



2022-23 ANNUAL REPORT

ODISHA MILLETS MISSION



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MILLETS MISSION
GenderEquity, ClimateResilience, NutritionSecurity



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Millets are climate-resilient small-seeded cereals which can grow with less water and low chemical inputs. They are nutri-dense crops which can play a major role in addressing malnutrition. As they are C4 crops, the millet-based 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), a flagship programme was launched by the Department of Agriculture and Farmers' Empowerment, Government of Odisha in 2017-18. OMM aims to bring millets back to its fields and food plates by encouraging farmers to grow the crops that traditionally formed a substantial part of the diet and crop system in tribal areas.

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. The financial year 2022-23 has been a phenomenal one as the state government procured over 6,00,000 quintals of ragi at Minimum Support Price of Rs. 3578 per quintal from farmers. During the Kharif Marketing Season 2022-23, southern Odisha districts such as Koraput, Rayagada, Malkangiri, Kalahandi, Gajapati and Sundargarh have reported the highest amount of ragi procurement under OMM.

Odisha became the first state in the country to dedicate a special day for millets. The Hon'ble Chief Minister declared 10th November to be celebrated as Mandia Dibasa (Millet Divas) every year. On the occasion of Millet Divas, the Hon'ble Chief Minister announced that OMM will be expanded to all the 30 districts of the state from the financial year 2023-24. Odisha has been acknowledged as a leading state in millet promotion and has become a unique model for other states. This success is due to tremendous efforts of our farmers, women self-help groups, farmer collectives, NGOs and departmental officials.

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Objectives

Odisha Millets Mission envisages reviving millets in farms and on plates in the tribal areas of the state with a specific focus on women empowerment. The programme intends to promote processing and business enterprises, in addition to increasing productivity by promotion of improved agronomic practices through organic inputs.



Promoting household-level consumption



Setting up decentralised processing facilities



Improving productivity of millet crops



Promoting Farmer Collectives and Marketing



Inclusion of millets in Supplementary Nutrition Programmes and the Public Distribution System

Introduction

In 2017, Odisha's Department of Agriculture and Farmers Empowerment launched a five-year flagship programme in tribal areas to promote household consumption of millets, improve productivity of millet crops, ensure a minimum support price (MSP) for farmers, set up decentralised processing facilities and include millets in the supplementary nutrition programme (SNP) and the public distribution system (PDS). Initially, OMM was launched in 30 blocks in 7 districts and subsequently scaled up to 177 blocks in 30 districts in 2022-23. OMM is one of its kind agriculture initiative with a vision to comprehensively revive millets in Odisha.





Improved Agronomic Practices & Area Coverage

The Odisha Millets Mission promotes improved agronomic practices with diversified millets to enhance production, productivity and soil health. OMM has also promoted the system of millet intensification, line transplanting and line sowing with adoption of improved agronomic practices. To have a significant impact at the community level, OMM has adopted a farmer-to-farmer learning and extension approach. Progressive farmers have been motivated and supported through incentive, and hand holding guidance provided by community resource persons, thematic experts and local partner NGOs.

The summary of area coverage under the improved agronomic practices in Kharif and Rabi 2022-2023 is given below.

| | |
|----------------------------|---------------|
| ● No. of Districts | 19 |
| ● Blocks | 139 |
| ● Total Number of farmers | 172367 |
| ● Total Achieved Area (Ha) | 79556 |

Method-wise Achievement last Kharif and Rabi 2022-23 (Area in Ha)

| Millets/Cropping | Kharif | Rabi | Total |
|------------------------------|-----------------|----------------|-----------------|
| Farmers No. | 158175 | 14192 | 172367 |
| Ragi -SMI | 19095 | 2855 | 21950 |
| Ragi-LT | 27958.1 | 1351.47 | 29309.57 |
| Ragi-LS | 12940 | 179.92 | 13119.92 |
| Little millet -LT | 8893 | 53.2 | 8946.2 |
| Little millet -LS | | | |
| Foxtail millet | 1445.9 | 57.7 | 1503.6 |
| Sorghum | 3258.5 | 229.22 | 3487.72 |
| Kodo | 1230.8 | 9 | 1239.8 |
| Barnyard | 0 | 0 | 0 |
| Bajra | 0 | 0 | 0 |
| Inter-cropping | 0 | 0 | 0 |
| Crop diversification (in Ha) | 4605.8 | 0 | 4605.8 |
| Total | 74820.94 | 4735.47 | 79556.41 |



Incentive support provided for adopting improved agronomic practices

To increase the participation of farmers, the government has increased the incentive support from Rs 14,500 per hectare to Rs 26,500 per hectare, and the period of support has also been extended from 3 years to 5 years. Additionally, each farmer is eligible for incentives for a maximum area of 2 hectares during a programme year.

| Practice | Year-wise incentive breakup (Rs/Per Hect) | | | | |
|------------------|---|----------|----------|----------|----------|
| | 1st Year | 2nd Year | 3rd Year | 4th Year | 5th Year |
| Ragi - SMI | 10000 | 7500 | 5000 | 2000 | 2000 |
| Ragi - LT/LS | 7500 | 5000 | 3000 | 2000 | 2000 |
| Non-Ragi millets | 10000 | 7500 | 5000 | 2000 | 2000 |

Incentive support to farmers: A total of 1,58,175 farmers participated in the millet crop demonstration under the Odisha Millets Mission (OMM) during the Kharif season of 2022-23. These farmers were provided with incentives amounting to Rs. 3411.12 lakh. Since the inception of the programme in 2017-18, a cumulative amount of Rs. 6313.02 lakh has been utilised to support farmers through direct benefit transfers.

Promotion of Bio-Inputs

The Bio-inputs Centres have been promoted in order to boost the production of organic input manure and to encourage its use at the block and GP levels. Reducing the use of chemical fertilizers and pesticides in the management of nutrient and pest problems in millet cultivation is one of the goals of the preparation of bio inputs. Another goal is to relatively reduce input costs in agriculture by encouraging the use of locally accessible raw materials for the preparation of organic inputs. Although there is incentive assistance for farmers to use Farm Yard Manures (FYM) and for seed treatment through bio inputs, it has become a motivating element for FPOs and WSHG members to pursue bio-input as a business. This can be used by FPOs/WSHGs as a source of income and to lower production costs in agriculture.

Through Farmer Producer Organisations and Women Self-Help Groups (WSHG), these centres are promoted in 143 blocks across the 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 in terms of production and marketing. Apart from these, they also produce and market Fish tonic, Egg tonic, Dashaparni arka and Vermicompost etc. All the bio inputs initiatives to educate farmers at the block level were handled by FPOs. At the community level production cluster during the reporting period, 72 and 35 bio-input units were operational with FPOs and WSHGs respectively. WSHGs have been instrumental in advancing the bio-input effort, which has aided in their economic empowerment.



Capacity Building programmes

The Odisha Millets Mission prioritises the capacity building of farmers and community resource persons. This involves a range of activities such as community awareness programme, classroom training sessions, exposure visits to successful models, field days, food festivals, and workshops with stakeholders focusing on millet consumption. Facilitating agencies at block level are responsible for carrying out the capacity building activities.

Following are the quantitative details of capacity building programmes organised under OMM at the block and community level:

| Community Level CB programmes | No. of Programmes | | | No. of participants |
|---|-------------------|----------------|-------------------------|---------------------|
| | Upto 2021-22 | During 2022-23 | Total no. of programmes | |
| Awareness Campaigns | 1155 | 279 | 1434 | 860400 |
| Training of WSHG, Farmer and Community Resource Persons | 7115 | 385 | 7500 | 148706 |
| Exposure Visits | 660 | 0 | 660 | 13200 |
| Field Days | 1125 | 167 | 1292 | 72950 |
| Cluster level Festivals and Workshops | 838 | 203 | 1041 | 832800 |
| | 10893 | 1034 | 11927 | 1928056 |



FPO as block-level procurement agency

The Government of Odisha has engaged TDCCOL as State Procurement Nodal Agency to procure finger millets from the millet growers and include highly nutritious food items in various nutritional security and food security programmes and schemes. To revive the millets in farms and on plate, FPOs have played a proactive role as procurement agencies for creating awareness on FAQ and helping farmers to sell their products with MSP at Rs.3,578.00 per quintal. The FPOs were also involved in the farmers' registration and renewal of old farmers in the M-PAS online system.

Through their involvement in procurement processes, FPOs generated a significant amount of revenue within a short period of time. The Ragi procurement of 2022-23 was carried out by FPOs, LAMPCS and PACS in 143 blocks of 19 districts of Odisha. The FPOs were engaged from the process of generating awareness on FAQ to the management of Mandi. Mandis were opened within a 5 km distance of farmers' villages, following a cluster approach of two to three Gram Panchayats (Gps), allowing small and marginal farmers to easily access all procurement services at the nearest distance. During 2022-23, 85 FPOs successfully managed the initiatives for the third time in their assigned blocks and procured 6.03 lakh quintals out of the total state procurement target of 6.45 lakh quintals.



Ragi Procurement at minimum support price

Ragi Procurement at minimum support price has been prioritised by the Government of Odisha, with TDCOL serving as the State Procurement Nodal Agency. Their objective is to procure finger millets directly from millet growers and incorporate these highly nutritious food items into various nutritional security and food security programmes and schemes. Farmer Producer Organisations (FPOs) have actively participated in this endeavour, acting as procurement agencies and assisting farmers in selling their products at the minimum support price (MSP) of Rs. 3578.00 per quintal. They have also played a vital role in creating awareness about frequently asked questions (FAQs) and facilitating the registration and renewal of old farmers through the M-PAS online system.

Objective for introducing MSP support for farmers

- To operationalise procurement of Ragi at Minimum Support Price (MSP) conforming to Fair Average Quality (FAQ) norms.
- To facilitate promotion of millet production in a sustainable manner through assured market support.
- To utilise the excess procured ragi in PDS after keeping the stocks for ICDS, MDM Scheme and ST hostels.

Procurement during 2022-23

| Sl.No | District Name | Target For Kms-2022-23 In (Qtls) | Quantity Procured (In Qtls.) | No Of Farmer Sold | Procurement Amount (In Cr) |
|--------------------|---------------|----------------------------------|------------------------------|-------------------|----------------------------|
| 1 | Angul | 4,501 | 3,651.10 | 670 | 1.31 |
| 2 | Bargarh | 25,400 | 24,682.52 | 2,097 | 8.83 |
| 3 | Bolangir | 21,316 | 21,029.86 | 1,948 | 7.52 |
| 4 | Boudh | 1,000 | 840.3 | 191 | 0.30 |
| 5 | Dhenkanal | 270 | 263.3 | 66 | 0.09 |
| 6 | Gajapati | 40,835 | 36,785.33 | 3,999 | 13.16 |
| 7 | Ganjam | 26,000 | 25,503.46 | 2,787 | 9.13 |
| 8 | Jharsuguda | 1,100 | 1,090.44 | 397 | 0.39 |
| 9 | Kalahandi | 39,000 | 38,231.81 | 3,872 | 13.68 |
| 10 | Kandhamal | 35,000 | 21,865.04 | 4,889 | 7.82 |
| 11 | Keonjhar | 5,200 | 4,963.04 | 624 | 1.78 |
| 12 | Koraput | 219,000 | 206,339.82 | 14,370 | 73.83 |
| 13 | Malkangiri | 53,414 | 50,416 | 6,396 | 18 |
| 14 | Mayurbhanj | 7,000 | 6,692.50 | 1,076 | 2 |
| 15 | Nawarangpur | 28,478 | 27,782.18 | 3,321 | 9.94 |
| 16 | Nayagarh | 2,330 | 1,976.36 | 457 | 0.71 |
| 17 | Nuapada | 25,417 | 23,713.33 | 2,973 | 8.48 |
| 18 | Rayagada | 78,120 | 77,399.50 | 5,954 | 28 |
| 19 | Sundargarh | 31,709 | 30,078.11 | 3,530 | 10.76 |
| Grand Total | | 645,090 | 603,304.00 | 59617 | 215.86 |



Millet Introduction in ICDS (Keonjhar & Sundargarh)

The inclusion of millets in the Integrated Child Development Services (ICDS) programme in Odisha marks a significant step towards promoting nutrition and food security among vulnerable children in rural areas. Millets, which are nutrient-rich and climate-resilient grains, are being introduced as a part of efforts to address malnutrition and enhance the dietary diversity of children in Odisha.

Ragi Ladoo in ICDS

A pilot programme was initiated in 2020 in Keonjhar and Sundargarh Districts, supported by the District Mineral Foundation. The programme aims to provide additional supplementary nutrition to 1,48,035 preschool children through the provision of nutritious Ragi Ladoo as morning snacks at Anganwadi Centres. It encompasses all 6,077 Anganwadi Centres in Keonjhar and Sundargarh.

As part of the programme, 58 Women Self-Help Groups (WSHGs) have been enlisted to serve as processing and value addition units. These WSHGs undertake activities such as cleaning and preparing the ladoo mix, contributing to the economic empowerment of women and the overall enhancement of the WSHGs in the district. This programme operates in an enterprise mode, promoting self-sufficiency and sustainable livelihoods for the participating members of WSHGs.



Pilot on Ragi-based THR introduced under ICDS in Koraput and Malkangiri District

A pilot programme on Ragi-based Take Home Ration (THR) for pregnant and lactating mothers and Little millet khichdi was implemented during June 2022 to November 2022 in Mathili and Laxmipur blocks of Malkangiri and Koraput districts, respectively, in Odisha. The initiative covered 13,669 beneficiaries under ICDS.



Ragi Ladoo in welfare hostel in Keonjhar District

In achieving the objective of inclusion of millet in Welfare hostels, in Keonjhar District, the introduction of Ragi-based ladoo started as a pilot programme from November 2022 at Sadar block of Keonjhar District in 35 schools catering to about 3,950 number of boarders. The programme was expanded to 13 blocks, and 340 residential schools throughout the district serving 39,261 children with support from the DMF, Keonjhar.



Seed conservation

A. Conservation and Characterisation of millet landraces:



Passport data of landraces from custodian farmers' seed materials were collected during Landrace mapping. All the landrace seeds were preserved in the State Seed Testing Laboratory (SSTL) in a medium-term gene bank. Till todate 97 millets germplasms and 73 pulses and oil seeds germplasms have been submitted and preserved.

In collaboration with IIMR, a ragi landraces trial was conducted in three locations of Koraput and Malkangiri. IIMR has supplied 125 accessions of finger millet earlier collected from Odisha.

The main purpose of the trial was to identify most suitable ragi accessions for Odisha. The design of the experimental trial was Randomised Block Design (RBD), Spacing -10 x 30 cm (P x R), Replication –three, single seedling per hill with sub plot size = 2m x 1 m = 2 square meter for each entries for each replications.

Preferred landraces form each replications as per Grain yield (ql/ha)

| Sl | District | Block | Ragi Accession Number | | | Yield estimation (ql/ha) | | |
|----|------------|-------------|-----------------------|------|------|--------------------------|-------|-------|
| | | | R1 | R2 | R3 | R1 | R2 | R3 |
| 1 | Koraput | Boipariguda | 1170 | 2007 | 3509 | 32.12 | 44.77 | 37.17 |
| 2 | Koraput | Kundra | 1157 | 2006 | 3548 | 25.55 | 30.35 | 34.15 |
| 3 | Malkangiri | Chitrakonda | 1108 | 2009 | 3509 | 44.22 | 44.27 | 42.00 |



B. Participatory Varietal Trial in Ragi (2022-23)



The participatory varietal trial (PVT) was conducted in a farmer's field to find out the farmers' preferred varieties from a pool of landraces, with a released variety serving as a check, in a small agroecological region. The PVT trial was designed in a Randomised Block Design (RBD) with three replications. The minimum sub-plot size per replication/variety was 25 square meters, with a distance of 100 cm between each replication and 60 cm between different varieties. Twenty to Twenty five days seedlings were uprooted and transplanted in rows of 20x10 cm. All intercultural operations were conducted at the appropriate times with regular monitoring by both farmers and grassroots workers. During Physiological maturity field days were conducted which involved both farmer and researcher in a common platform to select the preferred and suitable two varieties which goes for seed production in the next year for a micro-agroecological zone.

Details about the Participatory Varietal Trial (PVT) in Ragi (Changes in Map)

| Sl. | District | Block | Selected variety -1 | Selected variety - 2 | Yield (ql/ha) | Yield (ql/ha) |
|-----|----------|------------|---------------------|----------------------|---------------|---------------|
| 1 | Bargarh | Sohela | Bhairabi | Dhala | 10.25 | 12.25 |
| | | Bhatli | Maharashtra | Bada | 12.75 | 14 |
| 2 | Bolangir | Titlagarh | Manjula | Sana | 13.25 | 12.25 |
| | | Patnagarh | Kantamera | Sana | 10 | 13.5 |
| | | Belpada | Kangra | Mushkul | 12 | 12.75 |
| 3 | Boudh | Kantamala | Kmr-204 | Maharashtra | 12.25 | 13 |
| | | Boudh | Maharashtra | Bada | 12.75 | 12 |
| | | Harabhanga | Kmr-204 | Bati | 11.75 | 13 |

| Sl. | District | Block | Selected variety -1 | Selected variety - 2 | Yield (ql/ha) | Yield (ql/ha) |
|-----|------------|--------------|---------------------|----------------------|---------------|---------------|
| 4 | Ganjam | Sanakhemundi | Bhairabi | Bada | 8.25 | 8.75 |
| 5 | Jharsuguda | Laikera | Bada | Maharashtra | 23.35 | 26.65 |
| | | Jharsuguda | VI-379 | Maharashtra | 19 | 17 |
| | | Kirmira | VI-379 | Maharashtra | 12.8 | 18.75 |
| | | Kolabira | VI-379 | Maharashtra | 13.25 | 13.1 |
| 6 | Kalahandi | Lakhanpur | VI-379 | Bada | 8.5 | 13.25 |
| | | M.rampur | Lalsaru | Telenga | 12.75 | 14 |
| | | Karlamunda | Bhodo | Telenga | 14 | 12.75 |
| | | Koksara | Mushkul | Sana | 11.5 | 12.5 |
| 7 | Mayurbhanj | Bijatola | Bada | Maharashtra | 21 | 23 |
| | | Kusumi | Kalia | Maharashtra | 24 | 22.2 |
| | | Moroda | Kalia | VI-379 | 20.2 | 21.7 |
| | | Raruan | Maharashtra | Kantamera | 20 | 16.25 |
| | | Thakur munda | Taya | Maharashtra | 15 | 12.75 |
| 8 | Nayagarh | Tiring | Maharashtra | Mushkul | 22.25 | 23.5 |
| | | Odagaon | Mushkul | Kangra | 5.5 | 8.75 |
| | | Daspalla | Bada | Mushkul | 9.5 | 9 |
| | | Nuagaon | Kmr-204 | Bada | 8 | 8.25 |
| | | Gania | Bada | Dushera | 4.5 | 6.75 |
| 9 | Nuapada | Nuapada | Kerkati | Khutuni | 14.75 | 16 |
| | | Khariar | Arjun | Bhodo | 15.5 | 13 |
| 10 | Rayagada | Kolnara | Telenga | Gpu-28 | 19.47 | 18 |

C. Participatory Varietal Trial in Non-Ragi (2022-23)



Participatory Varietal trials in Non-Ragi millets were taken up in the Kharif – 2022-23 were conducted in five places for little millet, Foxtail millet and Sorghum. The participatory varietal trial (PVT) was conducted in a farmer’s field to find out the farmers preferred varieties from a pool of landraces by taking a released variety as a check in a small agro-ecological region. Similar layout and design were worked out in case of non-ragi millet. As there is non-availability of many landraces of non-ragi millets, accessions from different districts were taken in the PVT trials. Direct sowing was performed in all trials, followed by the application of organic inputs. Each subplot measured 25 sq.m per variety per replication. Two preferred and suitable varieties were selected for seed production in the Kharif season of 2023-24, specifically for a micro-agroecological zone.

Details about the Non-Ragi PVTs – Kharif : 2022-23

| Sl | District | Block | Crop | Preferred Variety - 1 | Preferred Variety - 2 | YI (QL/HA) OF Variety - 1 | YI (QL/HA) OF Variety - 2 |
|----|------------|-------------|----------------|-----------------------|-----------------------|---------------------------|---------------------------|
| 1 | Sundargarh | Kutra | Sorghum | Gajapati | Rayagada | 30.8 | 27.2 |
| 2 | Kandhamal | Kotgarh | Foxtail Millet | Yellow Kotagarh | Daringbadi | 12.8 | 10.8 |
| 3 | Gajapati | R. Udaygiri | Foxtail Millet | Daringbadi | Narla | 11.2 | 10.0 |
| 4 | Malkangiri | Chitrakonda | Little Millet | Bada Suan | Olm - 208 | 7.7 | 7.6 |
| 5 | Koraput | Kundra | Little Millet | Jetrimundi Suan | Bada Suan | 9.4 | 7.9 |

D. Seed Production of Finger Millet - Kharif 2022-23

The state seed corporation is able to meet only 2% of the seed requirement, while 98% of seed requirement is fulfilled by the informal seed sector. The private sector is not forthcoming for multiplying the open pollinated varieties (OPVs) as there is no proprietary advantage. The seed requirement shows that the farmers are inevitably sourcing seed from the informal sector mostly through own-saved seed or from local markets where grain is sold as seed during sowing time leading to low productivity. So, for millet farmers, production of quality seed from popular and site-specific varieties is very essential. The two selected finger millet varieties from PVT are undergone for Seed Production in the second year around 1ha of land with selected seed farmers’ field. All the treatment done for seed production is organic with isolation distance of 1 meter from variety to variety followed by rouging. During the maturity stage farmers are invited to select good seed patches from the field and mother panicles were collected and harvested from the selected patches. After properly sun drying, the seeds were kept safely in the Community Seed banks at 10-12% moisture level. In Kharif: 2022-23 Seed production activities were taken up in 12 blocks of Sundargarh and Angul districts.

- District - Sundargarh, Angul
- Block - 12
- No. of Panchayat - 12
- Villages - 12
- No. of Farmers - 38
- No. of traditional variety - 13
- No. of HYV - 01
- Area (Ha) - 12
- Total seed yield - 22.7 quintal.



E. Multi-Location Trials of Purified Landraces

Promising and potential Ragi landraces from the PVT were collected for purification and validation. In the year 2018-19, 14 well-performed Ragi landraces were collected from the PVT. These 14 Ragi landraces along with 2 improved Ragi varieties, were grown in RBD method in Bhubaneswar in control condition with 2 replications. Four Ragi landraces MAMI, KALIA, BATI and BHARATI were selected by experts as superior among all other landraces and checks. Six numbers of true to plant types were selected from the four landraces. In the year 2019-20, four Ragi landraces MAMI, KALIA, BATI and BHARATI were grown ear head to row in two replications. All the agronomic data were collected as per All India Coordinated Research Project (AICRP) format.

Multi-location trials of the four landraces were conducted in four locations in the Kharif – 2022-23. The purified four varieties along with local checks, national checks and state checks were trialed in farmers' fields in RBD method with three replications. Agronomic studies were conducted as per AICRP format. Experts from IIMR, OUAT and other eminent breeders' visits were organised during crop growth period to collect their input. A working group on seeds were constituted to guide the OMM team on variety purification and different trial design and documentation. All collected agronomic data were analyzed using OPSTAT software, focusing on yield attributes, field-level disease and pest resistance, nutritional profiling, 50% flowering, and maturity duration.

F. Proposal for Varietal Release

Department of Agriculture and Farmers Empowerment (DA&FP), odisha, has approved the Standard Operating Procedure (SoP) for the landrace seed system in April 2022. Similar to the State Varietal Release Committee (SVRC) for the release of any varieties in the state, there is a Landraces Varietal Release Committee under the SoP for the landrace seed system that will guide on the following:

- To advise the State Government on all matters relating to the mainstreaming of the landraces in the state
- To review the implementation of the Govt approved Standard Operating Procedure (SoP) on landraces in the state and to send periodic reports to the State Government
- To assess and release landraces of crops for the state considering the different traits of the landraces and the preferences of the community/farmers
- To guide on seed standards monitoring as per approved proposal
- To review the assessment of landraces seed requirements, especially for certified and foundation seed, and to plan for different regions of the state
- To perform any other functions assigned to it by the State Government in connection with the implementation of the government-approved SoP on Alternate Seed Systems for Landraces
- To facilitate the registration of landraces as farmers' varieties under PPVFRA
- To support and guide the preparation of the Geographical Indication (GI) tagging proposal for landraces
- Four landrace identification proposals for different agro-climatic zones have been submitted to DA&FP for discussion with the Landraces Varietal Release Committee for release

G. Results of Agronomic Practices in Millets

| Sl | District | Ragi All | Ragi SMI | Ragi LT | Ragi LS | LM - LT | LM - LS | FM - LS | Kodo-LS | Barnyard-LS | Sorghum-LS | Bajra -LS | Proso |
|----|----------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------|-------------|-------------|--------------|-------------|-------------|
| | | Method | | | | | | | | | | | Millet |
| 1 | Angul | 8.91 | 11.41 | 9.41 | 4.75 | 0 | 0 | 0 | 4.81 | 0 | 0 | 0 | 0 |
| 2 | Balangir | 12.24 | 13.32 | 10.47 | 7.97 | 0 | 10.4 | 0 | 8.95 | 0 | 12.35 | 0 | 0 |
| 3 | Baragarh | 8.01 | 9.09 | 8.37 | 5.22 | 0 | 7.34 | 0 | 6.79 | 0 | 0 | 0 | 0 |
| 4 | Boudh | 7.02 | 7.08 | 6.51 | 7.18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | Gajapati | 15.08 | 14.94 | 14.94 | 16.16 | 8.48 | 0 | 13.4 | 0 | 0 | 0 | 0 | 0 |
| 6 | Ganjam | 19.85 | 19.89 | 19.72 | 12.8 | 0 | 0 | 0 | 0 | 0 | 28.8 | 0 | 0 |
| 7 | Jharsuguda | 13 | 13 | 12 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | Kalahandi | 14.3 | 15.04 | 13.49 | 13.01 | 19.91 | 11.11 | 24 | 13.42 | 0 | 0 | 0 | 0 |
| 9 | Kandhamal | 10.95 | 11.1 | 12.57 | 9.48 | 0 | 8.82 | 0 | 0 | 0 | 11.68 | 0 | 0 |
| 10 | Keonjhar | 9.42 | 11.28 | 8.27 | 6.15 | 0 | 8.6 | 0 | 0 | 0 | 8.4 | 0 | 0 |
| 11 | Koraput | 21.37 | 25.29 | 20.28 | 18.05 | 16.5 | 19.21 | 11.34 | 0 | 0 | 13.49 | 0 | 0 |
| 12 | Malkangiri | 15.33 | 16.19 | 15.15 | 14.61 | 0 | 9.84 | 0 | 0 | 0 | 0 | 0 | 0 |
| 13 | Mayurbhanj | 8.81 | 10.64 | 8.35 | 5.75 | 0 | 7.75 | 5.86 | 0 | 0 | 11.59 | 5.96 | 4.73 |
| 14 | Nabarangpur | 17.27 | 17.67 | 17.7 | 16.87 | 0 | 20.74 | 0 | 0 | 0 | 18.8 | 0 | 0 |
| 15 | Nayagarh | 5.87 | 6.19 | 4.75 | 4.68 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 | Nuapada | 11.33 | 11.23 | 12.25 | 9.4 | 0 | 8.3 | 8.97 | 10.14 | 11.6 | 8.03 | 0 | 0 |
| 17 | Rayagada | 16.6 | 17.55 | 17.12 | 13.06 | 0 | 13.54 | 0 | 0 | 0 | 21.8 | 0 | 0 |
| 18 | Sundargarh | 11.64 | 12.27 | 11.13 | 10.71 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Average | 12.61 | 13.51 | 12.36 | 10.6 | 14.96 | 11.42 | 12.71 | 8.82 | 11.6 | 14.99 | 5.96 | 4.73 |



H. Landraces mapping

A pilot study on landraces mapping was undertaken in 17 blocks of 11 districts under Odisha Millets Mission in 2022. The main objective of the landraces mapping is to document the present landraces being cultivated and preserved by the custodian farming communities. The pilot project is supported by the Department of Agriculture and Farmers' Empowerment. In the documentation process different methodologies were applied to involve the villagers in the process of documentation. Village demography, crop calendar, crop and varietal matrix, four-cell analysis, and a questionnaire for landraces seed standards were utilised.



| Documented landraces number from 255 villages | | | | | |
|--|------------|-----------|-------------------------|------------|-----------|
| Sl | District | Blocks | Number of LRs collected | | |
| | | | Millet | Pulses | Oilseeds |
| 1 | Angul | 1 | 5 | 9 | 8 |
| 2 | Gajapati | 1 | 18 | 18 | 7 |
| 3 | Kalahandi | 1 | 14 | 16 | 5 |
| 4 | Kandhamal | 2 | 15 | 19 | 7 |
| 5 | Keonjhar | 2 | 14 | 5 | 7 |
| 6 | Malkangiri | 1 | 12 | 21 | 4 |
| 7 | Mayurbhanj | 2 | 6 | 5 | 2 |
| 8 | Nuapada | 1 | 5 | 22 | 4 |
| 9 | Rayagada | 2 | 11 | 12 | 10 |
| 10 | Sundargarh | 2 | 9 | 11 | 5 |
| 11 | Koraput | 2 | 20 | 11 | 4 |
| | 11 | 17 | 129 | 149 | 63 |
| Each block studied randomly selected 15 villages | | | | | |

| Types of Crops and number of traditional varieties | | |
|--|------------------|-----------------|
| Sl | Crops | Total varieties |
| 1 | Finger millets | 38 |
| 2 | Little millet | 11 |
| 3 | Foxtail millet | 4 |
| 4 | Sorghum | 10 |
| 5 | Black gram | 19 |
| 6 | Green gram | 4 |
| 7 | Horse gram | 4 |
| 8 | Red gram (Arhar) | 5 |
| 9 | Mustard | 3 |
| 10 | sesame | 7 |
| 11 | Niger | 2 |
| | | 107 |

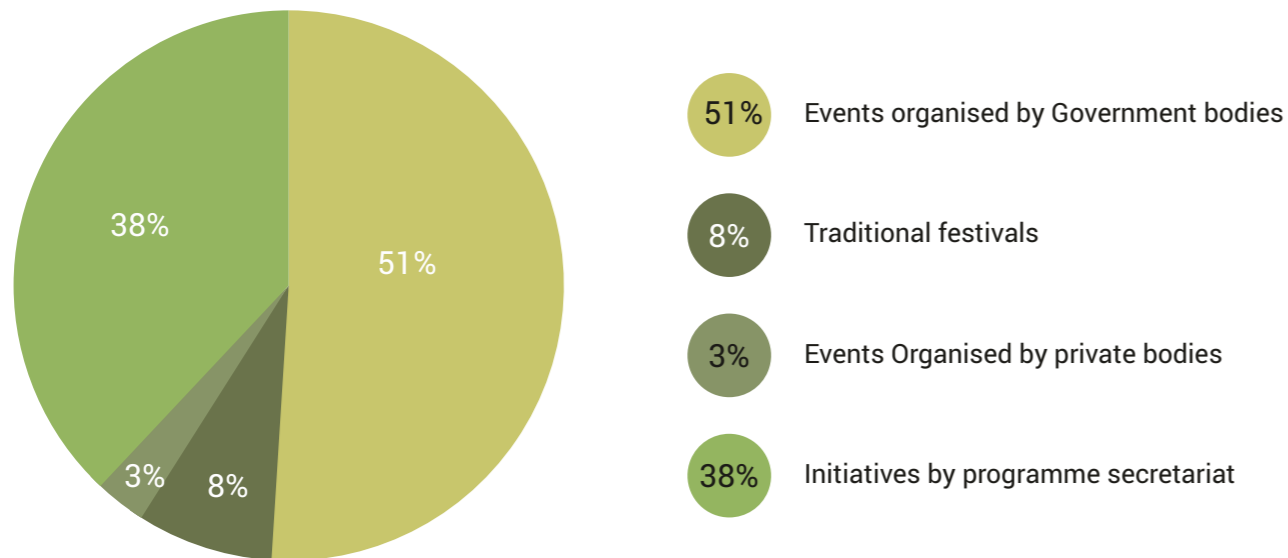
Recipes and Events

Events conducted by Programme Secretariat and Outreach in 2022-23

In an effort to reintroduce millets to our farms and tables, the government has endeavoured to increase millet consumption among the general public through awareness sessions, campaigns, promotional events, fairs, seminars, food tasting events, endorsements from famous icons/celebrity personalities, and social media platforms, among others. The Programme Secretariat enthusiastically organised and managed all promotional events on millets at the block, district, and state levels.



People outreach through various event



From the above pie chart, it is evident that the highest footfall is at events organised by government entities. These include fairs, trade fairs, and conclaves organised by various government departments. There are also some exclusive initiatives carried out by the Programme Secretariat to promote millet consumption, such as the Urban Internship - an initiative to boost millet consumption in urban areas, millet recipe cooking demonstrations at SAI International School and Sri Krishna International School, millet promotion at fitness centres, and millet-based recipe demonstrations at Belgadia Palace. These events attracted a significant number of people.



The major promotional events carried out in 2022-23 towards

| Event name | No. of days | Total Outreach |
|--|-------------|----------------|
| Millet stall on the occasion of Akshaya Tritiya | 1 | 600 |
| Millet Stall at Women's Business Mela | 4 | 800 |
| Urban internship - an initiative to accelerate millet consumption in urban areas | 35 | 10000 |
| Celebration of Raja festival with Millet Food | 3 | 1500 |
| Canopy stall at Odisha University of Agriculture and Technology | 3 | 250 |
| Participation of SHG in Food Pro event at Goa | 3 | 1000 |
| Millet promotion in State Quality Control Laboratory on occasion of World Kitchen Garden Day | 1 | 200 |
| Odisha Millet at SIAL, Paris | 5 | 2000 |
| Millet Food stall at Baliyatra, Cuttack | 10 | 10000 |
| Millet recipe cooking demonstration at SAI International School | 1 | 300 |
| Flag off ceremony of first commercial consignment | 1 | 200 |
| Millet promotion in Kalinga Fitness, Bhubaneswar | 1 | 50 |
| Millet based recipe demonstration at Belgadia Palace, Mayurbhanj | 1 | 20 |

Primary small millet Processing units

Drawing on traditional wisdom, tribal women from Odisha are leading their communities to include and promote millets, ensuring their nutritional and livelihood security while also providing income generation opportunities. OMM has fortified the strength and conscientiousness of Women Self-Help Groups by setting up primary processing and post-harvesting units for millets in rural areas. These millet-based enterprises can become a comprehensive solution in addressing malnutrition, unemployment and in motivating farmers to increase their millet cultivation area, which was once reduced due to aggressive promotion of cash crops, claim civil society organisations facilitating the implementation of OMM at the grassroots.



| Services | Millet Shakti Tiffin Centre | Millet Shakti Cafe | Millet Shakti Outlet |
|--|--|---|---|
| Types of millets-based hot cooked food available | Millet-based Kakara Pitha, Vada, Pakoda, Aaluchap, Manda | Millet-based Kakara Pitha, Vada, Pakoda, Aaloo Chap, Manda, Chakuli, Samosa, Kheer, Soup, Karanji etc | NA |
| Types of millets-based ready to cook food | Ragi flour | Ragi flour, Little millet rice, Foxtail millet rice | Ragi flour, sorghum flour, Bajra flour, Millet khichdi mix, Millet chowmein, Dosa mix, |
| Types of millets-based ready to eat food | Ladoo, Aarisa, Sev, Nimki, Murukku | Biscuit, Cakes, Aarisa, Karanji, Bread, Murukku, Mixture, Nimki, Sev, Gathia, Ladoo, Chhaanch | Biscuit, Cakes, Aarisa, Karanji, Bread, Murukku, Mixture, Nimki, Badam Pakoda, Sev, Gathia |
| Types of millets grains available | Little millet, Foxtail millet, Ragi grain, Sorghum | Little millet, Foxtail millet, Sorghum, Ragi | Little millet, Foxtail millet, Kodo millet, Barnyard millet, Browntop millet, Millet rawa, Ragi grain |



With the established goodness and value of millets in the world and due to their nutritive and climate resilient characteristics, our country proposed to the UN to celebrate millets. As a result, the UN declared the year 2023 as the International Year of Millets. Odisha Millets Mission, being one of the frontrunners in promoting millets from farms to plates in the country, seized this opportunity to engage in various collaborations and bring millets into the mainstream for urban and semi-urban populations. This year, the programme aimed to set the context for major collaborations with various stakeholders and departments. In this context, a framework was developed to highlight engagements in the fields of SDGs, gender, tribals, sports, and mainstreaming millets with consumers. Many associations, including restaurants, hotels, and hospitals, were involved, and numerous public events were organised through our budding entrepreneurs of SHGs. The framework below served as a guidebook for involving international agencies such as FAO, WFP, APAARI, IFAD, and many others.



State

Odisha, one of the pioneering states in the promotion of various millet production and consumption, has framed various promotional activities through its stakeholders. The celebration of Mandia Dibasa, inclusion of millet menus at hotels and restaurants, inclusion of millet menus at sports hostels, and the opening of Millet Shakti outlets are the milestone achievements during 2022-23. During the 3rd edition of the Make in Odisha Conclave 2022, the curtain raiser was the kickstarter event for the celebration of the International Year of Millets in Odisha.

Districts and Blocks

The events scheduled in 19 districts and 143 blocks for the financial year 2022-23 include a quiz competition on millets, a millet recipe cooking competition, millet tasting events at government offices, educational institutions, hospitals, health centres, gyms, yoga centers, industry bodies, restaurants and hotels, sports events, millet promotional events with Panchayati Raj Institutions, and millet mother events. These activities were carried out to raise awareness about the importance of millets and spread their nutritional benefits in every nook and corner of Odisha. Districts such as Sundargarh, Angul, Jharsuguda, Gajapati, Kalahandi, etc., have proactively conducted the above events in their respective districts and blocks. By March 2023, the programme secretariat reached out to more than 30,000 people through IYM events.



IYM pre-events and events held at State/ District and block Level

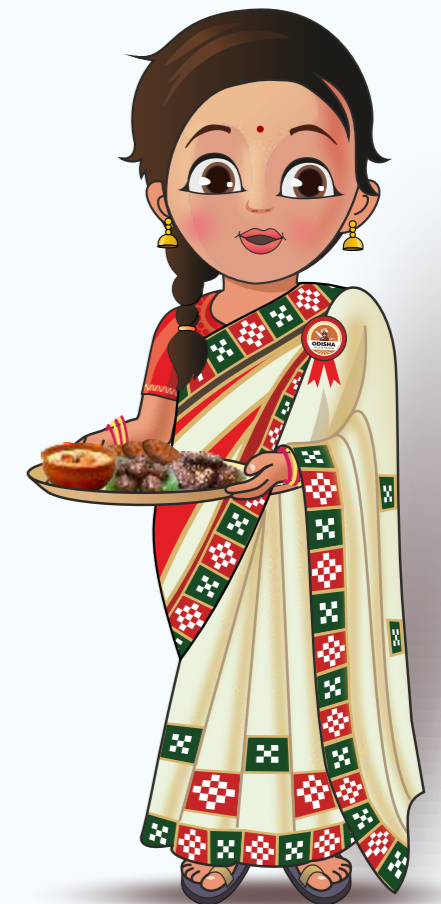


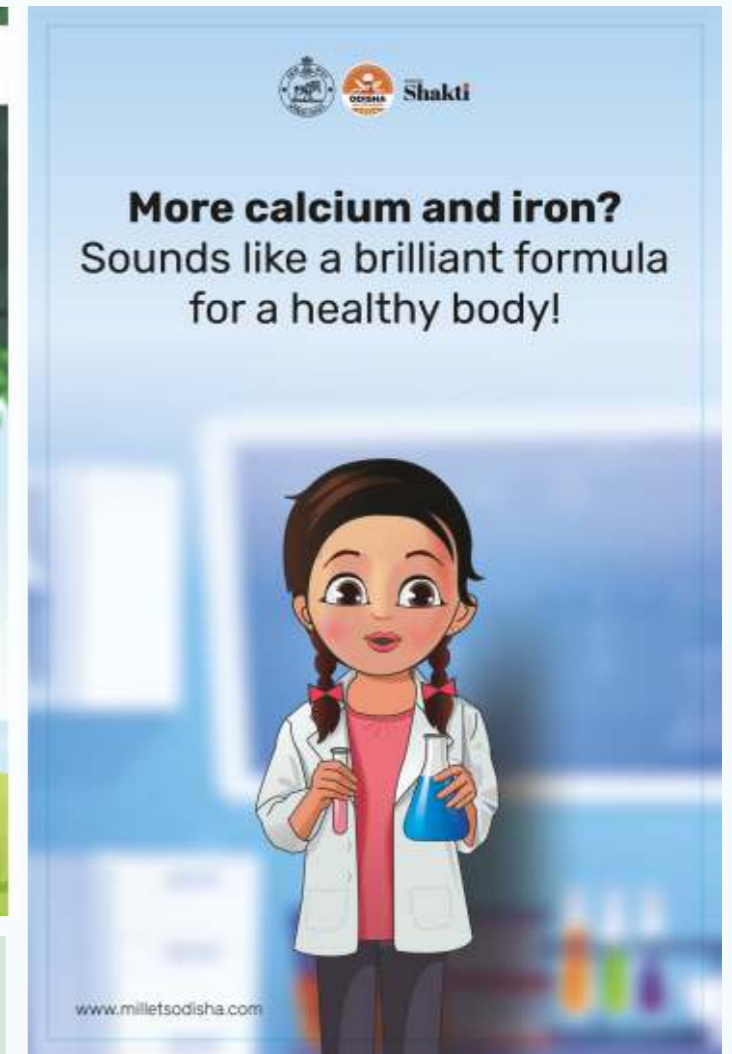
| Event Name | Total Outreach | Collaboration |
|--|----------------|---|
| Millet inclusion event at BOCCA Cafe | 100 | RAO/ Bocca cafe |
| Millet food testing Event at Kalinga Stadium , Bhubaneswar | 120 | Department of Sports and Youth Services |
| Millet-based food testing with Indian hockey team at Kalinga Stadium Bhubaneswar | 40 | Department of Sports and Youth Services |
| Millet food tasting and millet inclusion plan with RAO at BOCCA Cafe | 20 | Restaurant Association of Odisha |
| Celebration of Mandia Divas | 800 | FAO, WFP, Mission Shakti Department, OUAT |
| Inauguration of Millet Café at Kalinga Stadium, Bhubaneswar | 10000 | Department of Sports and Youth Services |
| Odisha Millet Mission tableau at State Republic Day | 1000 | Department of General Administration |
| Millet Exhibition and Food Stalls at Paschima Odisha Krushi Mela | 2500 | FICCI |
| Fan Village park stall at Kalinga Stadium during Hockey World Cup | 5000 | Department of Sports and Youth Services |
| Millet stall at International Food Festival at Bhubaneswar | 4500 | Bhubaneswar Development Authority |
| Millet food stall at City Fest, Rourkela | 2000 | Rourkela Municipal Corporation |
| Humble Millets: Hope for future during Krushi Odisha | 500 | WFP, IIMR, IFAD, FAO & NITI Aayog |
| Millets for Millions: RRA People's Convention | 800 | RRA |
| Millet mother events | 7300 | Department of Health and Family Welfare, WCD, Department of Mission Shakti |
| Quiz competition | 2310 | School & Mass Education, Department SC & ST |
| Millet cooking competition | 1500 | WCD, Department of Mission Shakti, Department of Health and Family Welfare |
| Millet and Sports event | 1500 | Sports and Youth Services Department, Department of School and Mass Education |



Mandia Dibasa

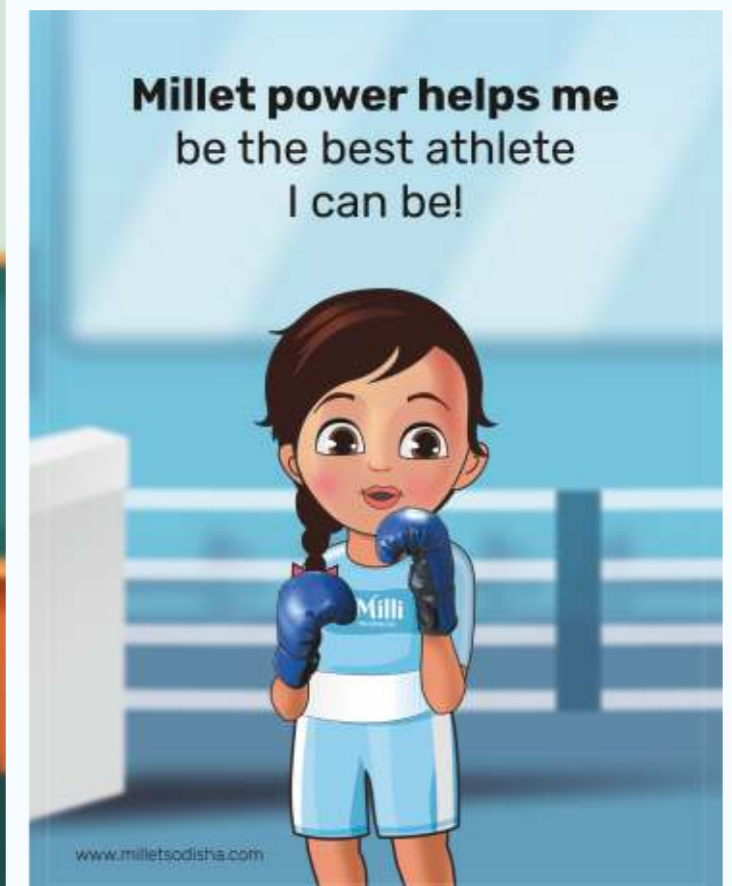
For the first time in the country, Odisha celebrated November 10th as Millet Divas. The special day aimed at promoting millets as eco-friendly and healthy food products. Special focus has been given to engaging multiple stakeholders to popularise the importance of millets on the plate and in the farm. OMM has collaborated with popular chefs, nutritionists, athletes, fitness enthusiasts, celebrities, journalists, bloggers, and social media influencers to spread awareness. Special focus has been given to curating and disseminating information through leaflets, brochures, articles, case studies, photo stories, and short videos.





Milli the Mascot

OMM has introduced a mascot, fondly known as Milli, to endorse millets as a highly nutritious and eco-friendly food product, that will increase acceptance of millet-based food among the people. It will help in shifting the perception of the urban population and make healthier choices by choosing millets.





Curtain Raiser

The third edition of Make in Odisha Conclave 2022 was launched on 30th November at Janta Maidan, Bhubaneswar. The conclave was a flagship investor summit launched by the Government of Odisha for promoting industrial growth and emerging business opportunities in the state. On this occasion, Chief Adviser to Hon'ble Chief Minister of Odisha, Shri R. Balakrishnan unveiled the curtain raiser for International Year of Millet (IYoM) 2023. He also released a video and coffee table book on Odisha Millets Mission.





Millets for Millions

The People's Convention on Millets for Millions is the first step in making IYOM as an inclusive agenda for people and ecosystems. The convention was organised by Revitalising Rainfed Areas Network (RRA) and National Rainfed Area Authority in collaboration with Odisha Millets Mission. It intends to collaboratively chart pathways for civil society, research institutions, enterprises, and government to bring back millets into localised food systems. The People's Convention also celebrates the rich cultural diversity associated with millets by recognising their centrality in local food systems.



Sports and Youth Services Department- Sports is one of the key collaborations

Sports is one of the key collaborations as per IYoM framework. Hence, numerous high profile events and activities were undertaken in collaboration with Sports and Youth Services Department, Govt. of Odisha which are listed below:

- Millet Tasting Event with Indian Hockey Men's Team
- Millet Tasting Event in Kalinga Stadium for inclusion of millet items in Sports hostel menu
- Inauguration of Millet Shakti outlet in Kalinga Stadium
- Millet Shakti food stalls within fan villages of Kalinga Stadium in Bhubaneswar and Birsa Munda Stadium in Rourkela
- OMM videos being displayed during World Cup matches
- Millet Gift Hampers to all Teams and other delegates staying in different Hotels of Bhubaneswar
- Trophy Tour in all Districts along with display of Milli mascot and promotional activities
- Special training cum millet tasting event was organised in Kalinga Stadium Sports Hostel.

This collaboration was a tremendous success in promotion of millets among sports persons, international delegates and public in general. In the coming months, this partnership is expected to be strengthened through numerous activities planned.



FICCI

FICCI is on-boarded by the Department of Agriculture and Farmers' Empowerment for celebration of the International Year of Millets 2023. The major objectives of the collaboration are:



- To organise run-up activities/events in view of the International Year of Millets 2023 in India and abroad.
- To highlight the achievements and success of Odisha Millets Mission.
- To organise the International Convention on Millets to mark the beginning of the International Year of Millets 2023.
- International Convention on Millets.

As per the objectives mentioned above, FICCI will work with DA&FE, Govt. of Odisha and other committees constituted by the State Government to take up various events throughout the year and provide end-to-end coordination support in execution of all activities related to IYoM 2023. This will be driven by core members of FICCI with similar experiences. The various broad activities which are planned through FICCI are mentioned below:

- FICCI will collaborate with PR Agency, Design Partner, Event Management Partner, Knowledge Partner, research partners, Media Partners or any other partner appointed by DA&FE for execution of various events.
- Organised Krushi Odisha from 16th February to 18th February, 2023 including technical session on Humble Millets: Hope for Future where Country Representatives of WFP, FAO and IFAD participated.
- Organised AAHAAR event in Delhi to facilitate the buyer-seller meet from March 14th to March 18th, 2023.
- On-boarding of PR agencies for effective promotional strategy through e-mail, social media campaigns, PR outreach, etc., to generate awareness in urban and peri-urban areas.
- International publication titled "Foundation Book on Millets" in collaboration with APAARI.
- FICCI undertakes cooking events on TV channels, hotel associations, etc., seminars in reputed institutes such as XIMB/NCDS/OUAT, and high-quality video documentation for OMM documentaries.
- Celebration of IYoM by organising the main event of the International Convention on Millets.

SCSTRTI

Odisha Millets Mission is collaborating with SCSTRTI to conduct a detailed change detection study on millet-based food habit of tribal people of Odisha. A research team has been appointed by SCSTRTI and a consultation meeting regarding the same has also been completed. The deadline for the completion of the study, along with the seed display in the Tribal Museum, has been set for July 2023.

The objectives of this study are:

- Studying millet-based food habit of tribal communities in Odisha
- Assessing factors responsible for changes in millet food habit and consequences thereof on tribal food security
- Document millet consumption practices and traditional millet recipes of tribal communities
- Assess the nutritional potential of different millet varieties and the millet recipes
- Assess the potential of introduction of millets in supplementary nutrition programmes, enterprise development, commercial interventions in popularising millet products

The key deliverables of this collaboration is mentioned below:

- Comprehensive report on the study, with data-driven approach
- Booklets and video documentaries on traditional millet recipes
- Human interest stories on importance of millet consumption from tribal community's perspective
- Seed display in Tribal Museum



BDA and BMC

Collaboration with Bhubaneswar Development Authority (BDA) was done to create awareness on millets among urban folks of Bhubaneswar through BDA park events. Park events were conducted in two phases and were very well received by the people. During the Hockey World Cup, BDA had organised the International Food Festival at DotFest. A Millet Shakti stall was put up in collaboration with Michael's Kitchen to serve Odia as well as international fusion cuisine to the visitors. Millet Shakti stalls were also put up during BhuFeSto (Bhubaneswar Fest of Storytelling). These initiatives were very well received by the residents.

Collaboration with Bhubaneswar Municipal Corporation (BMC) was done to carry out wall paintings at schools, parks and hospital areas to create awareness. During Mandia Divas 2022, hoardings were placed and announcement vans were moved across Bhubaneswar for the promotion of Odisha Millets Mission and Mandia Divas 2022. Further, discussions are on to open an Millet Shakti outlet in BMC vending zone.

RRA Network

Revitalising Rainfed Agriculture Network (RRAN) organised People's Convention on Millets at NASC Complex in New Delhi. The theme of the event was "Millets for Millions" which aimed to celebrate the rich cultural traditions and diversity of millets across the country. Govt. officials, farmers, FPOs, SHGs, facilitating agencies (NGOs/CBOs), etc. from all around the country had participated in the convention to share their experiences and success stories. People's Convention on Millets for Millions is the first step in making IYOM as an inclusive agenda for people and ecosystems.

- It intended to collaboratively chart pathways for civil society, research institutions, enterprises and for the government to bring back millets into localised food systems.
- Traditional songs, dances, and seed displays associated with millets from various regions were showcased. The Odisha Millets Mission was invited to participate in this celebration, and they actively took part in it.
- Sukdeb Silpadia from Koraput was felicitated for his immense contribution in revival of millets on farms. Approximately, 40 representatives from Odisha had participated in this convention.



School and Mass Education Department

On the occasion of International Year of Millets (IYoM), Odisha Millets Mission shall be engaging with students through School and Mass Education Department. The following activities were carried out under this collaboration:

- Proposal for inclusion of chapter on millets in schools was prepared.
- An SOP was developed for broad collaboration between Odisha Millets Mission and School and Mass Education Department.
- A plan for student exchange programme anchored by WFP has been prepared.
- A plan has been prepared for facilitating the live demonstration of millet crops by students during the International Convention on Millets.
- Various events were organised at district level at different schools. Districts such as Sundargarh and Gajapati conducted quiz and cooking competitions among school students. Quiz competitions were also held in schools of districts such as Rayagada, Kalahandi etc. Apart from these, many more quiz competitions, recipe cooking competitions and sports events have been planned for the upcoming financial year.

Apart from the above executed activities, many activities have also been planned in the coming financial year:

- Quiz competitions will be conducted for students starting from class 6th onwards. Prizes will be given to the winners.
- Student Exchange Programme is also planned where S&ME Dept and OMM will develop a joint strategy for student exchange programme in South-South collaboration.
- Board games associated with millets are also in the pipeline.
- Branding activities through posters and IEC materials in schools shall be done.



Similarly, collaborations were also done with Hotel & Restaurant Association of Odisha (HRAO) under which Odisha Millets Mission branding materials (standees and Milli mascot cutouts) were displayed in several premium hotels of Bhubaneswar, Cuttack, Puri, Sambalpur and Rourkela. This collaboration will be further expanded in the upcoming financial year through food festivals, millet inclusion events, training workshops for chefs, and more.

Hotels and Restaurants Associations of Odisha

Odisha Millets Mission hosted a millet meetup with the Restaurant Association of Odisha (RAO) for a tasting session of millet-based dishes on 31st October 2022. Approximately 20 participants from RAO were present at the meeting. The discussion revolved around broader engagement and promotion of millets in other cafes and restaurants. A variety of delicacies, including curd rice, khichdi, sandwich, brownie, soup, and laddoo, were prepared by Mission Shakti WSHG. Notable restaurants such as BOCCA Cafe, Cafe Sundowner, Oberai Bakery, and Michael's Kitchen participated on the eve of Mandia Divas on 10th November 2022 and included millet-based dishes in their menu for the day to promote millets among their customers.



Other Collaborations

APEDA

The first millet export consignment from Odisha has been flagged off to the UAE at IMAGE, Bhubaneswar, through APEDA, the Department of Commerce and Industry, Government of India. The millet consignment was coordinated by the Shaktimayee Federation of the Department of Mission Shakti. Various types of millets, such as Kodo millet rice, Finger millets, Foxtail millets, Little millet, and Pearl millet, were included in the consignment. Two national-level capacity-building programmes have been completed for 70 Farmer Producer Organisations (FPOs) on millet exports through APEDA. It is expected that this initiative will be significantly expanded this year.



IIP

A collaboration with Indian Institute of Packaging (IIP) is in the progress for the purpose of standardisation of packaging for organic products, including millets, and setting up of mini packaging units through WSHGs/FPOs. Startups and MSMEs may also be considered for the establishment of packaging units through MKUY/Startup Odisha with technical assistance from IIP.



WFP

A long-term collaboration is underway with the World Food Programme (WFP) for the International Year of Millets (IYoM) 2023. This involves policy advocacy, including the development of a guidance note on the inclusion of millets in the Public Distribution System (PDS), Integrated Child Development Services (ICDS), and Mid-Day Meal (MDM) programmes. It also includes the creation of an analytical policy paper, virtual policy events featuring renowned international and national experts every quarter, live telecasts of these events, and the design of a climate-smart food system proposal in tribal districts. In addition to policy support, WFP is expected to coordinate farmers/FPOs/SHGs exchange programmes, publish an OMM coffee table book, create video modules on millet recipes, engage with youth in schools, facilitate inter-state knowledge exchange programmes, and organise cross-country visits under South-South collaboration.



FAO

Collaboration with FAO is in progress for various initiatives in line with the celebration of IYoM 2023. FAO is partnering with the Department of Agriculture and Farmers' Empowerment for key areas, including the Seed System Land Races (SSLR), Green Climate Fund, Migration Multi-Partner Trust Fund, and Green Earth Project (Seed Value). Additionally, FAO will collaborate with the department for policy support on IYoM and important segments of the International Convention on Millets scheduled for November 2023.





Housing Society Association

Plans have also been made to collaborate with some of the housing society associations at state level to create awareness about millets among the residents and potentially to have Millet Shakti sale points at those housing societies.

Collaboration with educational institutions and other organisations

Collaborations were also undertaken with educational institutions such as OUAT and XIMB to organise millet tasting events, set up Millet Shakti stalls, and carry out effective branding activities. OMM is also partnering with CII Young Indians to showcase various millet-based Odia cuisines at MoUtkal Divas 1.0, held at Swosti Premium Bhubaneswar.

Apart from the above, several additional collaborations and partnerships are currently in progress and in the pipeline with IIMR-Nutrihub for millet value chain development, MSSRF for the development of bioputs/seeds, ISB, IFAD, Nashik Millet Association, and others, all focused on the celebration of the International Year of Millets (IYoM) 2023.



Interventions on Gender

Odisha Millets Mission, since its inception, has prioritised the inclusion of women in the programme through empowering women farmers and their participation in Women Self-Help Groups (WSHGs). The Government has embraced the tagline of the International Year of Millets 2023 - 'Gender Equitable, Climate Resilient, Nutritionally Secure' within the Odisha Millets Mission. To uphold the essence of this tagline, the Odisha Millets Mission has aimed to realign its strategies to be more gender-responsive, promoting increased inclusion and empowerment of WSHGs and women farmers. In this regard, a Gender Action Committee (GAC) was formed in September 2022 to:

- Conduct an assessment and analysis of gender issues, concerns, and ongoing processes in the OMM at both institutional and community levels.
- Provide recommendations for the project's gender mainstreaming strategy for the next five years.

The collection and tabulation of data was done on the basis of broad themes including -

- Knowledge Transfer
- Opportunities for Leadership
- Decision Making
- Access and Control over Resources
- Control Over Benefits and Income
- Reduction in Drudgery and Workload
- Opportunities for Innovation

Some of the observations that have emerged from the data are as follows-

- Women have limited access to equipment such as cycle weeders and training personnel or human resources like CRP and Krushak Saathi.
- The design of farm equipment is not very gender-friendly.
- Millet cultivators face a host of health issues including joint aches, back aches, and so on.
- Gendered division of labour within the household is prominent, with women having to do all the domestic chores. Small children can also be seen partaking in tasks.
- Majority of farming, familial, and financial decisions are taken by the male family members.
- The yield is consumed within the household while in some cases, the surplus is sold in Mandis and FPOs.
- Single and/or economically vulnerable women are often left out of the SHGs since they are not able to repay the loans taken within SHGs.
- The Gender Action Committee will submit the report to the Department of Agriculture and Farmers' Empowerment by 28th April 2023.



OMM Stories



How Odisha is revalorising minor millets



Why this woman in Odisha is called a traditional seed guardian



In Malkangiri's tribal villages, every drop saved today is an investment for tomorrow



From cotton to millets: Rayagada's tribal farmers make a switch



Humble millets can ensure food security, nutrition to India's vulnerable communities



Ills of eucalyptus drive Odisha tribals back to legacy crops



Millets in PDS a game changer for combating malnutrition, climate change



Photo essay: When millets go mainstream to bring a revolution



Millets should be mainstreamed for better nutritional outcomes in children



Millets vs Malnutrition: Reviving the super crop via nutrient-rich meals at Odisha's anganwadis



Scan this QR code to access further information

New recipes developed during this year (2022-23)

Over the last decade, millets have gained significant popularity across the globe. People all over the world are embracing the nutritious millet-based diet. While we move toward incorporating millets in our diets by developing new recipes, it is equally important to remember its humble history. The history of millets - popularly known as Aadi Anna (Ancient Grains) - can be traced back to 4500 BC. Natively grown in the Eastern Ghats and parts of Chota Nagpur Plateau bordering Odisha, millets are an essential part of the tribal food-system.

Sustainable, nutritious, and filling - millet, in the tribal heartland, is consumed in a number of ways. From Gruel to Pitha, it is an integral part of their culture; a crop that holds equal significance as a staple and festive delight. Today, urban spaces, too, are eager to relish the goodness of the magic crop, through an array of innovative dishes.

This year, recipes for several millet-based delicacies have been developed, keeping in mind the myriad preferences of people. Some of these are adaptations of traditional recipes, whereas, some are inspired from dishes prepared in other parts of the country.



Dessert

Ragi Mathura Cake, Sorghum Balusahi, Bajra Boondi Ladoo, Foxtail millet Gaintha, Proso millet Jarda, Ragi Khera Poda Pitha, Bajra Labang Lata, Ragi Saptapuri Pitha, Bajra Rasabali, Bajra Jalebi, Foxtail millet Phirni, Bajra Poda Pitha.



Other

Sorghum Manchurian, Sorghum Pyaj kachori, Ragi litti chokha, Foxtailmillet chicken biriyani, Sorghum Semiya upma, Foxtailmillet Appam(Paniyaram), Littlemillet dahi vada, Ragi Aloo paratha, Sorghum Aloo Tikka, Sorghum Boondi namkeen, Foxtailmillet Kadhi, Proso Veg Biryani, Sorghum / Ragi Momo



Bakery product

Ragi / Bajra donuts, Ragi soup sticks, Bajra bun, Ragi melting moment biscuit

Design work Publication

Lessons from Odisha Millets Mission

A Case for Mainstreaming Millets

December 2021

Compendium of Success Stories

Odisha Millets Mission

An initiative of Department of Agriculture and Farmers' Engagement, Government of Odisha

Stronger Odisha with the Power of Millets

ODISHA MILLETS MISSION

Strategic Programme for Promotion of Millet in Odisha

SUCCESS STORY OF ODISHA MILLETS MISSION

ODISHA MILLETS MISSION

VISION: To make Odisha a millet hub and to ensure food and nutritional security for all.

OBJECTIVES:

- 1. To increase the production and productivity of millets in Odisha.
- 2. To improve the livelihoods of the farmers engaged in millet production.
- 3. To create a market for millet products.
- 4. To create awareness about the nutritional benefits of millets.
- 5. To create a millet-based food and nutrition security system.

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Millets Are Good For You

- High in Calcium
- High in Iron
- High in Dietary Fibre
- High in Antioxidants & Minerals
- Low in Cholesterol Level
- Gluten Free

Taste The Miraculous Millets

ODISHA MILLETS MISSION - Goodly Odisha Amiable

ORGANIC CERTIFICATION OF MILLETS

POLICY BRIEF NO. 6

Organic Certification of Millets

What is the Issue?

The market for organic products increased manifold in last few years. India ranks 8th in terms of the World's Organic Agricultural Land and 1st in terms of the total number of producers as per 2020 data. Increased health consciousness in recent years, which has seen further upsurge post the Covid-19 pandemic, has fueled growth in sustainable, regenerative agriculture. Most millets can grow on low fertile soils - acidic, saline and sandy and do not demand chemical fertilizers. This is ideal for organic farming. However, difficulties in obtaining the organic certification of the millets continue to hinder further production and profitability for the farmers.

Key Challenges?

There are two pathways for organic certification in India- National Programme for Organic Production (NPOP) and Participatory Guarantee System (PGS) certification. Under the former, a group of organic farmers (minimum of 25 and maximum 500 farmers) possessing land in the same geographical area may apply for certification of their organic produce under the Third Party Certification.

A Case for Strengthening Millet Value Chain through Value Added Millet Products

POLICY BRIEF NO. 5

A Case for Strengthening Millet Value Chain through Value Added Millet Products

What is the Issue?

India is among the biggest producers of millets in the world. Considered a climate resilient crop, millets have substantial potential to expand dietary diversity in food baskets. Millets are used in several traditional foods; however, the lack of large-scale industrial demand discourages farmers from cultivating them. The hard seed coat of millets increases their storage value but makes it difficult to process and cook quickly. Among the major limiting factors to millet consumption is the limited availability of ready-to-cook (RTC), ready-to-eat (RTE) and value-added millet products that have longer shelf life and have higher palatability.

Key Challenges?

1. Limited credit channels for private entrepreneurs for RTE/RTC processing: Millets are gluten-free and thus have lower elasticity affecting their utilization as a base grain for RTE/RTC products. However, there is substantial literature on varied techniques for treating and converting millets into value-added products. RTE/

A policy path for Strengthening the Processing in Millets Ecosystem in India

POLICY BRIEF NO. 4

A policy path for Strengthening the Processing in Millets Ecosystem in India

What is the Issue?

India is the largest producer of millets in the world and immense national and state efforts have been put in to revise millet production, distribution and consumption in the country. Processing of millets is vital link between production and consumption as it improves their sensory and edible quality. Processing of the millets namely sorghum, pearl and finger millets, which don't have a hard indigestible husk, is easy as it needs minimum processing (washing and grading) after harvest. However, significant drudgery and time are involved in the processing of small millets namely little, proso, foxtail, barnyard foxtail and brown top millets, considering the hard indigestible husk layer. There are significant gaps in the availability of modern millet processing equipment in our country. A study conducted in Odisha revealed that standardized set of millet processing machines are an improved version of gaddy processing machines which are significantly inferior in efficacy and quality. This also reflects the gaps existing in research and development around millet processing.

Overview

Inadequate availability of efficient millet processing equipment in our country is one of the key limitations of the millet ecosystem.

INCREASING THE CONSUMPTION OF MILLETS: NEED OF THE HOUR

POLICY BRIEF NO. 3

Increasing the Consumption of Millets: Need of the Hour

What is the Issue?

National and state-level initiatives have increased the production of millets across the country. However, a simultaneous increase in consumption has not been observed. Between 1962 and 2019, India's per capita consumption of millets fell drastically from 329 to 4.2 kg. Despite being nutritionally beneficial, millets hold low aspirational value and are perceived as coarse grains. A study found that the major reasons behind low consumption of millets is because it is not included in the daily household menu, as families have lost traditional knowledge about the recipes and food is difficult, followed by dislike for the taste compared to other processed food. To enhance the consumption of millets among non-millet producing sections of society, it is important to educate people on its nutritional and health value, improving its accessibility in these areas, and develop and advertise millet-based products and recipes, which appeal to people's tastes.

Overview

India is the largest producer and second largest exporter of millets globally, and accounts for about 50% of the global production of millets. Despite being a staple food in semi-arid tropics and drought-prone regions in India, millet consumption is low as people perceive it as traditional, coarse and of low aspirational value. Investment through increased awareness, availability of quality products that appeal to people's taste, acceptance of millets as climate smart nutritious diet will not only enhance dietary diversity but also will put pressure on improving supply.

A Case for including all varieties of Millets under Minimum Support Price (MSP)

POLICY BRIEF NO. 2

A Case for including all varieties of Millets under Minimum Support Price (MSP)

What is the Issue?

Despite the efforts taken to revive millet production in India, area under millet cultivation in the country has declined considerably (14.72 million hectares in 2016-17 to 10.96 million hectares in 2019-20). Millet production in India, area under millet cultivation in the country has declined considerably (14.72 million hectares in 2016-17 to 10.96 million hectares in 2019-20). Millet production in India, area under millet cultivation in the country has declined considerably (14.72 million hectares in 2016-17 to 10.96 million hectares in 2019-20).

Overview

Bajra (pearl millet) has an MSP of INR 2250 with an 85% return over cost as opposed to Bajra's 50%, however, ragi (finger millet) because of its relatively easy processing facility and community adaptability. Lack of near absence of minimum support price (MSP) will create a supportive environment for the production of small millet crops in the country. Bringing small millets under MSP will encourage farmers to cultivate ragi as it is comparatively high minimum support price (MSP) which stands at INR 3377 per quintal. Nevertheless, there is a clear deficit of production support to millets especially small millets when compared to the support enjoyed by other crops. Government of India should provide minimum

A Case for Inclusion of Millets in Social Safety Nets

POLICY BRIEF NO. 1

A Case for Inclusion of Millets in Social Safety Nets

What is the Issue?

The introduction of the Green Revolution in 1960 resulted in high production of wheat and rice. On the other hand, it led to a dramatic decrease in cultivated area under millets. 50% for small millets, 40% for finger millet, 50% for sorghum and 23% for pearl millet from 1961 to 2007. Cereal grains like rice and wheat, became part of India's regular social welfare scheme- Public Distribution System (PDS), contributing to a steep fall in overall millet consumption. Recently, recognizing the climate resilience of millets and its potential to address India's food and nutrition security, governments have taken many national and state-level initiatives that helped millets return to the farms and fields but are slow in being rolled out to food baskets. Among the major limiting factors to millet consumption is people's perception of millets as coarse grains and "poor man's food" despite its high nutritional benefits. Inclusion of millets in social welfare schemes like Targeted Public Distribution System (TPDS), Integrated Child Development Services (ICDS), and Mid-Day Meal (MDM) can help introduce millets in people's plates and become a part of their daily diet.

Overview

Millets should be included in social welfare schemes to increase their availability and therefore per household consumption. To maintain the regular supply of millets under any of the schemes, the quality and quantity of raw millets should be monitored continuously. Increased awareness of communities, especially urban populations and inclusion in social safety nets will provide boost to overall millet demand and supply.

Budgetary provision for implementation of Odisha Millets Mission

Odisha Millets Mission is scaled up for implementation from 119 Blocks to 153 blocks under state plan fund. Project implementation in DMF funds in Angul, Keonjhar and Sundargarh district are additionally supported by the District Mineral Foundation. The details of the fund allocated for 2022-23 financial year under state plan in the table below.

| Sl. No. | Scheme/Activity | Year 2022-23 | |
|--------------|--|--------------|--------------------------|
| | | Physical | Financial (Rs. In Crore) |
| 1 | Support to enterprises on processing and value addition of millets and protective irrigation | 500 | 3.78 |
| 2 | Incentive for improved package of practices | 81700 ha. | 39.33 |
| 3 | Ragi procurement and distribution | 649090 Qntl. | 253.31 |
| 4 | International Year of Millets -2023 | LS | 5.67 |
| 5 | Miscellaneous, administrative cost and others Prag . activity | LS | 59.51 |
| Total | | | 361.60 |

