



Evaluation Brief: Market Access eNabled by Digital Innovation (MANDI) in Eastern Uttar Pradesh

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Market Access eNabled by Digital Innovation (MANDI) in Eastern Uttar Pradesh: Lessons Learned

The partnership between Grameen Foundation and Walmart Foundation from 2020-23 has been instrumental in strengthening Farmer Producer Organizations' (FPOs) capacity to connect smallholder farmers, especially women, to market and finance, increase farmers' incomes, and build their resiliency. The partnership has positively impacted the lives of more than 170,000 people, enhanced the FPOs' revenue, and laid the foundation for a better future for India's smallholder farmers.

Enhancing farmers' income and resilience through MANDI: A model for change

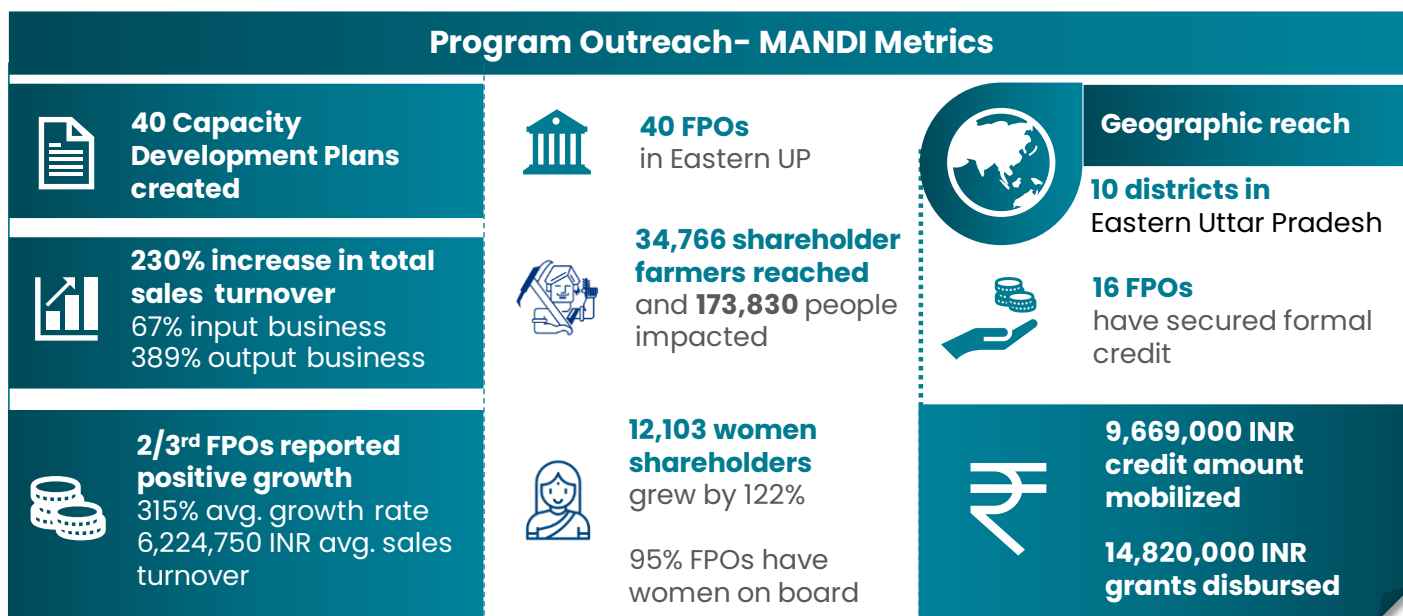
An FPO is a registered body formed by a group of farm producers that helps aggregate, store, and sell produce and procure low-cost inputs, giving member farmers increased bargaining power over prices during sales and purchases. MANDI tackles the fundamental issues FPOs encounter when trying to grow their capacity, mainstream gender, make data-based decisions, and establish connections with Technical Service Providers (TSPs), Extension Service Providers (ESPs), Financial Service Providers (FSPs), and markets. The MANDI model postulates that *“IF the capacity of FPOs to leverage digital technology and data, address gender dynamics, and deepen access to finance for their members is strengthened, and IF FPOs are sufficiently capitalized, THEN smallholder farmers, especially women, will gain improved access to targeted extension services, market opportunities, and financial services THAT WILL enable them to diversify and intensify their production LEADING TO improved incomes and resilience.”*

Breaking the cycle of despair: The struggle of farmers and FPOs in Eastern Uttar Pradesh

India is home to 263.1 million agricultural workers, and about 15% live in Uttar Pradesh (UP). Small or marginal farmers in India with less than two hectares of land comprise about 85% of farm households. Small landholdings, weak market linkages, and poor access to extension, technology, and financial services make agriculture unviable. To reduce agrarian distress and increase farmers' incomes, the Government of India, in 2019, announced its intent to promote 10,000 FPOs over the next five years.

FPOs in the Eastern UP have limited financial and human capital to forge more remunerative market linkages. Digital tools are key to increasing operational efficiency and enabling market access, but FPOs struggle to purchase aggregated crops and meet farmers' preferences for upfront payments. Women farmers are excluded from having any form of agency or autonomy in income-generating activities and are restricted regarding leadership, membership, and participation in FPOs.

Program Outreach- MANDI Metrics

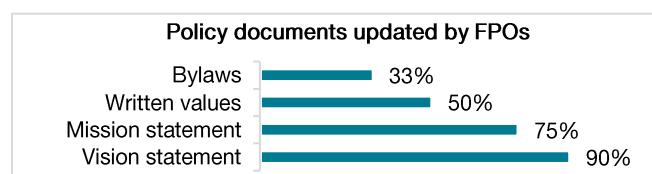


Program Outcomes

Grameen Foundation evaluated the MANDI project using a mixed-methods approach. The FPO assessment leveraged a pre-post longitudinal design covering all 40 FPOs; the farmer assessment consisted of a quasi-experimental longitudinal study. The evaluation also uses findings from a gender assessment conducted using a monitoring tool developed by International Food Policy Research Institute.

Capacity building: MANDI resulted in strengthened governance and management practices at FPOs through the development and implementation of Capacity Development Plans (CDPs) and business plans. Consequently, on average, two-thirds of the FPOs tripled their revenues.

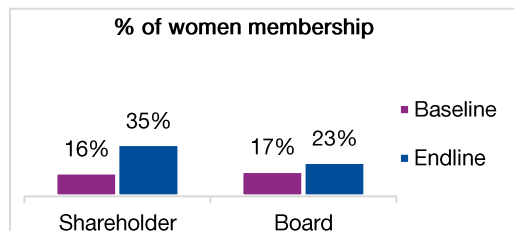
- Board members received a variety of capacity-building training in the areas of finance, technology, marketing, and gender equality. The evaluation shows that the training sessions enhanced board members' understanding and application of the training material and boosted their confidence in assuming new responsibilities. The CDPs were well received by the FPOs; almost 90% said that the CDP was consistent with their organization's values, mission, and objectives.
- Advocacy and training efforts at the FPO level enabled an ecosystem for women's participation in the FPOs. As a result, 38 FPOs drafted a gender policy document for the first time, and many more FPOs modified their vision, purpose, written principles, and bylaws.
- The project focused on having a diversified and inclusive board by setting objective eligibility and inclusion criteria. As a result, 95% of FPOs reported at least one woman on the board, and women's participation increased by 34%. Capacitated and well-represented boards led to enhanced governance and management practices, as seen by frequent annual meetings and timely filing of audits and financial reports.
- MANDI supported FPOs in submitting loan paperwork and trade license applications and facilitated relationships between FPOs, ESPs, and TSPs. This support improved FPO creditworthiness and gave FPO board members more confidence to apply for formal loans. The FPOs received a much-needed boost to their earnings from obtaining trade licenses and certifications: 18 FPOs received Agricultural Produce & Livestock Market Committee licenses, 21 received Registration-Cum-Membership Certificate for export, and 26 received their agri-input trading licenses. As a result of the overall capacity strengthening, two-thirds of the FPOs saw an increase in total revenue, with average revenue growth of 315%.



- By connecting the FPOs with Krishi Vigyan Kendra, International Rice Research Institute, Bankers Institute of Rural Development, and other agri-research institutes, numerous technical training for the boards and farmer members were arranged, which exposed them to innovative and best agricultural practices.
- Nearly one-third of the FPOs chosen to start the project withdrew for various reasons, including unsatisfactory engagement with the project, misaligned expectations for MANDI interventions, or a lack of motivation to participate.

Gender Mainstreaming: MANDI increased women’s membership and participation at the FPO level and increased sensitization of gender roles at the community level.

- Women’s participation in FPOs increased by 122% due to advocacy, training, improved women representation at the leadership level, and incentivization under MANDI. By the endline, MANDI FPOs had an average of 35% female shareholders, and 40% of the FPOs had 40% or more female shareholders. However, women’s engagement remained low as only 14% of the women members reported regular attendance of FPO meetings; many reported their spouses attended meetings on their behalf.

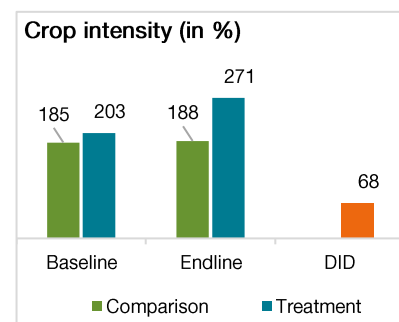
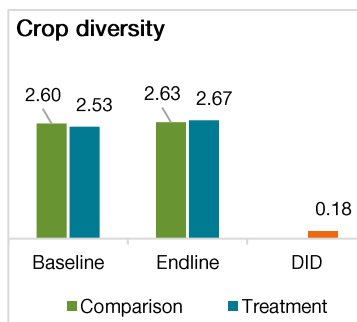


- MANDI assisted FPO board members in determining ways to increase the involvement and engagement of women farmers in FPO operations. This enhanced the use of women-friendly practices such as the use of simple farm machinery, mushroom cultivation, and post-harvest activities (packing, sorting, grading, and processing) and helped women augment their income and increase involvement in FPO operations.
- Community gender dialogues were conducted in areas among MANDI FPOs to improve intra-household dynamics and gender roles at the household level. It resulted in women gaining voice and agency within the household, and there was an incremental gain of 15% in the proportion of women making financial decisions independently. However, other empowerment domains like long-term decision-making, mobility, time-use, and asset ownership did not see a change, as a more extended gestation period is needed.

Data-based decision-making and linkages: MANDI improved data collection and management practices of FPOs; however, using the data for decision-making was low. The market linkage efforts resulted in trading about 4500 metric tonnes of grains through the project’s support, and MANDI farmers were more likely to trade through FPOs.

- Data-based decision-making improved during the project period. More than 90% of the FPOs started collecting diverse farmer data. However, except for information about "crop planning" and "crop surplus for each season," much of the data was not used for decision-making. Additionally, most FPOs started recording gender-disaggregated data for sales, training and meeting attendance, leadership makeup, and membership.

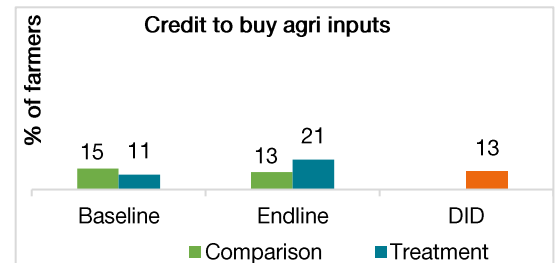
- The project strengthened linkages with ESPs and TSPs to expand support services to farmers. A 42% increase in the proportion of farmers exposed to agricultural training resulted in a statistically significant increase in crop diversity (# of crops grown on land in a year) and intensity (gross sown area/net sown area * 100). Farmers valued the training and demanded more extension services for the future.



- Market linkages were established with local and institutional buyers and exporters, including digital channels like DeHaat/Amazon/Ninjacart, for the sale of produce. Due to the FPOs' expanded market capabilities, there have been notable advances at the farmer level. The input and output service uptake of MANDI farmers increased by 200% and 367%, respectively. In addition, 82% of farmers reported improved negotiation abilities and increased trust in the FPOs.

Financing to enhance resilience: MANDI facilitated a capital outflow totaling INR 100 million in the form of credit and grants to support the business operations of FPOs. At the farmer level, the uptake of formal credit and digital payments increased incrementally, and awareness of various digital financial products and services also saw an upward trend.

- The project assisted in locating FSPs for the FPOs' formal credit mobilization. Further, the board received the requisite post-disbursement guidance on loan utilization and payback procedures. By the time of endline evaluation, 16 FPOs had already obtained formal credit, and applications from more FPOs were being considered.
- MANDI facilitated additional grants in the form of Catalyst Awards provided by the project and grants from the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) for the FPOs for capacity development, asset creation, managing business shocks, and dealing with the pandemic's effects.
- Farmers who received payments directly into their bank accounts through digital transactions increased incrementally (9%) due to the initiatives to digitize FPOs. Additionally, during the project's duration, farmers' awareness of various digital financial products and services rose due to Grameen Mittras' provision of digital financial literacy. The access to credit to purchase agri-inputs saw an incremental gain of 13% for the farmers from MANDI FPOs, which was statistically significant ($p > 0.05$).



Implications and Opportunities

The evaluation shows that the MANDI program has successfully addressed agrarian issues in Eastern UP by supporting FPOs, mainstreaming gender issues, increasing women's representation, and connecting FPOs to ESPs, TSPs, FSPs, and markets. The evaluation unpacks the following actionable findings for future programming:

- **Optimize the FPO selection process to ensure commitments** – Programming effectiveness can be improved with a strong and optimized FPO selection procedure. This can also help address the withdrawal of FPOs from program commitments.
- **Strengthen the aggregator model by developing high-performing FPOs as hubs** – To assist FPOs in realizing the power of aggregation and benefiting from economies of scale, a hub and spoke model of intervention is suggested. The model is anticipated to lower the program's philanthropic expenses and increase its reach.
- **Identify pathways to enhance women's engagement in FPOs** - To make women and women's self-help groups feel valued and help them remain active, FPOs need to test and scale opportunities for deeper and longer-term engagements with women. Special attention to reducing women's drudgery is needed.
- **Provide adequate and timely credit availability for FPOs** – The program enhanced the FPOs' creditworthiness by formulating linkages and strengthening their capacities. However, the availability wasn't always adequate and timely. Future programming should consider payment digitalization, itemizing the balance sheet, asset utilization, and having a broader range of FSPs.
- **A stronger emphasis on bolstering data-based decision-making** will improve FPO performance. The project altered data accessibility and recognition of its potential for businesses in the contemporary world, and FPOs could not use it for decision-making due to a lack of technical understanding. The development of platforms and tools to enable easy data-based decision-making for FPOs should be the main emphasis of future programming.
- **Make institutional credit more accessible to farmers** – The importance of improving institutional credit access is demonstrated by the fact that simply increasing knowledge of the available credit sources led to a slight rise in credit use among MANDI farmers. Farmers need quick access to institutional loans due to rising cultivation costs and need to move away from informal lending.