared 2023 as the International Year of the Millet (IYoM). This resolution had been moved by the Government of India and was supported by 70 other countries. It is a matter of pride for us that the experiences of the Odisha Millets Mission (OMM) have substantially contributed to the upscaling of millet cultivation and consumption throughout the nation.

Millet is a humble crop but a powerhouse of nutrition, especially in terms of dietary fibre and micro-nutrients. It is also a climate-resilient crop, easy to cultivate, and it can grow in different soils and agro-climatic conditions.

It is my pleasure to share that, under the guidance of our hon'ble Chief minister, the OMM has emerged as a model initiative. It is now being recognised nationally and globally. The OMM has shown the way to revive ancient grains in farms and on plates and improve the livelihoods of vulnerable rainfed farmers. The OMM has been recognised by the Government of India and Niti Aayog as exemplary to other states for replication. We have also collaborated with the World Food Programme for documentation of best practices under the OMM, to replicate the model elsewhere.

The production of millets has shown an upward trend in the state. Recently, the Government of Odisha expanded the programme to all the 30 districts of the state covering 177 rainfed blocks. Several initiatives have been taken up by the government to encourage farmers to take up millet cultivation to enhance production, procurement, & distribution. To popularise and underscore the importance of millets, the Government of Odisha dedicated the 10th of November as Mandia Dibasa (Millet Divas - Day of the Millet).

In the run-up to the IYOM 2023, a series of events and activities had been planned to highlight the importance of millets, in partnership with various organisations and institutions across the globe. This report prepared by ISB captures the journey of the OMM in the last five years highlighting the factors responsible for success as also the challenges faced in the process.

I thank ISB for the publication and sincerely wish that the contents have a positive influence on all stakeholders.

Bhubaneswar

Dr. A.K Padhee

Shri. Prem Chandra Chaudhary, IAS
Director of Agriculture and Food Production

Government of Odisha
Department of Agriculture and Farmers' Empowerment



— MESSAGE —

Climate change and nutrition deficiency stand out as two of the most pressing challenges for humanity currently. Notably, millets have emerged as a sustainable and multifaceted solution, demonstrating remarkable climate resilience while also serving as a valuable nutritional supplement. As a result, millets have become a significant and relevant solution to address such critical challenges and the significance of millets has surged exponentially in recent years.

Millet is one of the rainfed crops which is climate-resilient small-seeded cereals that can grow with less water and low inputs, and it is one of the staple foods of the rural population in the rainfed areas. These are nutrient-dense crops which can play a significant role in addressing malnutrition. The millet-based crop production system helps in reducing the carbon footprint and improves the energy use efficiency compared to the rice-based cropping system. Odisha Millets Mission (OMM) is one of the flagship programmes launched by the Department of Agriculture, Government of Odisha in the year 2017-18 which focuses on the entire millet ecosystem and includes production, consumption, minimum support price for farmers, distribution under the Public Distribution System and mainstreaming millets in the State Nutrition Programme.

A special focus has been given to involving community-based organisations like Women's Self-Help Groups, Farmer's Producer Organisations, and Non-Government Organisations under the programme.

The Government of Odisha has expanded Odisha Millets Mission in 30 districts of the state. Finger millet and other nutri-cereals will be cultivated in both irrigated and non-irrigated areas in 177 blocks across 30 districts in the year 2023. Under Odisha Millets Mission, farmers will get various support and assistance for an initial five years. In addition, to encourage farmers, the Government has taken steps to procure millets at the Minimum Support Price. Moreover, Odisha became the first state in the country to dedicate a special day for millets.

OMM has taken strides to empower tribal farmers to revalorise and create an enabling ecosystem to assert the value of these ancient grains that have been part of the human food system since time immemorial and try to provide justice and equity to the rural rainfed farmers.

Bhubaneswar

Shri. Prem Chandra Chaudhary

Prof. Ashwini Chhatre
Executive Director

Bharti Institute of Public Policy
Indian School of Business



— MESSAGE —

The adverse consequences of climate change pose a high risk to nutrition and food insecurity, impacting vulnerable communities and livelihoods dependent on agriculture. Adaptation through income diversification, resilient varieties, and less-water intensive crops is the need of the hour, besides other strategies to secure the food and nutrition security of millions, especially smallholder farmers. In this context, millets are being promoted as the crop of the future - a 'climate-smart crop' contributing to sustainable food systems, advancing food and nutrition security, and achieving Sustainable Development Goal 2.

The Government of India has been championing the role of millets in nutritional security in the country and globally as was evident in its advocacy at the United Nations General Assembly for declaring 2023 as the International Year of Millets. Integration of nutri-cereals in the National Food Security Act (2013) for potential distribution through the Targeted Public Distribution System, incorporation in the National Food Security Mission for coarse cereals, and observing 2018 as millet year demonstrate India's commitment at the highest level.

In 2017, the Government of Odisha initiated the Odisha Millets Mission (OMM), a special programme for the promotion of millets in tribal areas. The flagship programme led by its Department of Agriculture and Farmers' Empowerment has emerged as the first of its kind initiative to revive millets 'from farms to plate'. It introduced millets in the Public Distribution System (PDS) and the Integrated Child Development Services (ICDS). For these innovative interlinkages, OMM has been recognised by NITI Aayog as one of the progressive models for the promotion of millets that could offer learning to other Indian states.

ISB has undertaken a documentation of progress made under the OMM, to take stock of the achievements and provide an overview of the operational model followed for replication by others. I would like to acknowledge the leadership of Dr. Arabinda Kumar Padhee, Commissioner-cum-Secretary to the Department of Agriculture and Farmers' Empowerment, and Mr. Prem Chandra Chaudhary, Director, Agriculture & Food Production, Government of Odisha, as also the incessant and unbridled support of the entire OMM team in undertaking this project.

I am confident that this documentation will be of immense value for learning from the Odisha experience and will inspire other states in India as well as other countries that face similar challenges, especially climate uncertainties impacting food security.

Hyderabad

Prof. Ashwini Chhatre

LIST OF ACRONYMS

AAO	Assistant Agriculture Officer
AO	Agriculture Overseer
APC	Agriculture Production Commissioner
APEDA	Agricultural and Processed Food Products Export Development Authority
ATMA	Agriculture Technology Management Agency
AWC	Anganwadi Centre
BAO	Block Agriculture Officer
BDO	Block Development Officer
BKSS	Block Kala Sanskruti Sangha
BPC	Block Programme Coordinator
BPKP	Bhartiya Prakritik Krishi Padhati
CBO	Community Based Organisation
CDAO	Chief District Agriculture Officer
CFTRI	Central Food Technological Research Institute
CGIAR	Consortium of International Agricultural Research Centres
CHC	Custom Hiring Center
CMSS	Community Management Seed System
CRP	Community Resource Person
CSC	Community Service Center
CSIR	Council of Scientific & Industrial Research
CSO	Civil Society Organisation
DA & FE	Department of Agriculture and Farmers' Empowerment
DA & FP	Director of Agriculture and Food Production
DBT	Direct Benefit Transfer
DKSS	District Kala Sanskruti Sangha
DMF	District Mineral Foundation
DPC	District Programme Coordinator
DPMU	District Project Management Unit
FA	Facilitating Agency

FAO	Food and Agriculture Organisation
FPO	Farmer Producer Organisation
GOI	Government of India
GoO	Government of Odisha
GP	Gram Panchayat
ICAR	Indian Council of Agricultural Research
ICDS	Integrated Child Development Scheme
IEC	Information, Education & Communication
KVK	Krushi Vigyan Kendra
LS	Line Sowing
LT	Line Transplantation
MDM	Mid-Day Meal
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MIS	Management Information System
MoU	Memorandum of Understanding
MSME	Micro, Small and Medium Enterprises
MSP	Minimum Support Price
NABARD	National Bank for Agriculture and Rural Development
NCDS	Nabakrushna Choudhury Centre for Development Studies
NEFT	National Electronic Funds Transfer
NGO	Non-Governmental Organization
OLM	Odisha Livelihood Mission
OMBADC	Odisha Mineral Bearing Area Development Corporation
OMM	Odisha Millets Mission
OSCSC	Odisha State Civil Supply Corporation
OSSC	Odisha State Seeds Corporation Limited
OUAT	Odisha University of Agriculture and Technology
PDS	Public Distribution System
PKVY	Paramparagat Krishi Vikas Yojana
PMU	Programme Management Unit
PVT	Participatory Varietal Trial

RBD	Randomized Block Designed
RKVY	Rastriya Krishi Vikas Yojana
SC & ST	Schedule Caste and Schedule Tribe
SHG	Self Help Group
SMI	System of Millets Intensification
SNP	State Nutritional Programme
SPMU	State Programme Management Unit
TDCCOL	Tribal Development Cooperative Corporation Limited
VAW	Village Agriculture Worker
W&CD	Women and Child Development
WASSAN	Watershed Supports Services and Activity Network
WCD	Women and Child Development
WFP	World Food Programme

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ACKNOWLEDGEMENT

This report on the Odisha Millets Mission by the Bharti Institute of Public Policy, ISB has been made possible by the support of the Government of Odisha, particularly the Department of Agriculture & Farmers Empowerment. They enabled collection of recent data and background information on the Odisha Millets Mission.

The Bharti Institute of Public Policy also expresses its' gratitude to all the stakeholders involved in the Odisha Millet Mission, including the Nabakrushna Choudhury Centre for Development Studies, Watershed Support Services and Activities Network, district NGO partners, farmer producer organizations, self-help group members, and individual farmers.

The The Bharti Institute of Public Policy study team extends its appreciation to Dr. Arabinda Kumar Padhee, Principal Secretary, Agriculture & Farmers Empowerment Department, Government of Odisha; and Mr. Prem Chandra Chaudhary, Director, Agriculture & Food Production, for their guidance and leadership. We would like to express our gratitude to the participating civil society organizations who attended a panel discussion organized by BIPP to understand some of the challenges encountered during implementation of the various programs instituted under the OMM.

Special thanks are also due to all the dedicated Bharti Institute of Public Policy, ISB staff for their timely support. The opinions expressed in this report are the responsibility of the study team, and we thank everyone who has contributed to this insightful study.



INTRODUCTION

The Odisha Millets Mission is a transition to a just food system. The integration of indigenous knowledge of millets cultivation with digital services, modern equipment and infrastructure, public procurement and distribution, along with continuous policy and budgetary support has opened a pathway to a food system that is efficient, provides livelihood security, and delivers nutrition to its poorest, most vulnerable, and marginalised communities. By leveraging indigenous knowledge of millets to solve modern nutrition, climate change, and development challenges, the Odisha Millets Mission has emerged as a just food system.

A just transition is built on the pillars of justice, social inclusion, climate resilience and nutrition security. The Odisha Millets Mission was designed to transform gender discriminatory situations by enabling women to continue to generate a livelihood from agriculture, reduce drudgery, undertake primary processing and sell millets to the tribal development corporation. It also helps farmers transition from laborers to sovereign entrepreneurs, and firmly places nutrition of the vulnerable as a central objective of the programme.

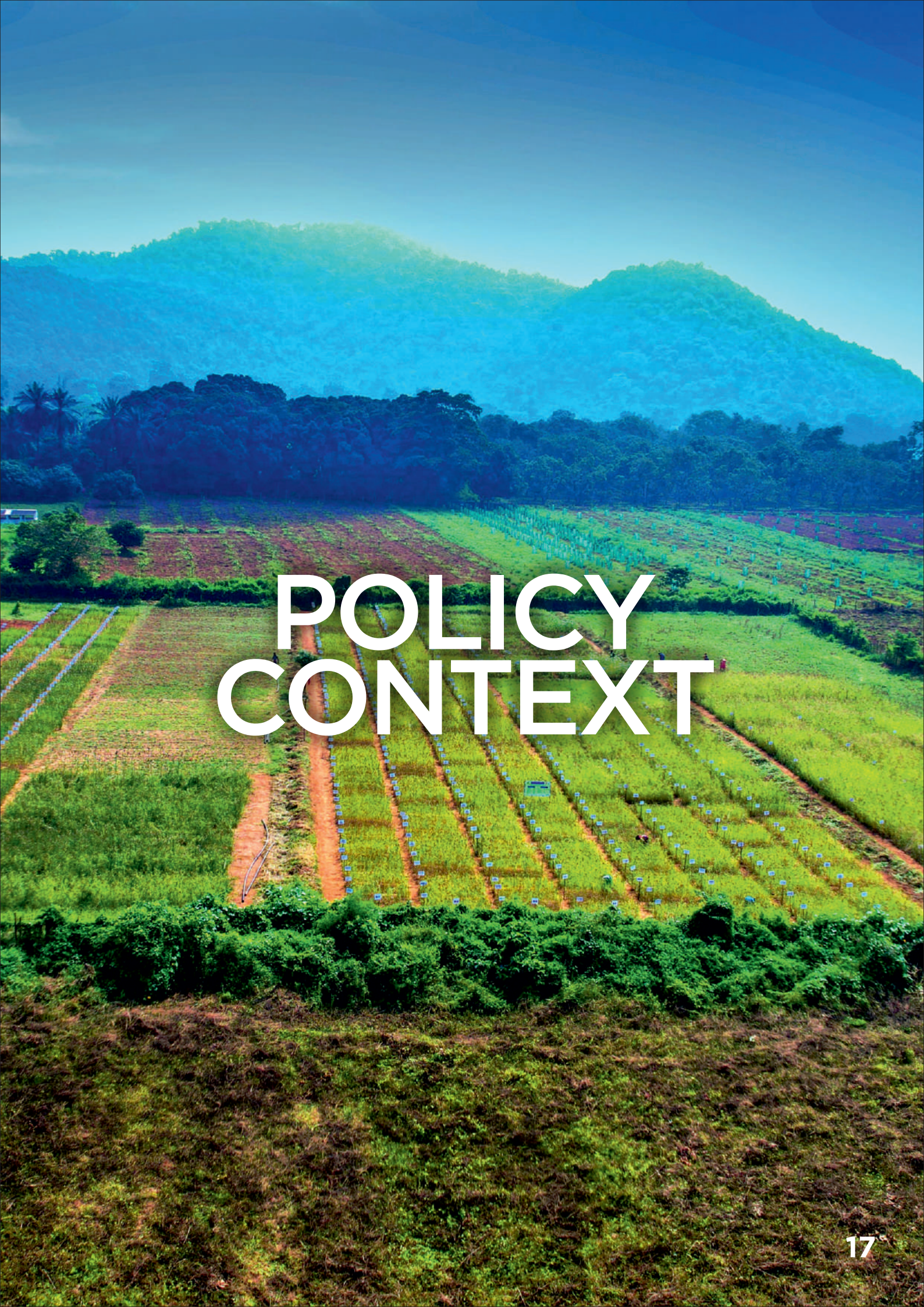




Millets are traditional crops, and climate resilient. They are native to the tribal belts of Odisha and are culturally symbolic. A revival of millets is required in farms for a biodiverse food system, and in diets to address hunger and nutrition deficiencies. The Odisha Millets Mission promotes cultivation of native crops and empowers communities to generate an income throughout the supply chain of millets- right from selecting and storing preferred cultivars of millets to establishing cafés for consuming millet-based products.

The government of India has commissioned a task force to study the Odisha Millet Mission's framework and has directed other states to adopt this model for promoting millets, pulses, and oilseeds.

This cultivar-to-café model for reviving millet has demonstrated success in scaling millet production and consumption. The government of India has commissioned a task force to study the Odisha Millet Mission's framework and has directed other states to adopt this model for promoting millets, pulses, and oilseeds.



POLICY CONTEXT

1. POLICY CONTEXT

Millets, native to Odisha have been cultivated and consumed for centuries. Millets, especially *ragi*, have been an integral part of indigenous diets and are naturally more nutrient dense than other 'fine' cereals. Yet, their cultural importance has never been reflected in policy or budgetary support for millets.

Three out of five farmers in India grow their crops using rainwater, instead of irrigation. However, per hectare government investment into their lands may be 20 times lower, and government procurement of their crops is a fraction of major irrigated land crops, and many of the government's flagship agriculture schemes are not designed to benefit them .

Not only does this policy neglect reduce the natural agro-biodiversity, it also created incentives for growing crops that require significant external resources and inputs, at the cost of crops that were always climate resilient, grew in less fertile lands, and were more nutritious than 'fine' cereals.

1.1 THE GREEN REVOLUTION LEGACY

The Green Revolution in 1960 had significant impacts on agriculture across India. It substantially increased the production of wheat and rice, and also resulted in a significant reduction in the cultivation of various millet varieties.

Specifically, between 1961 and 2009, the cultivated area under small millets decreased by a staggering 80%, finger millet by 46%, sorghum by 59%, and pearl millet by 23%.



The total cultivated area under food grains, including millets, other cereals, and pulses, has seen an overall increase from 124.32 million hectares in 1970-71 to 127.57 million hectares in 2017-18. However, there has been a contrasting trend in the area dedicated to millet cultivation, which has steadily declined from 81.01 million hectares in 1970-71 to 37.17 million hectares in 2017-18. During the same period, the area allocated to other cereals, including rice, wheat, and maize, has experienced growth, expanding from 61.68 million hectares to 82.84 million hectares. Additionally, the cultivation area for pulses has also shown an upward trajectory, increasing from 22.54 million hectares to 29.99 million hectares .

The area under *Ragi* has declined even further from 2.48 lakh hectares in 1990 - 91 to 1.83 lakh Hectares in 2008-09. The yield per hectare in 1990-91 was 10.23 quintals per hectare, which reduced to 8.96 quintals per hectare in 2008-09. The area under *Ragi* showed a declining trend due to the diversion of traditionally Ragi-growing areas to cotton, maize, vegetables and pulses.

Millet farmers receive lower profit margins compared to other crops, which acts as a disincentive for them.

In the absence of any infrastructure to store millets, processing plants to process millets and markets to sell them and consumers who are aware or interested in millets, millets gradually became a forgotten food.

The disproportionate allocation of Minimum Support Prices (MSPs) favouring paddy and wheat has resulted in an overproduction of these crops, diverting resources, research, and infrastructure away from millets.



1.2 CLIMATE CHANGE

The National climate vulnerability assessment report released in 2021 by the Dept. of Science and Technology has identified Orissa in the top eight states that are highly vulnerable to climate change .

Not only is rainfed agriculture in Odisha vulnerable to the vagaries of climate change, it has been subject to historic policy neglect, making arid and dryland farming an unviable livelihood option.

During the past decade, a concerted effort was made to mainstream climate mitigation with agriculture. As the largest driver for land use and landcover change, and a direct source of greenhouse gasses, carbon dioxide, methane and nitrous oxide, food systems contribute to 21-37% greenhouse gasses to climate change .

Odisha is primarily an agrarian state with 83% of its' population living in rural areas and about 60% population practicing agriculture . 60% of Odisha's agriculture is rainfed, and rice is the most popular crop. Climate projections indicate that drier areas will become drier, and flood-prone areas will be subject to more flooding, making agriculture in Odisha a risky livelihood.





1.3 NUTRITION CHALLENGES

Malnourishment is a persistent development problem that has plagued Odisha. The National Health and Family Survey 5 reveals that The Integrated Child and Development Services scheme (ICDS) have helped reduce stunting and wasting in children in the state. However, anaemia in children and women still stands at roughly 64%. Also, nutrition in tribal belts remains poor in contrast to the improvement in health and nutrition coverage in the rest of Odisha. Stunting ranges from as high as 47.5% in Subarnapur to a low of 15.3% in Cuttack. Wasting is high in 25 out of 30 districts. Almost half of the children under the age of five from tribal communities in Odisha are underweight, and 46% are stunted. The infant mortality rate among tribals is the fourth highest in Odisha, after Madhya Pradesh, Rajasthan and Chhattisgarh.

This current trilemma of climate change, malnutrition, and vulnerable agricultural livelihoods is a complex problem in the making since before the Green Revolution.

1.4 POLICY-RESEARCH NETWORKS

In the absence of any government policy support, a dedicated network of researchers and think tanks have been working on revitalizing rainfed agriculture. In 2012, the Revitalising Rainfed Agriculture Network (RRAN) initiated a comprehensive pilot programme in several states to put together evidence to advocate for a different policy framework for rainfed production systems.

One of the comprehensive pilots was carried out in seven blocks of Malkangiri district of Odisha. Millets, as one of the rainfed crops, was a major theme for this pilot. With the keen interest of the district administration and active support of civil society organizations, Malkangiri demonstrated success of the pilot programme.

These block-level demonstrations served as evidence for a different policy framework for millets, adopted as the 'Special Programme for Promotion of Millets in Tribal Areas', now known as the Odisha Millets Mission. Therefore, this Special Programme is hailed as a successful model for incorporating evidence from the bottom-up for policy formulation.

The Special Programme for Promoting Millets In Tribal Areas was launched to enhance equity of rainfed agriculture and farmers, and improve the nutrition of vulnerable families.

1.5 LAUNCH OF ODISHA MILLETS MISSION

A series of stakeholder consultations on the revival of millets was organised by the Planning & Convergence Department and NCDS in partnership with RRA Network, and ASHA Network, to evolve a strategy for revival of millets in Odisha under the chairmanship of R Balakrishnan, Chief Advisor to CM, (then Development Commissioner-cum-Additional Chief Secretary, Planning & Convergence Department Government of Odisha). The consultations were attended by officials from the Departments of Agriculture & Farmers' Empowerment, ST/SC and Minorities' Welfare, Women and Child Development and Panchayati Raj. More than 35 organisations, farmer collectives, and activists participated.

These discussions culminated in the launch of 'Special Programme for Promotion of Millets in Tribal areas of Odisha' by the Government of Odisha in the year 2017-18. The programme began with 30 blocks across 7 districts and has now reached all 177 blocks in 30 districts of the State.



The major objectives of the programme include:

- Increasing household consumption of millets
- Revalorization of millet food cultures in urban and rural areas
- Conservation and promotion of millet landraces through seed system of landraces
- Promotion of post-harvest and primary processing enterprises for millets.
- Improving productivity of millets-based crop systems
- Promotion of millet value addition enterprises in rural and urban areas of Odisha
- Inclusion of millets in PDS, ICDS, MDM, Welfare Hostels, and others.
- Facilitating millet markets and exports of millet-based products

The Odisha Millets Mission has now completed six years. Within its first six years, the programme has been scaled up to 177 blocks in all 30 districts. The OMM is regarded as an exemplary food system transition incorporating livelihood generation, improved agricultural practices, procurement of millets and their delivery into meals for the most vulnerable. It has been praised in national and International forums. Other states have been asked to replicate the Odisha Millets Model for reviving millets in their own agriculture and diets. A task force has been constituted to study the Odisha Millets Mission and propose changes to the National Sub-Mission on Millets.

The next section is an enquiry into the underlying policy innovations that have enabled an agriculture-nutrition convergence and a revival of millets in farms and on plates.





POLICY INNOVATIONS

2. POLICY INNOVATIONS

Policy innovations require budgetary, administrative, technological, and coordination support throughout planning, production, processing, procurement, distribution, and consumption. In this section we explore the structural and procedural innovations at multiple levels that have been instrumental in the success of the Odisha Millets Mission.

Innovations include all societal, technological, institutional, scientific, and behavioural practices that introduce or operationalise new structures, culture, practices, and stakeholders. Innovations in the OMM are designed, planned, and emergent.

The Odisha Millets Mission has designed and implemented interventions to create a cultivar-to-café supply chain. A seven-district pilot to revive millets has transitioned into a state-wide program for sustainable development. This section includes a description of the interventions and their design elements that have enabled the OMM to achieve a transition to a just food system.

2.1 ODISHA STATE GOVERNANCE, BEYOND THE 5TS

The Odisha State Government has emerged as a hub for innovative and transformative governance. Odisha became the first state in India to introduce a nutrition budget in 2020. In response to the United Nations' global decade on action on nutrition and the national Poshan Abhiyan, several initiatives have been launched to mainstream nutrition delivery with other state programmes. In 2021, Odisha prepared a climate budget to keep track of public expenditure on climate change. In 2022, Odisha became the first state government to organize its' budget by mapping SDG targets and indicators against all government schemes and programmes.



By pioneering these cross-cutting, inter-departmental, and inter-sectoral reforms, Odisha is charting a unique sustainable development trajectory.

With a vision of empowering women and vulnerable communities to become equal partners in development, to eradicate poverty, and empower the youth to achieve their aspirations; the government of Odisha adopted a 5T approach to measure the delivery of its programmes and mission.

Sustainable Development Goal #16 best articulates the need for effective, accountable and inclusive institutions at all levels for inclusive societies and sustainable development. To this end, the adoption of the 3Ts serves to develop effective, accountable and transparent institutions at all levels (SDG 16.6.) These process oriented Ts are a commitment to reform governance and a pre-requisite to combat the most pressing development challenges. The three Ts include teamwork, technology, and transparency which lead to timely transformation (5Ts).

Indeed, the adoption of these 5Ts in designing, implementing and monitoring programmes has led to some of the most applauded initiatives in recent times. Both Housing and Urban Affairs and higher education departments have adopted the 5T approach for their various programs. The twin initiatives of 5T and Mo Sarkar have opened new avenues for public participation and feedback in the development process, placing citizens at the centre of public service delivery. At the core of these reforms are fiscal discipline, effective mobilization of resources and formulation of public policies ensuring proper and just use of the resources.

The Special Program on Reviving Millets in Tribal Districts launched even before the adoption of the 5Ts is an illustrative example of how the adoption of these Ts enable sustainability transitions for a just food system.



Teamwork is evident right from the highest level in the form of an inter-departmental, high-power committee that includes Secretaries of ten state departments to deliberate on transformation pathways and commit the resources required to achieve a revival of millets in farms and on plates.

The inclusion of research and program implementing agencies to work synergistically within the administrative agencies, and the use of scientific and technological expertise in reviving indigenous knowledge systems, all exemplify teamwork at various levels. Teamwork or convergence is the very foundation on which the OMM is designed.

In the next sections we explore how the multi-level, hybrid design of the OMM enables responsive, inclusive, participatory and representative decision-making at all levels, in accordance with Sustainable Development Goal 16. At each level, a mix of stakeholders from government, civil society, research and practitioners provide different capacities and capabilities for a functionally diverse transition arena.

Transparency is maintained by providing detailed guidelines on roles and responsibilities of all participating stakeholders, making all baseline, evaluation, and monitoring data publicly available, and providing detailed budget allocation and activities. A complete breakdown of the budget, flow of funds and its sources and activities is available for the public. Dashboards are uploaded to allow visual representation and evaluation of data to gauge progress.

Technology has been the driver for enabling teamwork, ensuring transparency and enabling timely delivery of goods and services. The use of digital technology in the Odisha Millets Mission has been instrumental in overcoming operational challenges. It also provides



reflexive support by enabling decision-makers take advantage of more precise time and place-specific knowledge about the programme.

One of the initiatives under the OMM is the online registration of farmers to procure millets. The M-PAS portal functions as a digital repository of registered farmers and is used by district officials to verify them. Timely payments that are transparently recorded increase the efficiency of the programme.

A web-based Management Information System is developed by the Programme Secretariat for every facilitating NGO and District Agricultural Technology Management Agency. This portal serves as a monitoring tool. A monthly progress report and a statement of expenditure is uploaded on this management information system and it serves as the basis for transparent monitoring of program delivery.

A mobile application for a farmers registration database and monitoring is developed for community resource persons who engage with the farmer to upload their progress. Geo-tagged photographs and data can be accessed from fields by the State Secretariat within seconds. This constant relay of information from field and cluster levels to State Secretariat and research and programme implementation teams serves as an important channel for timely monitoring and real-time problem solving.





Mission Mode

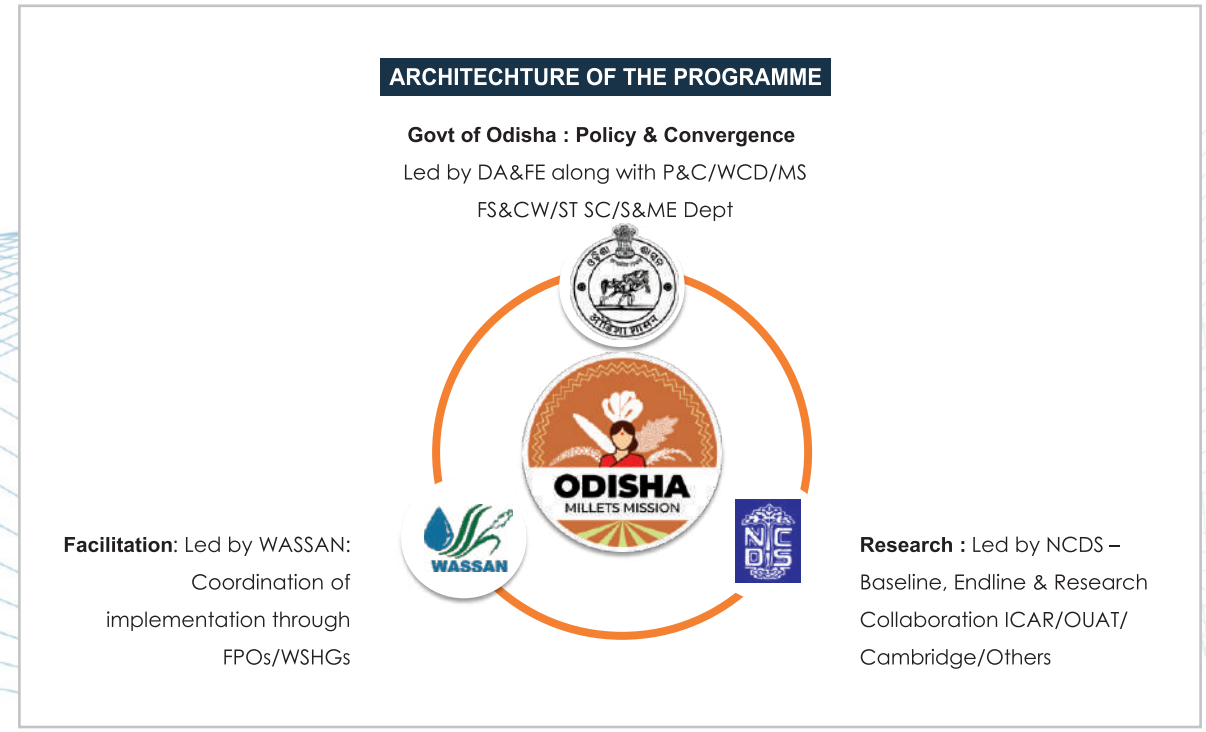
In addition to the 5T approach, the use of a 'mission' mode to launch flagship programmes such as the Special Programme to Promote Millets in Tribal Areas provides efficient management of programmes by setting short-term targets to achieve long-term objectives. Business-as-usual policy implementation usually functions within existing infrastructures with additional financial allocations. On the other hand, these missions have clearly defined objectives, scopes, and implementation timelines, as well as measurable outcomes.

Proactive steps, teamwork, and time bound delivery of services have ensured that within a span of five to six years the Odisha millets mission has spread from 30 blocks in 7 tribal districts to 177 blocks covering all 30 districts.

2.2 MULTI-LEVEL, HYBRID STRUCTURE OF OMM

Years of policy advocacy to enhance investment in rainfed farming, and efforts of transdisciplinary networks comprising researchers, crop scientists, civil society, and policy advocacy organisations has culminated into a singular mission for reviving millets in Odisha: the Odisha Millets Mission (OMM).

Figure 1: Architecture of the programme.



With the launch of Special Program on Promotion of Millets in Tribal Areas in 2017, this network coalesced into a hybrid programme management unit anchored in the Department of Agriculture. Hybrid institutions are defined as institutions with government, non-government, and market partnerships working synergistically to resolve crosscutting environmental problems. Most structural and persistent societal problems require stakeholders with different capacities to work together. The Odisha Millets Mission is supported by a multilevel, hybrid programme management unit (comprising research Institutions, policy advocacy networks, non-government and government organizations) embedded in an interdepartmental government machinery. This renders it the administrative capacity to support the range of functions required for a farm-to-fork, or a cultivars-to-cafe model of interventions.

OMM offers a hybrid organizational structure for stakeholders to collaboratively design and perform a diversity of functions to achieve desirable, long-term structural changes, by implementing various short-term interventions.

The multilevel organizational structure offers space for ground-level innovations and experiments to be scaled-up for a just transition to a climate-resilient food system. That is, a transition from a food system dominated by the cultivation of a few cereals to one that prioritizes an agroecological basis for crop selection.

Under the aegis of the Department of Agriculture, WASSAN and NCDS play the roles of a programme and research secretariat to support millet revival. Continual research, experimentation and innovation are instituted to be adaptive to the needs of various stakeholders along the supply chain of millets.

Two elements of the institutional structure, the nested levels of decision-making, in a hybrid program management unit of the OMM are explained further. This institutional design provides the framework for convergence and functional creativity within the OMM.



2.2.1 MULTI-LEVEL STRUCTURE

In structure, the OMM includes four nested layers (state high-power committee, state secretariat, district programme management unit, block& cluster and panchayat) of tri-partite collaborations between program designers, facilitators, and implementors comprising practitioners, researchers and both government and non-government extension workers. The OMM constitutes a multi-level structure with horizontal linkages between the departments of Mission Shakti, Tribal Development and Women and Child development and vertical channels of authority, implementation and accountability across state, districts, blocks and gram panchayats.

This institutional design provides the framework for convergence and functional creativity within the OMM.

Millet revival is envisioned, planned, executed, implemented and monitored by four nested levels of hybrid governance. From the High-Power Committee chaired by the Development Commissioner, which includes a multi-departmental, participatory roundtable to a set of three nested triangular hybrid units at different administrative levels.

The first triangle at the state secretariat connects the agriculture department to a program implementation and a research arm. Two inter-sectoral triangles at district and block level comprising community-based organizations, facilitating organizations, agricultural officers and researchers comprise nested layers of collaborations within the organizational structure. These collaborations serve as the fulcrum for experimentation and innovation.



- High power committee: Within the OMM, long and short-term strategic vision is developed by the high-powered committee. This committee is constituted of:
    - The Agriculture Production Commissioner and the Secretaries of ten state departments including agriculture, mission Shakti, food Supplies and consumer welfare, women and child development, housing and urban development, forest &environment and climate change, ST and SC Development, education and finance.
    - Directors of Mission Shakti, Agriculture and Food Production, Agriculture Marketing Integrated Child Development Services, Odisha Livelihoods Mission and the Tribal Development Cooperative, State Civil Supplies Corporation
    - Director of Nabakrushna Chowdhury Centre for Development Studies
    - Chief Executive Officer, OMBADC
    - Associate Director, WASSAN
- The State Program Management Unit (SPMU) has a tripartite structure comprising a program secretariat and a research secretariat. The Program Secretariat is managed by Watershed Support Services and Activities Network (WASSAN) and the Research Secretariat is managed by the Nabakrushna Chowdhary Centre for Development Studies.
- The Director, Agriculture& Food Production is the Mission Director for OMM and the Directorate of Agriculture& Food Production is the nodal implementation agency. The SPMU facilitates inter-departmental convergence, meetings and workshops. Along with the Programme Secretariat and Research Secretariat, it reviews various components of the OMM and it is supported by Joint Director of Agriculture (JDA), an Assistant Agriculture Officer (AAO) as the scheme officer and Additional Director Agriculture (ADA).
- The Research Secretariat under the Nabakrushna Chowdhury Centre for Development Studies consists of a dedicated team of scholars and researchers. The Research Secretariat conducts baseline, mid-term, and end-line surveys. It may take up necessary policy studies from time to time and collaborate with other organizations undertaking different studies or need-based evaluations.

- All Information Education Communication material is developed by the Programme Secretariat. They identify external resource persons and organizations for collaboration. WASSAN extends support to facilitating organizations. They also develop web-based MIS systems, train users, implement pilots, and review the program and evaluate the facilitating organization's role. They also undertake documentation of success stories and case studies for information dissemination.

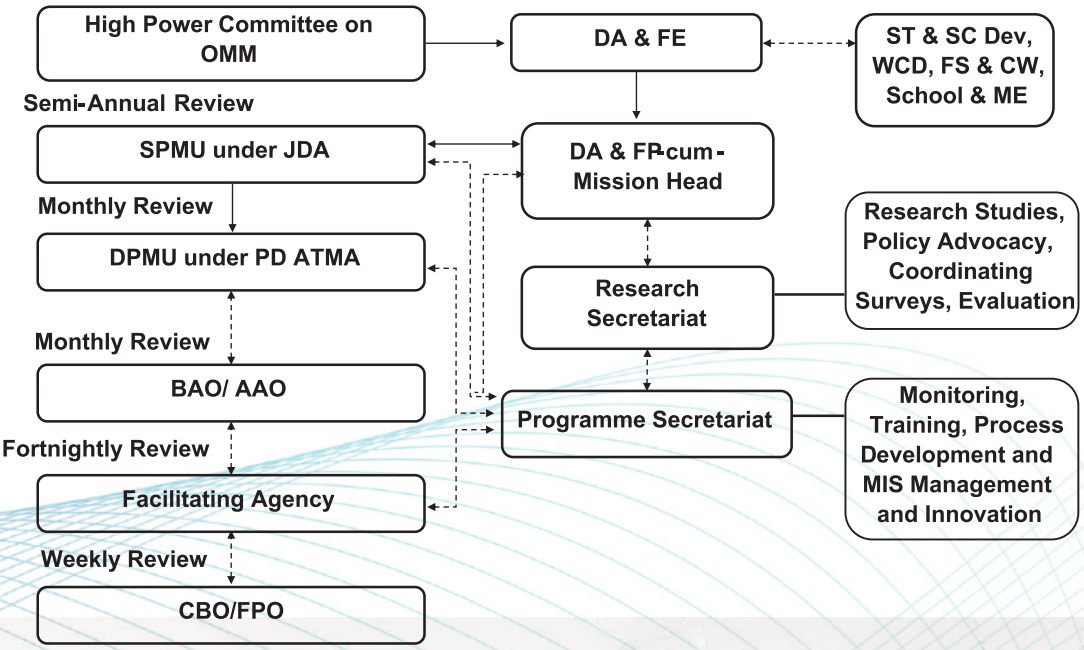
- The District Project Management Unit, headed by the Chief District Agriculture Officer includes a scheme officer, agriculture officer, district programme coordinators from WASSAN, and an accountant.

- At the Block-level civil societies (Facilitating Agency), community-based organizations (CBO) and block level agriculture officers, complete aa triangle of stakeholders. Community-based organisations (FPOs and SHGs) act here as the project implementing agency. Lastly, the Village Agriculture Worker (VAW) in the Gram Panchayat is responsible for working with CBO on implementing the programme in the project area.

- Implementation outreach of the programme in village clusters is enabled by designating one facilitating agency per block. These facilitating agencies are local NGOs familiar with the agricultural practices and ways of life of local communities. This network of grassroots organizations and their extensive outreach plays the dual role of spreading and scaling implementation as well as a responsive role in translating field knowledge back into the programme design.



Figure 2: Multi-level organizational structure of the Odisha Millets Mission.



Source: Approved OMM Guidelines, 2022-2026.

Figure 2: Multi-level organizational structure of the Odisha Millets Mission. The OMM includes horizontal, cross-sectoral linkages to state departments of Tribal, SC and ST Development, Women and Child Development, Department of Education and Mission Shakti. Bi-directional vertical channels of information, resources and accountability show a mix of top-down and bottom-up administrative responsibilities. Horizontal connections between research organizations and program secretariat at multiple levels demonstrate nested, hybrid layers.



2.2.2 FUNCTIONAL DIVERSITY

A range of functions are performed at multiple levels. Stakeholders play strategic, tactical, experimental, operational and reflexive roles to create a vision of a just food system, plan and create modalities for convergence, propose and implement collaborations, and design and implement interventions.

Strategic roles

Strategic roles include designing processes of vision and long-term goal development, strategic discussions, long-term goal formulation, collective goal and norm setting, and long-term anticipation of changes that may affect the future course of the program. Listed below is a brief overview of the strategic roles that different units play.

- The Planning and Convergence department plays a key strategic role in ensuring that the objectives of various state government programs are aligned to the overall vision for state development. Such oversight at the highest level of state governance ensures congruence between state development objectives and various inter-departmental missions such as the Odisha Millets Mission. It also lays the foundation for an inter-departmental convergence.



- More so, discussions at multistakeholder roundtables in 2015 convened by the Planning and Convergence department initiated the state program on revival of millets. The long-term visions and objectives provided by the Sustainable Development Goals (SDG) have also been instrumental in orienting the way Odisha Government designs its various cross-cutting development projects. Goal 2 of the SDGs: End hunger, achieve food security, and improve nutrition, and promote sustainable agriculture has provided the overarching framework for designing the set of production-to-consumption interventions under the OMM.

- High-powered Committee: An Inter-departmental, high-power committee that includes secretaries of ten state departments, deliberates on transformation pathways and commits the resources required to achieve a revival of millets in farms and on plates. This high-level commitment from the very departments that drive the tactical machinery of the state, is vital for ensuring continuity and support throughout the millet program and engenders convergence at all levels.

- The objectives of the OMM are defined by the high-power committee. These include (i) increase household consumption of millets, (ii) improve productivity of millet crops, (iii) conserve and promote millet landraces, (iv) set up decentralized processing units, (v) promote millet value addition enterprises (vi) promote FPOs and markets, and (vii) include millets in food security schemes and supplementary nutrition programmes.



- The State Secretariat develops programmes and targets to achieve the long- and short-term objectives of the Odisha Millets Mission and strategies to build a scalable model of the millets mission.

Tactical activities

Tactical activities refer to those which pertain to structures, rules, guidelines and norms within which stakeholders (such as government departments) operate. Activities include drafting rules and regulations, designing the framework for institutions to function, organizations and networks to collaborate, and infrastructure to be provided.

- The state secretariat, which includes WASSAN and NCDS functions as the core mission designers. Ensconced within the Department of Agriculture, this multi-stakeholder secretariat co-creates programs, designs and propose modalities for collaborative governance.

- The SPMU initiates the process for inter-departmental convergence through meetings and workshops.



- The Programme Secretariat is hosted by WASSAN and WASSAN identifies other institutions and external resources for collaboration. It undertakes programme design, development of standard operating procedures, and operational modalities for different components. The Program Secretariat coordinates with other state departments to maintain inter-departmental coordination for various programmes, under the directions of State and District PMUs.

- The Research Secretariat at Nabakrushna Choudhary Centre for Development Studies consists of a dedicated team of scholars and researchers. It collaborates with other research partners for policy studies or study of interventions at the directions of the Director of Dept. of Agriculture and Farmers' Empowerment.

- The District Project Management Unit (DPMU) determines the criteria and process of selection for block Facilitating Agencies (FA) and the Community Based Organizations (CBO) that will be nodal district-level implementation agencies. The DPMU creates memorandum of Association with Facilitating Agencies and Community based organizations.

- Community-based Organizations are responsible for community mobilization, and selection of beneficiaries for OMM programme implementation.

- Internal FPO management activities- the FPO engages one Chief Executive Officer (CEO)-cum-Office bearer and another Data Entry-cum-Accounts person for smooth management of FPO office and support programme implementation in the block.

Operational roles

Operational activities, experiments, actions, and regular procedures that have a short-time horizon and are often carried out in project and program mode. These include day-to-day managerial activities, and carrying out of operating procedures, rules and norms.

State Project Management Unit

- The SPMU reviews the progress of the work every fortnight with Programme Secretariat and Research Secretariat.

- The SPMU reviews the procedures, guidelines, annual action plan and budget allocation for different components for government approval.

Program Secretariat

- Undertakes innovative pilots under different thematic heads
- Develop Web-based MIS system
- Develop IEC material and capacity building modules.
- Extending support to Facilitating Agencies (FAs) at the district level.
- Develop publications, brochures for promotion of OMM.
- Documents success stories, case studies etc.
- Verifies technical and financial documents submitted by FAs as per financial guidelines.
- Review performance of FA team members (block coordinators, additional block coordinator and accountant)

The Research Secretariat

- Prepares policy briefs, baseline survey, and evaluation reports.
- Conducts and publishes research activities on Odisha Millets Mission in collaboration with premier research institutions and universities.

District Program Management Unit

- Prepares and submits the annual action plan, and half-yearly action plans with timelines to the district collector for approval.
- Reviews the programme monthly and takes on other reflexive roles
- Facilitates the quarterly review of the programmes by the Collector & DM.
- Reviews performance review of FA and FPO to renew the Memorandum of Agreement with FA and FPO for the next year.



- District Programme Secretariat, WASSAN, extends implementation support to CBOs and Facilitating Organizations.
- Develops brochures, publications and other IEC material for the programme.
- Documents success stories, case studies for information dissemination.

Community-Based Organizations (CBOs)

- Engage the Community Resource Persons (CRP) for the programme
- Monitor the work done by the CRPs and make timely payments as provisioned in the budget.
- Implement activities as detailed in the annual action plan following a timeline.

Facilitating Agency (FA)

- FAs support CBOs and FPOs in the preparation and submission of action plans, physical & financial reports, estimates, bookkeeping and submit to the BAO/ AAO and Programme Secretariat for further processing.
- Conducts capacity building programmes for the CBOs and FPOs to ensure empowerment of progressive farmers in each village.
- Facilitates the aggregation, procurement, and marketing of millets.
- Anchor and support the establishment of different enterprises such as custom hiring centre, seed centre, and millet processing, and value-addition centres.
- Reviews, monitors and reports compliances to the BAO/ AAO and Programme Secretariat.





- Capacitates, and supports the CBO and FPO in achieving the physical and financial targets of the programme.
- Maintains accounts and journals along with other financial records and support the CBO/ FPO in preparation of utilisation certificate, budget estimates, and other related documents as required by the programme.
- Monitors the work of CBO and FPOs through frequent field visits and fortnightly review meetings.
- Submits monthly progress report to Programme Secretariat
- Facilitates internal and external audits of CBOs from time to time with support from Programme Secretariat.

Block Agriculture Officer (BAO)

- Verifies and authenticates the final farmers' list for providing incentives to farmers for adoption of agronomic practices.
- Supervise and supports capacity building programmes, crop result estimation and field days.
- Reviews the progress of FAs, CRPs and CBOs in the fortnightly FIAC meetings and report the progress to the CDAO
- Review and approve the block-level action plans of FA and CBOs

Village Agriculture Workers

- Village-level extension officers provide various implementation and information sharing services.

Community Resource Person (CRP)

- Mobilizes the farmers for capacity building, exposure visits and other activities.
- Selects farmer beneficiaries and collects their documents according to procedures and formats laid down under OMM for different activities. CRPs also enter data of farmers' activities in the mobile application enabling the use of digital technology for ground level OMM implementation
- Supervises farmers and updates the work done by them on a fortnightly basis in the CRP registers

Reflexive Activities

Reflexive activities relate to monitoring, assessments and evaluation of ongoing policies, and ongoing societal change. The reflexivity is integrated into the OMM governance at all levels. Regular meetings, updates, and progress reports are prepared and shared by all participating units at varying frequencies.



Program Secretariat

- Monitoring, documentation, and reporting. It also enquires into the poor-performing FA's and takes necessary action
- Regularly monitors the progress of work through field visits and review meetings with Facilitating Agencies (FAs) and submits the progress on a monthly basis to CDAOs and DAFP.
- Reviews the programme on a monthly basis and submits the statement of expenditure and other reports to SPMU.

Research Secretariat

- The research secretariat conducts mid-term evaluations, and other studies on program implementation.
- Ensures that millet area and other indicators are reported by BAO in the block-level crop statistics report on a regular basis
- Interacts with implementing agencies including community resource persons to collect farmers' problems and finds solutions through research



Table1: Roles and Responsibilities of participating stakeholders at different administrative levels.

Functional Role / Nested Levels of Collaboration		STRATEGIC Problem structuring, envisioning, and establishment of the transition arena	TACTICAL Developing coalitions, and transition-agendas	OPERATIONAL Mobilizing and executing projects and experiments	REFLEXIVE Evaluating, monitoring, and learning
Odisha state government, Department of Planning and Convergence		The state government of Odisha has a long-term vision of empowering women, vulnerable communities, youth and to eradicate poverty	The Odisha government adopted a 5t approach to deliver and monitor governance. Planning and Convergence department transformed a research agenda on reviving millets into Odisha Millets Mission which has hybrid implementation structure	Planning and Convergence department mobilized funds from the DMF and mobilised the finance department to announce the special program on promoting millets in tribal areas.	Review of program success
High Power Committee	The high-power committee includes secretaries of 10 state departments and directors of wassan, ncds, ombard, tddcol, mission shakti, civil supplies corporation	Objectives of the Millets Mission deliberated in Committee. These include a series of shorter-term goals that will contribute to the overall development vision of the state. These short-term goals include: (i) increase household consumption of millets, (ii) improve productivity of millet crops, (iii) conserve and promote millet landraces, (iv) set up decentralized processing units, (v) promote millet value addition enterprises (vi) promote FPOs and markets, and (vii) include millets in food security schemes and supplementary nutrition program	The high-power committee approves of and issues directives for different inter-departmental convergence and collaborations.	The committee meets once in six months to discuss governance and policy-related aspects of the program such as the introduction of millets into PDS	The committee stakes stock of the progress reviews it and reworks nutrition programs, mid-day meal programs to include millets, tax, and market incentives for millet- based industries.
State Program Management Unit	**Odisha Dept. of Agriculture**	Develops programs and targets to fullfill long-term OMM objectives. -strategies to build a scalable model of the millets mission	Policymaking, development guidelines, implementation,	Making decisions of the program and reporting to the Principal Secretary of Agriculture	Monitoring, bi-monthly review to monitor the progress of the work
	WASSAN as Program Secretariat		co-creates programs, designs and propose modalities for collaborative implementation	Innovation/Pilots under different thematic heads	Regularly monitor progress through field visits and review meetings with FA Enquire into the poor-performing FA's and take necessary action
	NCDS as Research Secretariat		National/International partnerships: Transforming India's Green Revolution by Research to Empower Sustainable Food Supplies with Indian Institute of Millet Research & Central Food Technological Research Institute	Innovation/Pilots under different thematic heads	Baseline survey, mid-term survey and endline survey Ensures that millet area and other indicators are reported by BAO in the block-level crop statistics report on a regular basis

Functional Role / Nested Levels of Collaboration		STRATEGIC Problem structuring, envisioning, and establishment of the transition arena	TACTICAL Developing coalitions, and transition-agendas	OPERATIONAL Mobilizing and executing projects and experiments	REFLEXIVE Evaluating, monitoring, and learning
District Program Management Unit All program and facilitation fund received	Research Units		Create Memorandum of Association with Facilitating Agencies and Programme Secretariat (WASSAN) for facilitation of the programme implementation.	Research networks participate in PVT to identify cultivars for multiplication.	OUAT and NCDS conduct field visits for review and evaluation
	District WASSAN	none		Determines the criteria and process of selection for block FAs and the CBOs/FPOs in the district. Select the block FA. Provide training material, capacity building modules and assistance to designated Facilitating organizations so that they make provide the necessary training to FAs	Monitoring of FA
	ATMA		MoU with FA and CBO	Releases funds to FA and CBO Communicates financial needs from FA and CBO to state secretariat	Reviews program with program secretariat



Functional Role / Nested Levels of Collaboration		STRATEGIC Problem structuring, envisioning, and establishment of the transition arena	TACTICAL Developing coalitions, and transition-agendas	OPERATIONAL Mobilizing and executing projects and experiments	REFLEXIVE Evaluating, monitoring, and learning
Block	Facilitating Non-governmental organization	none		Capacity building, training, Identification of FPOs, formation of new FPOs	Conveys challenges and problems of FPOs to District Program Secretariat, Wassan
	Block Agriculture Officer	none	none	Verify and authenticate the final farmer list for processing of incentives to farmers for adoption of agronomic practices. Supervise and support capacity building programmes, crop result estimation and field days, through participation Review and approve the block level action plans of FA and CBOs	Review the progress of FA, CRPs and CBOs in the fortnightly FIAC meetings and report the progress to CDAO
	CBOs, (FPOs, SHGs) as implanting organization	none	Farmer organizations enter into Memorandum of Agreements with	Implementation Unit, undertakes all managerial roles in maintaining FPO and providing services such as meals to ICDS, procuring ragi, managing seed banks, producing bio-inputs.	Information sharing and learning with facilitating organizations or adaptive management of setting up and maintaining viable and revenue-generating enterprises
Clusters, GP	Farmer organization, CBOs, FPC	none	Farmer organizations have Memorandum of Agreements with	Farming units, seed multiplication, seed storing, procuring millets	Review impact, revenue generated and send information to facilitating organizations
	Village Agriculture Worker	none	none	Implementation and information sharing service. Organize and help with field days	Information sharing between village, cluster and block level implementation units
	Community Resource Person	none	none	Mobilise farmers for capacity building, exposure visits and other activities. Selection of farmer beneficiaries and collect their documents Capacity building, last mile connectivity and logistical challenges	Supervise farmers and update the work done by them on a fortnightly basis and relay their problems back to district officials. CRPs at the cluster level are provided with android mobile phones to regularly upload the farmers' progress data.

Source: OMM Guidelines 2022-2026

2.2.3 DEVOLUTION OF DECISION-MAKING AUTHORITY

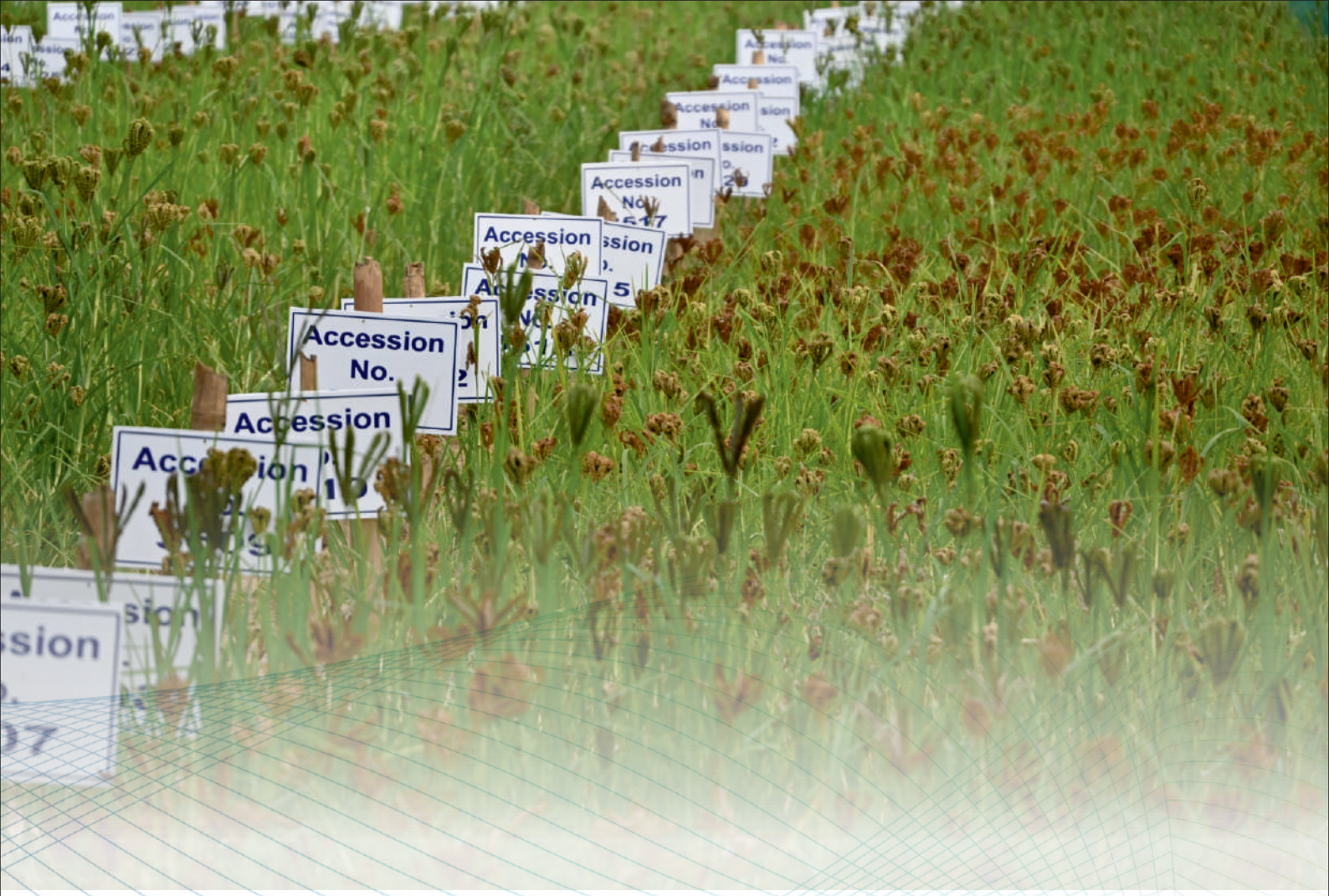
By design, the OMM offers strategic, tactical, operational and reflexive roles to its various stakeholders functioning at various levels. From the farmer who makes decisions about which local or research variety of seeds to grow, to the community-based organisations that collectively manage and devise the rules of management for seed banks, authority and accountability have been devolved to ground-level and channels for communication have been well-established. Weekly, monthly, quarterly, and semi-annual events and stocktaking exercises are conducted.

2.2.4 MULTI-STAKEHOLDER FOR MULTIPLE CAPACITIES

The participation of development research institutes such as the NCDS, crop science institutes like the OUAT, block facilitating agencies that provide local knowledge and capacity building support, and farmers organisations with traditional knowledge creates a hub for experimentation and learning to be generated, internalized and amplified.

Decentralised hybrid programme management units enable the integration of scientific, technological, and indigenous knowledge.





Even to select a seed variety that will be adopted by the millet cultivating cluster, seed selection is conducted using participatory variety trials between farmers and crop research scientists, who co-design experiments to select seed varieties that best fits the local needs of the farmers.

This networked structure enables quick relaying of information of emerging problems in the field, and in-situ problem-solving instead of 'expertise' being communicated from the top-down.

2.3 THE OMM BUDGET

Financial support for experimentation and entrepreneurship

Adequate provision and timely allocation of resources for experimentation and learning are a unique feature of the OMM budget. The Special Programme for the Promotion of Millet in Tribal Areas of Odisha is funded from the State Plan Fund and from the District Mineral Foundation, Odisha Mineral Bearing Areas Development Corporation . Its' annual allocation from the State Secretariat directly to other state departments and to Program and Research Secretariat at various organizational levels enables efficient programme implementation.

Designated funds for innovation and experimentation in cultivation practices such as participatory varietal trials for seed selection, and consumption interventions such as recipe trials, and demonstrations within villages are a unique feature of the programme budget. It also empowers field workers, community resource persons and village workers by speedy, digitally enabled direct bank transfers.

2.3.1 BUDGET PROVISIONS

The Odisha Millets Mission started with a budget of Rs. 580 crores in 2017 for four years 2017-2022 and the Odisha Cabinet has approved a four-fold increase in the budget of Rs. 2687.45 crore for the next four-year cycle from 2023-24 to 2026-27i. Table 2 illustrates the annual increase for the three main budget items.

Table 2: Annual progression in allocated funds for three major components of the program

Component/ Year	2021-22	2022-23	2023-24	2024-25	2025-26	2026-27	Total
Program Implementation	1638.27	7743.42	9804.22	9105.60	8452.83	7411.64	44155.97
Procurement of Ragi	16887.99	26196.52	36604.52	40824.02	45395.02	50299.52	216207.59
Distribution under PDS & Other	1360.00	2244.00	3296.00	3850.50	4500.00	5225.00	20475.50
Total	19886.26	36183.94	49704.74	53780.12	58347.85	62936.16	280839.06

Source: Approved OMM Guidelines 2022-2026

From Table 2, it is evident that procurement and distribution of Ragi by offering a Minimum Support Price constitutes the biggest proportion of the OMM budget.

Table 3: Budget for OMM project activities for 2017-2022 and 2022-2026

Budgeted Activities	Amount in Cr (2017-2022) 15 districts, 84 blocks	Amount in Cr(2022-2027) 30 districts, 177 blocks
Restoring and improving Household level consumption	6.37	4.64
Support to Enterprises on processing and valve addition of millets	29.06	36.74
Improving Productivity	119.74	130.41
Appropriate farm mechanization through custom hiring centers	10.65	13.78
Capacity Building, Training, awareness, Review meeting	2.82	30.65
Promotion of millets in urban and small towns (Cafes, tiffin centers, outlet)	9.87	10.41
Budget for experiments & innovation with program secretariat	0.54	4.46
Promotion and Strengthening of FPO	11.19	39.81
New Components (PILOT PROGRAMME)	1.26	6.79
Setting up of Project Management Unit for Special Programme for Promotion of Millets in Tribal Areas (OMM)	16.66	15.15
Research Documentation & policy development Costs including travel and others (anchored by NCDS)	4.20	13.89
Block level community resource persons (CRP)	15.37	34.82
Program Facilitation costs for the NGO including travel & others	20.42	63.96
Technical support, program Facilitation and M&E Costs including travel and others	-	27.96
Administrative Cost	-	8.08
Procurement of Ragi by TDCCOL	283.33	2162.08
Distribution under PDS & others	27.95	204.76
Total	580.56	2808.39

Source: Approved OMM Guidelines 2022-2026

From table 3 we can see that Ragi procurement by TDCCOL is the single biggest expense of the programme. Other notable points are the designated budgets for research studies, meetings, and engaging experts. Capacity building exercises, investment in human resources, formation of farmers and womens' collectives and their empowerment have been accorded high priority under the OMM. Designated funds for innovation, experimentation and learning allows the program secretariat, farmers and womens' collectives, and researchers to create locally suitable processes and products from the bottom-up rather than merely implement solutions from the top-down.

Three features of the OMM budget stand out and could help serve as a replicable model for other tribal districts in India to follow:

These include:

- Source of funds
- Flow of funds to empower local decision-makers and ground-level governance
- Demarcated money for pilot projects, experimentation and innovation

Source of funds: Closing the loop on tribal development; using district mining funds for tribal agriculture revival.

The Special Program for Promotion of Millet in Tribal Areas of Odisha is funded from the State Plan Fund as well as from the District Mineral Foundation.

The very first goal of the Sustainable Development Goals, eradicating poverty in its many forms, requires mobilization of resources from a variety of sources, to provide adequate and



predictable means of funding for development projects. The re-routing of funds obtained from mining districts towards millet promotion programmes is a typical example of such creative resource mobilization to support sustainable development projects.

Through an amendment in the Mines & Minerals Act, in 2015, the Government of India had made a provision for the establishment of a District Mineral Foundation (DMF) in all the districts affected by mining. The objective of creating a DMF was to work for the interest and benefit of people, and areas affected by mining related operations.

In Odisha, a District Mineral Fund Support Cell was established in 2015 within the Planning and Convergence Department. It is headed by the Development Commissioner-cum-Additional Chief Secretary. This support cell provides strategic support on how funds from the DMF trusts will be utilised for the various schemes and projects, and reviews proposals obtained from District Collectors regarding development projects within the mining district. DMF is funding the Special Programme for Promoting Millets in Tribal Areas in two districts; Keunjhar and Sundargarh.

Flow of funds: Providing financial resources at all levels

OMM funds are spent through two parallel streams. They are spent as Program Funds and Facilitation Funds. The State Secretariat channelizes funds towards research, monitoring and evaluation, innovation, and capacity building and state secretariat also releases the funds to Program Secretariat (WASSAN) for capacity building, training and for organizing activities. Both the research and program implementation channels of the OMM are funded directly by the state secretariat. Recipients of funds include state and district government agencies, research organizations such as NCDS and program partners such as WASSAN.



[2] Government of Odisha, Planning and Convergence Department.

Funds are released directly to the district level ATMA's for implementation of the programme, including funds for facilitation and capacity building to Facilitating Agencies and programme funds to Community-Based Organisations. The Project Director of ATMA then transfers the requisite funds through NEFTs directly into bank accounts of Community Based Organizations and Facilitating Organizations. These funds are made available within seven working days to even the most grassroots level organizations for timely implementation of the program. Even block and village-level facilitating agencies and agricultural workers have the financial resources they need to conduct their daily tasks and plan for cluster-level demonstrations and experimental exercises.

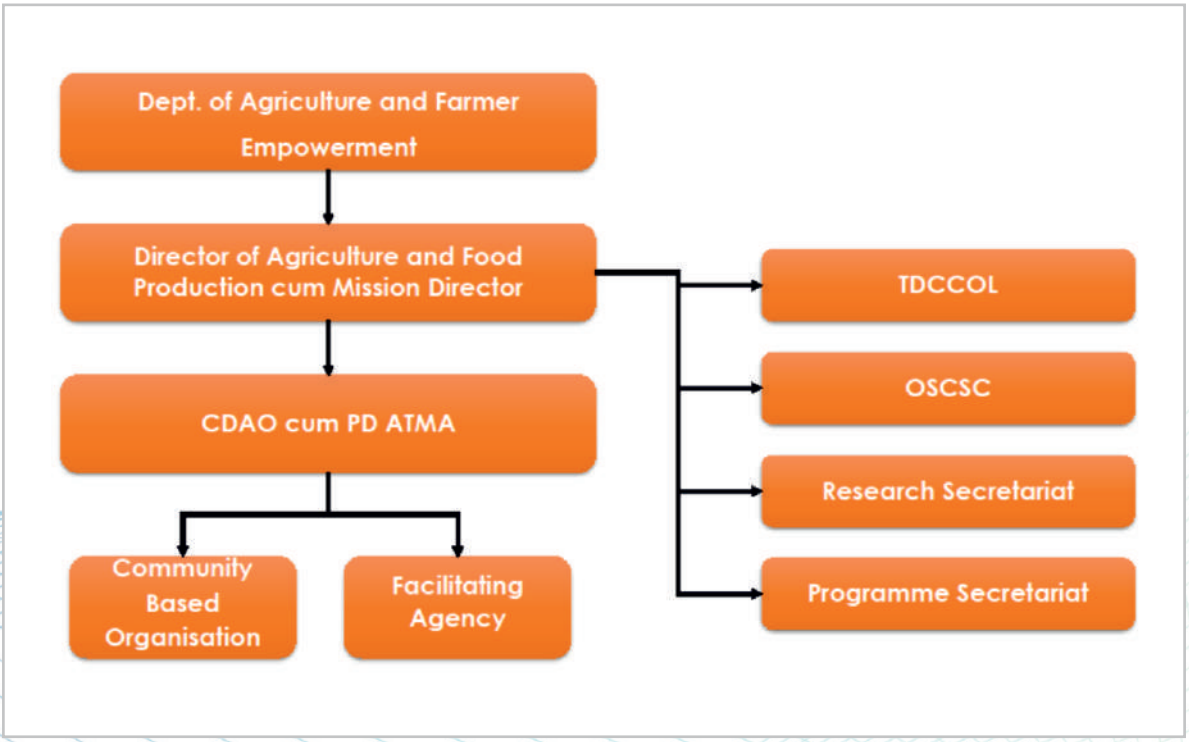
The Community Resource person plays a key role in enabling farmers transition to millet cultivation or practice the improved agronomic practices and avail of funds, technical resources and required machinery. While assigning the responsibility to a CRP, the FPO/ FA informs the CRP in writing regarding the terms of engagements that include incentives, deliverables, performance appraisals mechanism and duration of assignments. The OMM budget (Table 3) includes designated funds or appointing CRPs.

Promptness, meticulous planning and transparency in providing financial resources at all levels is key to enabling those closest to programme implementation to make necessary decisions without having to wait for higher-level approvals. Decision-making is thereby closer to those affected by these decisions.

Often a barrier to effective decentralization is the delegation of responsibilities to district and block levels, without the accompanying resources, and capacity, and decision-making authority. Both barriers have been overcome in the OMM by enabling districts and even blocks to be semi-autonomous in designing, implementation, piloting activities with the research (and programme implementation) teams and in selection of facilitating organizations and nodal CBOs.



Figure 3: Flow of funds in the OMM



Designated funds for piloting ideas, driving experimentation, and enabling learning.

Money is provided to each farmer adopting the agronomic practice in millet production for 5 consecutive years if the cropped area ranges between 0.2 to 2.0 hectares. Table 4 lists the monetary incentives provided to farmers for 5 years for cultivating millets using improved agronomic practices.

Odisha is the first state in India to provide financial incentives for the adoption of Improved agronomic practices. Farmers are offered financial incentives to implement a set of best practices including line sowing, line transplant, and system millet intensification.

Table 4: Incentives offered for adopting improved agronomic practices.

Agronomic Practices/Year	1st Year	2nd Year	3rd Year	4th Year	5th Year
System of Millets Intensification for Ragi (Finger Millet)	10000	7500	5000	2000	2000
Line Transplantation/Line Sowing /Intercropping for Ragi (Finger Millet)	7500	5000	3000	2000	2000
Agronomic Practices for Non-Ragi millets	10000	7500	5000	2000	2000

Source: Updated OMM Guidelines 2022-26 (recent decision to extend incentives from 3 to 5 years)

Funds for field days

Field days are organised by Facilitating Organizations, Village Agricultural Workers, and other agriculture officers during the harvest season. It is an opportunity to calculate seasonal yield and for progressive farmers and other participants to share their experiences and challenges while cultivating millets using improved agronomic practices.



Each field day has about fifty participants and a budget of Rs.3000 per field day is provided by the State Government. The number of field days to be conducted by facilitating agencies is approved in the nnnual action plan each year and funds are released to FAs by the CDAO. An important activity conducted on these field days is the crop cutting exercise. To calculate yield from millet growing clusters, a transparent approach is adopted. Crop cutting exercises are designed in collaboration with the Research Secretariat. A random selection of plots by participating farmers is made for this yield calculation.

Funds for participatory varietal trials

Participatory trials are conducted to enable farmers to make informed decisions about the seed varieties they want to grow for better yields by comparing the performance of different Ragi varieties. The budget for these activities is listed below.



Table 5: Budget allocated for PVTs.

Sl.	Particulars	Unit in Nos/Qty	Unit Cost/Rate	Nos/Days	Amount
1	Exploration, documentation, and collection of landraces seed materials	Lumpsum			500
2	Seed for PVT	Lumpsum			1000
3	Seed treatment with Bijamruta (lit)	1	20		20
4	FYM for Nursery (kg)	50	5		50
5	Labour for Nursery bed preparation & sowing	6	315		1890
6	FYM for main field (ql)	7	500		3500
7	Materials required for Lay outing and labelling for Randomized Block Design	Lumpsum			300
8	Land preparation by plough	8	315		2520
9	Labour for lay outing, uprooting & transplanting/ Line sowing for non-ragi millets	16	315		5040
10	Application of diluted JIBAMRUT (lit)	70	20		1400
11	Application of crude Handikhata (lit)	2	50		100
12	Application of Pesticide	Lumpsum			1000
13	Critical Irrigation during crop growth	Lumpsum			2000
14	Labour for weeding (twice)	10	315		3150
15	Field day for 25 farmers for variety selection (banner, food and travel expenses, Resource persons) (rs/ farmer)	25	100		2500
16	Labour for rouging, harvesting, threshing & storage	8	315		2520
17	Rope, thread, wax, label and coloured row marker, varieties laminated board, PVT banner, measuring tape	Lumpsum			2310
	Total				**30000**

Source: Operational Guidelines OMM 2022-2026. Every activity has been accounted for, including a 25-farmer field day for variety selection.

Funds for testing new recipes, recipe trials and competition.

Recipes are being developed, piloted, and tasted at various locations and events. Each of these events has funds specifically demarcated for recipe trials. The Program Secretariat receives funds for piloting new millet recipes in Anganwadi Centers and ST and SC Hostels. It organizes meetings between mothers' associations, Anganwadi workers, and midday meal workers to decide menus. Food festivals are conducted by anganwadi workers, mothers' committees and Mid-Day Meal workers for greater awareness and enthusiasm for adopting diets high in millets. Recipes are finalised based on taste preferences, nutrition content, storage, and logistics. Block facilitating organizations also organise recipe competitions for participating mothers. Cooking is done at home and displayed during the competition.

The allocation of funds for experimentation at all levels and for personnel that facilitates these projects demonstrates a high-level commitment to drive innovation from the bottom-up.

Funds for Millet-Kiosks

The Odisha Millet Mission has another unique provision- that of offering start-up capital for setting up millet-based food item kiosks by SHGs and FPOs. Women SHGs of Mission Shakti are given the first preference. The OMM offers a one-time support of Rs. 50,000 to the selected SHG or FPO to set up the kiosk. These kiosks serve millet-rich food.



CASE STUDY

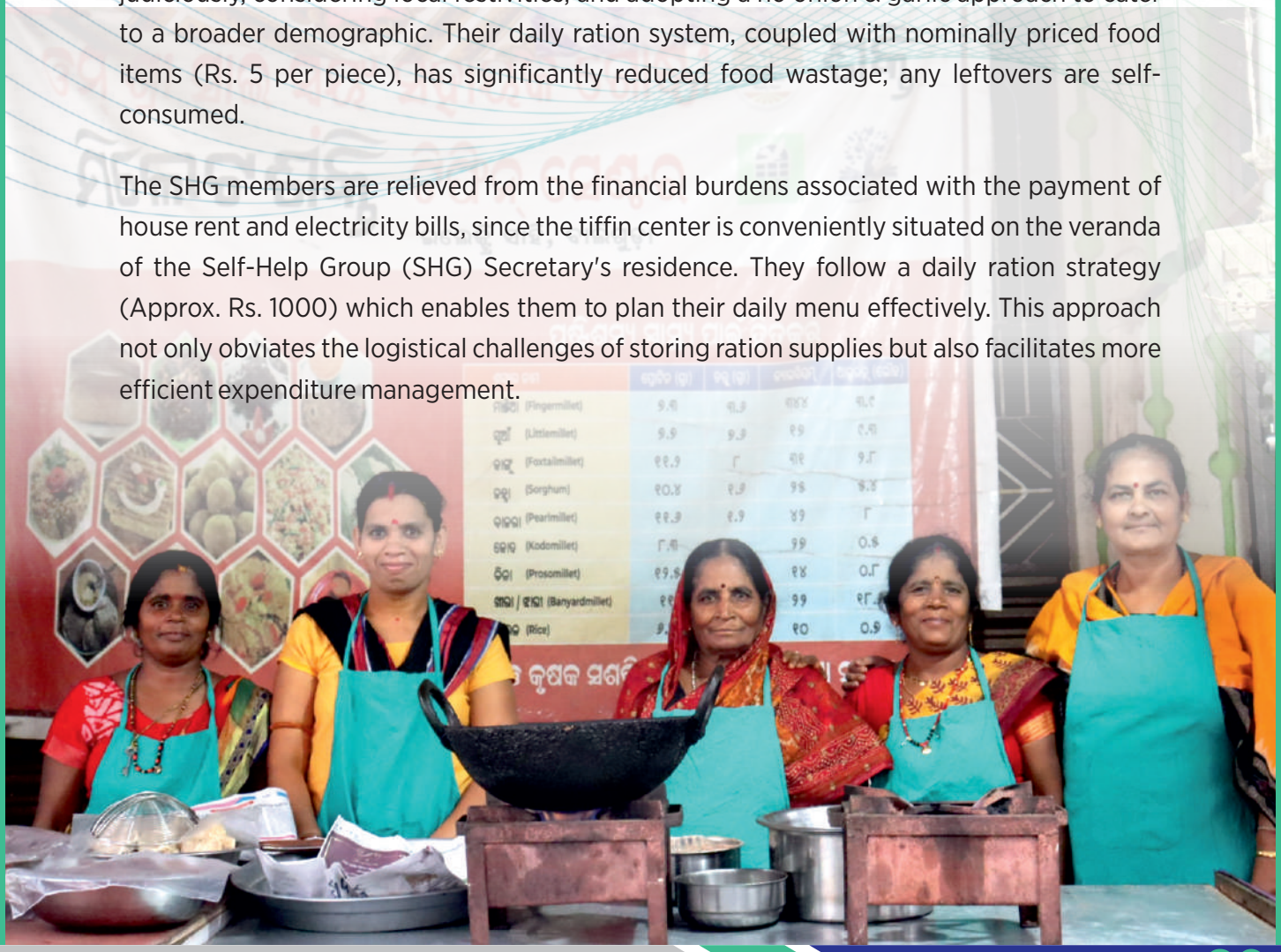
Omm Sri Sai Millet Shakti Tiffin Centre

The Omm Sri Sai Self Help Group (SHG) was established in 2014, engaging its members in small-scale entrepreneurial ventures. In 2017, they were introduced to the OMM project through Shanti Maitree (FA) and actively participated in various recipe training sessions, mastering a range of millet recipes.

In 2018, they ventured into producing dry food items such as Nimiki, Muruku, Tadia, Kangu Badi, all managed with their entrepreneurial spirit. The Millet Shakti Tiffin Kiosk was inaugurated in November 2022, strategically located in the bustling streets near Secretary P. Namita Patra's house.

Presently, the Tiffin Centre engages in the sale of freshly cooked Ragi and non-Ragi food items, along with the supply of dry-food items to local government bodies and grocery stores nearby. The SHG has implemented several cost-saving strategies for their day-to-day operations. With a keen understanding of the local market, they are planning food quantities judiciously, considering local festivities, and adopting a no onion & garlic approach to cater to a broader demographic. Their daily ration system, coupled with nominally priced food items (Rs. 5 per piece), has significantly reduced food wastage; any leftovers are self-consumed.

The SHG members are relieved from the financial burdens associated with the payment of house rent and electricity bills, since the tiffin center is conveniently situated on the veranda of the Self-Help Group (SHG) Secretary's residence. They follow a daily ration strategy (Approx. Rs. 1000) which enables them to plan their daily menu effectively. This approach not only obviates the logistical challenges of storing ration supplies but also facilitates more efficient expenditure management.



To avoid dry food storage problems, the SHGs sells packets to nearby grocery stores, which is effectively doubling as a local marketing strategy. Additionally, they utilise WhatsApp to advertise their products. Their marketing efforts extend to supplying food to block offices, other government offices, and participating in events like the World Cup Hockey 2022. They are also showcasing their products in various festivals such as Kandhamal Mahohatshav, Krushi Mahotshav, and Surabhi Programme.

The SHG demonstrates a commitment to continuous product improvement, sharing anecdotes of tasting Mandia cake and incorporating it into their menu. They experiment with ingredient combinations to create the best-tasting delicacies and actively seek feedback from customers to enhance product quality.

Beyond the Millet Shakti Tiffin Centre, the SHG engages in multiple revenue-generating activities, including selling seasonal pickles, collaborating with Millet Shakti to supply school uniforms, and stitching clothes for Anganwadi students.

Impact on Community and Personal Growth-The SHG members spread awareness about the nutritional benefits of millets in their neighbourhoods, resulting in a ripple effect. Locals express interest in learning millet recipes, and the sale of packaged millet products to nearby grocery stores proves to be a powerful way to sensitise the public about Ragi and non-Ragi items.

The active participation of SHG members reflects a profound personal growth. The Secretary describes their financial independence and the pride of streamlining income for their children's education. In addition to financial freedom, they have gained self-confidence and maintain business relationships adeptly. The SHG members are an inspiration to other women in the neighbourhood. Their future plans include making Ragi ladoos for distribution in Anganwadis, with aspirations to involve other women in this venture.




Millet Shakti Cafe
A Joint Venture of Odisha Millets Mission and Mission Shakti
MILLET COOKIES

2.4. CULTIVARS TO CAFÉ: A CITIZEN-CENTRIC SUPPLY CHAIN

The OMM has adopted a cultivars-to-cafés supply chain approach to revive millets in farms and on plates.

The farmer is at the centre of all agricultural intervention design. Cultivars of Ragi with characteristics that are desirable to farmers and generate high yields are selected for participatory variety trials and multiplied through seed centres. Improved agronomic practices that result in higher yields are demonstrated and taught to farmers. Farmers receive financial aid in the form of direct benefit transfers for five consecutive years for practicing these improved cultivation techniques. Implements and tools required to reduce labour and increase returns from agriculture are made available close to millet cultivation clusters by establishing Custom Hiring Centres from which farmers can rent such implements. To encourage organic cultivation, bio-input centres are established in each block to provide natural pesticides and fertilisers.

The Consumer is at the centre of all consumption-oriented interventions. Millets are made available to rural and urban populations for all income brackets and through welfare schemes, and by creating multiple outlets for the delivery of millet-based meals.

A supply chain of direct procurement from the Farmer Producer Organization and delivery to the Department of Women and Child Development for use in Anganwadi centres is enabled by the TDCCOL. Millet-rich nutritious meals are included in Supplementary Nutrition programmes, and now also introduced as midday meals in schools.

For urban consumers, Millet Shakti cafes have been opened in Bhubaneswar, with many more cafés in the pipeline. Various outlets such as millet kitchens, millet on wheels, and millet outlets in festivals are being established to promote millet consumption on a large scale.
Throughout the range of interventions designed and implemented, farmers collectives and self-help groups have been formed, and empowered to generate inputs into agriculture or meals for welfare schemes. Moreover, in growing and popularising millets, local communities are also being offered entrepreneurial and employment opportunities. Case studies collected by the BIPP team serve as illustrative examples of the cultivar to café supply chain.

CASE STUDY

Progressive Farmer, Kabichandra Dandasena

Kabichandra Dandasena, a 56-year-old male farmer of Gegurpadar village in K.Nuagaon block, Kandhamal district, had been cultivating paddy. He also used to grow pulses, vegetables and Ragi for personal consumption, even before his association with the Odisha Millet Mission.

Association with OMM

Kabichandra's introduction to the Odisha Millet Mission (OMM) was brought about by the Community Resource Person (CRP) in his village. In 2018, he became one of the ten farmers from his village to adopt Ragi (Buda Mandia) cultivation under the guidance of the CRP and the Farmers' Association (FA). With their support, he was trained in the System of Millets Intensification (SMI) package of practice, significantly enhancing his yield to approximately 32 quintals per hectare. This marked a substantial improvement compared to the traditional broadcasting method, which yielded only 6 quintals.

Member of BOD KZSVS Farmers Producers Company

Since 2019, Kabichandra Dandasena is actively serving as a Board of Directors (BOD) member of the KZSVS Farmers Producers Company (FPC). His role now extends beyond cultivation, because he plays a pivotal role in motivating fellow farmers in his village to embrace Ragi cultivation. His involvement further includes contributing to the training of other farmers and introducing essential facilities like a Custom Hiring Centre and Community Managed Seed Centre to his village.



Additionally, Kabichandra takes an active role in the procurement process, collaborating with the CRP to disseminate information among local farmers about the Minimum Support Price (MSP), registration procedures, mandi schedules, and other pertinent details. His dedicated engagement underscores his commitment to agricultural development and community empowerment.

Conclusion

Reflecting on earlier experiences, Kabichandra recalls a time when the consumption of 'Mandia peja' (a Ragi-based beverage) was common in his childhood. However, over the years, both consumption and production of Ragi diminished. With the intervention of the Odisha Millet Mission, there has been a revival of Mandia consumption, not only on the local food plates but also in the cultivation practices of farmers like Kabichandra.

The success story of Kabichandra Dandasena stands as a testament to the transformative impact of initiatives like the OMM in revitalizing traditional crops and empowering farming communities.



2.5 EXPERIMENTATION AND LEARNING: COMBINING LOCAL AND SCIENTIFIC KNOWLEDGE

2.5.1 PARTICIPATORY VARIETY TRIALS, EXPERIMENTS FOR SEED SELECTION

OMM has instituted an experimental practice to empower farmers in selecting their own Ragi varieties from the landraces varietal pool based on criteria and characteristics that the farmer finds most adept to his needs. The objective of conducting experimental participatory variety trials is to select varieties of millet crops that are best suited to the micro-agro-ecological conditions of the block and cluster. Through this experimental process of scientific design, block-level demonstration and learning, local and scientific knowledge are combined to coproduce a process of crop selection between farmers organizations, scientific experts, and facilitating organizations. The process empowers farmers to study the various varieties during their entire life cycle and make decisions that are best suited to their needs.

The need for finding newer varieties arose from the poor yield performance of Ragi prior to the OMM. In 2016-17, NCDS conducted a baseline survey of 7041 HHs in 7 districts. Out of these 7041 households, 6966 households, 98% of the farmers were cultivating finger millet (Ragi)1. This high proportion of Ragi cultivation can be explained by the fact that Ragi has been a culturally important crop to the indigenous communities and was an integral component of local diets. During the baseline survey, the average yield per hectare from the sampled households was only 5.8 quintals per hectare and broadcasting was the primary method of sowing seeds. Access to high-quality seeds and low yields have been a persistent challenge to scaling millet cultivation. Thus, one primary reason for considering other Ragi varieties was to increase agricultural productivity.



Around 95% of the Ragi grown belongs to traditional varieties which farmers have saved from their own farms, collected from neighbours and other farmers or may have purchased the seeds from local market. These seeds often lack purity and have inconsistent germination rates, causing initial crop growth challenges and reducing yields. Therefore, a new system for supplying high quality seeds was required. Under the OMM, an alternate seed system has been created where farmers select their seeds and then make high-performing seeds available for mass production and distribution.

In addition to agroclimatic fit, farmers look for traits such as yield, panicle density, disease incidence, grain size and seed colour.

Even though heterogenous Ragi varieties were available with farmers there was no systematic method to identify which varieties fared better and were more suited to the micro-agroecological conditions.

These experiments are planned with the help of district program secretariat WASSAN in conjunction with crop scientists from Odisha University of Agriculture Technology. At the block level, the facilitating organization of the block along with participating farmers' organizations design and pilot the trial. Agricultural extension workers and community resource persons are also key in organizing, conducting, and spreading the learnings obtained from the exercise.



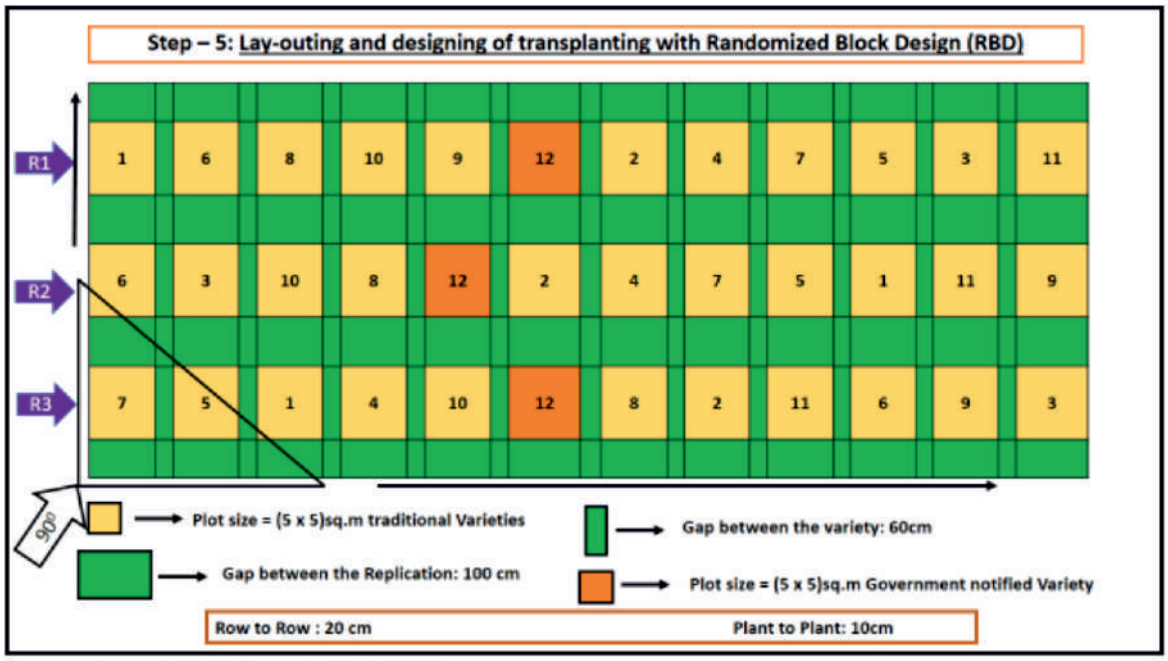
Participatory Varietal Trial (PVT) allows cross-learning between the OMM seed scientist team, facilitating organizations, grassroots non-governmental organizations and farmers since farmer preferences, their resource constraints and criteria for seed selection become evident. It is also an opportunity for farmers to learn about new and introduced varieties and the benefits they offer and weigh them against other costs associated with local varieties.

The trial is designed to identify 'winner' cultivars in three phases. First, the needs of the farmers are understood, second appropriate varieties to test in the PVT are shortlisted; and finally, the farmers' own fields are prepared for experimentation. It is the facilitating organization that plays a critical role here in first identifying all the landraces that are preferred by farmers through village meetings, seed fairs, personal contacts and brief surveys.

PVT Experimental Design: The experimental design enables the comparison and evaluation of numerous local varieties along with the introduced variety in 25*25 meter (minimum) experimental plots. A randomized block design is used. A total of seven or more varieties are selected for the trial. These varieties include those that are locally grown, and state introduced. A minimum plot size of 25 sq.m, with 100 cm spacing between replications and 60cm between varieties within each replication is designed. The top row contains one line of all the varieties that are under consideration. In each subsequent row, these same varieties are re-planted, but in a different order, such that no two cultivars are one below the other. Thus, each grid is occupied 'randomly' and replicated in multiple grids.



Figure 4: An experimental design to compare 12 Ragi varieties.



Source: Annual OMM Report, 2019-2020

On the field day, 50 participants including farmers, block facilitating organization and agriculture officers, community resource persons along with seed scientist team ask the farmer to select the cultivars that they consider most suitable to their needs. Participating farmers select best performing crops by tying ribbons on the plots. After this selection is made, the names of all participating varieties are revealed. By conducting these PVT demonstrations, the seed pool of landraces is enhanced, conserved and evaluated against state released varieties.

Figure 5: Results of varietal selection in 2019-2020

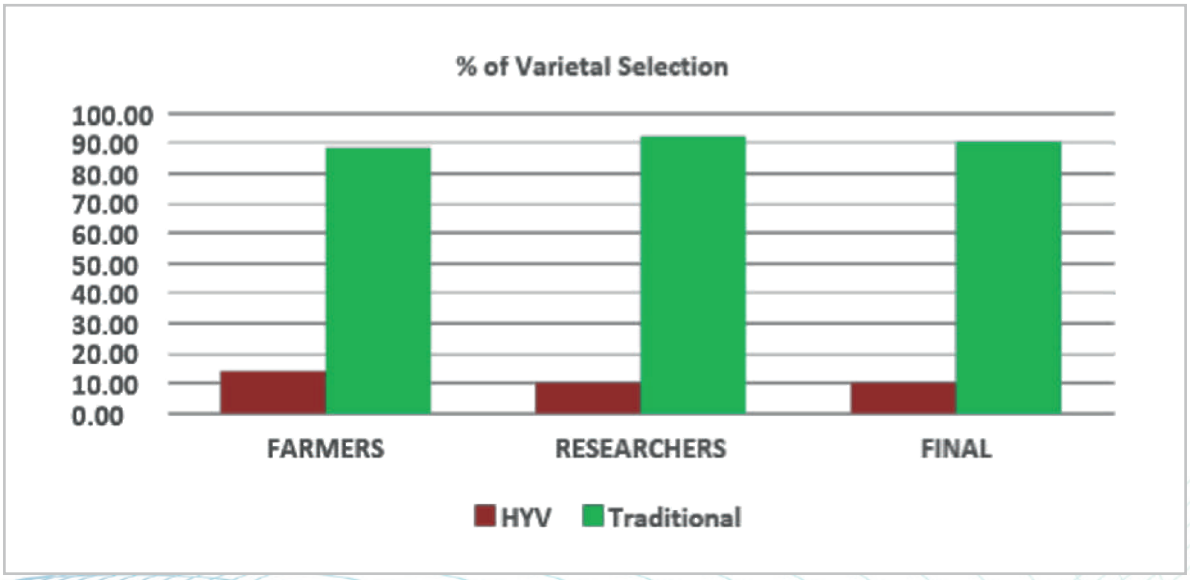


Figure 5: Results of PVT conducted in 2019-2020. Farmers' plots and researchers plots, were given the same treatment. In both farmer and researcher plots, local landraces and traditional varieties were selected over state released varieties.

Table 6: Number of PVT trials Undertaken, and results recorded in 2019-2020

District	No. of blocks	No. of farmers	No. of traditional varieties	No. of check (Govt.) varieties	No. of final selected trad. varieties	No. of selected Govt. varieties
Rayagada	4	4	14	6	7	1
Koraput	4	4	28	4	7	1
Gajapati	1	1	9	1	2	0
Kalahandi	3	3	24	3	6	0
Nuapada	1	1	9	1	2	0
Kandhamal	5	5	28	5	10	0
Bolangir	4	4	13	4	8	0
Keonjhar	4	4	12	4	8	0
Mayurbhanj	3	3	13	3	3	3
Sundergarh	4	4	9	4	7	1
Malkangiri	4	4	13	4	8	1
Ganjam	2	2	13	2	3	1
Total	**39**	**39**	**185**	**41**	**71**	**8**

Source: OMM Annual Report, 2019-2020. It is clear, once again, that selected varieties are invariably traditional and not state-released.

The high performance of traditional varieties has led to a historic decision by the Department of Agriculture and Farmers' Empowerment to release four Ragi landraces for general cultivation. This is yet another example of mainstreaming local knowledge and cultivars from the bottom-up into the state seed system.

MILLET LANDRACES

A working group on seeds has been constituted by the OMM as one of its key objectives is to conserve and protect millet landraces. During the sixth working group meeting on seeds for the Odisha Millets Mission, four high-yielding landraces (BATI, KALIA, MAMI, and BHARATI) were presented for feedback from scientists and breeders. These landraces were selected to be released for general cultivation in suitable regions during the first Landraces Varietal Release Committee (LVRC) meeting, held on July 21, 2023, and chaired by the Principal Secretary of DA&FE. These varieties are recommended to farmers for adoption.
The proposed Ragi landraces were renamed KUNDRA BATI, LAXMIPUR KALIA, MALYABANT MAMI, and GUPTESWAR BHARATI, after important places in Koraput and Malkangiri, and the custodian farmers' habitation.

The LVRC unanimously approved the release of these four finger millet landraces for Koraput and Malkangiri districts, with potential expansion to other districts based on community acceptance and performance.

On August 10, 2023, Odisha officially notified these four landraces for Koraput and Malkangiri, marking this state intervention of local landrace release a historic first in India.

Table 7: The yield of released finger millets landraces (Quintals per Ha)

Variety	Mayubhanj	Rayagada	Malkangiri
ARJUN	**1417.053**	**1,407.88**	**1,986.15**
BATI (TS)	1,990.67	1,955.00	2,191.11
KALIA(TS)	1,593.67	1,896.00	2626.67
MAMI(TS)	1,271.00	1,925.33	2,386.67
BHARATI(TP)	1,395.33	2,133.00	2,786.67

Figure 6: Official notification of the landraces/farmers varieties for seed production.

DEPARTMENT OF AGRICULTURE & FARMERS' EMPOWERMENT
GOVERNMENT OF ODISHA

NOTIFICATION

Number 29868 **Bhubaneswar, the** 10th **August, 2023**

In exercise of the powers conferred by Government of Odisha in the Standard Operating Procedures (SOP) for Seed Systems for Landraces (SSLR) and as per the recommendation of Landrace Varietal Release Committee (LVRC), which was constituted vide Notification No- 1M (04) 07/2019- 20340 dated 30.05.2023, Govt in Department of Agriculture & Farmers' Empowerment (DA&FE) finds it expedient to regulate and promote the quality of the seeds of the landraces/farmer varieties, specified under column (4) of the kinds specified in the corresponding entries under column (2) and types specified under column (3) of the below mentioned Table.

The Department hereby declares that the said landraces/farmer varieties shall be notified varieties for the districts mentioned in column (5) for seed production, and shall be sold for the purpose of agriculture in the districts mentioned in column (5) of the said Table. Custodian farmers/Women Self Help Groups/Farmer Producer Organizations/NGOs will be supported by ICAR and OUAT for maintaining the purity and quality of the released landraces/farmer varieties and their production shall be undertaken as per the process laid out in the SOP for SSLR.

TABLE

Sl	Kind	Type	Name of the Landrace/Farmer Varieties	Recommended Districts
(1)	(2)	(3)	(4)	(5)
1	Ragi	Open Pollinated Variety	KUNDRA BATI	Koraput, Malkangiri
2	Ragi	Open Pollinated Variety	LAXMIPUR KALIA	Koraput, Malkangiri
3	Ragi	Open Pollinated Variety	MALYABANTA MAMI	Koraput, Malkangiri
4	Ragi	Open Pollinated Variety	GUPTESWAR BHARATI	Koraput, Malkangiri

By the Order of the Governor

(Dr. Arabinda Kumar Padhee)
10.08.2023
Principal Secretary to Government



2.5.2 IMPROVED AGRONOMIC PRACTICES AND BIO INPUTS.

Combining Scientific Practices with Indigenous Agroecological Principles

Sustainable Development Goal 2 requires a transition to natural agricultural practices for sustainable increase in agricultural productivity. Scientific agronomic practices are promoted to increase agricultural productivity for increasing yields from millet cultivation. The Odisha Millets Mission promotes the adoption of natural farming techniques, organic cultivation by use of bio-inputs, developing Farmer Producer Organisations and women entrepreneurs.

A transition to climate resilient and just food systems should not burden the farmers disproportionately. Therefore, **Odisha is the first state in India to provide direct financial benefits to farmers for adopting recommended agronomic practices**. Under the Odisha Millets Mission, all participating farmers and farmer organizations are encouraged to practice line sowing and intercropping, line transplant and system of millet intensification to improve yields obtained from cultivating millets. Adoption of these agricultural practices has proven to increase yield obtained from millet farming while reducing the input required drastically.

Table 8: Seed requirements and yield under different agronomic practices.

Agronomic Practice	Seed requirements/ha	Yield/ha
Broadcasting	12kg	5.8
Line sowing	8kg	12
Line transplantation	5kg	14
System millet intensification	1kg	16

Source: Odisha Millets Mission Program Secretariat

The OMM has enabled farmers to transition to scientific cropping techniques which combine millet cultivation with intercropping, traditional water management systems, and other agroecological principles to combine indigenous agricultural practices of water management and use of bio inputs with technology and machinery to reduce labour requirements.

An increase in yields with reduction in labour requirements has made millet cultivation a profitable occupation. Prior to the OMM, millet productivity was low, and cultivation was largely subsistence based, labour-intensive and offered poor remunerative returns.

Introduction of technology in the form of mobile applications, management information system portals, and digital payments and accessibility to farm machinery has made millet cropping extremely efficient while retaining the ecologically robust characteristics of traditional farming.

Therefore, farmers are opting for the adoption of agronomic practices (as illustrated in Figure 7) to cultivate millets because exposure to the local success in the vicinity along with training and resources required to cultivate millets using improved agronomic practices is being provided to all farmers who qualify . In 2022-23, over 2, 50, 953 farmers are practicing the improved agronomic practices.

Figure 7: Area coverage of different agronomic practices.

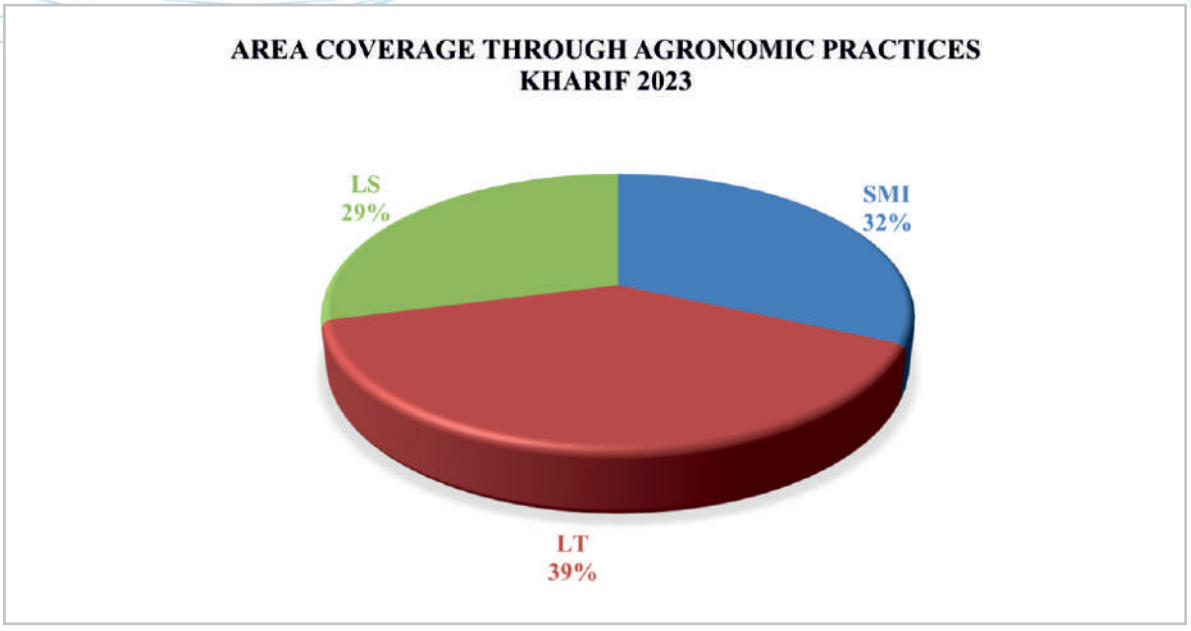


Figure 7: Percentage of Land under improved agronomic practices. Line transplant is practiced on almost 40% of all the land under millet cultivation, followed by System Millet Intensification.



Last year 79-thousand-hectare area covered under improved agronomic practices under diversified millets with 1.72 lakh farmers. During current year it is planned to add another 1.6 lakh hectare with 2.75 lakh farmers under diversified millets .

This transition is enabled by providing financial incentives, technical expertise and demonstrations at the farm to switch from broadcasting and other non-scientific and wasteful agricultural practices to a to a suite of improved agronomic practices. Financial incentives range from Rs. 10000 per ha for following System of Millet Intensification and Rs. 7500 per ha for Line Transplantation and Line Sown plots.

Initiated by Odisha Millets Mission, these improved practices have substantially improved the soil quality with efficient usage of water thereby promoting better crops and overall cropping system that is environment friendly. Farmers in the operational districts have reported several benefits of improved agronomic practices such as decreased input costs, significant increase in quality and quantity of the yield, reduced environmental pollution, reduced water usage and maintenance of top-soil that has resulted in higher crop productivity. An organic approach to seed treatment, nutrition and pest management is adopted under OMM. Bio-input centres have been and will be established for a continuous provision of organic pesticides and fertilizers. Natural farming practices such as seed treatment with Beejamrut, application of *Jibamruta*, and *Handikhata* for soil health, and promotion of cycle weeders are practiced.

Villages with a history of production and consumption of millets or geographic suitability for millet cultivation are selected for providing the inputs. Preference is given to tribal farmers and farmers with soil health cards (obtained within the last 3 years). Other households interested in taking up millet cultivation in the programme blocks are also encouraged to participate. Farmers who do not have soil health card for the last 3 years are allowed to participate in programme after testing of their soil from soil testing labs based on suitability and with the support from Krushak Sathi and concerned village agriculture worker.

In this process, the OMM ensures compliance to other natural farming programs and creates avenues to capitalize on the incentives that other soil health and natural farming national and state policies offer.

The focus on on-farm biomass recycling with major stress on biomass mulching; use of cow dung–urine formulations; and exclusion of all synthetic chemical inputs makes the OMM a natural beneficiary of BPKY schemes.

The OMM also contributes to the National Mission on Sustainable Agriculture, especially the The Bharatiya Prakritik Krishi Paddhati, a sub-mission under the Paramparagat Krishi Vikas Yojana. BPKY promotes traditional indigenous practices, which give farmers freedom from externally purchased inputs.



Encouraging Organic Millets

By encouraging organic millet cultivation through the OMM, not only does the mission encourage the practice of sustainable agriculture, it creates numerous entrepreneurial opportunities and marketing potential for community-based enterprises. Ecological benefits include improved soil quality, and economic benefits include avoided costs of fertilizer purchase, losses due to infested seeds or crops and opportunities for bio-input centre creation, organic branding and selling.

Organic fertilizers and pesticides are composed on-site at bio input centers by self-help groups. 4 units of bio-inputs are formed per cluster. Currently, these centers are promoted through Farmer Producer Organizations in 10 blocks of the 7 districts and Jibamruta, Handikhata, Nimastra, Agniastra, and Bijamruta are the five products being produced.

To create awareness among the farmers, FPOs conducted campaigns on Bio Inputs in different blocks.

Table 9: Composition and uses of organic products at the OMM Bio-Input Centres.

Organic Product	Composition and Uses
Jibamruta	Prepared with fresh cow dung and urine, surface soil, lime powder and water. It is used to do seed treatment to protect seed borne.
Handikhata	Prepared with fresh cow dung and urine, jaggery, Bengal gram flour, handful of fertile soil, leaves of neem (Azadirachta indica), leaves of karanj (Pongamia pinnata) and leaves of arakha (Calotropis gigantea).
Bijamruta	Prepared with fresh cow dung and urine, surface soil, lime powder and water. It is used to do seed treatment to protect seed borne.
Neemastra	Prepared with cow urine, cow dung and neem leaves. It acts as an insecticide.
Agneyastra	Prepared with cow urine, neem leaves, tobacco leaves, green chilli, and garlic. It serves as an organic pesticide and acts against stem borer and fruit borers.

Figure 8: Production cycle of millets under improved agronomic practices.



CASE STUDY

Raimati Ghiuria at the G20

Hailing from the Nuaguda village of Lima Gram Panchayat in Kundra, Koraput, Raimati Ghiuria has been actively engaged in agriculture since 2002. She works with her grandmother Kamala Pujari, a Padma Shree awardee. Her association with the M.S. Swaminathan Research Foundation dates back to 2005, and she has contributed to the conservation of around 110 rice landraces. Specializing in line transplanting of paddy and the System of Rice Intensification (SRI) method, Raimati brings a wealth of traditional farming knowledge.

In 2017, Raimati became aware of the Odisha Millet Mission through the M.S. Swaminathan Research Institute. She is one of 17 farmers from her village involved in cultivating millets. She has conserved approximately 30 *Ragi* landraces. Currently, she has dedicated 4 acres of her total land to cultivate Ragi. This time, she has grown *Bati Mandia* and KMR variety. She follows SMI for Ragi and inter crops pulses like *Kolotho* (horse gram) and *Kandula* (red gram).

A notable aspect of Raimati Ghiuria's farming approach is her consistent avoidance of chemical fertilizers. Be it paddy, vegetables, or millets she has stuck to using bio inputs over chemical fertilizers. She tries to prepare various bio input like *Neemastra, Handikhata, Jeebamruta* and *Agneyastra*. Last year, on *Mandia Dibasa*, Raimati Ghiuria was honored as a Custodian Farmer by the Government of Odisha.



As the director of Bamandei Producer Company Limited, she actively oversees the management of various activities of the company. She has always been a resource person for the village. Moreover, with her expertise of handling various landraces, she even looks after the quality of seed stored. Additionally, she tries to disseminate awareness among farmers during the mandi procurement time.

Beyond her role in agriculture, Raimati assists her husband Gobinda Ghiuria to manage a Farm School established with support from the Indian Overseas Bank. Renowned as a trainer in organic farming, she has received numerous national and state awards, acknowledging her contributions to women's empowerment, conservation, and farmer capacity building. Raimati's significance extends internationally, as she was one of two progressive farmers invited to represent Odisha in the 2023 G20 Summit in New Delhi, enlightening global audiences about traditional millets.



2.5.3 CREATING AND TESTING RECIPES

Combining cultural knowledge with food and nutrition science

Enhancing household consumption is one of the key priorities under the OMM. Numerous information, education campaigns are designed to promote awareness about the nutritional benefits of consuming millets. One of the many activities undertaken includes the trial of new recipes, cooking contests, and posting recipes on the OMM project website. An effort is being made to promote millet-based products with information on nutritional content.

These recipes combine local cultural knowledge with nutrition science and nutrition awareness to create a range of hot cooked meals and dry food items. Trials of recipes, and new delivery methods for introducing millet-rich meals in diets are tried by different collectives.



2.6 EMPOWERING COMMUNITIES BY CREATING ENTREPRENEURIAL COLLECTIVES

The OMM has organised tribal communities of farmers, women and rural populations into collectives who can exercise agency in determining their livelihood and nutrition choices. Within the Odisha Millets Mission, such community-based organizations have been formed as self-help groups, womens' self-help groups, farmer producer organizations and farmer producer cooperatives.

A key strategy adopted through a cluster-based approach to millets cultivation is to create scale, and empower producers and rural communities to form collectives to generate income from farming and all ancillary activities, and bring markets and machines to these collectives.

Forming collectives to manage shared resources and build enterprises offers numerous benefits such as pooling labour, cost-sharing, better bargaining power in engaging with markets and diluting risk.

A key strategy adopted through a cluster-based approach to millets cultivation is to create scale, and empower producers and rural communities to form collectives to generate income from farming and all ancillary activities, and bring markets and machines to these collectives.

From reviving cultivars of millets to their consumption in café's, every intervention has been meticulously designed to create new avenues for community-based organizations to collectively generate a livelihood.

The OMM budget has allocated almost 40 crores (from 2023-2027, see table 3) to strengthen farmer collectives and community-based organizations. The objective is to empower producers to become self-sufficient, and skilled entrepreneurs and to generate diverse streams of sustainable livelihoods from the OMM. 26 Farmers Producer Organizations had been registered under the Special Programme for Promoting Millets in Tribal Areas. A total of 24108 members and shareholders are associated with these FPOs. 10 FPOs have been registered under e-NAM for marketing their surplus. 16 FPOs participated in the KMS-2020-21 for Ragi procurement and 79992 quintals of Ragi has been procured through FPOs.

2.6.1 COMMUNITY-OWNED SEED CENTERS

Timely access to high quality seeds that will generate a high yield is necessary for millet farmers. Most millet farmers rely on their personal saved seeds from the last season or informal connections with other farmers and local markets to procure seeds. These methods neither guarantee the quality of seeds, nor that each farmer will be able to avail of these informal networks in times of need.

On the other hand, government seed systems in Odisha such as Odisha State Seeds Corporation (with support from Odisha University of Agriculture and Technology) are unable to keep up with the demand for quality seeds, with locally desirable characteristics and make them available to villages in time.

Therefore, to enable a continuous supply of best performing landraces and Ragi varieties a community-owned and managed seed program has been initiated under the Odisha Millets Mission.

Community-owned seed centers make farmers self-sufficient in inputs required to grow Ragi and reduce their dependence on external agents and uncertain markets.

Farmers exercise ownership in making decisions regarding which varieties they want to grow, and how and when they will be made available. Since kharif seed sowing is time-sensitive and farmers need timely access to high-quality seeds, local seed centers in blocks and sub-centers in villages are being established.

With each community seed centre, three sub-centres are established at the start of the sowing season which the FPO and SHG manage. FPOs and SHGs procure PVT and mass selected seeds from farmers. They also receive the seeds from OUAT and the State Seed Centre. Then the FPO determines the rate at which these seeds will be sold.



Only after all OMM participating farmers' needs are met does the FPO determine the rate at which seeds will be made available to other farmers. By procuring landraces from different sources and then selling them to many farmers, a multiplier effect for diversifying agro-biodiversity and genetic diversity is generated. These community owned and managed seed centers establish reliable informal networks for seed material and information to flow within clusters. For gaining exposure and new information on managing seed production and storage, the Facilitating Agency is tasked with arranging training and exposure visits.

A total of 303 Community Managed Seed Centers is established by womens' self-help groups and farmer-producer organizations to conserve local landraces and provide high quality seeds in a timely manner.

Not only do seed centers store and sell seeds, but they are also an important self-help strategy to generate revenue, propagate seeds and the extensive local knowledge of seeds that indigenous populations have gathered over centuries.

2.6.2 COMMUNITY MANAGED CUSTOM HIRING CENTRES

Another barrier to millet cultivation was the high-labour demand and human effort required to grow, harvest and process millets.

The use of machines in millet cultivation is proportional to the scale at which farmers can practice agriculture and the amount of produce generated. Therefore, providing machines to millet clusters in Custom Hiring Centers (CHC) at the Gram Panchayat level is another intervention designed by the OMM. Each CHC can have a maximum of seven sub-centres at cluster level.

The neglect of millets and other crops in policy also resulted in poor advancement in developing and refining machines and equipment specifically for coarse grains.

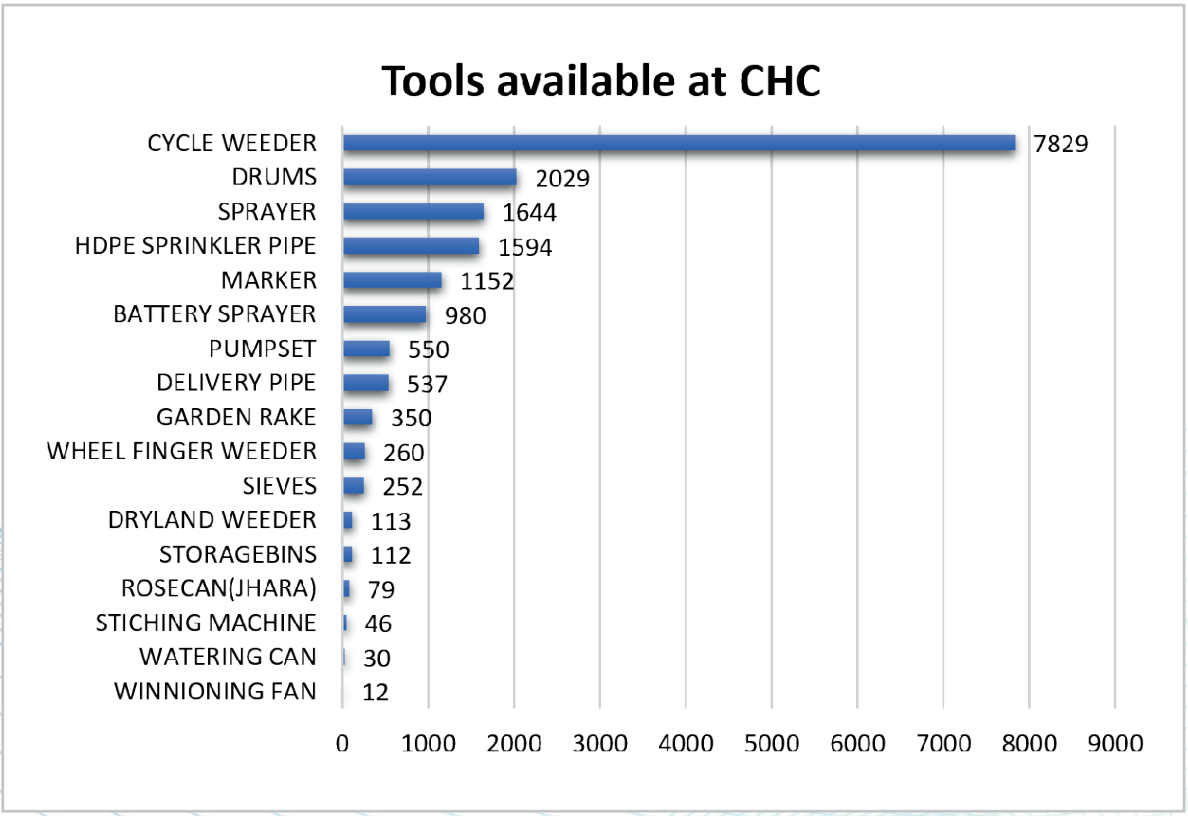
Machines available at CHC include those needed for millet cultivation (using improved agronomic practices), those that reduce drudgery and encourage women to take up millet cultivation, implements not available locally and implements that farmers are willing to pay for.

OMM has 227 Custom Hiring Centres (CHC) managed by women SHGs and Farmers Producer Companies in 19 districts.

Farm machinery such as row marker, diesel pumpset, winnower, sprayer and cycle weeder from CHCs are available on rent for use by farmers. Currently, only 93 Blocks have custom hiring centers, and more than 1 lakh farmers can avail of these facilities.



Figure 9: Tools available at custom hiring centres.



CBOs manage the custom hiring center, determine the user fee for machines, and continue to earn a steady stream of income from these Custom Hiring Centers.

CHCs are located close to cultivation clusters so farmers can rent the machines and tools that they cannot purchase, thereby enabling many farmers without capital to invest in farm equipment to practice millet cultivation.

A total of 13 crores have been allocated for setting up these custom hiring centres for the 2023-2027 budget. Apart from this a partial rent support @ Rs 1500/Month is provided to each CHC. The rent support is provided for up to 3 years in the 1st phase-blocks (65 blocks) and upto 5 years for the 2nd-phase blocks.

2.6.3 WSHG MANAGED BIO-INPUT ENTERPRISES

To create pathways to natural farming and promote organic cultivation, bio-inputs are being promoted as a substitute to chemical fertilizers. Dependence on expensive chemical fertilizers that consume a lot of fossil-fuel to produce, is a major barrier to the sustainability of agriculture. Under the OMM program, 4 bio-input units are formed per cluster and Jibamruta, Handikhata, Nimastra, Agniastra, and Bijamruta are the five products being produced.

FPOs handle all the campaigns on bio-Inputs, to create awareness among the farmers at the block-level. Village gatherings help boost the collection of raw materials in their territories. Through Farmer Producer Organizations and Women Self-Help Groups (WSHG), these centers are promoted in 143 blocks across 19 districts. In these regions, WSHGs are in charge of production, while FPOs are in charge of marketing the bio-inputs in the local market. Jeevamrutha, Ghanajibamruta, Handikhata, Nimastra, Agniastra, and Bijamruta are the six major products on which these centers initially concentrated their efforts for production and marketing.

Apart from these, they also produce and market fish tonic, egg tonic, dashaparni and vermicompost etc. WSHGs have been instrumental in advancing bio-input production and dissemination.



Financial support of INR 30000 is provided to a self-help group or a farmer producer organization. The selection of women's' self-help groups that will participate in this program is conducted by Mission Shakti department. In 2021, the total cost incurred in the production of bio-inputs was Rs. 96136.75 and the revenue earned was Rs.119105. These bio-input centers are being developed as organic self-sustained enterprises that will contribute to the expansion of organic millet production and earn womens' collectives a regular income.

2.6.4 SELF-HELP GROUPS IN MILLET PROCESSING AND VALUE-ADDITION

The OMM creates opportunities and provides resources to organize women into self-help groups that undertake a range of activities from farming, processing, grinding millets to flour, selling millets and cooking millet-based products. These activities are made possible due to the participation of Mission Shakti, a member department of the Odisha Millets Mission. Mission shakti helps organize women into self-help groups and provides the training required to create entrepreneurship opportunities along the life cycle. From procurement to processing, cooking, running café's and providing meals and ladoos to ICDS schemes, women SHGs are being mobilized throughout the Millets Mission.

Bringing small-scale millet processing units to millet producing regions is another intervention provided by the OMM. One of the major barriers to local consumption and value-addition of millets was the unavailability of proximate millet processing equipment, and the lack of capital to purchase such machinery. Coarse grains require specific sieves, destoners and equipment that millet processing units didn't have not only because it is unavailable but also because millet processing equipment has largely been rudimentary and adapted from paddy dehulling units.





Therefore, enabling collectives to procure Ragi threshers and other millet processing units under a micro-processing enterprise format has created other avenues for livelihood generation, ability to sell value-added products such as stone-ground flour, and preserve its nutritional value. Commercial large-scale processing removes the vitamin-rich bran covering the millet entirely while small-scale processing by sifting and tools like threshers or stone-grinding retains the nutritional content. Ragi, sorghum and pearl millet do not have a thick outer hull, they can be hulled/milled using threshers and stone-ground to make flour.

A total of 685 Ragi Thresher units have been established at village level through WSHGs/ FPOs in order reduce the drudgery involved in threshing of Ragi. A total of 43nos of Ragi Cleaner-Cum-Grader and 778nos of Pulverizer unit have been set up through WSHGs/ FPOs. An example of a WASSAN led innovative, local entrepreneurial model is millet processing using mixies. A major barrier in utilizing millets has been lack of proper processing opportunities. Millets being coarse grains, contain a thicker outer husk and proper machinery required for its dehulling was not available. A local approach of using household mixies to dehull millets has gained popularity as a micro-enterprise and over 30 enterprises have now been set up to dehull millets using modified household mixies.

The equipment and machines required for on-site value addition activities are made available to selected FPOs and SHGs. First, the designated block facilitating agencies in consultation with Community based organization under guidance of village or block agriculture will assess the different types of millets machines required based on area coverage, estimated production and marketable surplus. The necessary infrastructure and working capital requirement for setting up of the machines is borne by the selected SHGs/ FPOs. The District Collectors' approval is required to place the order for the machines. Machines that are made available for on-site processing include pulverisers, grinders, millet-dehullers, threshers, destoner, Cleaner-Grader, Dehullers, etc. (Integrated Unit) District Level Bakery Unit.

CASE STUDY

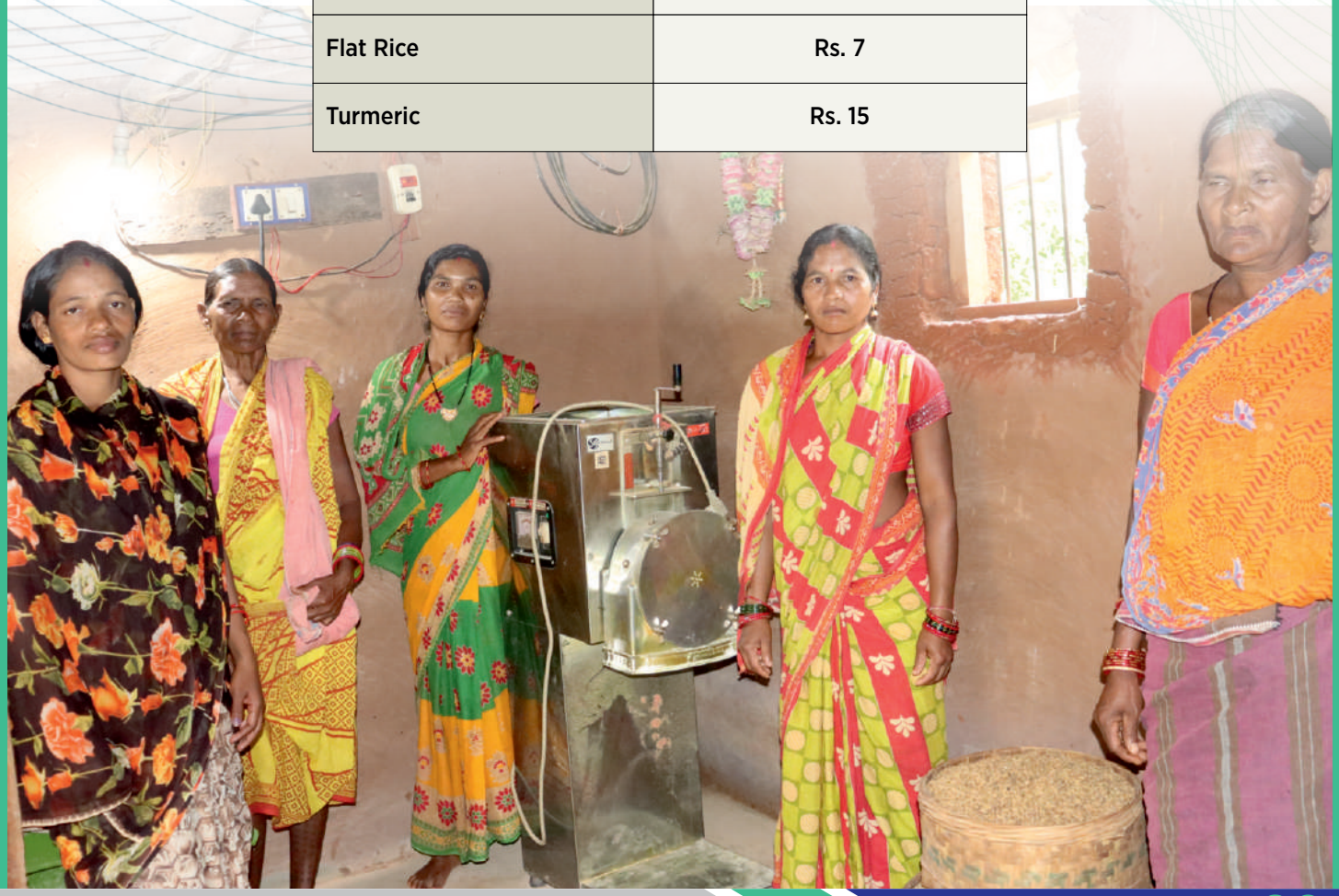
Maa Dharani Penu Self Help Group

Established in 2018, the Maa Dharani Penu Self-Help Group (SHG) were provided a pulveriser from the Odisha Millet Mission. Since then, this 11 member SHG has been on expanding activities to generate revenue.

Pulveriser Operations

Initially, the SHG focused on grinding Ragi flour, but their operations expanded to include grounding kangu, turmeric, rice, wheat, black gram, and flattened rice, each with a specific per kilogram rate.

Item	Price per Kg.
Mandia	Rs. 7
Flattened Rice	Rs. 7
Black Gram	Rs. 7
Kangu	Rs. 7
Flat Rice	Rs. 7
Turmeric	Rs. 15



The group prioritized asset creation, taking the initiative to build a room in their village for the machine. Additional investments were made in equipment such as a rice dehuller, weight machine, packing machine, and power weeder, utilizing funds generated from the pulveriser. All these equipment was procured at a subsidised rate from the Department of Agriculture along with facilitation of the FA and Mission Shakti.

Currently, the pulveriser facility serves people from two nearby villages, primarily catering to needs for personal consumption. The SHG has ventured into preparing and packaging Ragi flour for sale in the market. However, they face a challenge with the pricing, marking Ragi flour at Rs.40, which offers a limited profit margin. Efforts are underway, facilitated by Agragamee, to establish market linkages that could enhance their profit margin.

In addition to managing pulveriser operations, this SHG actively participates in broom cultivation, marigold plantation, and seasonal mushroom cultivation in collaboration with the Odisha Livelihood Mission and Mission Shakti, facilitated by Agragamee. Furthermore, the SHG engages in the procurement of tamarind from local farmers, selling it to TDCCOL, and earning a commission for the same. Members of the SHG have conveyed their satisfaction with the successful diversification of income sources, moving beyond conventional agricultural practices.

One limitation faced by the SHG is the location of the pulveriser. As their pulveriser is not on the roadside, there is competition with other pulveriser units. Despite this constraint, the SHG aspires of setting up a shop to sell their self-grown and processed Ragi flour.



2.6.5 CBOs IN RAGI (FINGER MILLET) PROCUREMENT

Another use of CBOs in the supply chain of millets is their use as registered procurement agents. Based on the paddy procurement model, FPOs are registered using the Millet-Procurement Automation System online portal. This M-PAS serves as a digital repository of registered farmers and farmer organizations and enables direct bank transfer to beneficiaries. The M-PAS, through the use of technology for transparency has created efficient supply chains for the procurement of Ragi.

From checking the documents to scanning Aadhaar cards, efficiently undertaking online operations, weighment of paddy bags, moisture content estimation, physical procurement and documentation in Mandis, the CBOs are enabled to conduct all the activities at the mandi. Currently, 84 FPOs are enlisted as block procurement agency.



CASE STUDY

Koraput Nari Shakti Farmers Producer Company (FPC)

The journey of this nodal community-based organization, started in 2017 and culminated in the establishment of the Koraput Nari Shakti Farmers Producer Company (FPC) in 2020. With a membership of 13 individuals, comprising 7 registered members and 6 promoters, the FPC has embarked on three projects. These include gonger processing with Mission Shakti, Special promotion of Integrated farming with WASSAN and the Odisha Millets Mission. Lamptaput OMM operations are overseen by 4 of the 7 registered members, while the remaining 3 manage projects in Nandapur.

In Nandapur, the FPC engages in two ongoing projects: Ginger processing with Mission Shakti programmes and the Special Programme for Promotion of Integrated Farming by WASSAN. The executive cadre of this FPC includes a CEO, two marketing managers from a facilitating agency, 1 accountant, 1 MIS-cum-data entry operator, and 7 Community Resource Persons (CRPs) adhering to Odisha Millet Mission guidelines.

Revenue Generating Activities

Three revenue-generating activities include the mandi procurement commission as Ragi Procurement Agency (from TDCCOL), the custom hiring centre, and the community manged seed centre. The mandi procurement commission emerges as the primary profit driver, contributing 11 lakhs in the previous fiscal year.

While three Custom Hiring Centres (CHC) and three Community Managed Seed Centres (CMSC) are allocated to various Self-Help Groups (SHGs), they have set a low revenue collection to assist the SHGs stabilize financially. Hence, the revenue from the mandi procurement commission constitutes a major profit for the company.

Financial Allocation and Utilization Efficiency

The allocated fund for the Koraput Nari Shakti Farmers Producer Company during 2017-22 was Rs. 27,89,000, with Rs. 17,99,047 utilized (December 2021), reflecting efficient resource management. For the current 2022-24 period, Rs. 16 lakhs were allocated, and Rs. 9,70,000 utilized until Sept 30, 2023.

Tenure	Allocated Fund	Utilized Amount
2017-18 to 2021-2022	Rs. 27,89,000	Rs. 17,99,047
2022-23 to 2023-24	Rs. 16, 00,000	Rs. 9,70,000

Management of the Business and Grassroot Implementation of Activities by the BOD

Discussions with Mahina Kirsani (director) reveal her enthusiasm for organizational growth. Insights from Hirami Bankia, another Director, shed light on initiatives such as organizing awareness rath for farmer mobilization during mandi procurement and ensuring stringent quality checks at the mandi.

A distinctive feature of the FPC is the all-women composition of its BOD.

The emphasis on stabilizing Women Self-Help Groups (WSHGs) before initiating revenue collection reflects a nuanced approach to community development. This demonstrates not only their service-oriented motto but also an engagement with grassroots activities, positioning the FPC as a nodal implementing agency committed to holistic development.

Personal and Professional Growth of BOD Members

Mahina Kirsani's reflections on personal and professional growth reflects a transformative journey—from a life confined to fields and household chores to assuming the directors position of Nodal FPO for OMM. This journey has paved the path for diverse opportunities, including involvement in other impactful projects of Mission Shakti and WASSAN.

BOD members have acquired leadership traits, confidence, and financial independence in household decision-making. The empowerment extends to contributing financially to their children's education and actively advocating against child marriage in neighboring villages. The BOD members aspirations echo a commitment to serving fellow farmers and contributing meaningfully to the sustained growth and prosperity of the FPC.





2.6.6 SHGs FOR PROVIDING ICDS MEALS

A convergence between womens' empowerment, child nutrition and reviving millets by engaging self-help groups in preparing meals for ICDS is a typical exemplar of building development programs on the pillars of economic, ecological and social inclusivity. Such a convergence is made possible by the nested, hybrid structure of the OMM that provides multiple avenues for engaging Mission Shakti to use self-help groups for delivering meals through welfare programs, ICDS and midday meals, and commercial enterprises including millet shakti café, millet on wheels and millet kitchens.

Using locally grown millets, for tribal, rural and urban nutrition by employing rural women to prepare meals is one of the many pioneering interventions that other states have been urged to replicate. The W & CD & Mission Shakti Department are responsible for collecting millets, preparation of millet products and distribution among beneficiaries under ICDS scheme.

Provision of millets in ICDS is a direct route to ensuring increase in consumption, the first goal of the Odisha Millets Mission. It also ensures that an increasing demand of millets is maintained and that the PDS delivers to Anganwadi centres, SC and ST Hostels and now schools for midday meals as well. Inclusion of millets enhances the nutritional content of the food, helps create awareness about local crops and the food we consume, its nutritional and ecological footprint.

Meals that are rich in nutrients, balanced and sourced from local food sheds play an instrumental role in combating nutrition challenges. The involvement of women self-help groups, with the support of anganwadi workers and mothers' associations enables people to make decisions about their diet and wellbeing. Welfare schemes like ICDS and midday meals start becoming vehicles for nutrition delivery in the short-term, and behavioral change with the ability to make informed decision about consumptive choices in the long run. This intervention not only engages women to deliver nutritious food and earn an income in the process but also raises awareness, cultural and knowledge on how to cook millets and how their consumption is beneficial.

A popular case study is the *Ragi Ladoo* that women SHGs make and provide to ICDS. Till 2022, the use of women SGHs in ICDS was restricted to only 3809 Anganwadis in Keonjhar and 3257 Sundargarh district including 1.5 lakh children as beneficiaries.

To conclude, communities have been mobilized to take ownership and manage their shared inputs, enterprises, and sell their products. The use of CBOs throughout the OMM enables generating income for non-farm households, women and rural poor.

In addition to engaging FPOs in income generating activities, the OMM program provides other support to farmers such as linking bank accounts for direct benefit transfers, enabling them to avail of life and health insurance through other government schemes, avail of work guarantees under MGNREGA and the ability to avail of the various other government schemes that they are eligible for but may not have the information, time or capacity to leverage.

Key components of the budget (in table below) to register new FPOs include mobilizing farmers, generating awareness, organizing meetings, and providing FPOs with a revolving fund assistance. Such revolving fund assistance enables them to engage in different revenue generating activities and grow their funds. All operational activities have an allocated budget and are directly provided to the FA, and FPO upon registration.



Table 10: Budget provisions for creating and strengthening more FPOs in the next five years.

Sl.	Particulars	2022-23	2023-24	2024-25	Total(Amount in Lakhs)
1	Mobilizing of Farmers- expenses for awareness creation, organising meetings, etc	0.20	0.20	0.10	0.50
2	Registration (New FPOs only)- Getting Digital Signature Certificate, Directors' Identification number, name of company, CA fees, GST registration for marketing products	0.50	0.00	0.00	0.50
3	Revolving fund assistance for investment, product development, branding, business development, marketing	0.50	2.00	1.50	4.00
4	Salary expenses of CEO	2.40	2.40	2.40	7.20
5	Salary expenses of Accountant	1.44	1.44	1.44	4.32
6	One-time support for office essentials (One laptop,printer, tables and chairs)	0.80	0.00	0.00	0.80
7	Training for farmers/ BoD/ exposure of CEO for FPO management	0.30	0.20	0.00	0.50
8	Travel & Meeting (18000), Rent (48000) & Internet & Telephone (12000), and Misc. (12000)	0.45	0.90	0.90	2.25
9	Other expenses - MIS, audit, DPR, Other Compliances etc. (LS)	0.10	.048	0.48	1.06
	Total	**6.69**	**7.62**	**6.82**	**21.13**

Source: Approved Operational Guidelines 2022-2026, OMM

CASE STUDY

Tulasi and Ambika SHGs (Collective Farming)

Facilitating agency, Agragamee, along with the nodal FPO, Phiringia Millet Farmers Producer Company Limited, have devised a collective farming model with Women's Self-Help Groups (WSHG) for community farming. This model was adopted in 2020 after the formation of Nodal FPO. In 2020, 12 WSHG were onboarded to initiate collective farming. This collective farming model entails the strategic selection of a central nursery bed, either at the village or panchayat level, depending on the location of all the participating farmers.

Intervention, Impact, and Challenges:

Motivated by exposure visits, training programs, and organizational initiatives under the Odisha Millet Mission project facilitated by Agragamee, Tulasi SHG and Ambika SHG collaborated to pool labour and resources for collective farming. The respective presidents, Sabita Kanhar and Puspanjali Kanhar, attest to the enhanced efficacy achieved through collaborative efforts. Other members shared their experience on how efficient it has become to cultivate collectively as the labour was pooled.

The impact of their efforts materialized last year, when 20 members from Ambika (10) and Tulasi (10) SHGs successfully cultivated *Ragi* on a 20-acre expanse, yielding an impressive harvest exceeding 110 quintals. This triumph has galvanized the entire village of Manipadar to commit to an expansion of collective millet cultivation, with the current year witnessing an extension of cultivated land to 30 acres. Their adherence to the System of Millet Intensification (SMI) package of practices, exemplified by the cultivation of *Budha Mandia*, is note-worthy.

Achievements

The success story in millet cultivation has propelled the village of Manipadar into a commitment to further expand millet cultivation in subsequent seasons. This accomplishment has prompted Agragamee to design a convergence plan, engaging various departments.



2.7 PROCUREMENT OF MILLETS TO IMPROVE NUTRITION FOR VULNERABLE COMMUNITIES

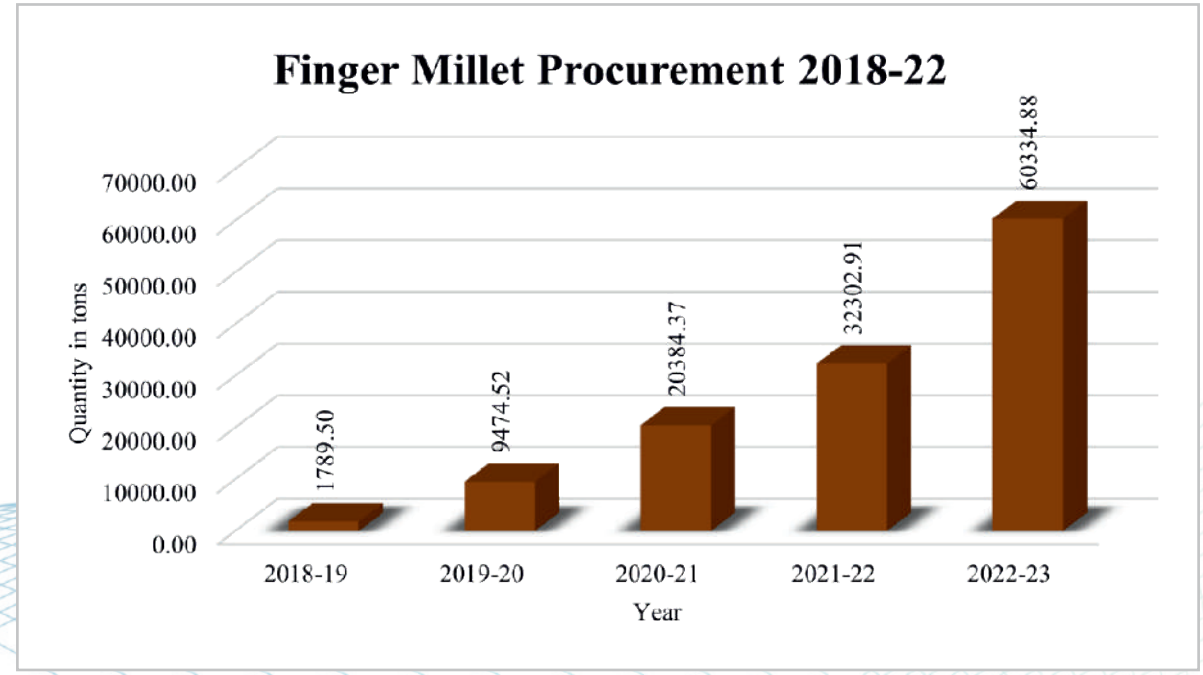
Agriculture-Nutrition Convergence

To improve nutrition of low-income families and facilitate nutritious millet-rich meals on the plates of vulnerable women and children in Odisha, several institutional innovations were operationalized. An Inter-departmental collaboration between the Departments of Agriculture and Farmers Welfare, Tribal Development Corporation, Women and Child Development and Department of Food and Civil Supplies has been made possible by a series of institutional innovations and investment in human capital, enhanced outreach, formation of new institutions, and financial incentives such as minimum support prices to farmers and provision of resources for better storage and mobility.

The government of Odisha started procuring Millet (Ragi in 2018-19 through the Tribal Development Cooperative Corporation of Odisha Limited (TDCCOL) in eight districts namely Gajapati, Kalahandi, Kandhamal, Koraput, Malkangiri, Nuapada, Rayagada and Sundargarh. In 2018-19, the total Ragi procured from these eight districts was 1789.5 tons. The number of Ragi farmers from these districts has been estimated at 2.32 lakh and yet, the number of farmers who sold at procurement centres was merely 6,622; less than 3% of estimated farmers. Therefore, overcoming constraints in procuring Ragi from a larger number of farmers and farmer producer organizations had been a priority for the Odisha Millets Mission since the very beginning.



Figure 10: Finger Millet Procurement 2018-2022.



In 2022, OMM has achieved a procurement of 60334.88 tons of Ragi from 19 districts and 142 blocks. Several design elements have enabled this ten-fold increase in procurement:

Minimum Support Price

The Government has announced the minimum support price for Ragi at Rs. 3578.00 per quintal for 2022-23. This widens the gap in minimum price for Ragi and 'fine' cereals by over Rs. 500 per quintal since rice is procured at Rs. 2930/quintal. Not only does this minimum price guarantee attract people to engage in millet cultivation, it also creates opportunities for paddy farmers to transition into millet cultivation.

Mobilizing Local collectives

Promoting Farmer Producer Organizations and Self-Help Groups to enable farmers from remote, tribal villages to sell their millets in accordance with the average quality norms has been instrumental in increasing outreach. FPOs/SHG Federations have been registered as procurement agencies for Ragi procurement in selected blocks of Odisha Millets Mission . These FPOs and SHGs undertake registration, document collection and provide tokens for collection at mandi points enabling farmers to sell to these mandis.

Through the millets mission, training, capacity building and financial incentives have been provided to facilitate organizing farmers into producer organisations which can collect produce from its members, meet high grain quality standards and sell to procurement agency (TDCCOL). FPOs, SHG Federations are enlisted as registered sellers of Ragi and facilitate release of direct benefit transfers to farmers.



Physical Infrastructure for market access

Location of Ragi procurement centres is a critical factor that determines market access. By mandating that Ragi procurement centres should be within 5 km of production clusters or a maximum of 20 km away from production clusters several mobility constraints faced by small-scale farmers is overcome. In addition to the marketing yards of Regulated Market Committee, suitable Ragi procurement centres (mandi points) are identified by the Block Agriculture Officer in consultation with the Facilitating Agency, FPO/CBO/ SHG Federation. Not only does that help increase outreach into tribal villages, it also helps consolidate fragmented producers and intermediaries into organizations.

In a case study documented by the World Food Program, a mandi was organized for the first time in Ganjam village and a farmer was able to sell Ragi from 3 acres at the rate of Rs. 3377 and received a total of Rs. 13,508. Another example of such a procurement centre is the Swabhiman Anchal of Malkangiri district. The mandi was inaugurated by Agriculture Minister of Odisha on December 23rd, 2019, on the occasion of National Farmers Day and that day marked the first ever procurement for any grain in that region. Bringing the mandi to the farmer enables far greater participation from farmers and ushers in new avenues for entrepreneurship and development in newer regions.

Digital Infrastructure, A Millet- Procurement Automation System

The Millet- Procurement Automation System is an online database of registered procurement agencies, local FPOs and SHGs. Currently, over 26,000 farmers are registered on this online M-PAS. Farmers are paid directly, within 72 hours of receiving millets.

Leveraging the TDCCOLs procurement infrastructure

The Tribal Development Cooperative Corporation of Odisha was registered as a cooperative in 1962 and created with the vision of providing farmers and artisans direct market access. Their objective is to ensure that tribal farmers are not exploited by middlemen and money lenders and that farmers and artisans can generate sustainable livelihoods for themselves. To this end, they undertake numerous activities such as enabling value-addition and processing of procured commodities, procurement of minor forest produce and surplus agricultural produce from tribals.

Under the Millets Mission, the role of TDCCOL includes procurement of Ragi at minimum support price, promotion of millet production through assured market support, utilization Ragi in the Public Distribution System (PDS) after retaining the stocks for Integrated Child and Development Scheme (ICDS), Mid-Day Meal (MDM) Scheme & Schedule Tribe Hostels and to provide a framework for enlisting of FPOs/SHG Federations at Block level.

The choice of TDCCOL as the procurement agency enables a strategic fit between the vision of the organization, its tactical and operational capacities and pre-existing presence in tribal regions for procurement of various products.

Procurement to nutrition, bridging institutional gaps

The use of public distribution systems and their direct delivery into ICDS and midday meals plays a dual role of enabling large-scale production by providing an assured market, a price guarantee, enhancing nutrition of children under Integrated Child Development Services and midday meals with inclusion of Ragi and other millets. An operational inter-departmental government procurement system did not exist in Odisha prior to OMM to procure millets from tribal districts.

Designing intervention to enhance nutrition of children

A pilot research to provide Ragi laddus as millet snacks under the Supplementary Nutrition Program to preschool children was conducted by Nabakrushna Choudhury Centre for Development Studies (NCDS), Indian Institute of Millets Research - Indian Council of Agricultural Research (IIMR-ICAR) Central Food Technological Research Institute-Council of Scientific and Industrial Research (CFTRI-CSIR) and the departments of women and child development and Mission shakti. This pilot design and implementation created an inter-departmental collaboration between Departments of Women and Child Development and Mission Shakti in preparation of laddus through women shelf help groups, providing them with income opportunities and delivering nutrition to children.



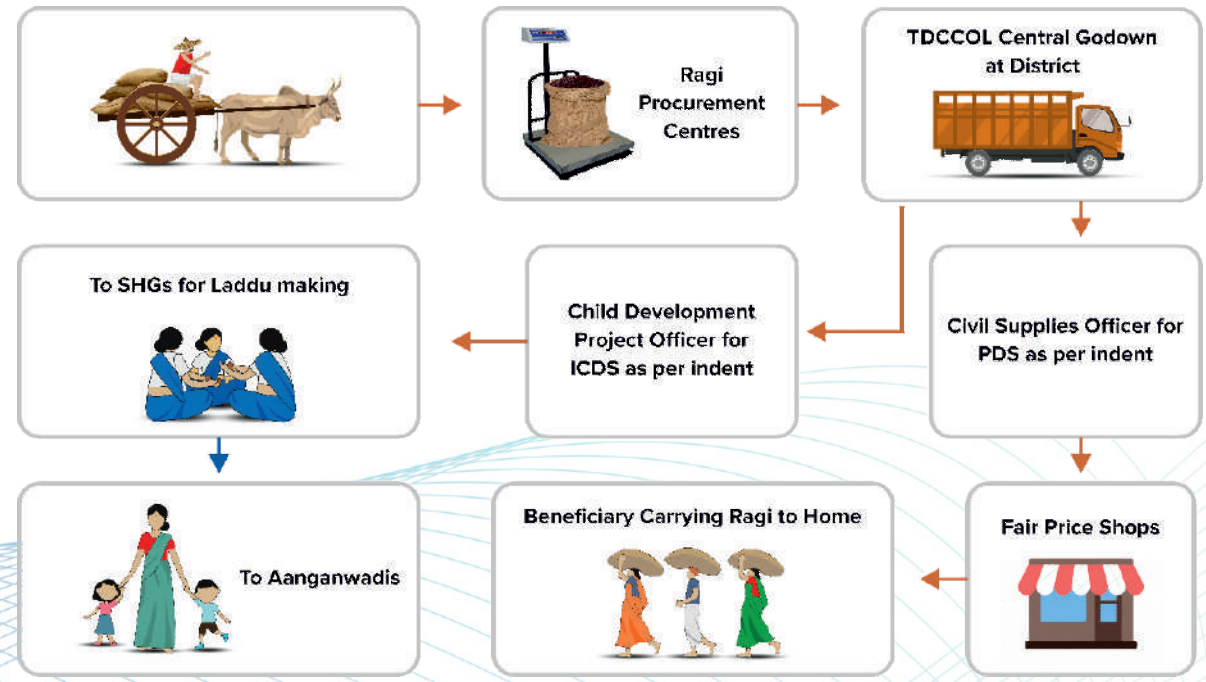
Overcoming Coordination challenges

An inter-departmental program that operates in 19 districts to procure millets and deliver them to other government welfare programs and fair price shops is managed by the hybrid SPMU with the help of clear operational guidelines. The operational guidelines for the procurement of Ragi provides detailed description of the roles and responsibilities of the TDCCOL in registering farmers, routing procured Ragi to ICDS beneficiaries and to fair price shops. Procured Ragi is directed to fair price shops under PDS after retaining stocks for ICDS, MDM Scheme & ST Hostels.

Direct funding channels to collaborating state departments

Agriculture and Farmers' Empowerment Department provide funds to TDCCOL for the targeted quantity calculated at the provisional cost approved by the State Govt in advance. The funds directed to TDCCOL towards procurement is the single largest budget item in the OMM budget and has increased from 283 crores in 2017-2022 budget to 2162 crores in 2023-2027 budget.

Figure 11: An illustration of the farm-to-fork model of the Odisha Millets Mission.



Source: Odisha Millets Mission website



2.8 ENCOURAGING CONSUMPTION: AVAILABLE, ACCESSIBLE AND AFFORDABLE MILLETS

A range of consumption-oriented interventions are designed to provide affordable millet-rich food to different segments of the population. Traditional recipes, international cuisines, chefs and home-cooks are all involved in creating different modes of millet delivery. Some of these interventions include:

Mandia Cafe to Millet Shakti Café

In the process of popularizing millet among the urban areas, the concept of "Mandia Cafe" emerged from an internship program organized in 2018 by Program Secretariat. A collaboration between Odisha Millets Mission and Mission Shakti was formed to promote millets and provide livelihood support to the women SHGs under the brand name "Millet Shakti", capitalizing on the already popular Mission Shakti stores.

Millet Shakti Tiffin Centre

Millet Tiffin Centers were established to promote awareness about millet-based recipes and access to nutrient-rich diets in semi-urban and urban areas. The Millet Shakti Tiffin Center and the preparation of hot-cooked meals are managed by the WSHG. The menu includes Samosa Chana, Idli, Little Millet Kheer, Chakuli, Ladoo, Finger millet pakoda, Vada, and Aloo curry. This business model has served to be beneficial both for marketing and spreading awareness about millets and serving as an empowerment tool for women.

Millet on Wheel

Another creative initiative for popularizing millet is "Millets on Wheels". Currently there are only 3 Millet on Wheels in the state with a plan to create more in the next five years. This food truck is managed at the block level either by an FPC or WSHG. The food menu includes local delicacies that are millet-based as well as dry food items sourced from WSHG which are supported by Mission Shakti. Subsequently, this has proven to be an essential strategy for achieving financial freedom for women.

Millet Shakti Outlet

Currently, there are 5 Millet Shakti Outlets all over the state. With such outlets, the aim has been to make it easy for customers to access millet-based value-addition products. These products mostly include different millet grains and flours as well as baked items, cookies, bread, muffins, etc.

Table 11: Millet food outlets and their number in Odisha

Name of the Enterprise	Millet Shakti Tiffin Centre	Millet Shakti on Wheel	Millet Shakti Café	Millet Shakti Outlet
Total No. of Enterprise	145	8	5	5

2.9 TRAINING, CAMPAIGNS, RECIPES, FOOD FESTIVALS, AND PROMOTIONAL EVENTS

Millet Food Stalls and Recipe Events at Local Festivals

To connect consumption to local culture, multiple events for recipe tasting have been organized during festivals and fairs.

In 2018, the Program engaged with the youth and students by organizing summer internships to promote millets-based value-added products in different prime locations of Bhubaneswar. Over the years this has become one of the major promotional activities which has been expanded to other major cities in Odisha. College students were also involved in setting up food stalls. There was much positive feedback from the public and it succeeded in making the urban population aware of the dietary diversity and various recipes of millet. These citizen-centric interventions are being used to make millets popular amongst the youth.

Additionally, food stalls have been put up at several annual and seasonal festivals like Krishi Mela, Adivasi Mela, and Sisir Saras Mela district, and block festivals also at the national events. During the International Hockey World Cup 2018, the Odisha Millets Mission put up Mandia Café inside the stadium premise with help of with Trishakti, a WSHG Federation. To appeal the urban pallet, several local and International nutritious dishes were served. The menu included both baked items (muffins, laddoos, biscuits) and hot-cooked dishes (sandwiches, salad, biriyani, kheer, and vada). The attendees expressed their positive feedback and appreciated the nutritious dishes.





Spreading awareness about the dietary diversity and positive health benefits of the millets, with a particular focus on the promotion of non-Ragi millet food items is the objective of such food festivals. The particulars of the food festival are finalized by the FA with relevant consultation with the BAO/Program Secretariat. Such food festivals combined with local festivals to attract crowds. Women's Campaign Teams are involved during the festival.

Training in Rural Areas to Improve Household Consumption Level

The first goal of the Odisha Millets Mission is to increase millet consumption at the household level. Several components for organizing campaigns, and promotional events to revive millets in diets have been included in OMM intervention design.

A two-day training program for a 10-member women's Campaign Team is designed by the Program Secretariat. This training is conducted by a master trainer guided under the supervision of the Programme Secretariat (WASSAN)/Krushi Vigyan Kendra (KVK).

Women's Campaign Team is trained on the diversity of millet types, various nutritional values, health benefits, recipes and cooking processes including traditional methods. This training aims to equip the local women with knowledge about millets so that they can lead future awareness campaigns and food festivals in rural areas. This Campaign Team organizes village-level campaigns to promote household-level millet consumption through Street Plays, Intergenerational discussions on millets, or Awareness Rath etc. Additionally, the Programme Secretariat prepares training videos and audio content for social media and

IMPACT, CHALLENGES AND ACHIEVEMENT



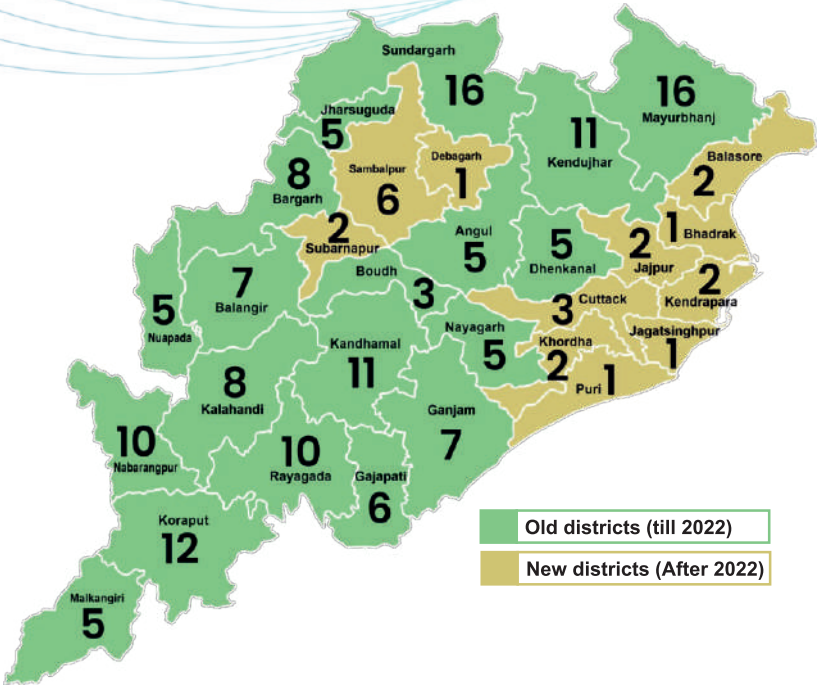
3. IMPACT, CHALLENGES AND ACHIEVEMENTS

IMPACT

3.1. SCALE OF THE PROGRAMME

The Odisha Millet Mission (OMM) was inaugurated with a visionary, multi-stakeholder participatory approach, underpinned by a decentralized operational framework. Bolstered by substantial financial and institutional support from the government, its objective was to foster both the production and consumption of millets within the state. Commencing its journey in 2017, OMM took root in 30 strategically selected blocks, spanning across 7 districts, setting the stage for a profound transformation. By the year 2021, this pioneering initiative had expanded its footprint to encompass 84 blocks, extending its reach into 15 districts, a testament to its rapid progress. OMM's unswerving commitment to its mission prompted a further leap, scaling up to 143 blocks in 2022, thus enveloping a grand total of 19 districts. Govt. of Odisha has expanded the programme to additional 34 blocks totaling to 177 blocks in 30 districts of Odisha. Rs 2808.83 Cr has been approved by the state cabinet for extension and expansion of OMM till 2026-27

Figure 12: District wise number of blocks covered under OMM.



OUTREACH

30 Blocks in 2017
55 Blocks in 2018
72 Blocks in 2019
76 Blocks in 2020
84 Blocks in 2021
143 Blocks in 2022
177 Blocks in 2023

30 Districts
177 Blocks
1.75 Lakh HHs

101 NGOs
105 FPOs
1616 WSHGs

3.1.1. SCALING-UP LAND UNDER MILLETS CULTIVATION

Although the programme majroly focesed on the fingermillet cultivation in the initial years through improved agornomic practices since the crop was dominantly cultivated among all other millets but it also focused on other millets which were traditionally cultivated.

The figure 13: District wise Kharif Area coverage 2023-24 shows that Koraput has the highest area under millet cultivation accounting for 13.32 % of the total area under millet cultivation through the mossion and the lowest is Kendrapada accounting to only 31 ha which was included in the programme in Kharif 2023-24.

Figure 13: District-wise Kharif area coverage 2023-24

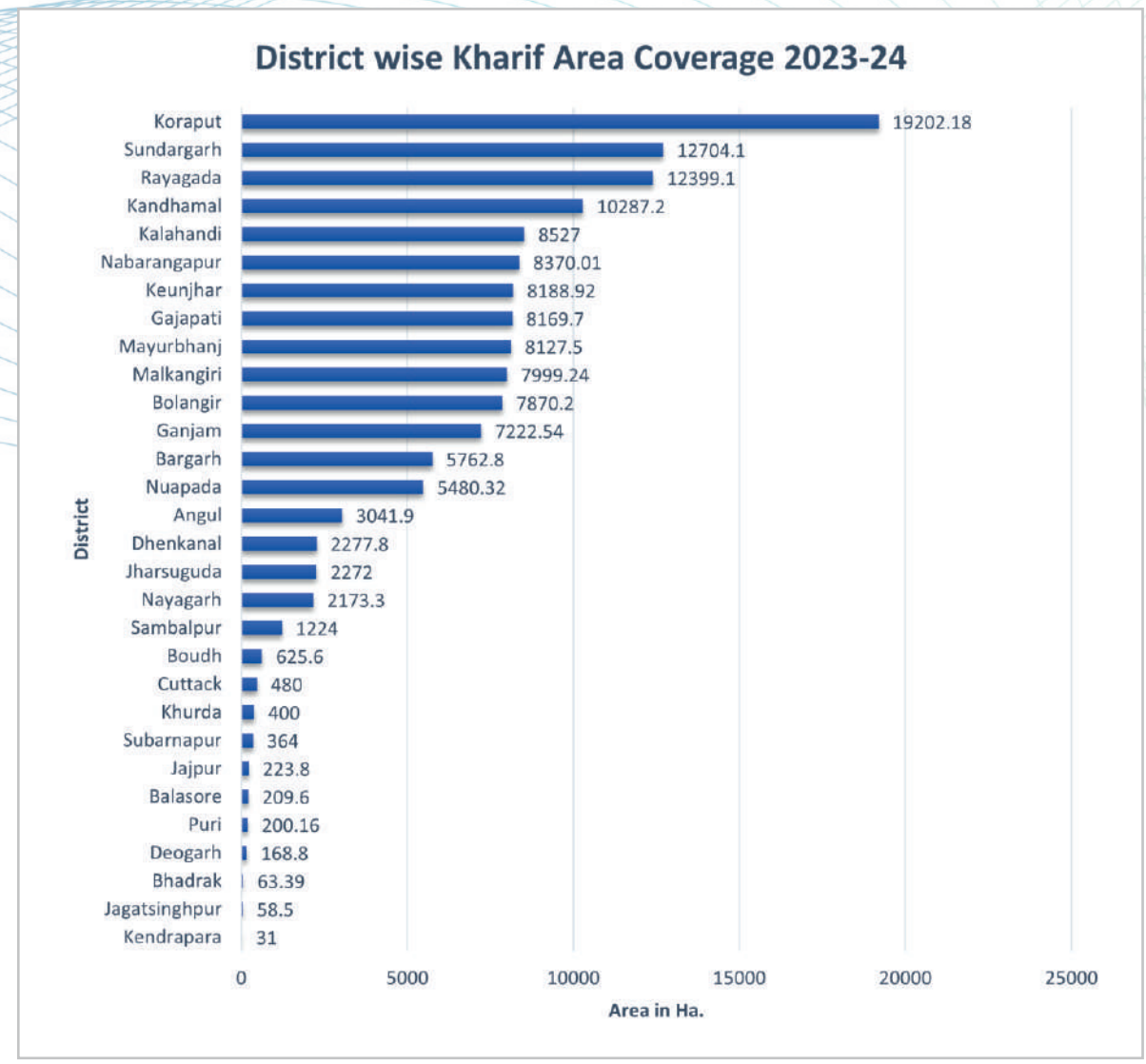
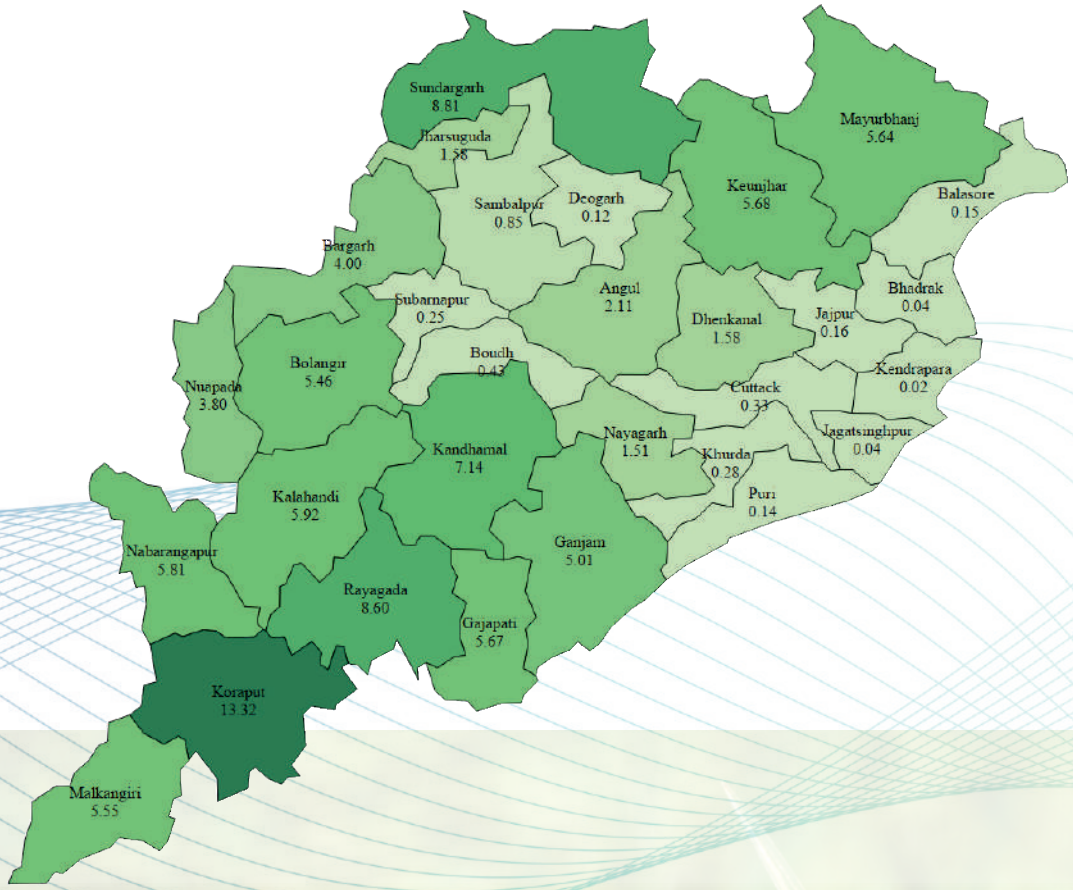


Figure 14: Percentage of District wise kharif area coverage 2023-24



Crop Coverage in Ha

District	
Koraput	19,202
Sundargarh	12,704
Rayagada	12,399
Kandhamal	10,287
Kalahandi	8,527
Nabarangapur	8,370
Keunjhar	8,189
Gajapati	8,170
Mayurbhanj	8,128
Malkangiri	7,999
Bolangir	7,870
Ganjam	7,223
Bargarh	5,763
Nuapada	5,480
Angul	3,042
Dhenkanal	2,278
Jharsuguda	2,272
Nayagarh	2,173
Sambalpur	1,224
Boudh	626
Cuttack	480
Khurda	400
Subarnapur	364
Jajpur	224
Balasore	210
Puri	200
Deogarh	169
Bhadrak	63
Jagatsinghpur	59
Kendrapara	31



3.1.2 SCALING-UP LAND UNDER IMPROVED AGRONOMIC PRACTICES

From the beginning of the programme the mission has been promoting the production millets through improved agronomic practices. In the beginning of the programme these practices were applied only to *Ragi* (finger millet) cultivation. The figure below shows the area coverage of finger millets through various improved agronomic practices. In the year 2017-18 the total area under improved agronomic practices increased from 3207.61 ha to 144124.66 ha in Kharif 2023-24. This is a tremendous achievement for the first five years of the programme.

Figure 15: Millet area coverage 2017-2023

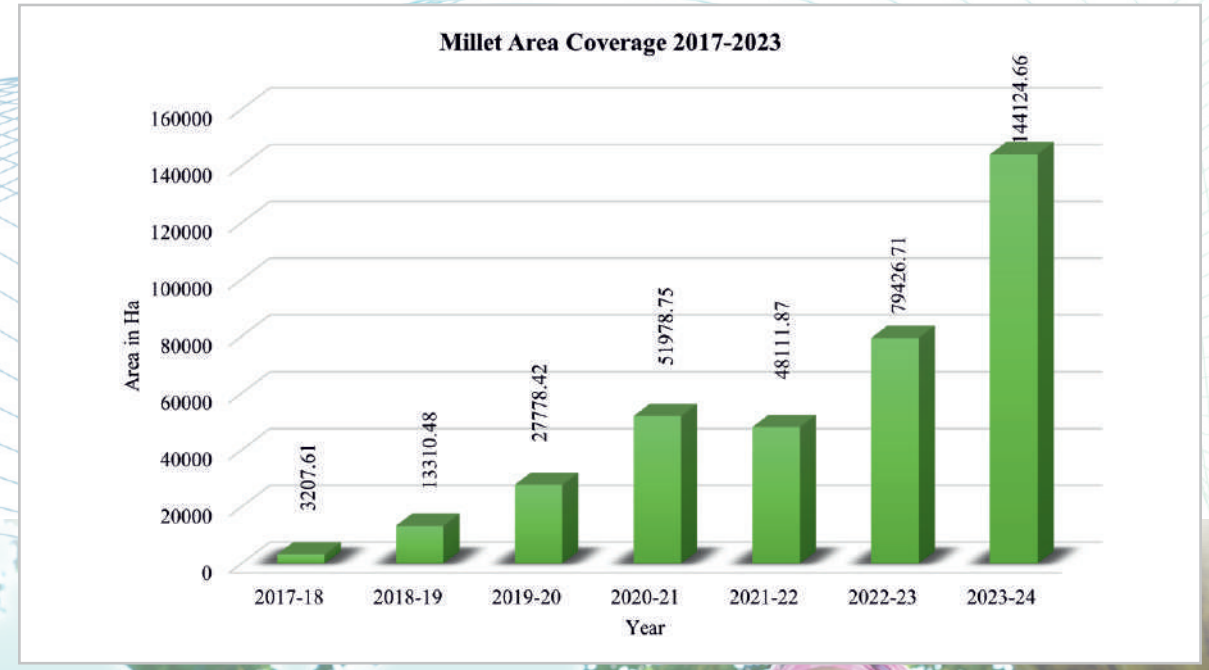
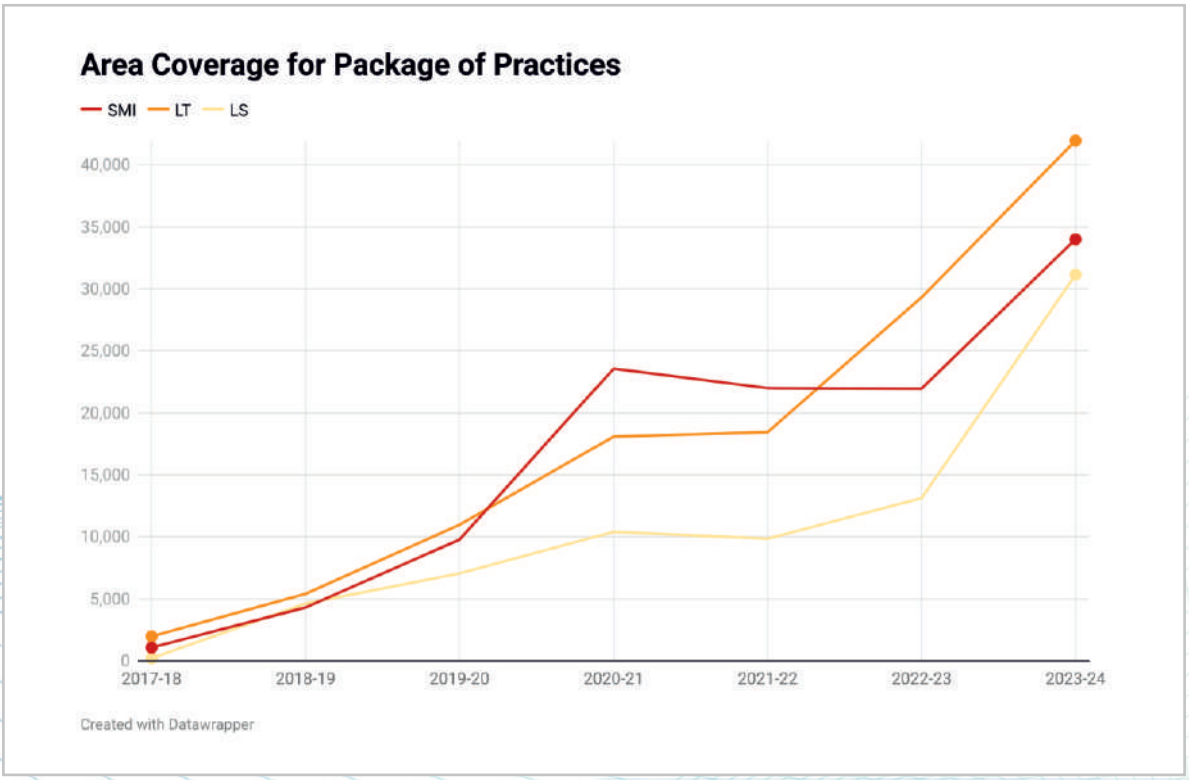




Figure 16: Area brought under different agronomic practices since the beginning of the OMM.





3.1.5 SCALING-UP PRIMARY PROCESSING AND VALUE-ADDITION

The mission has so far establihed 680 Ragi thresher, 737 pulveriser, 42, integrated processing units (IPU) which includes cleaner-cum-grader-cum-destoner (Table 14: Processing and Value addition Units) through the programme which are majorly manged by women Self Help Groups (WSHGs). Moreover, there are 5 units of Millet Shakti Café (MS Café) and 5 units of Millets Shakti Outlet (MS Outlet) soly managed by the women Self Help Groups (WSHGs).

This graph (Figure 13 & 14: Processing/value addition Units managed by SHGs) represents the additional number of enterprises that are managed by WSHG members than the FPC which are generally led by the male farmers. This indicates the initiatives of the programme to empower the rural women economically and encourage in the decision making process both at the family level and in the society as a whole.

Providing business skills and other trainings is the first step toward empowering rural women entrepreneurs that the programme is aiming for. It is creating a sustainable livelihood, making them financially strong as well as helping them to save money and to distribute the benefits of programs to the rural community.

Table 12: Processing and value addition units.

Sr. No.	Type of Units	No. of units
1	Pulvarizer	737
2	Finger Millet Thresher	680
3	Millet Shakti Tiffin Centre	185
4	THR Units (under ICDS)	59
5	Finger Millet IPC	41
6	Millet on wheel	8
7	Millet Shakti Café	5
8	Millet Shakti Outlet	5
9	Minor Millet IPC	1

Figure 17: Different processing and value addition units managed by FPCs

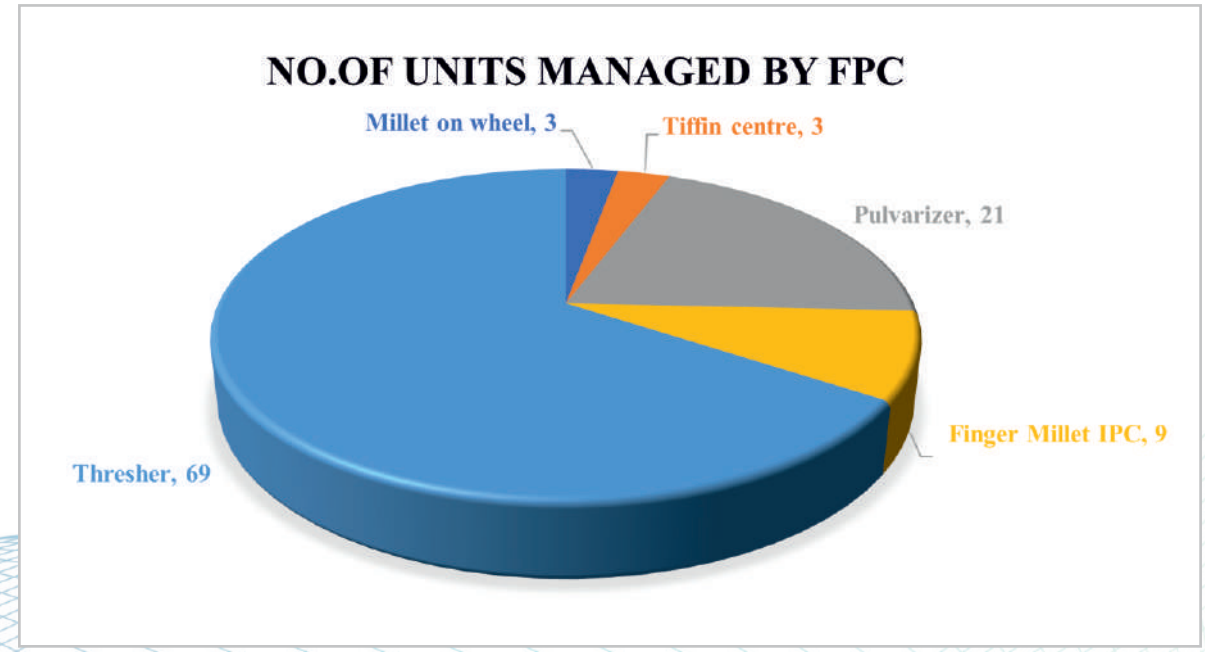
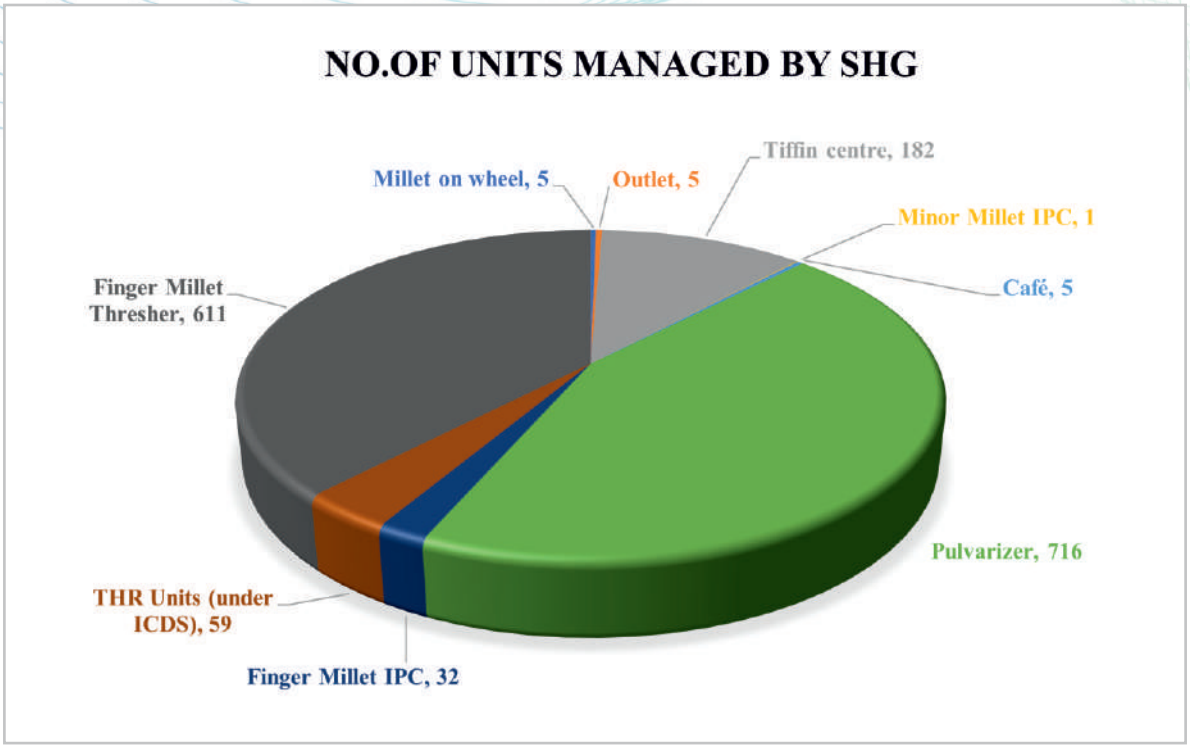


Figure 18: Different types of entrepreneurial value addition units managed by SHGs



3.1.7 SCALING-UP CONSUMPTION

Increasing Household consumptions

A women's Campaign Team is trained on the diversity of millet types, various nutritional values, health benefits, recipes (including traditional methods), agronomic practices, procurement, and household millet consumption awareness strategies. This training aims to equip the local women with knowledge about millets so that they can lead future awareness campaigns and food festivals in rural areas. This Campaign Team organizes village-level campaigns to promote household-level millet consumption through Street Plays, Intergenerational discussions on millets, or Awareness Rath etc. Additionally, the Programme Secretariat prepares training videos and audio content for social media and campaigns.

Recipe Events and Food Festivals

This flagship program has placed a strong emphasis on enhancing the consuming habits of the wider society. To accelerate the process, multiple events for recipe tasting have been organized in the past which has even multiplied over the years with enhanced and innovative activities.

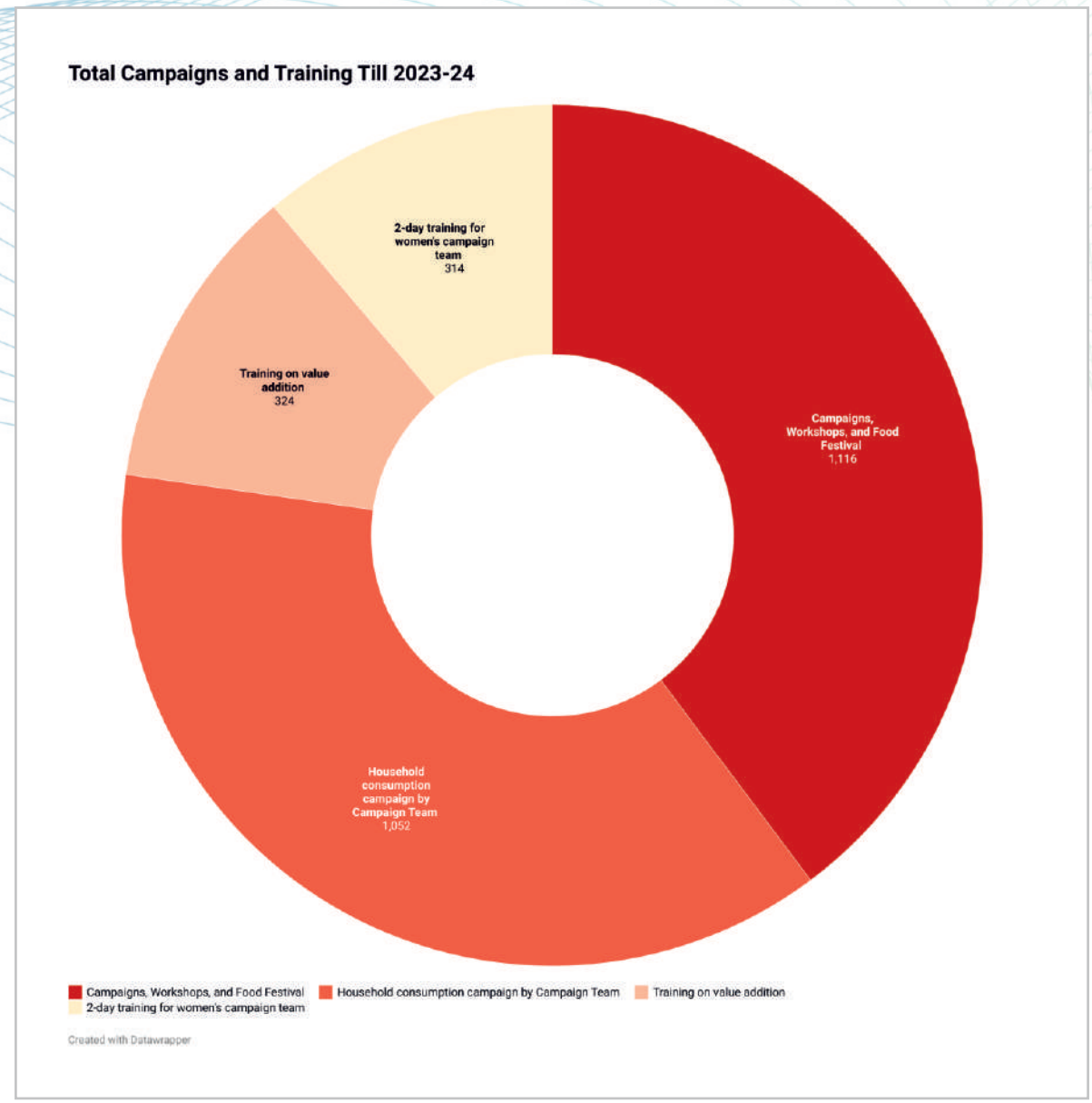
In 2018, the programme engaged with the youth and students by organizing summer internships to promote millets-based value-added products in different prime locations of Bhubaneswar. Over the years this has become one of the major promotional activities which has expanded to other major cities in the states. Additionally, a series of promotional activities are being organized in the annual festivals like Krishi Mela, Adivasi Mela, and Sisir Saras Mela as well as at the district and block festivals. Moreover, the programme has participated in national and international food festival, trade fairs etc. to popularize millets across the globe.



Awareness Programme for increasing Consumption

One of the first goals of the Odisha Millets Mission has been to increase household millet consumption. Consequently, the Program has designed several components for training women at the district level, organizing campaigns, and promotional events to revive millet on the food plate. The focus is streamlined to boost household consumption in rural and semi-urban areas and the promotion of millets among the urban population.

Figure 19: Information, Education, Campaigns designed to encourage household consumption of millets



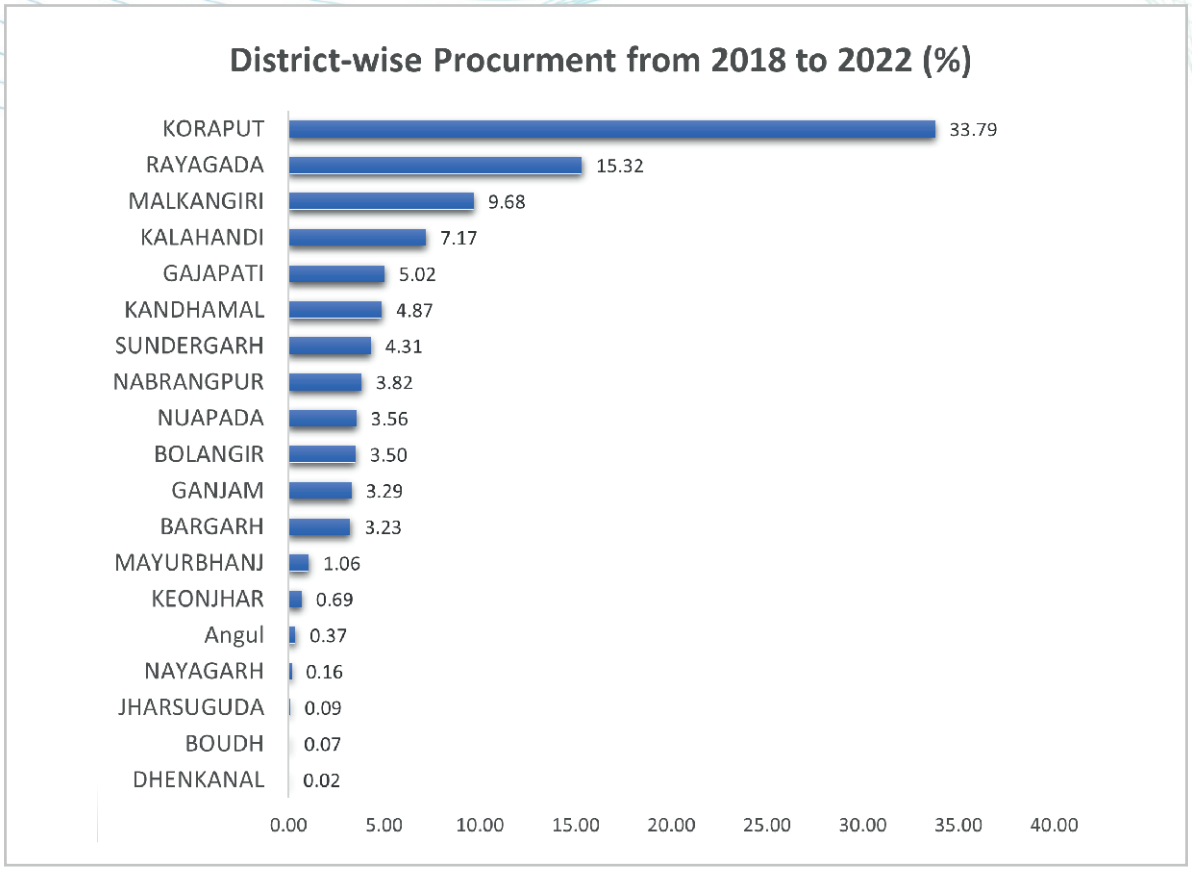
Scaling-up *Ragi* Procurement

With a resolute commitment to supporting the livelihoods of its agricultural populace, the government successfully procured over 600,000 quintals of Ragi, also known as finger millet, from a cohort of more than 60,000 farmers. This agricultural endeavor was executed under the aegis of the Odisha Millet Mission (OMM), a comprehensive program aimed at bolstering the prospects of the agricultural sector within the state.

The fundamental cornerstone of this procurement was the stipulated minimum support price (MSP) of Rs 3,578 per quintal, which was extended to the Ragi producers in 143 administrative blocks spanning across 19 districts. This ensured fair compensation for the diligent efforts of the farmers who had long been engaged in the cultivation of this resilient crop.

Noteworthy to mention is the elevated yield of Ragi in the southern districts of Odisha, specifically Koraput, Rayagada, Malkangiri, Kalahandi, Gajapati, and Sundargarh. These regions emerged as exemplars of success in the OMM, registering the highest volumes of Ragi procurement. The fertile soils, enriched through generations of agricultural toil, yielded a bountiful harvest in these areas.

Figure 20: District wise Ragi (finger millet) procurement from 2018-2022



Scaling-up Bio-Input Production

In an effort to promote organic farming and reduce the use of chemical fertilizers and pesticides, Bio-Input Centers have been established at the block and panchayat levels. The primary goal is to cut down on the reliance on synthetic agrochemicals, which can be harmful to both the environment and human health.

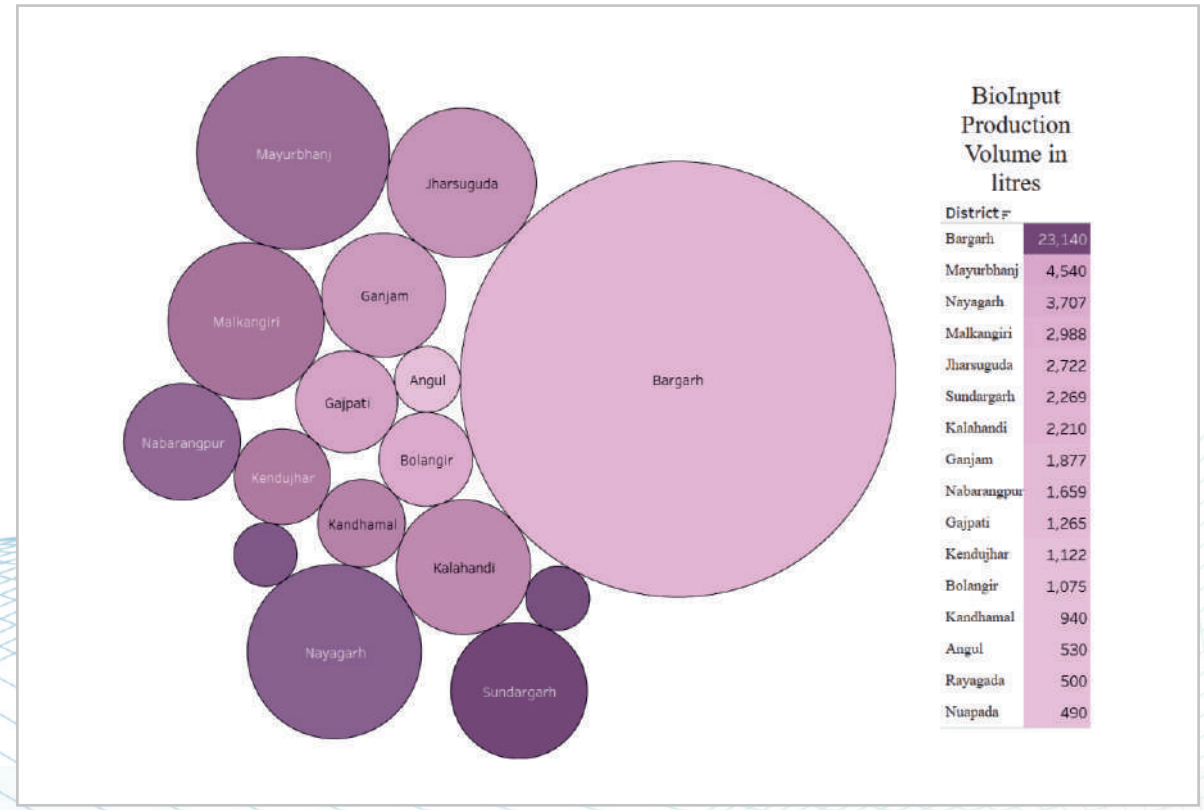
One inspiring aspect of this initiative is the active involvement of Farmer Producer Organizations (FPOs) and Women Self-Help Groups (WSHG). Together, they have established bio-input enterprises in 18 districts across the region. Bargarh emerged as the top producer of bio-inputs in the year 2022-23. The credit for this impressive feat goes to the dedicated efforts of Women Self-Help Groups (WSHGs) who played a pivotal role in this achievement.

Following Bargarh, Mayurbhanj and Nayagarh secured the second and third positions as the highest producers of bio-inputs. In some areas, WSHGs take charge of the production process, while FPOs manage the marketing of these bio-inputs in local markets. In the initial stages, these centers focused on the production and promotion of six key products, including Jibamruta, Ghanajibamruta, Handikhata, Nimastra, Agniastra, and Bijamruta.

To create awareness among farmers at the block level, FPOs conducted comprehensive campaigns on bio-inputs. As of the most recent reporting period, there are 45 fully operational bio-input units managed by FPOs and WSHGs at the community level production clusters. Notably, the bio-input initiative has not only promoted sustainable agriculture but has also played a crucial role in empowering Women Self-Help Groups economically.



Figure 21: Bio-Input production district wise



BioInput Production Volume in litres

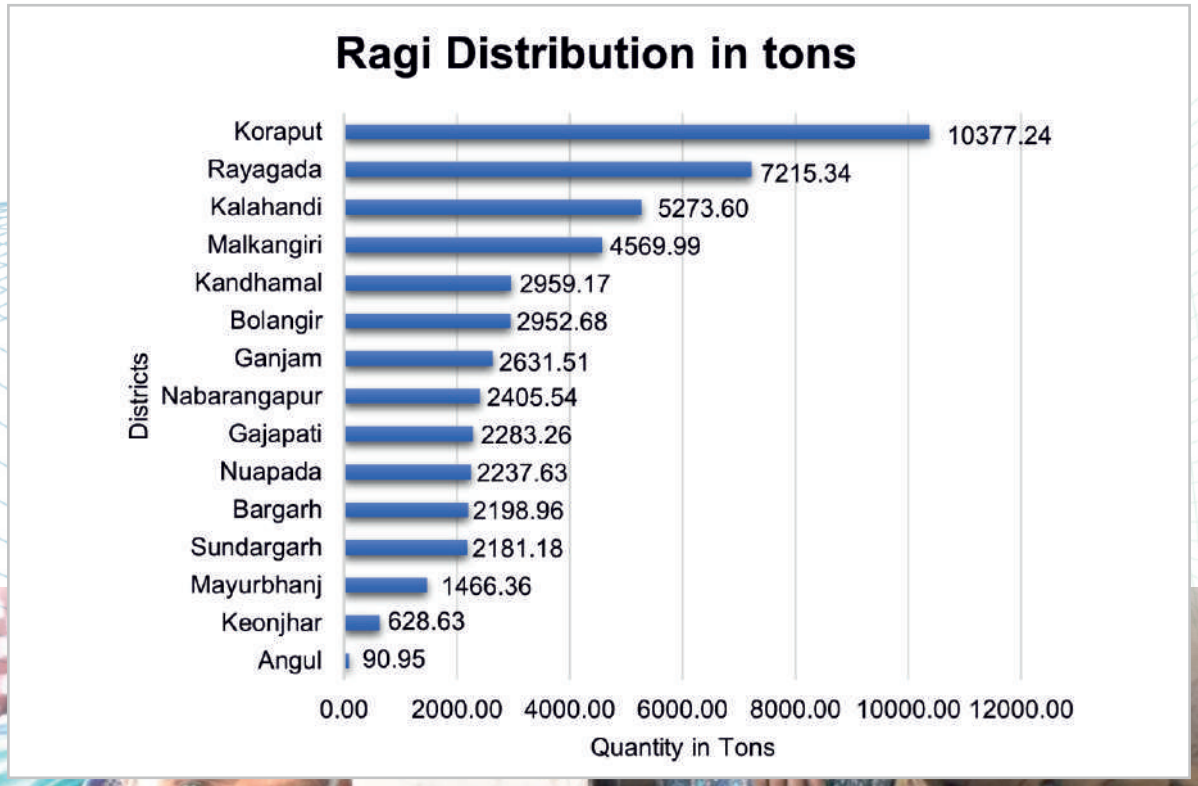
District	
Bargarh	23,140
Mayurbhanj	4,540
Nayagarh	3,707
Malkangiri	2,988
Jharsuguda	2,722
Sundargarh	2,269
Kalahandi	2,210
Ganjam	1,877
Nabarangpur	1,659
Gajpati	1,265
Kendujhar	1,122
Bolangir	1,075
Kandhamal	940
Angul	530
Rayagada	500
Nuapada	490



Millets in PDS and ICDS: Enhancing Food and Nutrition

In most of the tribal villages of Odisha, millets have been their staple food since generation. But it is observed that the habit of eating millets like *Ragi, Janah, Kangu, Kodo* etc. and cultivation had disappeared for 15-20 years in most of the tribal areas due to social changes. As part of enhancing food and nutritional security the Government of Odisha has introduced millets in PDS and ICDS.

Figure 22: District wise Ragi distribution in 2020-22





Keonjhar and Sundargarh districts have introduced Ragi laddu as part of pre-school snack in the Integrated Child Development Services (ICDS) scheme for the first time in Odisha covering 1.4 lakh children. In the coming years the Government is planning to expand the initiatives to all the ICDS in the state.

In addition to Ragi-ICDS programme, the mission also has introduced Ragi laddu programme in the SSD Hostels of Keunjhar district. The programme targets to enhance the nutritional intake of 39,359 students in tribal hostelers in the district.

Table no. 13 Coverage of Ragi Laddu in ICDS

	Sundargarh	Keonjhar	Total
No of Children Covered	60,000	80,000	1.4 Lakh
No of AWCs covered	3809	3257	7,066
No of SHGs engaged in supply of Laddu Mix	39	21	60



CHALLENGES

A study of the framework of the OMM and its design has revealed innovative policy and budgetary design with convergence built into every administrative level of the program. However, to serve as a replicable model that other states can emulate, challenges in implementing the program need to be studied.

Bharti Institute of Public Policy facilitated an interaction between OMM state government officials in the department of Agriculture and OMM civil society organizations.

Limited forums for communication between district and block civil society organizations, and state government officials has been cited as a weakness of the program.

To this end, ISB organized a panel discussion with OMM stakeholders such as block and district civil society organizations, state secretariat, TDCCOL and facilitating organizations.



Recurring implementation challenges:

Proof of land-use rights: The procurement process in the OMM has created avenues for agricultural landowners, share-croppers and farmers cultivating forest land under the Forest Right Act. However, many FRA farmers are unable to procure the required documents to prove user rights over forest land. This poses a barrier for registering many tribal farmers on the MPAS portal.

Long-term viability of FPO: One of the key strategies adopted to promote millet production, processing, procurement and consumption is the formation of farmers' collectives. However, long-term sustenance of these organizations formed under the OMM, after withdrawal of financial support is questionable. The business portfolio of these FPOs needs to be enhanced and FPOs need to be enabled to become self-sustaining businesses.

Lack of feedback from civil society organizations: An important reflexive role that is currently missing is the feedback between nodal implementing community-based organization and the government procurement agency. Communication channels established in the OMM serve to relay information from the state secretariat to the block-level and back from the block agriculture officer to the state secretariat. An institutional mechanism to capture the feedback between facilitating organizations, community-based organizations and government agencies at district and block-levels is currently missing.



INTERNATIONAL YEAR OF MILLETS 2023

ACHIEVEMENTS

International Year of Millets 2023

The United Nations designated the year 2023 as the International Year of Millets to recognize the pivotal role played by these small-seeded grains in addressing global challenges, such as food security, nutrition, and sustainability. In Odisha, the state government has been actively promoting the consumption of millets as part of its broader efforts to enhance public health and nutrition. These initiatives encompass a wide range of activities aimed at raising awareness about the nutritional benefits of millets and encouraging their inclusion in daily diets. Notably, millets have been integrated into school meal programs, ensuring that children have early access to these nutritious grains. Additionally, the government has collaborated with local communities to organize millet festivals and culinary events, demonstrating the versatility of millets in both traditional and contemporary dishes. These collective efforts aim to instill a cultural shift towards embracing millets as a healthy and sustainable dietary choice, ultimately benefiting the overall health and well-being of the people of Odisha.



Odisha Millets Mission and Tribe

Millets are generally considered tribals' crops or crops grown in tribal areas. Despite its importance from point of view of food, nutrition and economy of the tribal communities, there is no comprehensive database on millet growing areas in Odisha. Therefore, Odisha Millets Mission has collaborated with the Scheduled Castes and Scheduled Tribes Research and Training Institute (SCSTRTI) to prepare a scientific database and document the tribal food culture.

The study is expected to produce reports and databases covering comprehensive accounts on millet in tribal life and culture. Each component part of the total research programs would provide specific deliverables as enlisted under specific research titles in the following sections. Documentations, publications, database, knowledge products, research reports, video documentary, issue papers, policy papers are expected outcomes of the various research studies that would provide inputs for policy level changes and tracking development trends.

Odisha Millets Mission and Sustainable Development Goals

In the face of a climate crisis and escalating environmental pressures, the revival of millets has addressed multiple sustainable development goals. The potential contributions of millets extend to nutrition, livelihoods, and income generation, with a particular focus on small-scale family farmers, who stand to benefit significantly in the context of food security and poverty eradication.

The promotion of millets aligns with the achievement of the Sustainable Development Goals (SDGs), notably SDG 1 (eradicate poverty in its many forms) SDG 2 achieve food security and promote sustainable agriculture food), SDG 5 (ensure women's participation,) SDG 8 (promote sustained and inclusive growth, decent employment for all) SDG 16 (peaceful and inclusive societies for sustainable development)) and SDG 17 (strengthen partnerships for sustainable development).



SDG 1: End poverty in all its forms everywhere

Target 1.b. Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions.

The very creation of a Special Program on Promoting Millets in Tribal areas is a response to the need for bottom-up policy frameworks that are pro-poor and gender-sensitive and address a multitude of development challenges such as nutrition security of vulnerable communities. The scaling up of this special programme to create the Odisha Millets Mission, is a policy framework that explicitly addresses justice, nutrition and empowerment of women and indigenous communities through its gender-intentional interventions, convergence, policies and budgets.

Odisha Millets Mission offers a pathway to poverty reduction by providing small-scale farmers with a sustainable and accessible livelihood and market access. Millets demand fewer resources and investments, making them an ideal choice for resource-constrained farmers. Several interventions, such as establishment if bio-input centers further reduce the dependence of farmers on external inputs.

In regions afflicted by poverty, millets offer an affordable and nutritious food source, supporting SDG 1's objectives.





SDG 2.0 End hunger, achieve food security, improve nutrition and promote sustainable agriculture.

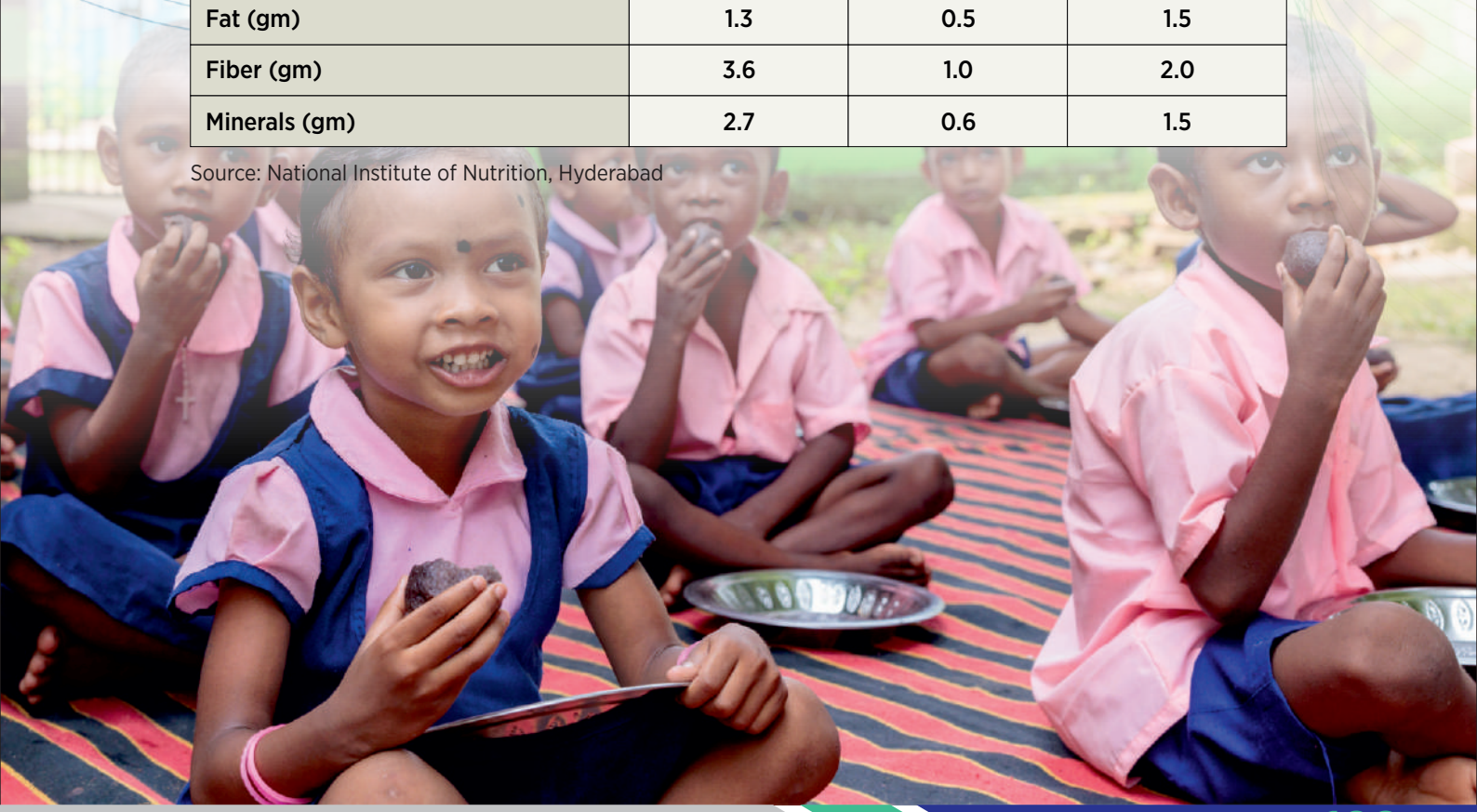
Target 2.3. By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists, and fishers, through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.

Millets, being highly nutritious, can significantly contribute to the goal of increasing food security worldwide. Rich in essential vitamins and minerals often lacking in the diets of impoverished communities, millets play a vital role in tackling malnutrition. India, for instance, promotes millets to combat malnutrition, particularly for infants and young children.

Table 14: Nutritional content of millets

	Ragi (Finger millet)	Rice	Wheat
Protein (gm)	7.3	6.8	12.1
Calcium (mg)	344.0	10.0	48.0
Vitamin B1 (mg)	4.2	0.1	0.4
Carbohydrate (gm)	72.0	78.2	71.2
Fat (gm)	1.3	0.5	1.5
Fiber (gm)	3.6	1.0	2.0
Minerals (gm)	2.7	0.6	1.5

Source: National Institute of Nutrition, Hyderabad





Target 2.5. By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed.

Preservation and promotion of high-yielding landraces is a notable intervention introduced by the Odisha Millets Mission.

In Odisha and other states, landraces often outperform notified varieties. However, current seed systems are not suitable for landraces. The Odisha government's Department of Agriculture & Farmer's Empowerment formed a Working Group on Seeds under Odisha Millets Mission to create a framework for community-managed landraces.

Landraces are ecotypes cultivated for a long time in their pristine habitats. Farmers have selected them for traits based on their ecological suitability, traditional cooking and consumption habits.

The Department conducted a study called Landraces Mapping as part of the Odisha Millets Mission. This exercise resulted in a documentation of various landraces of millets, pulses, oilseeds, and cereals from 255 villages across 11 districts, involving community participation and employing various methodologies.

The OMM has therefore gone beyond SDG 2.5 and actively created institutional mechanisms such as working group on seeds and landrace varietal release committees to promote the genetic diversity of millets and encourage local seed systems



SDG 3 Ensure Healthy lives and well-being for all at all ages.

A series of activities are conducted to increase awareness of the consumers regarding the health benefits of millets through the Odisha Millets Mission.

Odisha Millets Mission has made collaborations with health department, hospitals, yoga and gym centers to promote millets with specific focus on the health benefits of millets.



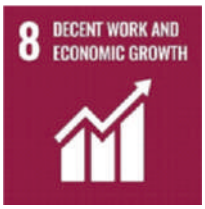
SDG 5 Achieve gender equality and empower all women and girls.

Target 5.5. Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic, and public life.

Odisha Millets Mission has been consciously promoting inclusion of women at all levels and every supply chain intervention. In India, a substantial proportion of farmers are women, yet, the financial benefits of farming go to their male counterparts.

40 percent of all the participating Community based organizations in Odisha Millets Mission are led by women.

The OMM has tried to register women farmers for direct benefit transfers. Although women farmers constitute only 38% of the direct benefit transfer beneficiaries of the OMM, almost 94% of the managers of primary processing and value addition enterprises are women. Managing processing units (such as pulverizer units as described in the case study on page) has emerged as an important economic activity for women.



SDG 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

Target 8.3. Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro, small- and medium-sized enterprises, including through access to financial services.

Organizing farmers into collectives and strengthening FPOs is a big component of the OMM. Entrepreneurship and employment have been created through community owned seed banks, custom hiring centres, bio-input centres and through organizing various WSGHs in meal preparation, Ragi procurement and millet kiosks. Section 2.5 provides a complete list of entrepreneurial collectives created and managed by community-based organizations. Case studies from some community-based organizations have been added to share the experience of some participating CBOs.



SDG 12 Responsible Production and Consumption

By encouraging the use of bio-inputs over chemical fertilizers that consume a lot of fossil fuels to manufacture, sustainable production processes are created. Consumption of millets within millet-growing regions, lowers the carbon footprint of the food by encouraging local food consumption. Less food is wasted by creating better millet processing and storing facilities and empowering communities with consumption-enhancing interventions.



SDG 13: Take urgent action to combat Climate Change and its Impacts

Millets hold immense potential in mitigating climate change risks. Their efficient resource utilization, resilience to changing weather patterns, and reduced carbon footprint in agriculture make them a valuable tool in combating climate change. Millets can convert more carbon dioxide into oxygen and can reduce agriculture-related carbon emissions by up to 30%, further solidifying their role in SDG 13's mission.



SDG 16: promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable and inclusive institutions at all levels

16.6. Develop effective, accountable and transparent institutions at all levels.

16.7. Ensure responsive, inclusive, participatory, and representative decision-making at all levels.

In section 2.1. the multi-level, hybrid institutional structure that enables convergence, participatory decision making, and bottom-up policy support has been described. The reflexive role that various stakeholders play ensures responsiveness and adaptive decision making. Authority and accountability have been devolved to even village-level participants of the programme.





Goal 17 Strengthen the means of Implementation and revitalize the global partnership for sustainable development.

17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships.

The tripartite hybrid structure of the programme management unit comprising a research secretariat, a programme implementation secretariat and state secretariat builds on the expertise and outreach of each participating organization. Several civil-society partnerships and MoUs with community-based organizations have been signed and implemented to empower civil society organizations as nodal implementing agencies. Public-private partnerships have been leveraged throughout intervention design and implementation.

Odisha Millets Mission and Sports

Odisha Millets Mission and the Sports Department have collaborated to introduce millets as a super food for sports persons. Several initiatives have been taken to popularise millets in sports such as introducing millets in sports hostels, co-branding OMM with Hockey World Cup in 2023 and organising District level events and state level events. Several key initiatives have been implemented under this collaboration:

- **Millet Promotion During District Level Trophy Tour:** During the period from January 1st to 12th, district officials, sports personnel, and prominent sports figures across 19 districts of Odisha actively promoted the International Year of Millets alongside the Hockey World Cup trophy tour, reaching approximately 7,400 individuals. Nutritional standees and a millet mascot, tailored to the hockey theme, were featured, along with the distribution of pamphlets and badges among dignitaries.

- **Fan Village Park Stall at Kalinga Stadium:** From January 13th to 29th, a stall called "Millet Shakti," organized by a Mission Shakti Self-Help Group (SHG) under the Odisha Millets Mission, showcased millet-based products at the Kalinga Stadium during the Hockey World Cup. The stall gained significant attention, attracting over 12,000 visitors and generating notable revenue, including Rs. 8,000 on the inaugural day and an average of Rs. 12,050 on days featuring India matches.

- **Millet Promotional Videos During Hockey World Cup Matches:** Short promotional videos highlighting the importance of millets in Odisha's culture and economy were displayed during the Hockey World Cup matches, reaching approximately 176,000 viewers per hockey match. These videos effectively raised awareness about millets.

- **Millet Gift Hampers to Participating Countries:** In celebration of the International Year of Millets, special gift baskets containing millet-based items were curated and presented to delegates and hockey players from the 18 participating countries. A total of 719 such baskets were distributed, showcasing the diversity and appeal of millet-based products.

Moreover, for the celebration of International Year of Millets 2023 several events were organized at various level with special focus on promotions of millets consumption.

- **Millet Promotion at Hotels:** To attract players and guests from outside Odisha, millet mascot cutouts and standees were strategically placed in premium hotels in Bhubaneswar and Rourkela, where hockey players and delegates were accommodated. This promotional activity aimed to introduce millets to a wider audience.

- **Millet Hoardings:** Collaborating with the Bhubaneswar Municipal Corporation and the House & Urban Development Department, hoardings promoting the International Year of Millets were strategically placed at major locations in Bhubaneswar and Rourkela, ensuring a strong visual presence of millets during the Hockey World Cup.

- **Inauguration of Millet Café:** Hon'ble Chief Minister Shri Naveen Patnaik inaugurated a Millet Shakti Outlet at Kalinga Stadium, attracting over 8,000 customers and achieving a record business amount of Rs. 75,000 in a single day. This outlet showcased healthy and delicious millet-based foods.

- **Millet Stall During BhuFeSto:** A millet-based food stall was set up during the Bhubaneswar Festival of Storytelling (BhuFeSto) in collaboration with the Bhubaneswar Development Authority, introducing millet-based dishes to students and urban citizens.

- **Millet Stall at International Food Festival:** Collaborating with the Bhubaneswar Development Authority and Michael's Kitchen, a millet food stall was set up at the International Food Festival, serving various millet cuisines and attracting a significant number of customers, food bloggers, and media attention.

- **Millet Stall at Sisir Saras Mela:** A millet stall at the Sisir Saras Mela offered millet-based foods, including the unique millet rasgolla, to the public, contributing to raising awareness about millets among the masses.



- **Wall Painting on Millet Consumption Awareness:** Wall paintings depicting the benefits of millet consumption were displayed at major locations in Bhubaneswar to create awareness among urban citizens.

- **Odisha Millet Mission Tableau at State Republic Day:** The Odisha Millet Mission tableau was featured at the State Republic Day celebration in Bhubaneswar, showcasing the importance of millets in Odisha and receiving the first prize.

- **Millet Exhibition and Food Stalls at Paschima Odisha Krushi Mela:** Millet food stalls and exhibition stalls were set up during the Paschima Odisha Krushi Mela and Krushi Jantrapati Mela in Sambalpur, promoting millet-based products and creating awareness about the International Year of Millets.

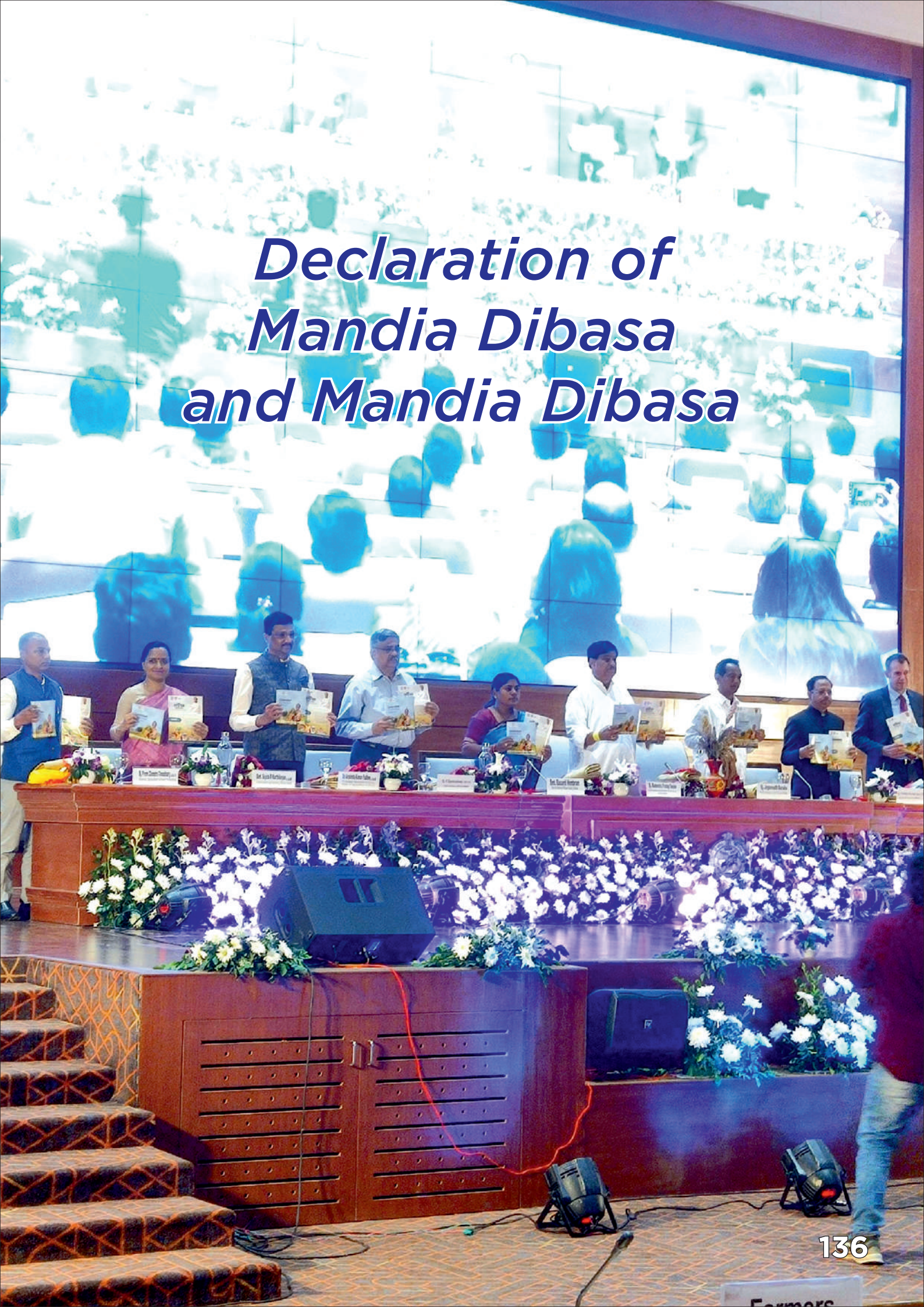
- **Millet Food Stall at City Fest, Rourkela:** A city fest organized in conjunction with the Hockey Men's World Cup in Rourkela featured millet-based food items, receiving a positive response from the crowd.

- **Zilla Mahostav/ Loka Mahostav/ District Saras Mela:** District-level Mahostavs were organized to promote rural products, with stalls dedicated to promoting millet-based food and nutritional awareness, managed by Self-Help Groups (SHGs) and Farmer Producer Organizations (FPOs).

These comprehensive initiatives demonstrate the commitment of the government and various stakeholders to promote millets in Odisha. They not only raised awareness about millets but also highlighted their versatility and nutritional benefits. The engagement of government officials, SHGs, and the public played a crucial role in the success of these efforts. These initiatives align with the goals of the International Year of Millets, contributing to the promotion of sustainable and nutritious food choices.



Declaration of Mandia Dibasa and Mandia Dibasa



DECLARATION of MANDIA DIBASA (MILLET DIVAS)

Declaration of Mandia Dibasa (Millet Divas)

When the time for millet harvest arrives, the tribal communities of Odisha come together in a magnificent display of unity and devotion. This annual celebration is marked by grand festivities, where they offer an array of millet-based dishes to their deities. The offerings include delicacies such as Mandia ladoo, Khiri, manda pitha, khichdi, and jau, each prepared with love and steeped in tradition. These culinary traditions are more than just recipes; they are a testament to the spiritual significance of millets in their lives.

Recognizing the paramount importance of millets in the cultural tapestry of Odisha's tribal communities, the Government of Odisha has taken a pioneering step by declaring the first Thursday of Margashira month, which fell on November 10th, 2022, as "*Mandia Dibasa*" or Millet Day. This momentous occasion is now an annual event, with *Mandia Dibasa* celebrated on the 10th of November every year, reaffirming the state's commitment to preserving its cultural heritage.

Mandia Dibasa serves as a platform to promote millets not just within the state but also on a national and global scale. Multiple stakeholders are actively engaged in this mission, ranging from renowned chefs, nutritionists, athletes, and fitness enthusiasts to celebrities, journalists, bloggers, and social media influencers. The collective effort aims to propagate the significance of millets as a vital component of both the food plate and the farm.

In its pursuit of raising awareness about millets, the Odisha Millets Mission (OMM) has employed a multifaceted approach. This includes the creation and dissemination of informative materials such as leaflets, brochures, articles, case studies, photo stories, and short videos. These resources serve as educational tools, illuminating the nutritional and ecological benefits of millets.

Odisha's *Mandia Dibasa* is not just a celebration of millets but a celebration of a rich cultural heritage, the preservation of traditions, and the commitment to fostering a healthier, more sustainable future for all. This annual event stands as a testament to the enduring bond between the people of Odisha and the millets that have sustained them for generations.

Milli the Mascot: Ambassador of Odisha Millets Mission

The government has introduced a captivating mascot named 'Milli' to serve as a goodwill ambassador for millets. Milli's presence in the digital realm is designed to resonate with netizens, young and old alike, and drive home the message of millets' goodness. Over the years, Milli has become a household name synonymous with millet promotion and healthy millet consumption.



National and International Accolades

The fruits of OMM's labor were duly recognized on the national stage. In 2021, the Ministry of Agriculture & Farmers Welfare and the Indian Council of Agricultural Research (ICAR) conferred upon Odisha the prestigious 'Best Millet Promoting State' award during the National Convention on Nutri Cereals. A year later, in 2022, Odisha once again basked in the limelight as it clinched the 'Best State for Scaling Up Millet Mission' award at the same convention, reaffirming its pioneering role.

Such stellar achievements did not go unnoticed. The Ministry of Agriculture & Farmers' Welfare, Government of India, and NITI Aayog hailed OMM as an exemplar, urging other state governments to emulate its remarkable approach to millet promotion. A dedicated task force was convened by the Government of India to delve into the intricacies of OMM's framework and adapt the National submission on millets, accordingly, bearing witness to the program's influence.

On an international front, the World Food Programme (WFP) lauded OMM as a beacon of excellence, recognizing it as one of the finest practices deserving replication in other Indian states and even beyond, extending its impact as part of South-South Collaboration to countries in Africa and beyond. OMM's journey, therefore, stands as an inspiring testament to the potential of collective effort and visionary initiatives in reshaping the landscape of agriculture, nutrition, and sustainability.



The Odisha Millets Mission has received recognition from many quarters.

- The State Planning Commission of Chhattisgarh has asked the Government of Chhattisgarh to start a millet mission on the lines of "Odisha Millets Mission".
- The Governor of Maharashtra has asked the Government of Maharashtra to explore and initiate a project on millets considering the Odisha Millets Mission.
- Cambridge University partnered with Odisha Millets Mission to explore the possibility of design of OMM as an alternative to Green Revolution framework.
- UN-IFAD and UN-FAO have supported the framework of Odisha Millets Mission as suitable for taking up agro-ecological initiatives.
- The initiative of OMM received Skoch order of merit award at the National level and also received the award for best Govt. Initiative form Indian Institute of Food Processing Technology Thanjavur in Nov 2018 for the programme and also awarded Skoch Award Gold on 6th January 2022.



Policy Impact

Odisha Millets Mission has achieved following milestones:

- Odisha became first state to develop standard specifications for the minor millet machinery through recognised panel of experts from different scientific institutions.
- Odisha became the first state in the country to complete benchmarking of prices of little millet and foxtail millet.
- Odisha became the first state to declare direct incentive to farmers for three years through DBT.
- Odisha received award for best government initiative on millet promotion by MoFPI-IIFPT.
- Odisha is the third state to distribute millets in PDS in the country.
- Odisha is the first state to include Ragi laddu in ICDS.





Conclusion

CONCLUSION

A study of the six-year-old Odisha Millets Mission has revealed that:

Just Food systems can be regenerative, efficient and feed a growing population without ecological, social or economic trade-offs. The Odisha Millets Mission is proof that when economic incentives are aligned with ecological and social wellbeing, stakeholders participate. By becoming the first state in India to provide direct financial benefits for adopting organic, improved agronomic practices, Odisha has coupled economic prosperity with ecological health. The number of farmers practicing the improved practices has grown to over two lakh. Not only does the practice of natural millet cultivation improve soil health, ecological wealth, and provide financial benefits, it creates future opportunities of creating organic cereal markets. Therefore, the coupling of financial incentives for ecological health provides short term financial gains and creates avenues for long-term economic and ecological prosperity.

A farmer-centric approach to designing interventions takes into account the many costs, tradeoffs and opportunities that the farmer negotiates to make a livelihood from millet cultivation. An example of such an approach is the setting up of procurement mandi close to millet clusters, taking the *Mandi* to the farmer, and forming FPOs to register farmers and ensuring direct, quick payment. By reducing information costs, transport costs and bringing procurement of *Ragi* to the doorstep of the farmer the public procurement of Ragi has increased more than ten-fold in four years.



Organizing women, women farmers, and communities into farmers collectives and Self-Help Groups, a revival of millets is also creating new avenues for rural prosperity. Inclusion and empowerment of women is integral to the Odisha Millets Mission.

A cultivar-to-café model that includes interventions from selecting high-yielding Ragi varieties to including millets in the meals of population belonging to different economic segments, cannot function without the support of many state departments. A transition to a just food system requires resources, budget support, planning and coordination between different state departments, state departments, research organizations and, program implementation and capacity building agencies.

Vision-oriented development transitions in the state of Odisha has translated into innovative policies and programs. The special program for promoting millets in tribal areas is a revival of millets, by generating a livelihood for women and indigenous populations and providing nutrition to the vulnerable. Aligned with the long-term strategic vision to eradicate poverty, empower women and vulnerable communities, and meet the aspirations of the youth of Odisha, the Odisha Millets Mission places social justice, equity, and nutrition of the vulnerable segments of the population as important objectives of the Mission.

Planning and Convergence is critical to design a state-level scalable model of millet revival in farms and on plates. Convergence at the highest level in the High-Power Committee is critical for the many programs that are inter-departmental and executed in coordination with different agencies. The Special Programme to promote millets in tribal areas would not have been as experimental and innovative if it wasn't for the strategic and tactical support of the highest state authorities that are committed to a path of transforming state governance. Meticulous planning and detailed guidelines on roles and responsibilities, detailed budgets for every designed activity render clarity in action and reduce coordination and implementation challenges.

Hybrid Structure of the Odisha Millets Mission includes an inter-departmental and multistakeholder program management unit, with the secretaries and directors of different state departments, working synergistically in a mission mode. The combination of academic and research organizations, non-governmental program implementation support and government resources has been critical to coordinate program delivery and replicate success in different districts.

The Procurement of Ragi to ICDS meals, this agriculture-nutrition convergence has received tremendous budgetary support and inter-departmental coordination at large scale between Tribal Development Department, Dept. of Women and Child Development, Dept. of Food and Civil Supplies. Many policy innovations such as provision of a minimum support price for Ragi, use of women self-help groups to prepare meals and various MoUs between departments and facilitating organizations have enabled the procurement from farms and delivery of nutritious millets to the plates of the poor.

Listed above are a few of the design elements of the OMM that have contributed to its success. The OMM, through its inclusive policies, institutional convergence and interventions achieves sustainable development goals on enabling food security and building climate resilient food systems.

As food systems connect land, crops, people, cultures and food, it is above all this very "fit" between the history, culture and geography of Odisha, its' indigenous people, nutrition challenges and opportunities, and visionary state governance that have together enabled the Odisha Millets Mission to transition to a just food system.



ANNEXURE 1:
PHOTO CREDIT AND DESCRIPTION

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14	A group of women millets farmers in a finger millet field from Gajapati district
15	Group of farmers engaged in inter-cultural activities in a millet farm from Gajapati district
16	A woman farmer transplanting a millet sapling in Keonjhar district
17	Agroecology centre at Chitrakonda
18	A millet farmer inspecting finger millet field in Keonjhar district.
19	Two women farmers preparing their farm field for millet cultivation in Malkangiri district.
20	Anganwadi children having millet snacks in Keonjhar district
21	Woman millet farmer checking the panicle size of finger millet in Koraput district
22	Shri R. Balakrishnan IAS (Then Development Commissioner) and Sj. Sobhana Kumar Pattnaik, IAS (Then Secretary A&C, GoI) in a Meeting on OMM, Bhubaneswar
23	Shri. R Balakrishnan, IAS (then Development Commissioner) inaugurating Odish Millets Mission at Malkangiri District.
24	Shri Ranendra Pratap Swain, Hon'ble Minister, Agriculture & Farmers' Empowerment, F&ARD, Odisha and Shri Jagannath Saraka, Hon'ble Minister, SC&ST & Law, Odisha releasing OMM booklets on Mandia Dibasa 2022.
25	Shri. R Balakrishnan, IAS (Chief Advisor to CMO) addressing the audience on the occasion of Mandia Dibasa, Nov 11th, 2022.
26	WSHG members from Trishakti Federation, Bhubaneswar at their Millet Processing Unit supported by Odisha Millets Mission
27	A worker form Civil Supply Department is scanning iris of a beneficiary during Ragi Distribution through PDS
28	Group of women millets farmer transporting harvested Ragi, finger millets from the field in Sundargarh district.
29	A woman farmer showing finger millet sprouts
31	Researchers and staff from NCDS (Nabakrushna Chaudhury Centre for Development Studies) felicitating its gardener for developing small millet farm at NCDS
32	Left to right: Dr Saurbh Garg, IAS (former Principal Secretary Agriculture), Mr. R. Balakrishnan, IAS (former Development Commissioner), Sj. Sobhana Kumar Pattnaik, IAS (former Secretary A&C, GoI), Sj. Gagan Kumar Dhal, IAS (former APC), Dr. M. Muthukumar, IAS (former Director A&FP), Prof. Srijit Mishra, (former director, NCDS) at a review meeting of OMM, Bhubaneswar
34	Selection of facilitating agencies by Chief District Agriculture Officer (CDAO) at Keunjhar district for implementing Odisha Millets Mission
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36	Panicles of finger millet.
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38	Dr Ramesh Chand, Member NITI Aayog, Govt. of India interacting with Prof. Srijit Mishra (former Director, NCDS) and OMM team
40	SHG Members from Kalahandi during the selection process of Nodal CB under OMM
41	One of the Facilitating Agencies of Keunjhar district organized a district level cooking competition on millets product. Additional District Officer (ADO) distributing the prize
42	Women farmers of Sundargarh district weeding the Ragi field using cycle weeder
43	Sanjulata Nayak, a millet farmer from Jamudiha village of Keunjhar district harvesting finger millet.
44	Directorate of Agriculture and Food Production reviewing OMM. Participants: Facilitating Agencies and District level Agriculture officials
46	Women farmer offering rituals in their ragi PVT field for good harvest
48	Ragi grain and panicles
49	Farm field of participatory varietal trial for finger millet from Koraput district.
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53	District Administration of keunjhar district distributing Ragi Ladoo mix to the Anganwadi children during Covid 19.
54	Grains and panicle of Jowar (Sorghum)
55	Dr. Arabinda Kumar Padhee, IAS, Principal Secretary, DAFE visiting the PVT field in Koraput district along with women millet farmers.
56	Farmers weeding and applying bio-input in their millet filed
59	SHG members from Mayurbhanj district representing different kinds of finger millet recipes in millets food festival.
60	SHG members of Omm Sai Millet Shakti Tiffin Center exhibits their millet recipes.
61	Certificate of appreciation of Omm Sai Millet Shakti Tiffin Center.
62	Maa Mangala SHG from Bhubaneswar taking charge of Millet Shakti Cafe at Secretariat building of Odisha.
64	Kabichandra Dandasena (fourth from the left) with other board members of KZSVS Farmers Producers Company
65	A young finger millet panicle.
66	Women farmer selecting best variety of finger millets in a PVT field

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67	Participatory Varietal Trials for kharif by PRADAN at Lamtaput, Koraput.
68	Participatory Varietal Trials, and experiment for seed selection.
73	OMM millet farmers along with Block facilitating officers participating in selection of best performing crop.
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131	Members of Women led SHG from Millet Shakti Cafe with Millet mascot Milli in Cuttack
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The Odisha Millets Mission is a socially inclusive transition to a just food system. In a brief span of six years, the mission has been able to scale-up millet production and consumption. The cultivar-to-café approach adopted by the Odisha Millets Mission, to revive millets in farms and on plates, has been praised and studied across the world. Other Indian states have been asked to emulate the OMM and study its' framework. The government of India has commissioned a task force to study the Odisha Millet Mission's framework and has directed other states to adopt this model for promoting millets, pulses and oilseeds.

This report by the Bharti Institute of Public Policy's Odisha Project Management Unit is an exploration into some of the successful design elements of the Odisha Millets Mission and the underlying convergence and innovations that have led to a scalable model of millet revival.

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