

Model-3: From Forest to Market: A Community-Led Mahua Flower Microenterprise for Livelihood Security

Background

[Adilabad district has the highest tribal population in Telangana. With 35.32% \(250,461\) of its residents being tribal, many are smallholder farmers or landless labourers dependent on rainfed agriculture. Low productivity, debt cycles, and migration plague these communities,](#) while their rich Non-Timber Forest Produce (NTFP), particularly Mahua (*Madhuca indica*), remains undervalued. Mahua, revered as the "Tree of Life," is central to tribal culture and survival. Mahua flowers have a higher nutritional value than rice, apples, bananas, mangoes, and raisins. [Dried flowers contain 6.67% protein and 68% carbs; fresh flowers have 54.06% sugars, including 3.43% sucrose. Dried flowers are rich in calcium, iron, phosphorus, and potassium and contain bioactive compounds like carotenes.](#) This profile makes Mahua a superfood supporting immunity and health.

The tribal women who collect and sell dried Mahua flowers through cooperatives, such as the Telangana Girijan Cooperative Corporation (TGCC), receive as little as Rs. 30/Kg. [Studies indicate that Mahua has the potential to employ 1.63 lakh people annually, but the current trade benefits only 28,600, with intermediaries capturing the majority of the value.](#) The challenge is shifting from low-value Mahua flower sales to premium nutritional products. While one tree yields Rs. 1,500–2,500 in raw flowers, tribal families often earn little through unfair barter due to limited processing skills and market access.

The ICAR-Krishi Vigyan Kendra (KVK) Adilabad addressed this challenge by training women's collectives to produce high-value Mahua laddus. This initiative aimed to diversify livelihoods through value addition, enhance nutrition security via Mahua's rich dietary profile, and strengthen women's SHGs as sustainable microenterprises, while promoting responsible NTFP utilisation to balance economic and environmental benefits.

The intervention of the Krishi Vigyan Kendra, Adilabad in Telangana

The KVK Adilabad conducted a benchmark survey of over 500 farmers across various tribal villages during the 2018-19 fiscal year. Information was also gathered from local NGO workers, Integrated Tribal Development Agency (ITDA) officers, Forest officers, GCC officers, SERP (Society for Elimination of Rural Poverty) officers, and local doctors to identify constraints in producing value-added products from mahua flowers.

Our survey revealed that tribal women encounter numerous challenges in transforming mahua flowers into value-added products, primarily due to limited access to processing technologies, technical expertise, and adequate infrastructure within their communities.

This forces them to sell dried flowers at minimal prices to the Girijan Cooperative Corporation (GCC).

Capacity Development

On- and off-campus trainings, field visits, and 17 hands-on demonstrations were conducted across 28 tribal hamlets to promote mahua-based entrepreneurship. Participants learned hygienic harvesting techniques to preserve the freshness and nutritional value of the flowers. Sustainable collection during the February–May season provides climate-resilient livelihoods for tribal women, particularly when families face seasonal unemployment. The training programs specifically trained members of the Bheem Bai Adivasi Sahakara Sangam in preparing balanced, nutritious mahua laddus using locally grown seasonal crops such as groundnuts and sesame as primary ingredients. Additionally, participants received training in proper storage techniques to ensure year-round availability of mahua laddus in local markets with extended shelf life. The training covered drying methods, ingredient selection (including cashew nuts, almonds, groundnuts, sesame, jaggery, dried dates, and cardamom), preparation steps for Mahua-dry fruit-nut laddus, their nutritional benefits and allowances, hygienic production, sanitation, FSSAI compliance, labelling, packaging, shelf-life extension, microenterprise management, market linkages, and entrepreneurship development for sustainable business.



Empowering Tribal Women through Enterprise: Members of Bheem Bai Adivasi Sahakara Sangam

Partnership and Infrastructure Development

The KVK partnered with a tribal farmers' society called Prajamithra Rythu Paraspara Sahayaka Sahakara Sangam (Utnoor, Adilabad) to establish the exclusive women's society "Bheem Bai Adivasi Sahakara Sangam" in 2019. This initiative initially involved 35 tribal

women farmers in Mahua flower processing and value-added activities. KVK Adilabad provided a multipurpose micro-processing flour mill (worth Rs. 30,000) to the society under the Tribal Sub Plan (TSP) program. The District Collector and ITDA also supported the tribal women's society and released funds for the development of modern kitchens to ensure the seamless production of mahua laddus.



KVK Adilabad conducts hands-on skill training for tribal women on value-added Mahua products

Impact and scaling

Building on the success of the Bheem Bai Adivasi Sahakara Sangam at Utnoor X Road, two women's Self-Help Groups (SHGs) sponsored by SERP in Adilabad, Telangana, were trained at the KVK, focusing on managing homestead microenterprises for Mahua laddu production, including processing, quality control, and adherence to food safety standards. The SHGs from Khairdatwa and Indravelly villages began producing Mahua-based Ladoos with 31.5% mahua flowers, costing Rs. 150 per kg to produce and selling for Rs. 400, resulting in a profit of Rs. 250 per kg. Though made by tribal women in remote areas, demand is increasing beyond their region. The laddus comply with FSSAI regulations, displaying nutritional info and daily allowance percentages. With support from SERP, they are establishing B2C marketing links through government and private channels to facilitate bulk orders, supplying wholesale to various markets, schools, and exhibitions. This high-margin enterprise boosts Mahua value addition, ensuring sustainability. The microenterprise generates Rs. 1.2–1.6 lakhs monthly, with each woman earning Rs. 15,000–20,000.

Conclusion

Supported by KVK, ITDA, and the District Administration, and ultimately embraced by consumers, this model promotes women-led entrepreneurship and sustainable utilisation of

Non-Timber Forest Produce (NTFP). It also perfectly aligns with the theme of International Day of Forests 2025: "Forests and Food", while contributing to multiple Sustainable Development Goals such as SDG 1 (No Poverty), SDG 3 (Good Health and Well-being), SDG 5 (Gender Equality), and SDG 12 (Responsible Consumption and Production).