



ssnup
Smallholder Safety Net
Upscaling Programme

project results

INTEGRATED POST-HARVEST SERVICES IN INDIA



Beneficiary organisation

Arya.ag, India's leading agritech platform, enables farmers to choose when and to whom they sell their produce after harvest. Offering farm-level storage, accessible financing, and transparent commerce, the platform aggregates and stores USD 3 billion of grain annually and facilitates over USD 1.5 billion in loans to smallholder farmers, their organisations, and stakeholders across 21 states and 60% of Indian districts.

The challenge

Indian small producers often resort to distress selling immediately after harvest when market prices are low due to an influx of supply. With adequate storage facilities and access to finance, they could delay sales and achieve better prices. However, the lack of farm-gate storage and financing options poses significant challenges, forcing them to rely on middlemen who reduce their earnings through high commissions.

The proposed solutions

The project aimed to expand Arya.ag's post-harvest services to more farmers and their Farmer Producer Organisations (FPOs) by co-financing a train-the-trainer program. This training educated FPOs and their farmer members on the benefits of post-harvest management and accessing Arya.ag's services through a specialised digital platform. Arya.ag's services allow farmers to store produce, use it as collateral for financing, and sell at optimal times while also connecting them with potential buyers. The platform provides scientific storage, financing solutions for stored commodities, market access, and information on market prices, harvest cycles, and advisory services, helping users make informed selling decisions.

The key expected outcomes of the project were:

- 1 Develop localised training content** in English and Hindi on best practices for post-harvest activities.
- 2 Engage 50 FPOs, train their members, and support them in educating 50,000 smallholder farmers,** with a focus on those with landholdings under two hectares and women farmers.
- 3 Facilitate FPO's access to warehouse storage,** financing, and market linkages.
- 4 Facilitate transactions** of approximately 3,000 metric tons of commodities through Arya.ag's platform.
- 5 Reduce food wastage and promote sustainable farming** through scientific post-harvest practices and hermetic storage.

SDGs supported by the project



2. Zero hunger

2.4 Adoption of productive, sustainable and resilient agricultural practices



12. Responsible consumption and production

12.5 Reducing waste and recycling

IMPACT INVESTOR



BENEFICIARY ORGANISATION

Arya.ag

India

NUMBER OF FARMERS REACHED

50,075

AGRICULTURAL VALUE CHAIN

Staple crops

START DATE

July 2022

END DATE

December 2023

TOTAL EXPENDITURE

€ 172,500

Including € 136,400 (79%)
financed by SSNUP





key results



The boards of directors of 51 FPOs (5 FPOs having 100% women shareholders) received training on post-harvest practices and Arya.ag's services. The FPOs, selected based on interest, are from 9 Indian states: Assam, Bihar, Gujarat, Haryana, Madhya Pradesh, Maharashtra, Rajasthan, Telangana, and Uttar Pradesh. Before the project, many FPOs were unfamiliar with post-harvest services, while some had used them but not at scale.



50,075

farmers (25% women) of 31 FPOs were trained and onboarded on Arya.ag's digital platform.

The recruited trainers from Arya.ag trained the FPOs' Community Value Chain Resource Persons (CVRPs), and then the latter trained their farmer members. Arya.ag promoted women's empowerment by training female CVRPs within FPOs, who then trained other women in their communities. This method was particularly effective in rural areas, where women often have limited access to training.



Improved digital platform: Arya.ag also used this training to collect feedback from initial users on a specific digital platform developed for FPOs to enhance its usability before wider implementation. Key improvements included adding multi-language support, now available in seven local languages for better accessibility; customised broadcast messages for FPOs to communicate with their farmer members; GPS mapping allowing farm-level monitoring; and open-source knowledge videos to disseminate best agricultural practices to the farmers.



\$8 million

in debt funding from responsAbility secured in July 2024, partly thanks to this project's scaling up of the client base and digital platform. The funding will support Arya.ag's mission to empower Indian farmers, promote climate-resilient practices, and reduce food loss.



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FPOs with 10,332 metric tons of commodities stored, traded, or pledged for finance through Arya.ag's platform, benefiting 10,332 smallholder farmers (25% women).

The stored and traded commodities were primarily wheat, maize, rice, corn, and pulses.

Among them:

- ✓ **5 FPOs** sold their commodities for ₹38,590,600 (€424,497).
- ✓ **20 FPOs** obtained unsecured loans based on their balance sheets amounting to ₹122,041,250 (€1,342,454).
- ✓ **13 FPOs** received Warehouse Receipt Financing for stored commodities totalling ₹149,317,214 (€1,642,489).

These funds provided by Arya enabled the FPOs to purchase commodities from their farmers, procure inputs, and make other necessary purchases during both the Kharif and Rabi agricultural seasons.

Arya.ag's services generated positive externalities, helping many FPOs access finance from other market entities. For example, three FPOs in Maharashtra secured financial services from another financial institution. One FPO in Uttar Pradesh obtained an overdraft facility from the Indian Overseas Bank thanks to improved financial health from transactions with Arya.



lessons learnt

- ✓ **Train-the-trainer programmes should ensure trainers have the necessary skills to deliver technical content effectively and implement strategies to retain them**

The project faced challenges with high trainer attrition rates due to post-pandemic demand for skilled workers and challenging working conditions in rural areas, as well as issues with trainer quality. To address these challenges, it is essential to implement retention strategies to motivate and retain trainers. Arya.ag also assigned employees to maintain continuity and relationships with FPOs when trainers left. Additionally, more stringent selection criteria are needed to ensure trainers have the skills to deliver specific content on Arya.ag's services, including experience in rural settings and familiarity with digital tools.

- ✓ **Direct control over field implementation by partners is crucial for project success**

The project relied on consulting partners for training delivery. In the future, Arya.ag plans to take a more hands-on approach for better oversight and quicker adaptation to on-ground realities. This strategy includes close collaboration, robust communication channels, regular strategic meetings, a shared digital dashboard, and setting clear expectations, roles, and performance-based milestones from the start, along with regular quality control.

- ✓ **Experience sharing among peers is crucial in convincing FPOs to adopt new services**

Despite understanding the benefits of products like Warehouse Receipt Financing, some FPOs are unwilling to adopt them as they do not want to take a risk by storing commodities for a certain period and selling them later while using loans. To address this, Arya.ag's FPO Mobilisation Programme organised joint sessions where FPOs could share their experiences, express doubts, and better understand the services, thereby building trust and confidence. Continuous engagement with FPOs is crucial for overcoming their reservations about new products.

Perspectives

The project faced challenges in helping FPOs and their farmers adopt the digital platform due to limited access to smartphones, the internet, and network coverage in rural areas. Although not all 51 FPOs were onboarded, profiles were created for future onboarding when they are ready. Meanwhile, Arya continues to engage with FPOs to help them overcome reservations about the new services.

