

## **Forest Flowers to Rural Power: Tribal Entrepreneurship around Mahua**

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### **Abstract**

This study explores the intersection of culture, policy, and enterprise in tribal Odisha through the lens of Mahua (*Madhuca longifolia*), a forest flower of deep economic, ecological, and spiritual importance. For over sixty tribal communities in Odisha, Mahua is not just a non-timber forest product; it is food, medicine, ritual, and resistance. Despite this, state laws forbid traditional brewing practices, while policy implementation under the Forest Rights Act (FRA) and PESA remains uneven, marginalizing the very communities these laws aim to empower.

Drawing on literature, field stories, and policy reviews, this paper examines Mahua-based enterprises as a pathway to sustainable, gender-inclusive tribal entrepreneurship. It highlights the central role of tribal women in harvesting, processing, and brewing Mahua, and the emergence of SHGs and cooperatives that challenge exploitative market systems. Case studies, including Kantapada village in Nuapada, illustrate how women like Banita Majhi have reclaimed agency by organizing, setting fair prices, and exploring value-added products.

Policy recommendations include legal reforms to decriminalize Mahua liquor, support for SHGs and FPOs, tribal enterprise funds prioritizing women, branding assistance, and ecological sustainability through agroforestry. The study concludes that Mahua, when supported by enabling frameworks, can serve as a culturally rooted, economically viable anchor for dignified tribal livelihoods, transforming a forest flower into a symbol of market power and indigenous pride.

### **Background on Odisha's Tribal Communities and the Significance of Mahua**

Odisha is home to over sixty tribal communities, predominantly residing in districts like Koraput, Kalahandi, Rayagada, Mayurbhanj, and Nuapada. Deeply connected to forests and land, their livelihoods depend on shifting cultivation, forest produce, and traditional agro-ecological practices. Products like Mahua flowers, Sal leaves, and tamarind are vital to their economy, diets, and cultural life.

Despite living in resource-rich areas, these communities face poverty, inadequate healthcare, and limited access to education. Their traditional knowledge systems and communal land-use practices are often ignored by mainstream development policies. Though legislations like the Forest Rights Act and PESA exist, their implementation remains inconsistent.

Amid this, forest-based livelihood models, particularly around Mahua, offer sustainable alternatives that honor indigenous knowledge and autonomy.

### Socio-Cultural Significance of Mahua

The Mahua tree (*Madhuca longifolia*), locally known as Mahul, holds deep cultural, spiritual, and practical significance for tribal communities. Its flowers are used for nutrition, traditional medicine, and most notably, for brewing a mildly alcoholic drink central to tribal rituals, marriages, and community gatherings. This drink is both sacred and social, symbolizing hospitality and spiritual offering.

Women play a key role in collecting, processing, and brewing Mahua, granting them both economic agency and cultural authority. However, state regulations often criminalize these practices, leading to stigmatization.

State regulations often criminalize traditional Mahua brewing because it falls under **excise laws that prohibit the unlicensed production of alcohol**. These laws are designed to control alcohol production, ensure tax collection, and prevent illicit trade. However, they **do not differentiate between commercial liquor and small-scale, culturally rooted tribal brewing**, resulting in the criminalization of indigenous practices. This leads to the **stigmatization of tribal women**, who are often the primary brewers, and undermines their cultural rights and economic opportunities.

### Why Focus on Mahua-Based Enterprises

**Enterprises focusing on** mahua harvesting present a unique opportunity to blend traditional ecological knowledge with sustainable rural development. Deeply rooted in the lives of Odisha's tribal communities, the Mahua tree provides food, medicine, oil, and "liquor", all harvested sustainably without cultivation. Its resilience in semi-arid, degraded soils makes it ideal for low-cost, climate-resilient livelihoods in marginalized areas.

**What sets Mahua apart is its cultural depth and the central role of women in its collection and processing. Supporting enterprises around Mahua, from legal distilleries to value-added products like soaps and tonics, can generate income "for women" while preserving indigenous knowledge and promoting women's entrepreneurship.**

Formalizing these enterprises addresses challenges like gender inequality, legal ambiguity, and market exclusion. It also attracts support from government schemes and ethical markets. Focusing on Mahua is not just economic; it affirms indigenous rights, strengthens local ownership, and fosters inclusive, dignified rural livelihoods.

### Literature Review

Mahua in Tribal Culture, Economy, and Policy Discourses

The Mahua tree (*Madhuca longifolia*) occupies a vital space in the cultural, spiritual, and economic life of tribal communities across central and eastern India. Its flowers, seeds, and bark

are essential to traditional diets, medicines, and local economies. Culturally, Mahua is tied to tribal cosmology and seasonal rituals. As Mishra (2012) notes, Mahua flowers are used in ceremonies and seen as offerings to ancestral spirits, symbolizing both sustenance and sacred continuity. Customary norms often protect the tree, underscoring its ecological and cultural significance.

Economically, Mahua is a key “Non-Timber Forest Produce” (NTFP) contributing to household incomes, especially during non-harvest months (Saxena et al., 1995). Flowers are fermented into liquor; seeds yield oil used for cooking and skincare. Behera (2017) highlights the recent transition from household-level use to commercial products like packaged liquor, soaps, and sweets, “expanding income opportunities while raising concerns around ownership and sustainability”.

Policy-wise, Mahua sits within overlapping frameworks of forest conservation, excise laws, and livelihood programs. The Forest Rights Act (2006) supports tribal access to NTFPs, yet implementation is inconsistent (Sundar, 2010). Excise laws often criminalize traditional brewing practices, affecting tribal women most (Jha, 2016). Think tanks like Vasundhara (2021) advocate for reforms that recognize Mahua’s cultural roots, promote decentralized governance, and enable value addition through sustainable harvesting and community ownership.

Mahua thus represents a complex interface of tradition, economy, and policy, demanding inclusive frameworks that balance cultural preservation with economic empowerment.

### **Indigenous Entrepreneurship and Gender Dimensions in Mahua-Based Livelihoods**

Indigenous entrepreneurship represents an approach to economic activity rooted in cultural identity, ecological knowledge, and collective well-being. It differs from conventional profit-driven models by emphasizing sustainability, social equity, and community agency. Dana (2007) and Peredo & McLean (2010) describe indigenous enterprises as hybrid models that blend traditional values with market mechanisms. These enterprises aim not just for income, but for ecological balance and cultural preservation.

Global case studies reinforce this perspective. Anderson et al. (2006) highlight indigenous eco-tourism and forestry ventures in Canada grounded in collective ownership. Altman’s (2005) “hybrid economy” framework in Australia, where customary, state, and market systems intersect, mirrors the conditions of tribal enterprises in India. Cornell and Kalt (2000) emphasize self-determination as key to success, echoing the intent of India’s PESA and FRA policies.

In Odisha, Nayak and Berkes (2008) document forest co-management rooted in community trust and traditional knowledge. Kullu (2020) highlights tribal entrepreneurs using Mahua for oil and liquor products, navigating legal and capital challenges. Meher (2010) and Pinto & Sharma (2018) discuss cooperative models and digital innovations that have expanded indigenous markets, including branding and online platforms. Together, these studies show how Mahua-based enterprises in Odisha can serve as models of culturally embedded, sustainable development.

Gender plays a central role in the Mahua economy. Tribal women are primary actors in Mahua collection, processing, and brewing, yet their labor remains informal and undervalued. Pattnaik (2015) describes women as knowledge holders managing seasonal harvest cycles, while also facing legal marginalization due to excise laws that criminalize brewing.

Some progress is evident. Das and Samal (2020) document SHG-led distillation units in southern Odisha that have legitimized women's roles and expanded their economic and leadership opportunities. Meher (2010) also notes that women-led cooperatives can challenge traditional gender hierarchies and foster inclusion.

Kullu (2020) and Pinto & Sharma (2018) point to growing digital engagement, where tribal women use social media to access broader markets. However, challenges remain, including legal ambiguity, lack of credit, and limited mobility.

Understanding the intersection of gender and indigenous entrepreneurship is essential for promoting inclusive Mahua-based enterprises that empower women, respect tradition, and advance sustainable rural development.

### **State Policies on NTFP and Local Economies**

In Odisha, where over 23% of the population is tribal and forest-dependent, state policies on NTFP like Mahua are vital to rural livelihoods. Mahua serves as a key resource for food, medicine, oil, and traditional liquor, especially in districts like Nuapada, Kalahandi, and Koraput. However, policy frameworks remain contradictory.

The Forest Rights Act (FRA), 2006, legally empowers tribal communities over NTFPs, and Odisha has shown proactive implementation. Yet, in practice, forest officials often retain control, limiting Gram Sabha autonomy. Similarly, while the PESA Act decentralizes governance, a lack of institutional support hampers effective community management.

A major conflict arises from excise laws that criminalize Mahua brewing, despite its cultural importance and allowance under the FRA. Mahua is also excluded from Minimum Support Price (MSP) schemes, making collectors vulnerable to market exploitation.

Still, localized innovations offer hope. NGOs like Vasundhara and Mission Shakti groups have supported women's collectives to gain licenses and launch Mahua-based enterprises, including herbal oils and soaps. These examples show that with legal reform, community ownership, and institutional backing, Mahua can evolve from a subsistence product into a sustainable, tribal-led rural enterprise.

## **Gaps in Existing Literature**

While existing literature offers valuable insights into Mahua's role in tribal culture, forest economies, and indigenous entrepreneurship, significant gaps persist, particularly in the context of Odisha. Much of the scholarly work focuses either on Mahua's ecological or cultural significance, with limited exploration of its evolving economic role in the hands of tribal entrepreneurs. For instance, while Mishra (2012) and Saxena et al. (1995) highlight Mahua's cultural and subsistence value, they do not address the modern challenges and opportunities related to its commercialization. Studies on indigenous entrepreneurship (e.g., Dana, 2007; Nayak & Berkes, 2008) provide useful conceptual frameworks but often generalize across communities without addressing the unique conditions of forest-based livelihoods like those surrounding Mahua.

One critical gap lies in the limited research on value chains, specifically how Mahua moves from forest to market, and who controls its pricing, packaging, and branding. Few longitudinal or empirical studies trace these processes, making it difficult to assess real income gains or the effectiveness of interventions such as SHGs or cooperatives. Gendered dimensions, though acknowledged by researchers like Pattnaik (2015), are still underexplored in terms of entrepreneurship. Women's central roles in production, brewing, and informal trade are often documented in socio-anthropological contexts, but rarely in terms of their potential as business leaders or innovators.

Policy-focused literature also tends to be fragmented. While authors such as Sundar (2010) and Singh (2018) address legal and institutional barriers related to NTFP governance, they often treat Mahua as one among many products without analyzing its unique regulatory paradox: legal as a forest product, illegal as a fermented product. This neglects the cultural legitimacy of brewing practices among tribal communities and the resulting marginalization of women brewers under excise laws (Jha, 2016).

Moreover, there's a lack of focus on innovation and digitalization. Studies rarely examine how digital tools, online marketing, or urban branding could help tribal Mahua enterprises access larger, ethical markets, despite the rise of forest-to-fork and organic branding movements (Rao, 2013; Pinto & Sharma, 2018). Similarly, environmental sustainability is also overlooked. The impact of intensified Mahua harvesting on forest regeneration and biodiversity is yet to be seriously studied.

## **Mahua Economy: From Forest to Market**

The Mahua tree (*Madhuca longifolia*) is central to tribal livelihoods and culture across Odisha and central India. Traditionally used for food, liquor, oil, and medicine, Mahua is now gaining recognition as a potential driver of indigenous entrepreneurship.

Mahua harvesting follows a seasonal rhythm. Flowering begins in February-March, with peak collection in March-April — largely done by women and children. After sun-drying, the flowers are stored for use. In May-June, seeds are collected for oil extraction. The rest of the year

involves processing, brewing, and selling Mahua-based products, providing vital income during the lean agricultural season.

Mahua flows through three key value chains. In local informal markets, families consume or sell flowers in small quantities, often brewing liquor for rituals and survival, despite legal restrictions. In the semi-formal chain, middlemen procure Mahua in bulk, leaving collectors with minimal profits.

The formal value chain is emerging through cooperatives, NGOs, Tribal Cooperative Marketing Development Federation of India (TRIFED), and Van Dhan Yojana, focusing on value-added products like oils, sweets, cosmetics, and herbal drinks. These efforts aim to connect tribal producers to urban and online markets, ensuring better income, recognition, and cultural respect. Mahua's journey from forest to market reflects both traditional resilience and new possibilities for dignified, local enterprise.

### **Control and Roles: Women, Middlemen, Cooperatives**

The Mahua economy is largely driven by tribal women, who manage flower collection, drying, and brewing. Despite their crucial role, they often lack control over pricing and market access. Middlemen dominate informal trade by offering quick cash but exploit producers with low prices.

Cooperatives and SHGs are emerging as strong alternatives. By enabling collective bargaining, local processing, and fairer trade terms, they are reducing dependency on middlemen, especially in Odisha, Chhattisgarh, and Madhya Pradesh.

### **Branding and Packaging Efforts**

With Mahua products entering urban and global markets, branding and eco-friendly packaging are gaining importance. SHGs and social enterprises use tribal motifs, handmade materials, and storytelling to highlight cultural heritage, forest conservation, and women's empowerment. Some regions are also pursuing Geographical Indication (GI) tags to protect and promote Mahua as a unique regional product.

### **Resistance to Exploitation by Traders**

The village of Kantapada in Nuapada district stirs with life. Every year, as March arrives, the forest floor beneath the Mahua trees begins to turn golden. For the Gond tribal community of Kantapada Village of Jampani Gram Panchayat in Nuapada district, this is more than just a season; it is a sacred time, a livelihood, and a celebration of culture passed down through generations.

For the Gonds, Mahua is life itself. The flowers are food, the seeds are oil, the liquor is ritual, and the tree is a presence in every home's story. But despite the importance of Mahua in their

everyday life, the community has long faced a bitter truth: the fruits of their labor are often stolen, not from the trees, but from their hands, by a system that valued profit over people. For decades, private traders from outside would descend upon the villages during harvest time, offering meager prices, using faulty weighing machines, and often tying families into cycles of debt through advance payments. With no means to store their harvest, no access to distant markets, and little understanding of how prices were set, the villagers had few choices. Mahua, which should have been a gift, became a trap.

But change was brewing in Kantapada. And at the heart of it stood Banita Majhi, a quiet but determined woman of 50, who would no longer let her people be cheated.

### **The Voice from Kantapada**

Banita Majhi, a tribal woman from Kantapada, had long endured the injustice of selling Mahua at unfair prices while traders profited. Tired of exploitation, she began asking questions and organizing. Along with other women, she formed a self-help group (SHG), set fair prices, used proper weighing tools, and built a simple storage unit with NGO support.

Their unity shook the trader-controlled system. Villages across Jampani GP followed suit, replacing individual desperation with collective strength. Mahua, once shrouded in stigma, was reclaimed as cultural pride. The women began hygienic brewing for rituals and explored new products like Mahua sweets and flower snacks.

Challenges persist, limited infrastructure and legal hurdles around liquor distillation, but the shift is undeniable. Banita now walks the forest as a leader, not just a collector. The Gond community has found its voice, and in standing together, they've begun to rewrite the story of Mahua with dignity, pride, and resistance.

### **A Flower in Full Bloom**

Today, Mahua from Kantapada reaches homes across Odisha—neatly packed and proudly shared thanks to Chudamani Majhi's dedication. His vision has inspired tribal youth to embrace technology as a bridge between heritage and opportunity. What began as a local effort is now a movement of digital empowerment and cultural pride. Chudamani's journey shows that innovation can thrive in remote forests when rooted in tradition and nurtured by purpose. As the Mahua trees bloom again, they no longer symbolize mere survival, but hope, resilience, and a future shaped by leaders like Chudamani, who chose to dream beyond boundaries.

### **Overcoming Challenges**

Chudamani faced poor connectivity, scarce packaging, and community skepticism. Undeterred, he walked miles for signal, used offline tools, and proved results to earn trust. By collaborating with NGOs and officials, he ensured legality and transparency in forest produce sales, turning obstacles into stepping stones for sustainable tribal entrepreneurship.

## **Challenges and Opportunities in the Mahua Economy**

### **1. Legal Ambiguity:**

Mahua liquor, central to tribal culture, faces legal hurdles due to conflicting excise laws. While traditional brewing is culturally sanctioned, it remains criminalized in many states, limiting commercialization and marginalizing women who lead this work.

### **2. Role of Stakeholders:**

Government schemes like TRIFED's *Van Dhan Yojana*, NRLM, and the Tribal Sub-Plan support SHGs with training, processing infrastructure, and marketing. NGOs strengthen capacities in product design, hygiene, and legal navigation. CSR funds enable packaging, processing units, and plantation efforts. States like Odisha and Chhattisgarh are framing policies to formalize mahua-based enterprises.

### **3. Value Addition Potential:**

Beyond liquor and oil, Mahua can be transformed into syrups, sweets, herbal teas, health drinks, and cosmetics. With R&D, these products can enter wellness, nutraceutical, and institutional markets, offering dignified livelihoods rooted in tradition.

### **4. Market Linkages:**

Tourism and urban organic markets present untapped potential. Mahua festivals, tastings, and tribal homestays can boost rural incomes. Strategic branding around sustainability and tribal heritage can attract eco-conscious consumers via e-commerce and organic retailers.

### **5. Climate Resilience:**

Mahua's drought tolerance makes it ideal for climate-resilient, low-input agriculture. Agroforestry models integrating Mahua enhance income and food security while conserving biodiversity and reducing migration.

### **6. Digital Empowerment:**

Digital tools like WhatsApp, online marketplaces, and QR-based payments are opening new markets. Platforms such as TRIFED e-Marketplace, Amazon Karigar, and Flipkart Samarth are boosting visibility. Training tribal women in digital literacy is key to ensuring inclusion in India's digital economy.

## **Policy Recommendations**

### **1. Legal Reforms for Mahua Liquor**

Mahua liquor, rooted in tribal traditions, remains criminalized under current excise laws. Legal reforms are needed to recognize mahua as a heritage product, with provisions for community-based, licensed production. Models like Madhya Pradesh's licensing system can be replicated to ensure cultural respect and economic viability.

## **2. Strengthening SHGs and FPOs**

Self-Help Groups (SHGs) and Farmer Producer Organizations (FPOs) are central to tribal enterprise but face limitations in skills, finance, and market access. Targeted capacity-building, support for storage and processing infrastructure, and digital integration with retail platforms can scale their impact. Federating SHGs into producer companies can further enhance bargaining power.

## **3. Tribal Enterprise Funds**

Dedicated tribal enterprise funds should be established to provide low-interest credit, working capital, and startup grants for mahua-based businesses. These funds must prioritize women-led initiatives and align with schemes like Stand-Up India and NRLM.

## **4. Branding and Market Access**

To unlock urban and global markets, investments in branding, eco-friendly packaging, and storytelling are critical. GI tagging and support through platforms like TRIFED, Amazon Karigar, and trade fairs can elevate mahua's status as a premium indigenous product.

## **5. Ecological Sustainability**

The mahua economy depends on healthy forests. Community-led conservation, sustainable harvesting practices, and agroforestry models must be promoted. Mahua plantation drives can be integrated with state afforestation and climate programs.

## **Conclusion: Can Mahua Anchor Tribal Entrepreneurship?**

Mahua is more than a forest product — it is a symbol of identity, resilience, and cultural pride. When supported with legal recognition, financial access, ecological care, and market linkages, it can become a powerful anchor for dignified tribal entrepreneurship rooted in indigenous knowledge and ecological harmony.

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