

Promoting Sustainable Livelihoods among Tribal Women Farmers in Koraput, Odisha: Role of Odisha Rural Development & Marketing Society (ORMAS) in Turmeric-Based Value Addition and Livelihood Development

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Abstract

In the Koraput district of Odisha, turmeric cultivation is a crucial livelihood source for tribal communities, yet farmers, especially women, face persistent challenges such as distress sales, exploitation by middlemen, limited value addition, and exclusion from mainstream markets. This study examines the transformative interventions led by the Odisha Rural Development & Marketing Society (ORMAS), which mobilized tribal women into Producer Groups (PGs), provided targeted capacity-building and technical training in turmeric value addition specifically turmeric powder and soap production and facilitated market linkages along with quality certification. The findings demonstrate that these community-centric, participatory initiatives significantly increased income levels by enabling direct market access and collective bargaining power, reduced dependence on exploitative traders, and strengthened the social and economic empowerment of tribal women farmers. Importantly, the integration of indigenous knowledge with institutional support fostered sustainable entrepreneurial ventures that contribute to long-term rural development. This study offers a replicable model for inclusive, gender-sensitive livelihood promotion among marginalized rural communities, underscoring the critical role of local institutions and multi-stakeholder collaboration.

Keywords: Turmeric cultivation, tribal women, sustainable livelihoods, value addition, ORMAS, Koraput, Producer Groups, socio-economic empowerment.

Introduction

Sustainable livelihoods for marginalized women farmers remain a critical challenge globally. Women constitute nearly half of the agricultural labor force worldwide, yet they face disproportionate barriers including lack of land ownership, limited access to credit and technology, and social exclusion from decision-making processes. According to the Food and

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Agriculture Organization (FAO), if women farmers globally had equal access to resources as men, agricultural productivity could increase by 20-30%, potentially reducing the number of hungry people by 100-150 million. Empowering marginalized women farmers through sustainable livelihood approaches including skill development, access to markets, resource management, and collective organization is thus recognized as a vital lever for poverty reduction, food security, and gender equality. In the Asian context, which hosts the largest share of the world's rural poor, women contribute significantly to subsistence and commercial agriculture, often within smallholder and marginalized farming systems. However, entrenched gender inequalities, socio-cultural norms, and labor burdens limit their productive capacities and economic agency. Countries across South and Southeast Asia have made varied progress in integrating gender-sensitive agricultural policies and programs, with emphasis on strengthening women's access to inputs, credit, extension services, and value chains. Nonetheless, sustainable livelihood frameworks that emphasize community mobilization, indigenous knowledge, and market linkage remain keys to transforming rural women's livelihoods in this region.

In the case of India, the entrepreneurial landscape for rural women has gradually evolved with the support of various government schemes and non-governmental organisations, which have played a pivotal role in empowering rural women entrepreneurs, leading to increased income, enhanced skills, and greater autonomy. In rural regions, women's self-help groups (SHGs) engage in various income-generating activities, including manufacturing products from locally sourced materials. Nonetheless, female members of these self-help groups confront hurdles in the areas of marketing and distribution, scaling production, and obtaining access to market requirements. These groups face multifaceted challenges such as insecure land tenure, limited access to agricultural inputs, credit constraints, inadequate extension services, and exclusion from formal markets. Despite governmental schemes aimed at tribal welfare, many tribal women remain vulnerable due to socio-cultural and economic constraints. They also struggle with inadequate branding of their goods. One of the factors contributing to this situation is the widespread occurrence of buyer monopolies in most rural SHG markets, which makes it difficult for women SHG members to reach these markets. This highlights the need for organizations supporting micro-enterprises to facilitate marketing opportunities for rural women by creating dedicated spaces or events to market their products, thereby increasing visibility and sales (Ndlovu and Masuku 2021; Hoda and Aalon 2022).

Government Initiatives

The Government of India has launched numerous national-level policies and programs aimed at promoting inclusive rural development and empowering marginalized farming communities. The National Rural Livelihood Mission (NRLM), initiated in 2011, stands as one of the flagship schemes targeting poverty alleviation by promoting self-employment and skill development among marginalized rural populations, with a strong focus on women's collective mobilization through Self-Help Groups (SHGs) and Producer Groups (PGs). The mission emphasizes capacity building, financial inclusion, access to markets, and convergence with other developmental programs to catalyze rural income generation. Complementary policies such as the National Agricultural Policy, the Tribal Sub Plan, and schemes under the Ministry of Tribal Affairs also focus on enhancing agricultural productivity, sustainable land use, and socio-economic upliftment of scheduled tribes. Despite these, the challenge of translating policy into locally relevant, sustainable livelihood outcomes persists, especially in remote tribal regions characterized by socio-economic exclusion, low literacy, and poor infrastructure

Training Capacity Building and Market Access

Training, Capacity building, and market access to promote entrepreneurial ventures for rural women are crucial to the success of rural women's micro-enterprises (Mohammed & Bardai, 2024). These initiatives can provide avenues for improved market entry, increased competitiveness, and an effective value chain, which are essential for the economic empowerment of women in rural areas (Alozie, 2022). Training equips women with essential skills in areas such as business planning, financial management, and marketing, while market access enables them to connect with larger and more diverse customer bases, thereby ensuring fair product prices. Along with training and market access, product development and social networks also play a significant role in entrepreneurial ventures.

However, as literature indicates, the effectiveness of these interventions can be influenced only by the extent to which they are tailored to the specific needs of the rural context and type of enterprise (Nordbø, 2021). While national programs establish the broad policy architecture and financial mechanisms, state agencies often constitute the frontline implementers who adapt, design, and facilitate interventions tailored to localized socio-economic contexts. The Odisha Rural Development and Marketing Society (ORMAS), which operates under the Department of Panchayati Raj and Drinking Water of the Government of Odisha, exemplifies such a state-

level organization effectively operationalizing these mandates by mobilizing tribal women into functional producer groups, providing value addition training, quality certification support, and enabling market connections with the objective of building the capacity of individuals to enable them to undertake microeconomic activities for their sustainable livelihoods. Despite the evident importance of such organizations, limited literature documents their strategies, innovations, and challenges comprehensively. This represents an important research and policy gap since understanding the operational dynamics and impact of state-level agencies like ORMAS is essential for replicating successful livelihood models across India's heterogeneous rural landscapes.

Building on this contextual understanding, the present study adopts a case study approach to examine ORMAS's interventions in turmeric-based livelihood promotion in Koraput district of Odisha. The research explores the processes through which tribal women farmers were mobilised into Producer Groups, trained in value addition techniques, supported in obtaining quality certification, and linked to formal markets. Particular emphasis is placed on understanding the institutional mechanisms, capacity-building strategies, and market facilitation processes that contributed to livelihood enhancement.

Profile of ORMAS

The Odisha Rural Development and Marketing Society (ORMAS) was established in 1991 as an autonomous organisation under the department of panchayati raj, Government of Odisha. It was created to support the marketing of rural products and improve the economic well-being of rural artisans and producers. ORMAS focuses on poverty reduction, livelihood promotion, women's empowerment, and capacity building, with the broader objective of fostering inclusive rural development. Its integrated approach, combining enterprise promotion and marketing support, has contributed to sustainable socioeconomic progress in the state's rural regions. Over the years, ORMAS has played a significant role in enabling women entrepreneurs and rural producers to access markets, design marketing strategies, and structure their enterprises. It operates in collaboration with other government agencies and development institutions to ensure the long-term viability of its initiatives.

To improve the livelihoods of rural women, particularly members of self-help groups (SHGs), ORMAS has organised regular exhibitions under the banner of Pallishree Mela for more than two decades. Pallishree, meaning "wealth of villages," serves as a platform for rural women

farmers to sell their products directly in urban centres and engage with urban consumers. These interactions have enabled women to better understand consumer preferences, improve product quality, and develop customer service skills. Today, ORMAS exhibitions are an integral part of major festivals in Odisha, eagerly anticipated by both producers and buyers (ORMAS 2025).

Turmeric Production and Cultivation in Odisha

Turmeric is a vital cash crop in Odisha, with over 50 per cent of growers being tribal families who rely on it for their livelihood. The state accounts for 21 per cent of India's turmeric cultivation in terms of area. In 2022–23, Odisha produced 59,361 tonnes of turmeric from 24,733 hectares of land, with Koraput being the second largest producing district at 7,761 tonnes from 3,168 hectares. The crop is predominantly grown organically by tribal communities using traditional methods. Laxmipur block of Koraput is the primary location for turmeric cultivation, with Konapadi village in Laxmipur block being one of the remote villages that depend on turmeric cultivation and marketing for their livelihoods. Approximately 1,000 households are involved in turmeric cultivation, with each household cultivating turmeric on an average of one to two acres of land. However, wealthier farmers possess up to five to seven acres, on which they cultivate turmeric on an average of two to three acres. To support turmeric farmers, more than 400 households (women farmers) have been brought under the community-based organisation (CBO) umbrella, along with 302 women farmers under farmer producer organisations (FPOs) and 150 under producer groups (PGs) (Orissa State Marketing Society, Koraput 2024).

Methodology

This study employs a qualitative case study approach to examine the interventions of the ORMAS in promoting turmeric-based livelihoods among tribal women farmers in Koraput district, Odisha during 2020 -2023. The research aims to understand the institutional strategies, capacity-building efforts, and market linkages that contributed to enhancing the socioeconomic conditions of marginalized tribal women engaged in turmeric cultivation.

Data Collection

Qualitative data were collected through focus group discussions, in-depth interviews with producer group members, district administration officials, and stakeholders involved in the turmeric value chain to capture their experiences, support mechanisms, and institutional

arrangements. Quantitative data on production volumes, sales, income levels, were gathered from organizational records. Secondary data from ORMAS records, and project documentation were reviewed to understand the strategic role of institutional frameworks in supporting the turmeric livelihoods program. Linkages between various government agencies, private partners, and marketing channels were mapped to evaluate sustainability prospects. Due to limitations in data availability, detailed demographic profiles of the respondents were not collected. Instead, the study focused on capturing challenges, and the impact of institutional interventions to generate nuanced thematic insights. The analysis was further strengthened by incorporating the practical field experience of one of the co-author of the paper who has closely worked with tribal women farmers and grassroots institutions in the region during the intervention.

1. Context and Challenges in Turmeric Cultivation

Konapadi, a remote tribal village in Laxmipur block of Koraput district, Odisha, comprises of 100 households who are economically dependent on Turmeric cultivation & marketing for supporting their families. Almost every household cultivates turmeric on one to two acres of land, while relatively wealthier farmers, owning five to seven acres, allocate two to three acres for the crop. Women farmers in the village have historically faced significant economic exploitation, selling their produce at the weekly “*haat*” (rural market) held every Saturday from 9 am to 5 pm, which draws buyers from surrounding areas. The nearest major town, Koraput, is located about 60 km away. Due to limited market knowledge and lack of bargaining power, women often sold turmeric to intermediaries at low prices. They also encountered infrastructural and institutional barriers, such as the absence of primary processing equipment, skills for value addition, and facilities for aggregated storage. The lack of both backward and forward linkages further restricted their ability to scale operations or secure fair returns. Additionally, most tribal households remained unaware of government schemes for livelihood development, which perpetuated cycles of poverty and social marginalisation.

The key challenges are summarised below:

1.1 Distress Sale of Whole Turmeric

The tribal women farmers of Konapadi village in Odisha were compelled to sell their turmeric at distress prices ranging from ₹30 to ₹40 per kg to middlemen and traders due to the lack of

direct market access. The nearest town, Koraput the district headquarters is located 60 km away, which made it difficult for farmers to reach urban markets and access better prices. As a result, most of the produce was sold within the village to traders at significantly low rates, leading to exploitation and minimal profit margins. The wide fluctuation in turmeric prices over the years further contributed to economic instability, with many farmers incurring losses. This volatility directly impacted household incomes and reinforced the cycle of poverty in the community.

1.2 Absence of Processing Equipment and Skills for turmeric storage

The issue of low income among turmeric farmers primarily emerged from the lack of processing and storage facilities. The primary challenge was the absence of processing equipment and the necessary skills for turmeric value addition, leading to low-value sales of raw turmeric rather than processed products, which could result in higher prices.

1.3 Lack of Storage and Market Linkages

The absence of aggregated storage facilities and a unified backward and forward linkage for produce further exacerbated the issue. Tribal female farmers often lack awareness of and access to government schemes designed for livelihood development. Furthermore, they remain alienated and have reservations accepting modern technologies.

1.4 Lack of Group Solidarity

Additionally, it was observed that the farmers were not organized and sold their turmeric individually, lacking collective action or organizations to support the sale of organic turmeric. In the district, farmers typically sold their produce to traders, who operate from the village level to the urban market. Other indirect stakeholders in the turmeric supply chain include the forest department, transport agencies, and exporters.

2. Exploitation to Enterprise: ORMAS's Interventions for transformative change and Implementation Process

An answer to this socioeconomic exploitation involved finding ways to reduce the cost of turmeric production by enhancing productivity through the introduction of new production technologies, ensuring better seed availability, and using improved turmeric varieties. Hence, to prevent further exploitation by middlemen and traders, ORMAS implemented several key activities and interventions to address the challenges faced by female tribal farmers in turmeric cultivation. These activities aimed to improve market access, enhance product quality, and empower female farmers economically and socially, eventually enhancing their entrepreneurial capabilities. This led to a collaborative project between ORMAS and the district administration to explore methods for the social and economic uplift of tribal households (female farmers) engaged in turmeric cultivation. With the support of the district administration, ORMAS worked on several strategies for facilitating market access and building and instilling confidence among female farmers by taking them for exposure visits to institutions and

organizations already well known for community product development and marketing. As a first step in this direction, female farmers were sent for an exposure visit to the Girijan Cooperative Corporation in a port town in southern India, where the idea of value-added products regarding turmeric emerged. Technical assessment of the turmeric produce and the quality of the produce of Konapadi Village were carried out by the Spices Board of India. The spice board of India certified the presence of higher curcumin content in primary produce, which paved the way for the exploration of value-added products with turmeric in the Koraput district. Subsequently, an action plan was designed by ORMAS for diversified product promotion in consultation with the producer group members and district administration. Raw materials were then procured and supplied to the producer group members (female farmers) to start the production of turmeric soap, and additional flavoring agents such as turmeric, wild honey, coffee and aloe vera were collected from the village for use in the production of turmeric soaps. Simultaneously, the packaging design was developed and printed in consultation with the District Administration, Koraput.

2.1 Mobilizing tribal women to form Producer Groups

As reiterated earlier by the authors, women in the community were not organized. They used to sell their produce to traders individually. To overcome this, ORMAS mobilized tribal women to form producer groups or female collectives, and subsequently organized these groups into different clusters under the umbrella of Farmer Producer Organizations (FPOs), as shareholders providing them with a formal structure and governance model. These groups provided a platform for collective bargaining, shared resources, and improved market access. The SHGs and FPOs enabled women farmers to pool their produce, negotiate better prices, and access larger markets collectively. Each participating self-help group was initially informed of the benefits of being part of a larger group, which would help them sell their products in the market at a higher rate that is equally profitable.

2.2 Training and Capacity Building

As a next step, intensive two-days training was imparted to the members of the producer group to manage the producer group in terms of enhancing the management capabilities of the women in producer groups. A bottom-up approach was employed to design and execute the training programs. This ensured that the training was tailored to the specific needs and contexts of female tribal farmers. These programs cover essential skills in governance, value addition, and

value chain management for turmeric products. Producer Group (PG) members played an active role in initiating business activities by approaching the district administration, which enhanced their ownership and engagement. ORMAS conducts business orientation sessions for producer group members, utilizing success stories and case studies to inspire and motivate them. These efforts led to female members requesting ORMAS for value-addition training on turmeric and millets. Following the training, the members collectively decided to start milling turmeric powder and produce turmeric soap. This initiative helped farmers recognize the true value of their produce and their potential for social contribution through turmeric.

2.3 Financial and Institutional Support

Financial support amounting to Rs 2.4 lakhs was provided for institutional and capacity building, including the purchase of the necessary equipment. Additional working capital was supplied to producer groups to initiate their own business ventures. The district administration provided financial assistance and legal support for branding and packaging of finished goods.

2.4 Value Addition and Product Development

ORMAS introduced value-added techniques such as turmeric powder production, packaging, and branding. This included workshops on product diversification, development, branding, and packaging. This added value makes raw turmeric more attractive to consumers and increases their market price. Quality improvement measures including organic certification and adherence to quality standards have been implemented to enhance the credibility and marketability of turmeric products. Training sessions on value addition techniques for processing turmeric into various products have been conducted. As far as possible locally available resources were used by ORMAS to ensure that the activities were sustainable and aligned with the traditional practices of the tribal communities.

2.5 Establishing Market Linkages

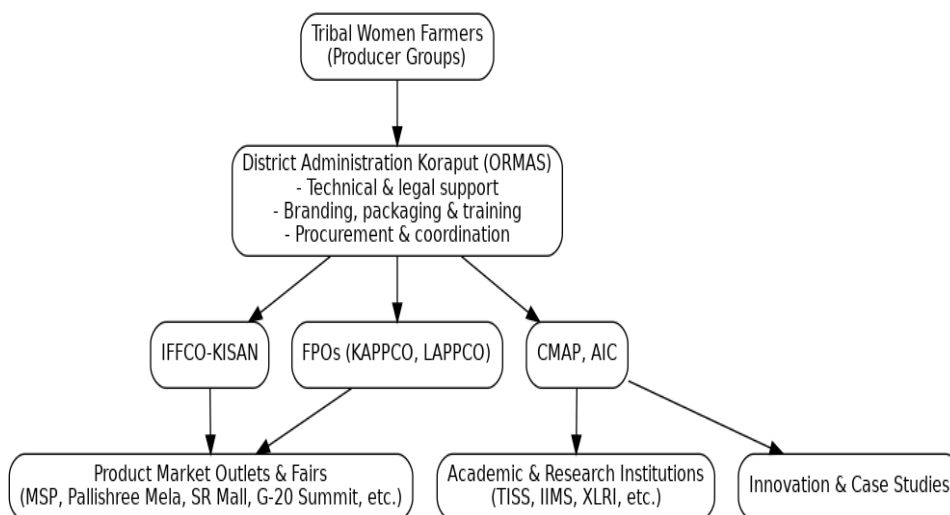
ORMAS established market linkages to connect female tribal farmers directly with buyers, thereby eliminating middlemen and ensuring better prices. This included organizing buyer-seller meetings and signing Memorandums of Understanding (MoUs) with corporate entities for domestic and international market promotion. Assistance was provided even during unconventional hours, demonstrating the administration's commitment to supporting the

farmers, which facilitated the quality certification of Laxmipur turmeric and established a sales link with IFFCO-KISAN, resulting in the sale of 21 MT of dry turmeric at Rs. 94 per kg. This achievement boosted the confidence of female farmers in cultivating turmeric in the region. Additionally, the district administration provided support for equipment purchases and packaging branding, further aiding the value addition of their products.

2.6 Community-Friendly Approach

A bottom-to-top approach was adopted to ensure that the strategies were community-friendly and inclusive of the indigenous knowledge and practices of the tribal communities. This approach involved regular monitoring, handholding support, and seamless coordination with district administration for any assistance required, along with institutional, monetary, and legal support by the district administration in the branding and packaging of finished goods. Initiatives that were sensitive to community needs and cultural practices were implemented so that the interventions were culturally accessible and relevant.

Figure 1 : Linkages Between Government Agencies, Private Partners, and Marketing Channels Supporting Turmeric-Based Livelihoods Development in Koraput



Source: Ormas 2024

2.7 Product Diversification

The administration worked seamlessly to develop and diversify the products created by Producer group members. Technical support included introducing new techniques and innovations to improve product quality and variety, thereby increasing market appeal and

profitability. ORMAS and the district administration focused on protecting and enhancing the businesses of producer group members and small marginal farmers. This involved implementing measures to safeguard their interests and support their enterprises' growth and sustainability.

2.8 Regular Monitoring and Handholding Support

Regular monitoring and handholding support, along with frequent visits and coordination, ensured that any assistance was provided promptly. Frequent visits and close coordination helped to address challenges promptly and facilitated the smooth functioning of their businesses.

2.9 In-Situ Business Development Model & Procurement Linkages

Additionally, an in-situ business development model was implemented for villagers to support local entrepreneurship. This model focused on developing business opportunities within the village, ensuring that economic activities were accessible and beneficial to the entire community. Procurement linkages were established for PG members to source raw materials, particularly for turmeric soap production. This ensured a steady supply of the inputs necessary for value-added products, supporting continuous production and sales.

2.10 Identification and Linkages with the Marketing Promotion Teams & Other Departments

ORMAS, along with the administration, identified and invited marketing promotion teams to enhance the market reach of PG products. These teams helped promote products in new markets and provided marketing strategy expertise. This collaboration facilitated the provision of the necessary infrastructure and resources to support the operational needs of the P.G.s.

2.11 MoUs with Corporate Entities & Organising Buyer-Seller Meets

MoUs were signed with corporate entities to promote and market turmeric products both domestically and internationally. These partnerships helped expand market access and increased visibility and demand for PG products. Buyer-seller meetings were organized to facilitate direct interactions between P.G. members and potential buyers. These events helped establish new business relationships and provided members with valuable market insights and

opportunities.

3. Outcomes and Impacts on Women Lives

The interventions by ORMAS have led to significant positive outcomes and impacts on the lives of female tribal farmers engaged in turmeric cultivation. The key results and their impacts are discussed below in Table 1 and explained in detail thereafter.

Table 1: Improvements in Sales, Livelihoods, and Socio-Economic Parameters through Turmeric-Based Product Development and Market Linkages in Koraput

Parameter	Before Intervention	After Intervention / Current Status	Remarks
Turmeric Sale Price (per kg)	Rs. 50-60/kg (distress sale to middlemen)	Rs. 94/kg via IFFCO-KISAN linkage; 21 MT sold	Significant price improvement through market linkage
Turmeric Product Processing	No value addition; lack of skills and equipment	Value addition established: turmeric powder milling, soap making	Equipment purchase and packaging branding supported
Soap Production & Sales	Nil	2000-3000 soaps/month; Rs. 3000-7000 income per member/month	New livelihood source through turmeric-based soap
Market Linkages	Absent	Tie-ups with MSP, ODOP outlets, IFFCO-KISAN, G-20 Summit, etc.	Expanded marketing and sales channels
Livelihood Participation	Tribal farmers marginalized; unaware of schemes	Mobilized tribal women into Producer Groups; capacity building	Strong community engagement and empowerment
Institutional Support	Limited	District administration & ORMAS providing training, monetary, legal support	Seamless coordination and technical assistance
Media & Promotional Activity	None	Print media and exhibitions promoting products	Enhanced visibility and consumer awareness
Income Generation	Limited & unstable	Consistent income from soap & turmeric sales contributing to socio-economic uplift	Improved livelihood security and social standing

Source Ormas 2024

3.1 Increased Income and Economic Empowerment

Improved product quality and value addition in turmeric-based enterprises have enabled tribal women farmers to secure better market prices, resulting in enhanced household incomes. The turmeric soap-making initiative, along with other value-added products, has bolstered the confidence of women farmers in Konapadi and neighbouring villages to engage in production and entrepreneurship. The Laxmipur Agro-Products Producer Company (a farmer producer organisation or FPO) has expanded its operations to include 302 households within the block, reflecting increased community participation. In the financial year 2023–24, the FPO procured 50 metric tonnes of raw turmeric, which was sold at ₹19.50 per kg, five metric tonnes of dry fingers at ₹105 per kg, turmeric powder at ₹180 per kg, and 10,000 turmeric-based soaps (including aloe vera, coffee, and honey variants) at ₹45 per piece. The total business turnover in 2023–24 amounted to ₹27.1 lakh, with a net profit of ₹5.4 lakh, directly benefiting 100 farmer households in Konapadi village. Procurement efforts are ongoing, with a target of 150 metric tonnes of raw turmeric and 50 metric tonnes of dry fingers. The formation of self-help groups (SHGs) and FPOs has strengthened the bargaining power of women farmers, enabling them to access larger markets and improve price realisation. Access to financial support and credit has further facilitated investments in improved farming practices and equipment, leading to increased productivity and profitability.

3.2 Enhanced Skills and Knowledge

The capacity-building and training programs equipped female tribal farmers with modern farming techniques, postharvest processing skills, and business management knowledge. Exposure visits and market linkages provided valuable insights into market trends, customer preferences, and best practices, enabling female farmers to make informed decisions and adapt to market demands. The FPO has diversified its product offerings to include raw turmeric, dried turmeric fingers, turmeric powder, and various types of soaps, thereby enhancing its market presence and revenue streams. The procurement and sales data also illustrate the FPOs ability to handle significant quantities of produce and processed goods, showcasing their operational capacity. The FPO has set ambitious procurement targets for raw and dried turmeric, indicating a strategic plan for continued growth and market penetration in the future. Profits and business operations have also benefited a substantial number of farmers in the community, and the

adjoining villages.

3.3 Improved Market Access and Marketability

The establishment of market linkages with national and international buyers has expanded the customer base for turmeric products, ensured fairer pricing, and reduced distress sales. Value addition techniques, along with branding and packaging, have improved the marketability of turmeric products, making them more attractive to consumers and increasing demand. Turmeric production has entered both government and private sector markets, establishing connections with organisations such as the 202 Cobra Battalion, Craftpotli, and Odiya Haat Bhubaneswar. These linkages extend within and beyond the state through participation in national-level Pallishree Melas, state and national exhibitions, and international exports to Guatemala, the United States, the United Kingdom, and other countries. Turmeric farming has emerged as a source of significant profit for producer group members and neighbouring villages, demonstrating its viability and sustainability as a livelihood option. The provision of pulverising units and packaging materials to producer groups has enabled them to process and package their produce more effectively, enhancing their competitiveness in the market. The introduction of local processing facilities has substantially increased profit margins across different product categories—raw turmeric, turmeric powder, and turmeric soap bars (ORMAS 2025).

3.4 Social Empowerment and Community Development

The formation of SHGs and FPOs fostered a sense of collective identity and solidarity among female tribal farmers, promoting social cohesion and empowerment. The increased income and economic independence of female farmers positively impacted their families and communities, leading to improved living standards, education, and healthcare. Turmeric has now become a valuable resource for villagers. Today, women manage the producer cluster of turmeric and other soaps, and have become economically strong enough to support their families. The variety of branding and packaging has attracted traders and institutions to buy the turmeric. District administrations are keen on helping and supporting the ongoing efforts of producer groups and producer companies.

4. Discussion and Conclusion

This paper analyzes the marketing strategies employed by the Odisha Rural Development and Marketing Society (ORMAS) to enhance the sale of turmeric produced by female tribal farmers in Odisha. It explores the socioeconomic issues faced by these farmers, the strategic interventions by ORMAS, and the resultant impact on the livelihoods of marginalized tribal communities. The focus was on mitigating the challenges faced in removing traders' middlemen by adding value to their products. Most interventions were carried out by ORMAS on community demand, thereby maintaining transparency in the governance of the producer groups and their transactions. An innovative aspect of this project is that the local resource pool and its potential have been utilized to the maximum extent possible. As a result of this successful enterprise, farmers engaged in turmeric cultivation from nearby villages joined hands with the producer groups, discussed themselves, and decided on the selling price of the turmeric. Collective bargaining power has helped female farmers obtain fair prices for their produce in the market. The impact of these interventions led to improvements in the socioeconomic conditions of female tribal farmers in the villages. The case of the ORMAS interventions in promoting and marketing turmeric enterprises among female tribal farmers in Odisha exemplifies the significant impact of strategic initiatives on rural women's entrepreneurship. By addressing the challenges faced by tribal female farmers and providing comprehensive support in capacity building, market access, and financial resources, ORMAS successfully empowered them economically and socially. These interventions have resulted in increased incomes, enhanced skills and knowledge, improved market access, and overall social empowerment. The experiences and lessons learned from this case study offer valuable insights and recommendations for policymakers, development practitioners, and organizations working towards women's economic empowerment in rural areas.

5. Policy Recommendations and Future Directions

The lessons learned from the ORMAS-led turmeric livelihood development model provide an empirically grounded foundation to inform targeted strategies aimed at scaling and replicating such interventions for catalyzing sustainable economic empowerment among tribal women farmers. The experiential and qualitative insights derived from participatory observations, focus group discussions, and stakeholder interviews reveal how capacity building, market linkage development, value addition, and inclusive institutional strengthening collectively contribute to translating indigenous knowledge and traditional agricultural practices into viable entrepreneurial ventures. This approach not only enhances market access and income

opportunities but also fortifies social capital and gender equity within marginalized communities. By holistically addressing the multidimensional challenges faced by rural female turmeric farmers, the ORMAS-led initiatives exemplify a replicable and scalable model that informs both academia and policy. This present analysis is an humble attempt to contribute to the academic discourse on inclusive rural development by providing an empirically grounded, nuanced understanding of women-led enterprise development that can be adapted across diverse regions and products.

6. Limitations

The study findings are primarily based on turmeric cultivation in a specific tribal region of Odisha, which may limit the direct applicability of the proposed livelihood development model to other crops, geographic contexts, or socio-economic settings. Variations in cultural practices, market dynamics, and resource availability across regions could influence the effectiveness of similar interventions. Authors recommend future research across diverse products and regions to validate and generalize the model.

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Declarations

Author Contribution Statement

Dr. Sucharita Pujari conceptualized the study, led the literature review, and contributed significantly to the writing of the manuscript. Dr. Jyoti Prakash Mohanty coordinated data collection in collaboration with ORMAS and contributed to writing and revisions.

Declaration of Conflict of Interest

The authors declare no conflict of interest. The views expressed in this article are those of the authors and do not necessarily reflect the views of the institutions they are affiliated with.