Millet Value Chains — The Odisha Millet Mission Model and What It Teaches

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B practice-note Agriculture & Markets

Published: April 2026 · Last reviewed: —

Before the Odisha Millet Mission was conceived in 2017, finger millet (ragi), little millet (suan), kodo millet and other traditional millets were in steady decline across Odisha's tribal districts. The reason was not agronomic — millets are superbly adapted to Odisha's rainfed highlands, more drought-tolerant than rice, more nutritious per calorie, and requiring less water and chemical input. The reason was market. Farmers growing millets received ₹10–12 per kilogram from the local trader who came to their village. Farmers growing paddy received MSP procurement. The price signal was unambiguous: grow paddy, abandon millets.

Previous efforts to revive millets — promotional campaigns, nutrition awareness, recipe contests — had changed nothing, because they addressed the demand side without addressing the supply side, or the supply side without addressing the market. A farmer who is aware that ragi is nutritious but receives ₹12/kg for it while her neighbour receives ₹20/kg for paddy will not grow more ragi. The price signal overrides the nutrition message every time.

What the OMM understood, from the beginning, was that reviving millets required intervening at every point in the value chain simultaneously — not sequentially. Seed supply. Production support. Procurement at a price worth growing for. Processing infrastructure. Institutional demand. All at once, at the block level, through community institutions. This systemic understanding is the OMM's most important design lesson.

The Five-Component Model: How the Value Chain Was Built

Component 1: The community seed bank — securing the supply base

The OMM's entry point into farming communities was not extension advice. It was the seed. WASSAN's Programme Secretariat worked with farmers to conduct Participatory Varietal Trials — setting up small plots where farmers grew multiple local and improved millet varieties side by side and evaluated them by their own criteria: taste, yield, drought tolerance, cooking quality, marketability, suitability for specific soil types.

The PVT process did three things simultaneously. First, it identified which locally-adapted varieties performed best in specific agro-ecological conditions — producing seed supply intelligence that no government extension system had. Second, it engaged farmers as researchers rather than beneficiaries — building ownership and agronomic knowledge in the process. Third, it identified the seed stock for community seed banks.

Community seed banks — stores of locally-adapted, farmer-selected millet varieties, managed by the FPO or SHG, freely accessible to member farmers — solved the seed security problem that had always plagued millet revival efforts. Farmers who couldn't get quality millet seed defaulted to whatever paddy seed was available from the dealer. With a local seed bank accessible within their village or cluster, that barrier disappeared.

For NGOs implementing this: The community seed bank is the lowest-cost, highest-impact infrastructure investment in any millet or traditional crop revival. It requires a physical storage space (a room in the panchayat building works), moisture-resistant containers, basic seed hygiene protocols, and a record-keeping system tracking what varieties are stored, in what quantities, from which farmers, and who has borrowed.

The management should be vested in the FPO or the SHG, not the NGO. Materials for the seed bank — containers, humidity monitors, pest-repellent packaging — cost under ₹25,000 for a functional village-level bank.

Component 2: Production support — reducing cost and risk

Growing more millet is only worthwhile if the net income per hectare improves. The OMM addressed the cost side through two mechanisms.

System of Millet Intensification (SMI): An adapted version of the System of Rice Intensification principles applied to millet — line sowing or transplanting at wider spacing, which reduces seed requirement, improves tillering, and produces higher yields per plant. WASSAN documented yield increases of 20–40% in SMI-managed millet plots compared to broadcast sowing. This is agronomic improvement that reduces seed cost and increases income per hectare simultaneously.

Bio-inputs by SHGs: The OMM replaced chemical fertilisers (which are expensive, increasingly unavailable, and ill-suited to the rain-fed highland conditions where millets grow) with bio-inputs — jeevamrut, panchagavya, vermiculture, botanical pest repellents — produced locally by SHGs trained under the programme. SHGs that produce bio-inputs sell them to millet farmers at prices below equivalent chemical inputs. Farmers who cannot pay in cash can pay in-kind with a portion of their harvest. The SHG builds an enterprise; the farmer reduces input costs; the supply of chemical-free millet improves its market potential. All three benefit.

Custom Hiring Centres: The OMM established block-level CHCs — tractor services, power tillers, threshers, and millet-specific equipment available for hire. In rainfed highland areas where ox-power or manual labour is the only alternative, mechanisation access at reasonable rates reduces labour cost per hectare and makes larger millet cultivation areas feasible.

Component 3: Institutional demand first — the hostel model

The most important single design decision in the OMM's early phase was establishing institutional demand before scaling supply. The programme identified government welfare hostels — tribal residential schools, Ashram schools, government hostels for tribal students — as guaranteed buyers for locally produced millet. These hostels feed hundreds of students daily, are publicly funded, and had been buying rice from central supply chains that benefited from paddy's market infrastructure.

WASSAN and partner NGOs worked with District Collectors and DSWO offices to get millet included in hostel meal plans. This was bureaucratic work — approvals, tenders, supply agreements, quality specifications. It took time. But once it was done, local SHGs had a buyer for their processed millet before they had invested in the processing infrastructure.

This sequence — buyer first, infrastructure second — is the inverse of how most agricultural programmes are designed. Most programmes build processing infrastructure and then look for buyers. The OMM found the buyer and then built the processing infrastructure to supply them. The difference in financial risk for the SHG is enormous.

For NGOs implementing this: Before investing in any agricultural value addition infrastructure — a millet processing unit, a dal mill, a cold storage — identify at least one committed institutional buyer at the design stage. Committed means: a signed MOU specifying product, quantity, quality standard, price discovery mechanism, and payment terms. Government institutional buyers (hostels, midday meal schemes, ICDS supplementary nutrition programmes) are accessible and reliable when properly engaged through district officials.

Component 4: The SHG as processing enterprise

The mechanism that made the hostel model financially viable for farming communities was the SHG-as-processing-unit. SHGs — already constituted and financially functional

under Mission Shakti — were trained to procure raw millet from farmer members, process it (de-hulling, cleaning, grading, packaging), and sell the processed product to the hostel buyer.

The economics work because the SHG captures the value addition between raw and processed millet. A kilogram of raw finger millet bought from the farmer at ₹18–20 becomes 750 grams of processed millet plus 250 grams of bran. The processed millet sells to the hostel at ₹28–30. The bran sells as cattle feed or composting material. The SHG's margin funds its operations, pays its labour, and builds capital for working capital requirements in subsequent seasons.

The WASSAN documentation is explicit about what the SHG needed to make this work: training in millet processing (2–3 days, hands-on, not classroom-based); access to processing equipment (manual or electric de-huller, grading sieves, weighing scale — total cost ₹80,000–1,50,000 per unit); initial working capital to purchase raw millet from farmers before receiving payment from the hostel (typically 30–45 days gap); and a functioning record-keeping system tracking procurement, processing, sales, and payment.

The equipment was typically provided through the OMM's DMF (District Mineral Fund) funding or CAMPA funds, or through NABARD's FPO development fund. The working capital was the most persistent challenge — solved in better-functioning units through the VO-level credit facility.

Component 5: Block-level NGO as facilitating agency

The OMM's operational guidelines explicitly designate one NGO per block as the "Facilitating Agency" — responsible for community mobilisation, farmer training, FPO and SHG capacity building, government linkage, and monitoring. The FA is not the implementing agency — that is the FPO or SHG. The FA is the support structure.

This is the role the evidence supports: NGO as facilitation and capacity-building layer, community institution as implementing entity. The FA's specific responsibilities in the

OMM:

- Farmer mobilisation and PVT facilitation in the first season
- Training FPO board members in governance and accounts
- Training SHG members in processing and quality management
- Liaising with district officials for hostel approval and procurement
- Monitoring implementation against targets and troubleshooting bottlenecks
- Documenting outcomes and providing feedback to WASSAN's Programme Secretariat

NGOs that want to participate in the OMM as FAs apply through WASSAN's block allocation process. The FA role comes with defined responsibilities, defined outcomes, and defined reporting — it is a structured partnership, not open-ended engagement.

What Went Wrong — Honest Lessons from the Challenges

The OMM has been more successful than most comparable agricultural programmes. It has also faced documented challenges that any honest analysis must include.

Payment delays from hostels: The institutional buyer model assumes that hostel payments to SHGs arrive on time. In practice, government payment cycles are slow. SHGs that procured millet from farmers on credit, expecting hostel payment within 30 days, sometimes waited 60–90 days. Without the VO-level credit buffer, some SHGs defaulted on farmer payments, damaging relationships and reducing farmer willingness to engage in subsequent seasons. Payment monitoring and escalation to district officials when hostel payments are delayed is essential NGO work that the OMM guidelines don't adequately emphasise.

Processing quality inconsistency: Not all SHG-processed millet met hostel quality standards consistently. The training was often inadequate or not followed up — a common pattern in agricultural training programmes. SHGs that received periodic

monitoring visits from the FA showed better quality consistency than those left to self-manage after initial training. The monitoring function is as important as the training function.

FPO formation as a target rather than an outcome: In some blocks, the OMM's guidelines requiring FPO formation led to FPOs being registered to meet targets rather than built organically from farmer interest. These paper FPOs added a governance layer without adding function. The lesson: FPO formation should follow demonstrated farmer interest and value chain viability, not precede them.

Scale vs. quality tension: As the OMM scaled from 14 to 177 blocks, the quality of facilitation per block inevitably varied with the quality of the FA. Blocks with experienced, well-resourced FAs that had strong community relationships produced demonstrably better outcomes than blocks where the FA was new to the sector or lacked adequate field staff. The programme's aggregate success conceals this variance. For NGOs choosing to implement millet value chains, the FA quality is the primary determinant of outcomes.

Applying the Model Beyond Millets

The OMM's design logic is transferable to any smallholder agricultural value chain where: the crop has existing farmer knowledge and cultural embeddedness; the crop is nutritious or otherwise desirable to institutional buyers; the processing step is simple enough for SHG management; and the market exists but is structurally inaccessible to individual farmers.

In Odisha's tribal districts, comparable candidates include: NTFP value chains (tamarind, mahua, siali leaf plate production); organic vegetable value chains for peri-urban institutional buyers; honey for premium urban markets; and traditional pulse varieties that command premium prices among diaspora and health-conscious urban consumers.

The model sequence — institutional buyer identification → community seed or supply base → SHG processing infrastructure → FPO market coordination → NGO facilitation — is the template. Each element needs context-specific adaptation. The sequence is consistent.

Related Knowledge Commons content: Agriculture & Markets Sector Primer (Sector 09) · Practice Note: FPO Building — Building Them to Last · Practice Note: NTFP Market Development — From Forest Produce to Fair Price

Evidence Grade: B — Multi-study. This Practice Note draws on WASSAN's OMM Programme Secretariat documentation, CEEW's OMM case study (2024), the Vikalp Sangam analysis, ICRISAT-OUAT Science-Policy Workshop findings (December 2024), and MSSRF's Shree Anna Abhiyan implementation documentation. Last reviewed: April 2026.

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