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Gender Roles and Women Leadership in Northeast India Agricultural Economy

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Abstract

Gender roles profoundly shape agricultural production, resource access and leadership structures in Northeast India. Women constitute a major share of the agricultural labour force across shifting cultivation, settled farming, home gardens and post-harvest systems, contributing significantly to food security, nutrition and value addition. Despite their central role, customary land tenure, limited technology access, financial constraints and weak market linkages restrict women's decision-making power and leadership visibility. Emerging opportunities through self-help groups, farmer collectives and agripreneurship demonstrate the potential for enhancing women's agency when supported by capacity building, infrastructure and equitable policies. Evidence from Assam, Meghalaya, Nagaland and Manipur highlights both progress and persistent structural barriers. Strengthening women's leadership requires gender-responsive interventions across land governance, extension services, credit access and market integration to ensure inclusive and resilient agricultural development in the region.

Keywords: Gender roles, Women leadership, Northeast India agriculture, Agripreneurship, Shifting cultivation

Introduction

Gender relations shape agricultural production systems, household nutrition patterns and the scope for enterprise development throughout the Northeast region of India. Women constitute a substantial share of the agricultural workforce, especially in smallholder and subsistence-based land use systems. Their labour supports the basic functioning of agriculture through cultivation, homestead food systems and food processing along with responsibilities for household nutrition and care. The complexity of indigenous land tenure systems, cultural norms and hilly geographies create structural challenges that restrict women from advancing into visible leadership positions in the agricultural economy. The situation requires systematic attention because enhanced leadership among women correlates strongly with improved farm productivity and superior household nutrition outcomes when women gain influence over decisions regarding crops, income and food consumption patterns (Gupta, 2025).

The agricultural economy of Northeast India involves a mixture of shifting cultivation in the uplands and settled cultivation in the plains, often combined with horticulture, livestock and

forest product gathering. Interconnected production and processing activities remain deeply gendered, and many of the benefits of women contributions are insufficiently recognised in formal policy or land governance

systems (Bhuyan, 2019; Grover and Sharma, 2025). Strengthening women leadership requires equity in resource access including land security, agricultural technologies, extension services, and rural finance. Collective institutions such as self-help groups and farmer producer organisations are becoming important in this regard.

Women Roles in Shifting Cultivation Agricultural Systems

Shifting cultivation or jhum persists as a significant land use in the upland regions of Nagaland, Mizoram, Manipur and parts of Assam. It is frequently mischaracterised as unproductive despite long historical evidence that it sustains food, nutrition and forest biodiversity when managed under traditional cycles (Maithani, 2023). Indigenous women perform essential agricultural tasks including clearing residual vegetation, selection of seed mixtures, sowing, transplanting, weeding, biomass harvesting,

post-harvest processing and transporting produce to markets. They also gather edible forest species and medicinal plants which complement household nutrition, especially in lean seasons (Bhuyan, 2019).

Despite their central role, shifting cultivation governance systems often limit women decision authority in land use planning, plot allocation, and crop selection. In most tribal customary tenure arrangements, community land rights remain vested in clan or village level male leadership which restricts independent access to land. Land use pressure has intensified with shortened fallow periods and smaller jhum plots. These dynamics elevate labour burden for women without ensuring commensurate authority in resource decision and benefit sharing (Tiwari, 2015). Studies in Assam hill districts document that commercial crop introduction and land use conversions have produced uneven gains for women resulting in greater responsibilities for field labour and reduced autonomy over income from produce (Chanu *et al.*, 2023).

As markets increasingly influence jhum crop choices, such as for ginger, turmeric and millets, the roles of women require stronger institutional support related to improved seeds, soil management and micro processing. Leadership opportunities for women can develop through producer collectives that allow scale of production, negotiating power and access to market intelligence. However, the outreach of agricultural extension systems remains limited in hilly terrains leading to an under exposure of women to innovations that enhance productivity.

Women Leadership in Home Gardens and Household Nutrition

Home gardens and kitchen gardens constitute an essential component of food and nutrition security in the Northeast. These gardens are often conceptualised as informal spaces yet they form dynamic agro ecological systems combining vegetables, leafy greens, fruits, tubers, spices and medicinal plants. Women manage home gardens with significant autonomy, using inherited ecological knowledge to maintain species richness and seasonal productivity. Home gardens ensure availability of micronutrient rich food through the year which contributes directly to household dietary diversity (Bordoloi, 2021).

Women contribute to crop diversification and resilience by using seed saving traditions and low input ecological practices. Their experimentation with indigenous crop varieties and climate adapted planting schedules ensures local food systems remain resilient to market volatility and climatic uncertainties. Household

processing activities including drying, fermenting and pickling are largely undertaken by women which enhances food storage stability and dietary adequacy. Nevertheless, the economic value of this labour remains largely invisible within agricultural accounts and policy interventions (Gupta, 2025).

As dietary transitions progress in urbanising and semi urban areas of the region, consumption patterns risk shifting away from traditional nutritious foods. Women inclusion in agriculture and nutrition decision making becomes critical in preventing malnutrition and non-communicable disease risks. Policy attention on home gardens in the Northeast remains low and support measures for seed systems, micro irrigation and promotion of biofortified and indigenous nutrient rich vegetables could strengthen women leadership within nutrition sensitive agriculture.

Post Harvest Value Addition and Women Agripreneurship

Women dominate post-harvest activities including cleaning, grading, drying, food preservation and packaging in most agricultural communities of the Northeast. These activities generate substantial value addition, especially for horticultural products where perishability constrains marketing. Traditional value chains of bamboo shoot, wild fruits, spices and fermented fish often rely on women technical skills transmitted across generations. Increasingly, formal agripreneurship initiatives seek to transform these skills into enterprises providing income and employment.

Evidence from Assam highlights growing participation of women in micro enterprises related to processing of vegetables, fruits, spices and fisheries products, typically through self-help-groups supported by rural development programs. However, enterprise performance remains limited by gaps in processing infrastructure, packaging technology, food safety certification and access to finance for scaling operations. A World Bank documentation of women agripreneurs in peri urban Guwahati presents a case where technical training and access to credit enabled a young woman to expand value added production and market reach successfully, illustrating the transformative potential of adequate support services (World Bank, 2024).

Women roles in micro enterprises contribute both to local employment and household status, yet barriers remain persistent. These include limited mobility due to social norms, difficulties in registration and formalisation of business entities, and poor transport and cold chain

facilities in rural and hilly hinterlands. Agripreneurship development calls for targeted interventions on business literacy, branding strategies and e marketing platforms to enable women leadership especially in niche value chains linked to traditional foods and organic produce.

Gendered Access to Resources Land Technology and Finance

Gender disparities in access to productive resources underpin persistent inequality in the agricultural economy. Land remains the most critical asset for agricultural leadership and control over income from crops. In many communities of the Northeast, customary land tenure systems provide household or clan-based usage rights but rarely grant women individual ownership except in matrilineal systems such as those in Meghalaya. Even in matrilineal societies, men frequently retain decision authority over major land transactions and agricultural investments (Grover and Sharma, 2025). Lack of formal ownership denies women collateral for accessing institutional finance and reduces eligibility for asset linked subsidy schemes.

Technology access is also shaped by gender norms. Women have limited exposure to mechanisation and innovations that reduce labour drudgery including power weeders, small threshers and improved storage technologies. Time poverty caused by care responsibilities restricts participation in extension training often scheduled without regard to women schedules (Bordoloi, 2021). The design of equipment and tools tends to overlook anthropometric requirements of women which further discourages uptake. The diffusion of climate smart practices remains slow due to insufficient engagement of women as primary knowledge users within local agro ecological contexts (Gupta, 2025).

Access to credit and formal finance continues to be a strong determinant of leadership capacity. Self-help-group based microfinance has widened the availability of small loans in many districts of the region. A study in Meghalaya found improvement in socio economic empowerment indicators among women engaged through self-help-groups but noted continued constraints in high value investments necessary for enterprise development. Women agripreneurs frequently encounter bureaucratic barriers and collateral requirements which impede scaling and innovation in value addition activities. Specific targeting of women under agricultural credit schemes in the Northeast remains insufficient and implementation gaps persist despite national level policy commitments.

Women Collectives Self Help Groups and Market Participation

Collective action enhances women bargaining position in agricultural markets and strengthens social networks that build confidence in enterprise leadership. Self-help-groups have emerged as the most widespread organisational mechanism enabling savings mobilisation, micro credit access and participation in community development. In the Northeast, self-help-groups increasingly engage in production clustering, joint marketing and small processing units. These collective structures reduce individual exposure to market risk and support shared learning environments.

Women leadership roles in marketing remain constrained by mobility restrictions, inadequate infrastructure and male dominated market spaces. However, collective participation has produced visible shifts in market engagement. For example, self-help-groups in Meghalaya engage in direct sales of vegetables and processed foods which enhances income retention by eliminating intermediaries (ResearchGate 2020). Programs such as the value chain development mission for organic Northeast promote farmer producer organisations and community-based aggregation centres where women participation is encouraged in post-harvest handling and certification processes.

Market linkages remain weaker in remote hilly areas of Manipur and Nagaland where transport and connectivity challenges persist. Online selling platforms and cooperative branding of indigenous products offer emerging opportunities but digital literacy gaps restrict full utilisation by women. Strengthening market intelligence, price information and contract negotiation skills can elevate women into leadership positions across value chains.

Evidence from Northeast States

Empirical studies across Assam highlight the expanding role of women in agripreneurship and collective institutions. The World Bank featured case of a woman entrepreneur in Guwahati demonstrates how targeted capacity building and financial access enabled scaling of value-added production with positive household livelihood impacts (World Bank, 2024). Research in Jorhat district indicates that institutional constraints limit women in value addition enterprises and underscores the need for supportive policy frameworks.

In Meghalaya, women management of home gardens significantly contributes to household nutrition and ecological sustainability. The study by Bordoloi, (2021) shows women autonomy in

crop selection, seed saving and ecological management practices. The self-help-group study in East Khasi Hills reports medium to high socio-economic impact on households, though limitations remain in market connections and enterprise growth.

In Nagaland, shifting cultivation transitions reflect broader socio-economic change. Jagannath *et al.*, (2025) identifies that altered cultivation cycles and market driven crop selection affect household roles and require updated gender responsive strategies. Although women continue to perform major labour roles, their participation in leadership for market negotiation and technology access remains minimal.

In Manipur, documentation is more qualitative but suggests increasing participation of tribal women in horticulture, handloom linked agriculture and organic food markets. Studies on shifting cultivation transitions across the Northeast note that women roles evolve when farming systems shift toward market orientation but institutional support is critical for ensuring equitable benefit distribution (Teegalapalli and Datta, 2016).

Conclusion

Women contributions to the agricultural economy of Northeast India remain fundamental to food production, household nutrition and the growing domain of agro based micro enterprises. Yet formal recognition of these contributions is insufficient when persistent gendered inequalities restrict access to land ownership, modern technologies, extension knowledge and financial instruments. Leadership evolution in the agricultural sector requires structural shifts which assure women equal rights to land, equitable consideration in agricultural support services and strategic engagement in market connected value chains.

Strengthening home gardens and household-based post-harvest systems can improve food and nutrition security while supporting women autonomy. Expanding value addition infrastructure and training can sustain agripreneurial leadership. Collective institutions must move beyond micro savings to encompass production planning, branding and digital marketing functions. These pathways allow

women in shifting cultivation and settled farming systems to transition from labour

contributors to recognised leaders in agriculture.

Growth in the agricultural economy of Northeast India must therefore integrate women led development actions which support local knowledge, cultural identity and adaptive strategies. The future resilience of food systems in the region will depend on ensuring that women are not only participants in agriculture but also acknowledged leaders shaping its transformation.

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