

SAFANSI

The South Asia Food and Nutrition Security Initiative

INTEGRATING NUTRITION IN RURAL LIVELIHOODS AND VALUE CHAINS AND THE ROLE OF PRODUCER COMPANIES

The state of Madhya Pradesh lags behind the country in key health and nutrition indicators. While the India average for percentage of underweight children is 47, in Madhya Pradesh it is 60 percent. The India average for anemia during pregnancy stands at 58.7 percent with Madhya Pradesh being slightly higher at 60 percent. Similarly, for percentage of low birth-weight children, the India average is 22 percent and for Madhya Pradesh it is 29.5 percent.

The World Bank supported the Madhya Pradesh District Poverty Initiatives Project-II (MPDPIP) that was implemented between October 2009 and June 2015 in 14 districts of the state. It mobilized women from 415,684 poor households into self-help groups (SHGs), facilitated credit and livelihood support through 4,070 village-level and 91 cluster-level federations, supported 18 producer companies and 16 cluster enterprises of poor producers, enabled 44,399 rural job aspirants to get and retain jobs, and helped average household incomes to increase by 51 percentage points.

Producer companies

Nearly 75 percent of the SHG loans under MPDPIP were for agriculture activities. The SHG members were also supported to federate themselves and form producer companies around agricultural activities such as seed production. A producer company is owned by primary producers and is registered as a legal entity. These companies help small producers to be organized together as business entities with professional management, develop dynamic linkages, provide timely access to quality agricultural inputs and services like extension, training, credit, insurance, market support. They help to improve productivity, increase income, diversify businesses and create jobs. Producer companies benefit from local service providers and company agents who work on commission basis.¹ The MPDPIP has so far helped to establish

19 producer companies (15 agriculture, two dairy and two poultry), involving 46,500 farmer shareholders (25 percent of whom are women) from over 1,550 villages in 14 districts. Although 15 of the companies were assessed to be viable and sustainable, they require considerable investment and at least three to five years of handholding support to mature.



With the financial backing of their SHG, these women in Sagar district have installed eco-friendly poly-mulching and drip irrigation systems - an investment that has boosted their vegetable business three-fold, while cutting input costs. (Michael Riley)

Livelihood cluster development

In the last two years of the project, the MPDPIP moved to a *cluster-based approach* reflecting a strategic focus on livelihoods. The livelihood clusters, which were smaller in scale than producer companies, had a high potential for income generation, provided members access to inputs and technology, and improved linkages to markets. Examples of such clusters include turmeric in Sagar district, fruits in Shajapur district, and incense stick in Rewa and Raisen districts. Cluster enterprises were viewed as an intermediate step preceding the federation of poor and socially excluded producers into formal producer organizations (cooperatives and producer companies). A total of 16 cluster enterprises

were formed involving 79,598 SHG members focusing on farm (99 percent) and non-farm (1 percent) enterprises. Even though the cluster enterprise approach was initiated late into the project, it involved 32 percent of all SHG members taking up production loans.

Review of food and nutrition security impacts through producer companies

The MPDPIP did not include any interventions specifically targeted at influencing food and nutrition outcomes. However, the interventions included a number of elements from basic and underlying factors influencing nutrition outcomes, such as building social and financial capital through community institutions, increasing incomes through improved livelihoods and producer companies, improving agriculture productivity, and enhancing access to government services. Through these pathways there was potential for strengthening food security and improving nutritional outcomes among the participant households.

With financial support from the South Asia Food and Nutrition Security Initiative (SAFANSI), an attempt was made to capture the food and nutrition security impacts of the establishment of producer companies by using data and analysis from the Implementation Completion and Results Report (ICRR) and a qualitative assessment study.² The study was conducted in August 2015 in 10 villages across eight MPDPIP districts and covered beneficiaries of six clusters and producer organizations, including those involved in seed production, vegetable cultivation, dairy and non-farm products (incense sticks, sanitary napkins, woven cloth).



Activity-based community resource persons provide the training that key to the livelihood cluster model. Here, a farmer explains the different qualities of turmeric rhizomes. (Michael Riley)

Summary of findings

Producer companies were one of the key interventions of the MPDPIP for pro-poor and inclusive growth.

Improved crop production systems resulting from farmers' access to credit and/or their organization in clusters, cooperatives and producer organizations increased farm incomes by more than 100 percent. The shareholder and beneficiary composition of the producer companies showed them to be both pro-poor and inclusive: 26 percent of shareholders and 72 percent of non-shareholder beneficiaries were SHG members; 77 percent of shareholders were from scheduled castes or schedules tribes or other backward caste categories; women accounted for 37 percent of the shareholders and represented nearly half the board members. Three producer companies (one dairy producer company and two poultry producer companies) exclusively comprised women shareholders having a total membership of 4,450.³

Producer companies and cluster enterprises were fundamental to increased productivity.

Technical service support provided through a cluster-based livelihood approach, included advisory services and training combined with access to better quality and timely inputs. Seed companies provided quality seed, increasing the seed replacement rate from less than 8 percent to about 30 percent. More than 150,000 farmers in the project villages used certified seeds covering an area of 61,595 hectares. Quality seed was the starting point for improved productivity. All seed producer companies implemented the System of Wheat Intensification, five of them also implemented the System of Rice Intensification, and nine adopted the Responsible Soy program. Over 10,570 hectares was certified for organic cultivation. These practices not only contributed to environmental sustainability but also enhanced food safety.

Increased income and food security does not necessarily lead to nutritional security.

The qualitative assessment study did point to improved food and nutrition security based on reported diet diversity and consumption levels of cereals, pulses, vegetables and milk by MPDPIP respondents; although these fell short of NIN (National Institute of Nutrition, India) recommended intake levels. When the study compared MPDPIP households with income of about US\$ 4/day (about Rupees 1 lakh per year), i.e. lakhpati households with non-lakhpati households, it became evident that income did not assure

better nutrition. While lakhpati households could afford to consume cereals and vegetables above NIN levels, their consumption levels were lower for protein-rich pulses and milk.

Figure 1. Diet survey - average daily consumption⁴

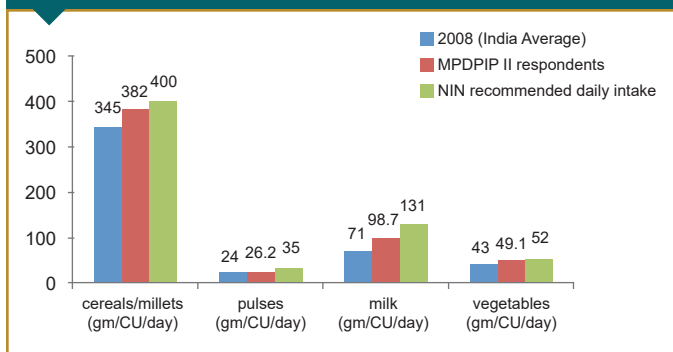
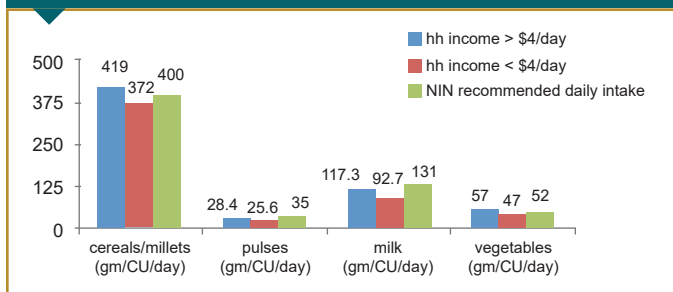


Figure 2. Consumption of food groups amongst SHG households (by income)⁵



Diet diversity was not affected by the presence of producer organizations and increased product availability. While producer organizations (soybean, poultry and dairy) increased market access and product availability, this did not always result in increased household consumption. Market access encouraged sales rather than consumption, especially for non-traditional, lucrative products such as soybean. Lack of processing facilities and awareness also limited consumption. Producers of poultry (both eggs and meat) also did not consume a part of their produce owing to cost, taste and cultural issues as well as, in some cases, lack of awareness. The same was the case with milk – while it was the primary source of animal protein, most households purchased milk only for tea and not for feeding children or pregnant and lactating mothers. Conversely, the link between product availability and use was evident in the cluster enterprise that produced sanitary napkins. In this case, convergence with the local sanitation and hygiene program and associated behavior change communications increased product utilization by the local community.

Conclusion

Small landholders account for over 70 percent of food production and are therefore fundamental to national food and nutrition security. Organizing these farmers, especially women, into producer organizations to help them access value chains is vital in achieving increased productivity and profitability, and contributing to their food and nutrition security. The findings indicate that producer companies and cluster enterprises could potentially play an important role in strengthening pathways to food and nutrition security outcomes of targeted households. However, it is important to note that while these institutions are conducive for food and nutrition security, member households did not necessarily benefit from increased food and nutrition security. There is a need for simultaneous behavior change communications.

The Way Forward

Promotion of the enterprise model

The MPDPIP experience demonstrated the development of entrepreneurial capacities among the poor through producer organizations that could be leveraged for food and nutrition security. The interventions could involve: promotion of bio-fortified varieties (such as pearl millet and zinc-fortified wheat) through seed production and marketing; establishment of community-based processing plants for soybean that could convert the produce into ready-to-use protein-rich diet supplements; as well as marketing of locally-produced nutritious foods such as fortified food and milk, to school mid-day meal programs. However, it is important to note that market access potentially encouraged sales rather than consumption, especially for non-traditional products.

The enterprise model could also be expanded to address sanitation needs. The success of MPDPIP's enterprise model on sanitary napkin manufacturing showed that women were more likely to use such products if availability and access were ensured. In addition to expansion of such enterprises, there is a need for support systems for supply chain management, marketing and distribution, and brand management.



Promotion of nutrition-sensitive agriculture

A strategic orientation towards nutrition-sensitive agriculture⁶ would enable livelihoods programs to achieve stronger food and nutrition security outcomes. Support is required to stimulate household-level production through homestead farming and cultivation of protein rich crops such as pulses. This would need to be done through agriculture extension services, value-chain interventions, input support through credit activities, and convergence with allied government activities. Crop diversification should be combined with strong behavior change

communication, and take advantage of climate change adaptation opportunities. An indicator of diversification could be the grams of protein produced per liter of water consumed. Given that Madhya Pradesh seed producer companies are a key source of seed for the state, working through them would be a significant opportunity to introduce new bio-fortified seed varieties. However, crop diversification towards higher nutritive crops is likely to require policy reform as the 'minimum support price' for public procurement is limited to a few crops. Furthermore, for households that cannot afford to produce or purchase nutrient-rich foods, consumption support needs to be provided through credit access and subsidies through the public distribution system and other means.

Producer organizations also have the potential to influence food safety through training as well as certification programs focused on reducing the use of harmful agro-chemicals. Livestock producer organizations could also integrate awareness on safety aspects having a bearing on food and nutrition security – for example, poor manure handling has been shown to account for 60 percent of associated water contamination.

¹ Leitch, H. Learning note on producer companies, 2013.

² SAFANSI-funded study. Livelihoods programs and Food and Nutrition Security in India, March 2016.

³ Producer Companies. Learning Notes. April 2015.

⁴ Sources: WFP MP Food Atlas 2008, Data collected in this study (n = 347), NIN-RDA guidelines for India.

⁵ Source: Data from diet survey collected in this study (n = 347; lakhpati = 73, non-lakhpati = 274), NIN guidelines for India.

⁶ Nutrition-sensitive agriculture is a food-based approach to agricultural development that puts nutritionally rich foods, dietary diversity, and food fortification at the core of overcoming malnutrition. (FAO. Nutrition Sensitive Agriculture. Second International Conference on Nutrition, 19-21 November 2014).

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