

Digital Harvest: Digital Cooperatives for Women and Youth Farmers in Odisha

1. Background and Rationale

In Odisha, as in many parts of India, women and youth farmers play a crucial yet underrecognized role in agriculture. Despite forming a significant portion of the rural workforce, women and young farmers often lack access to structured markets, finance, training, and digital innovations. They face systemic barriers such as limited land ownership, weak market linkages, and poor bargaining power, making it difficult to sustain or scale agricultural livelihoods.

With the state's increasing push towards digital agriculture and empowerment of Farmer Producer Organizations (FPOs), there lies a timely opportunity to integrate **Digital Harvest** – a blockchain-powered digital cooperative model – into the landscape of Odisha's agrarian economy. This initiative aims to bridge the gender and generational gaps in agriculture by empowering marginalized farmers through digital transformation, collective action, and direct market linkages.

2. Objectives

- Empower women and youth farmers by integrating them into food value chains using innovative digital tools.
- Develop and scale digital cooperatives under FPOs using blockchain technology to ensure transparency, traceability, and trust.
- Facilitate market access for smallholder farmers by aggregating their produce and directly connecting them to buyers.
- Promote on-farm diversification and value addition to increase farmers' incomes and resilience.
- Strengthen biosecurity practices and digital literacy among smallholder farmers.

3. Target Group

- **Primary Beneficiaries:** Women and youth smallholder farmers in Odisha, especially in SC/ST and tribal areas.
- **Secondary Beneficiaries:** Existing FPOs, SHGs, and village-level cooperatives.

4. Key Components of the Project

A. Digital Cooperative Platform

A decentralized, blockchain-enabled platform to:

- Register women and youth farmers.

- Maintain digital records of production, sales, and payments.
- Build trust through transparent transactions.

B. Capacity Building and Training

Training modules on:

- Digital literacy and use of the Digital Harvest platform.
- On-farm diversification (e.g., fruits, vegetables, millets).
- Sustainable farming practices and biosecurity.
- Value addition, grading, and post-harvest handling.
- Market analysis and price negotiation.

C. Market Linkages and Aggregation

Formation of digital clusters within FPOs to:

- Aggregate produce at village/block level.
- Establish direct connections with institutional buyers, retailers, processors, and exporters.
- Facilitate digital payments and seamless transactions.

D. Local Resource Integration

Utilize Panchayat lands, SHG networks, and existing community infrastructure.

- Leverage government schemes for agri-tech and women/youth entrepreneurship.

6. Implementation Strategy

- Partner with selected FPOs across tribal and aspirational districts of Odisha.
- Collaborate with Producers Direct, local NGOs, and technology partners for platform development and training.
- Pilot the model in 3–5 blocks and scale based on learnings.
- Ensure integration with Odisha's State Agriculture Policy, Mission Shakti, and MGNREGS convergence models.

7. Expected Outcomes

- At least 5,000 women and youth farmers digitally registered and trained.
- Enhanced income by 30–50% through better price realization and value addition.
- Increased participation of marginalized farmers in structured markets.
- Improved digital literacy, biosecurity, and farm productivity.

- Strengthened FPO capacity for aggregation, marketing, and enterprise development.

8. Sustainability and Way Forward

- Embed the model within existing FPO governance structures.
- Generate commission-based revenue through platform transactions for sustainability.
- Advocate for government adoption and scaling under Odisha's agri-entrepreneurship and rural development programs.
- Foster partnerships with CSR bodies, agritech companies, and NABARD for long-term support.

9. Potential Partners

- **Producers Direct** – technology and digital cooperative platform support
- **Department of Agriculture & Farmers' Empowerment, Odisha**
- **Odisha Livelihoods Mission (OLM)**
- **Mission Shakti Department**
- **Krishi Vigyan Kendras (KVKs)**
- **Local NGOs and FPO federations**
- **Donors and CSR partners**

10. Budget Estimate and Timeline

- **Pilot Phase (Year 1):** INR 50–75 lakhs across 3–5 blocks
- **Scaling Phase (Years 2–3):** INR 2–3 crores for 15–20 FPOs
- **Timeline:** 36 months from inception to full operationalization

11. Contact and Lead Organization

Lead Organization:

To be implemented in partnership with registered FPOs of Odisha, facilitated by a consortium led by SRADHA/Centre for Agri-business Management/FPO Federation, in collaboration with Producers Direct.