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Research Paper

Who Counts as a Farmer? The Invisible Harvest of Women's Labor in Myanmar's Ayeyarwady Delta

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ABSTRACT

Women are central to smallholder agriculture in Myanmar's Ayeyarwady Delta, yet their work is often missing from formal records and policy. This article asks who counts as a "farmer" and examines how gendered labor, mechanization, household authority, and institutional practices shape women's visibility and access to resources. Drawing on mixed-gender focus group discussions with farmers, traders, leaders, and NGO staff, the study explores women's farm work, land documentation, credit and training access, and household decision-making. Findings show women contribute across farm and household systems, yet their work is usually described as family support rather than farming. Mechanization has reduced demand for tasks women perform and pushed younger women toward non-farm work, while land and loan records remain under male heads. Using feminist and household bargaining perspectives, the study shows women's labor is visible yet invisible in formal recognition, and argues that inclusive documentation and community norm change are needed.

Keywords: *Women Farmers, Agricultural Labor, Institutional Invisibility, Gendered Division of Labor, Land Rights and Household Headship*

Women's labor is part of everyday agricultural life across the developing world, yet women are still not always recognized as farmers in their own right. This gap between what women do and how they are formally identified has important consequences for economic empowerment, rural development, and gender equity. In Myanmar's Ayeyarwady Delta, one of the country's main rice-producing regions, women contribute to farming, household management, and family livelihoods in many visible and less visible ways, yet their work is often treated as support for men's farming rather than as farming itself. The question "Who counts as a farmer?" is therefore not only about wording; it is also about power, recognition, rights, and access to resources. Official recognition as a farmer can determine access to land documentation, credit, extension services, agricultural inputs, and training (Faxon & Knapman, 2019; Lambrecht et al., 2021). When women are not recognized as farmers, they are often left outside these systems even when they contribute directly to cultivation and farm management, because local administrators default

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to listing men as household heads and landholders on farmer lists, loan records, and program invitations.

Recent changes in the Ayeyarwady Delta have made these gender dynamics more complex. The rapid mechanization of rice farming, including the wider use of tractors, mechanical plows, seeders, and harvesters, has changed the demand for labor and reduced the need for tasks traditionally carried out by women (Belton et al., 2021), while economic pressure and migration to towns, cities, and overseas labor markets have altered household roles and the availability of farm workers (Farnworth et al., 2020). Within households, decision-making and formal headship also remain strongly gendered: men usually control major farm decisions and assets, while women's influence is often indirect, negotiated, or constrained by expectations about appropriate female roles (Lambrecht et al., 2021). This study examines how women's agricultural labor in the Delta is understood, valued, and formally recognized by households, communities, and institutions.

LITERATURE REVIEW

Women's Agricultural Labor and Institutional Invisibility

Women make major contributions to agriculture worldwide, representing an estimated 37%--43% of the global agricultural workforce and, in some parts of Asia and Africa, half or more of those engaged in farming (Food and Agriculture Organization, 2011; Wanjiru & Urrea-Benítez, 2026). Yet much of women's agricultural work remains informal, unpaid, or undervalued. This creates a gap between women's actual economic contribution and their visibility in official statistics, policy documents, and agricultural programs (de Schutter, 2013). In many rural settings, women's farm work is described as household help or an extension of domestic responsibility rather than as farming in its own right (Shah et al., 2019). As a result, women may be left out of agricultural censuses, registration systems, or program targeting, even when they cultivate crops, manage livestock, process food, or take part in farm-related trade (Agarwal, 2018; Njuki et al., 2016).

This invisibility is partly rooted in the kind of work women are expected to do. Women are more likely to work as unpaid family laborers and to carry out tasks that are essential but not always treated as market-facing production. These tasks include planting, weeding, harvesting, processing, kitchen gardening, small livestock raising, food preparation, and household management (Joshi et al., 2018; Wanjiru & Urrea-Benítez, 2026). In male-controlled settings, men are more likely to be publicly identified as farmers because they own or control land, sign documents, meet with extension officers, and represent households in markets or local administration. Women's work, even when continuous and demanding, often stays in the background of the farming economy (Belton et al., 2021; Chant & Sweetman, 2012).

Recognition matters because it shapes access. Women who are not counted as farmers are less likely to receive credit, extension services, technical training, input subsidies, and support for land rights formalization (Shijagurumayum et al., 2022; Wanjiru & Urrea-Benítez, 2026). Agricultural programs often use household headship as an entry point, and household heads are commonly assumed to be men (World Bank, 2014). Although this approach may be administratively simple, it can exclude women from the resources and networks that influence agricultural productivity and resilience.

Formal institutions often reproduce informal gender bias. In Myanmar, land use certificates, including Form-7 documents for farmland use rights, are commonly issued in the name of

the male household head, even when women contribute substantially to the farm (Faxon & Knapman, 2019; Fertig et al., 2025). Lambrecht et al. (2021) found that only about 7% of adult women in Myanmar are documented landowners, compared with 19% of adult men. Although joint land titling is legally possible, it remains uncommon because of custom, administrative complexity, and the assumption that men should represent households in land matters (Lambrecht et al., 2023). These records then influence farmer lists, training nominations, and credit programs, reinforcing women's exclusion.

Gendered Division of Labor and Mechanization

Gender also shapes the organization of farm labor. In paddy cultivation, women have traditionally played important roles in transplanting, weeding, harvesting, and post-harvest processing, while men have been more associated with plowing, irrigation, machinery operation, pesticide spraying, and marketing (Farnworth et al., 2020; Ministry of Agriculture, Livestock and Irrigation, 2018). Mechanization has disrupted these patterns. Across Asia, farm mechanization often reduces demand for tasks historically performed by women, particularly transplanting, weeding, threshing, and harvesting (Belton et al., 2021; Doss et al., 2018). This can lead to a form of "defeminization" of agriculture, where women's visible presence in the field declines as machines replace labor-intensive tasks (Farnworth et al., 2020; Lastarria-Cornhiel, 2008). In Myanmar, mechanized rice farming has been associated with declining female farm labor and increased movement of women toward urban factory work and other non-farm livelihoods (Farnworth et al., 2020; Thein et al., 2019). Mechanization can reduce work, but without inclusive policies it can also concentrate technology, capital, and agricultural decision-making in men's hands (Fischer et al., 2021; Wanjiru & Urrea-Benítez, 2026).

Household Bargaining, Decision-Making, and the Delta Context

Gender relations in agriculture must also be understood within the household. Earlier economic models often treated the household as a single unit with shared preferences, but household bargaining models recognize that family members may have different interests, responsibilities, and levels of power (Agarwal, 1997; Sen, 1990). Resources such as land, income, education, and external networks can strengthen or weaken a person's bargaining position. For women, having their name on land documents or earning independent income can increase their influence over decisions about crops, spending, children's welfare, and household investment (Kabeer, 1999; Quisumbing & Maluccio, 2003). However, formal rights alone do not automatically create empowerment. Social norms can still restrict women's ability to exercise authority, even when they have legal claims to assets (Panda & Agarwal, 2005; Fertig et al., 2025). Fertig et al. (2025), for example, found that encouraging land registration in women's names increased de jure ownership in Myanmar but did not, on average, substantially improve women's economic outcomes or decision-making power unless community norms were more supportive of gender equality. This suggests that legal reform must be accompanied by wider social change.

The Ayeyarwady Delta is widely known as Myanmar's "rice bowl," with paddy farming at the center of rural livelihoods. Women have long been involved in transplanting seedlings, weeding, harvesting, processing grain, raising small livestock, tending home gardens, and working as paid or unpaid laborers (JICA, 2016). However, after Cyclone Nargis in 2008 and subsequent waves of mechanization, labor displacement, and migration, fewer young women appear to see farming as a viable future (Than et al., 2019). Mechanized direct seeding and combine harvesting have reduced the need for female transplanting and harvesting crews, contributing to rural female out-migration to garment factories and cities

(Belton et al., 2021; Farnworth et al., 2020). Men have also been affected by mechanization, but their association with machinery, trading, and formal farm ownership has helped preserve their identity as the primary farmers. Widows and single women may be recognized as farmers when they manage farms independently, but married women are less likely to receive the same recognition unless there is no adult male to represent the household (Faxon & Knapman, 2019). Answering the question of who counts as a farmer therefore requires attention not only to labor, but also to the institutions, norms, and identities that define farming status.

Research Aim and Objectives

Women's contributions to agriculture are well documented globally, yet the specific mechanisms producing institutional invisibility in Myanmar's Ayeyarwady Delta, where mechanization, land documentation practices, and household headship norms interact, remain comparatively under-examined. Existing studies establish that formal recognition shapes access to credit, training, and land rights, and that household bargaining models help explain why legal reform alone rarely improves women's decision-making power. Few studies, however, bring these strands together to explain, from the perspective of Delta farmers, traders, and community stakeholders themselves, how the label "farmer" is constructed, contested, and withheld in daily practice. This gap motivates the present study.

The aim of this study is to examine how women's agricultural labor in Myanmar's Ayeyarwady Delta is understood, valued, and formally recognized within households, communities, and institutions, and to identify the mechanisms through which women's substantial contributions to farming become institutionally invisible. Specifically, the study pursues four objectives: (a) to describe the gendered division of agricultural labor and how mechanization has reshaped it; (b) to examine the forms of women's agricultural work that remain unrecognized or hidden from formal definitions of farming; (c) to analyze how land documentation, farmer lists, and credit systems reproduce gendered patterns of exclusion; and (d) to explore how household headship and decision-making authority shape women's recognition as farmers. These objectives are guided by a central research question: How do gendered labor divisions, institutional practices, and household relations shape who is recognized as a farmer in Myanmar's Ayeyarwady Delta, and what are the consequences of this recognition gap for women's access to agricultural resources?

METHODS

Participants

The total sample comprised 24 participants, including 8 men and 16 women, purposively selected to reflect different positions in the local agricultural system. Participants included smallholder women and men farmers, widows and single women farmers, a large-scale male farmer managing more than 100 acres, village or tract-level community leaders, rice traders, and local CBO/NGO staff. This mix made it possible to compare women farmers' experiences with the views of men farmers, local authorities, traders, and development practitioners. Participants came from rice-producing townships, including Kyailatt, Maubin, Myaungmya, Bogale, Pyapon, Labutta, Zalun, Hinthada, and the upper Delta of Yangon Region. Their experience ranged from seven to more than fifty years in farming, trading, local leadership, or agricultural support work. Participants' mean age was 39 years; most were married (70%), with smaller proportions engaged (10%) or divorced (20%). Educational attainment varied: 40% had no formal education, 30% had completed high school, and 30% had attained university-level education. Table 1 summarizes participant characteristics.

Table 1: Participant Characteristics (N = 24)

Characteristic	Value
Age, M (years)	39
Gender: Male	8 (33%)
Gender: Female	16 (67%)
Education: No formal education	40%
Education: Completed high school	30%
Education: University level	30%
Marital status: Married	70%
Marital status: Engaged	10%
Marital status: Divorced	20%

Data Collection

This study used a qualitative research design based on mixed-gender focus group discussions conducted in Myanmar's Ayeyarwady Delta. The purpose was to understand how different actors view women's agricultural roles and how those roles are recognized, or overlooked, in everyday practice and formal systems. The primary data came from semi-structured focus group discussions organized around a female gender questionnaire, in which men and women farmers, traders, community leaders, and NGO/CBO staff took part together. The guiding questions covered household background, livelihood activities, division of labor, mechanization, hidden work, community definitions of "farmer," documentation, access to services, and household decision-making. Sample guiding questions included: "In your household, who is considered the main farmer, and why?"; "Besides farming tasks, what other work do you do to support the household and the farm?"; and "Whose name is on the land documents and loan records in your household, and how are decisions about credit made?" The focus group discussions were conducted between 2025 and 2026 in the Delta region. The analysis focused on six areas: gendered division of labor, mechanization, hidden labor, institutional recognition and exclusion, land ownership and documentation and credit, and household decision-making power. For clarity of presentation, these areas were subsequently synthesized into four overarching themes, which are presented in the Findings section.

Analytical Strategy

Focus group discussions were recorded, transcribed, and translated into English. The study used thematic analysis to identify patterns across the discussions. Coding combined themes from the research questions with themes that emerged from participants' own accounts. Particular attention was given to differences between women's and men's perspectives and to the ways social norms and institutional practices shaped women's visibility in agriculture. Because the sample is qualitative and relatively small, the findings are not statistically representative. Instead, they offer detailed insight into local experiences and gendered power relations.

Ethical Considerations

The research took place during a period of political and economic uncertainty in Myanmar, when many rural communities were facing rising costs and limited opportunities; these conditions may have shaped how participants described the future of farming. The researcher is Burmese and has experience in gender and agriculture, which supported communication with participants. This study underwent ethical evaluation and received approval from the International Executive School, Strasbourg, France. Ethical procedures

were followed throughout: participants gave informed consent, and pseudonyms were used to protect confidentiality.

Findings

Four overarching themes emerged from the focus group discussions: gendered division of labor and mechanization; hidden labor, conditional recognition, and institutional exclusion; land documentation and access to credit; and household headship and decision-making power. Table 2 summarizes each theme with a description and an illustrative excerpt from participants' own accounts.

Table 2: Summary of Findings Themes

Theme	Description	Illustrative excerpt
Theme 1: Gendered Division of Labor and Mechanization	Women have long carried out key stages of rice cultivation, including transplanting, weeding, and harvesting, while men control machinery, inputs, and trading networks. Mechanization has reduced demand for many of women's manual tasks, pushing younger women toward non-farm and factory work while household responsibilities remain unchanged.	"Machinery, fertilizer, loans, pesticides, and complicated networks" were described as men's domain by a local male leader.
Theme 2: Hidden Labor, Conditional Recognition, and Institutional Exclusion	Women's cooking, childcare, livestock rearing, gardening, and petty trade sustain farm households but are rarely counted as farming. Recognition as a farmer is conditional on marital status and the absence of an adult male household head, and farmer lists, loan rosters, and training invitations are built around male household headship.	"My name has never been on any farmer list," one woman explained, adding that only her husband appeared on the loan record.
Theme 3: Land Documentation and Access to Credit	Farmland is typically registered under husbands' names, leaving married women without formal ownership documentation. The absence of land titles blocks access to formal credit, forcing women to rely on husbands to borrow, while the few women who hold documents describe them as critical to accessing loans and support.	"No document, no access to credit or support," a female NGO worker summarized.
Theme 4: Household Headship and Decision-Making Power	Men are formally recognized as household heads and principal decision-makers, though women are often consulted informally on spending and loans. Women gain fuller, publicly recognized decision-making authority mainly when they become widowed or single, or when they temporarily manage farms in men's absence.	"My husband, of course," one woman said when asked who makes the farm's major decisions.

Theme 1: Gendered Division of Labor and Mechanization

Women in the Delta have long contributed to rice cultivation, although their work is usually described as support rather than leadership. Female smallholders reported involvement in seed preparation, nursery work, transplanting, planting, weeding, harvesting, and post-harvest tasks, alongside household chores and childcare. One older woman described working with her husband across the farming cycle while also caring for the household, and a younger woman said she helped with nursery work, planting, and reaping while caring for three children. Men, by contrast, generally described their role as covering the full production cycle, from land preparation to selling or storing paddy, with responsibilities strongly linked to machinery, input suppliers, loans, pesticides, traders, and public networks. A local male leader explained that men handle "machinery, fertilizer, loans, pesticides, and complicated networks," which he considered safer and easier for men to manage, reflecting a wider view that public-facing and financial activities belong to men while women's work remains within the household or in less visible support roles. Recognition of women's farming role varied by household situation: widows and female heads of household often managed farms, hired labor, and made decisions independently, while in married households women's work was more often described as secondary even when substantial. As one woman put it, "If we become widows or single, our decisions count!", capturing the pattern that women are more likely to be recognized as farmers when no adult male is available to represent the household.

Mechanization has reduced women's direct role in field labor. Participants noted that tasks once done by women, especially transplanting, planting, weeding, and harvesting, are increasingly replaced by seeders, planters, and combine harvesters, and male farmers and leaders acknowledged that machinery has replaced much of women's manual labor. Women described the change in livelihood terms, explaining that many younger women now leave villages for factory or other non-farm work because there is less agricultural employment. Participants did not describe mechanization only in negative terms: many men saw it as a practical response to labor shortages, rising wages, and pressure to reduce costs, while women more often linked it to lost income and fewer local opportunities. Even as women's visible field labor has declined, their contribution to the farm household has not disappeared. Several male respondents recognized that women continue to support farming by managing the home, preparing food, caring for children and elders, and keeping the household stable so that men can work outside, while also raising poultry, keeping small livestock, growing vegetables, and managing petty trade. One male trader acknowledged that women support their husbands through chickens, ducks, small vegetable plots, and household financial management, yet these activities are rarely counted as farming. Overall, mechanization has reshaped the gender composition of agricultural labor: it has reduced women's direct farm employment while leaving them with continued household responsibilities and limited alternative opportunities, and without inclusive planning, modernization risks deepening rather than reducing gender inequality.

Theme 2: Hidden Labor, Conditional Recognition, and Institutional Exclusion

Participants were asked whether women perform activities that are not usually counted as farmers' work, and their answers showed a clear pattern of under-recognition. Many initially said "not really," not because women do no agricultural work, but because community definitions of farming are narrow. Men acknowledged that women support farming through cooking, childcare, health care, household budgeting, livestock, gardens, and petty trade, yet these contributions are rarely counted as farming because they remain in the background of the farm economy. Recognition as a farmer often depends on marital status: widows, single

women, and female household heads are more likely to be acknowledged as farmers because there is no husband or adult male to represent the farm. One male farmer said that widows can manage independently, but otherwise the male household head leads, and a male leader summarized the same norm by describing farmers as mostly men, except widows or single mothers. Women are therefore not recognized primarily because of what they do, but because of whether a man is present, making their status as farmers conditional and often activated only in the absence of male authority. Women's own views of whether they are farmers were similarly mixed: some hesitated to claim the identity because their work was officially unrecognized or described as helping, while widows and single women in the focus group identified themselves as farmers more clearly because their livelihoods depended directly on farming.

This conditional recognition is reinforced by formal institutions. Farmer lists, loan rosters, and training participant lists are usually prepared through village administration and land registration systems that rely on household headship, and because men are normally treated as household heads, they become the official farmers. Women explained that their husbands' names appear on farmer or loan records while they are treated as dependents, and a male NGO worker confirmed that this is common local practice unless the household has no adult male. These practices have direct consequences: several women said they had never been included on a farmer list, invited to agricultural training, or directly approached by extension services. One woman said, “My name has never been on any farmer list. Only my husband is on the loan record, and we've never even heard of any training in our village.” A widow who became a household head was able to access a loan list only after going through the difficult process of changing documents after her husband's death, illustrating how institutional exclusion can become normalized as administrative routine. Women are excluded for several connected reasons: social norms limit their mobility and public participation, domestic responsibilities make it harder to attend meetings or training, and local power structures channel benefits toward administrators and close associates, including women mainly when free labor or contributions are needed. As one woman explained, “We have never been invited to training sessions, loans, or support. We simply never hear of them.” A female NGO worker summarized the consequence directly: “No document, no access to credit or support.” When women's names are absent from land or household records, they are not treated as eligible clients by government or private lenders, so support intended for farmers often reaches male heads first while women remain on the margins of agricultural development interventions.

Theme 3: Land Documentation and Access to Credit

Land documentation is one of the strongest factors shaping women's recognition. Among married women in the study, farmland was usually registered under the husband's name or linked to the husband's family; one woman said it was normal for land documents to use her husband's name, and another explained that although she and her husband jointly managed a 12-acre farm, her name was not included in the land record. These practices show that women may work on land for many years without formal recognition as landholders. Landlessness also emerged as an important concern, especially among widows. In the focus group, some women explained that they had sold ancestral paddy land to cover medical and education costs, leaving them with only homestead gardens, and they directly linked the loss of land to the loss of credit access: “No land means no loan or credit,” one widow said. For widowed or separated women, changing documents into their own names may be possible, but it is often expensive, slow, and dependent on local administrative processes; one NGO worker described the need for informal payments to speed up documentation changes,

showing how bureaucratic barriers can make recognition harder for women who are already vulnerable.

None of the married women in the study had their names on land titles or formal loan records. As a result, they had not personally applied for agricultural credit and instead relied on their husbands to borrow when needed. Male farmers also treated male-only documentation as normal, explaining that they were more active in farming or more able to travel for official matters, showing how gender norms become paperwork and, in turn, shape access to credit. Women who held documentation described it as highly important: a 60-year-old widow with 4.5 acres registered in her own name said the documents were critical for accessing loans and farmer support programs. Her case was exceptional, but it shows what formal recognition can make possible. Most married women, by contrast, said they had never received formal agricultural credit or training because documents remained under their husbands' names.

Theme 4: Household Headship and Decision-Making Power

Participants consistently stated that men are usually considered household heads, except where women are widowed, single, or living without an able adult male. Women responded with statements such as “My husband, of course,” or “In Myanmar, all documents are usually in the man's name.” This formal headship affects who is recognized as the principal farmer: men are expected to represent the family in official matters and make key decisions about crops, labor, and finances, while women are seen as responsible for the household and children. Decision-making, however, was not always completely one-sided. Several participants said wives are consulted, especially on loans, household spending, and cash flow, and women's management of household budgets gives them some influence over how farm income is used, even when men officially decide on crop sales or input purchases, suggesting that joint decision-making exists in practice but is often informal and not reflected in public recognition.

Women often step into farm management when men are absent, ill, or unable to work, and widows often do so permanently. However, temporary management does not always lead to lasting recognition: a woman managing the farm for a sick husband may still be seen as helping rather than becoming the acknowledged farmer. Women's farm decisions may be accepted within the family, especially in widowhood or temporary household need, but community-level recognition remains limited. A male leader observed that women's voices are generally less heard in public farming discussions, and even when women have experience, many hesitate to speak in meetings or claim authority in male-dominated spaces, suggesting that knowledge alone is not enough and that women also need social permission, confidence, and institutional recognition. Overall, decision-making power in Delta farming households remains closely tied to male headship: women's autonomy expands when no adult male is present, but in male-headed households their influence often remains informal, and they may advise, manage money, or take over temporarily while still hesitating to claim public authority.

DISCUSSION

The findings reveal a persistent gap between women's substantial contribution to agriculture in Myanmar's Ayeyarwady Delta and their formal recognition as farmers. This gap is not incidental; it reflects the interaction of gendered labor arrangements, institutional routines, and household power relations that, together, determine who is seen, counted, and supported as a farmer. Read through a feminist political economy lens, this pattern illustrates how

social norms and institutions can reproduce gender inequality even where women's labor is indispensable to production (Chen, 2018; Wanjiru & Urrea-Benítez, 2026). Men are positioned as household heads, landholders, and public representatives, while women's contributions are absorbed into an ill-defined category of family support. Because land registration, farmer lists, credit schemes, and extension outreach are all organized around this male-headed model, women's labor remains visible within the household economy yet largely invisible to the systems that define, count, and resource farmers.

The finding that women's decision-making authority strengthens chiefly when there is no adult male present, whether through widowhood, single status, or the temporary absence of a husband, supports household bargaining accounts of intra-household inequality (Agarwal, 1997; Sen, 1990). What is notable in this study is that greater decision-making power did not require women to newly acquire resources through negotiation; rather, women moved from an already active managerial role into a more publicly recognized one once household headship changed. This suggests that de facto competence has long existed alongside de jure invisibility, and that recognition, more than capability, is the binding constraint on women's agency. The case of the widow who obtained land documents in her own name and thereafter accessed credit and support programs demonstrates the practical value of formal recognition; however, the fact that her case remained exceptional rather than typical is consistent with Fertig et al.'s (2025) finding that legal land registration in women's names in Myanmar improved ownership status without reliably improving decision-making power unless community norms also shifted. Legal reform and administrative access are therefore necessary but insufficient conditions for closing the recognition gap.

The study's evidence on mechanization adds a distinctive dimension to debates about agrarian transition and gender. Where some regions have seen a feminization of agriculture as male out-migration shifts greater farm responsibility onto women (Deere, 2005; Lastarria-Cornhiel, 2008), the Delta shows a different trajectory: mechanization is displacing women from the visible tasks, transplanting, weeding, and harvesting, that historically anchored their claim to a farming identity, while men's association with machinery, capital, and trading has reinforced their status as the primary farmers (Belton et al., 2021; Farnworth et al., 2020). Rather than expanding women's authority, this transition risks a double disadvantage in which women lose traditional farm employment while remaining excluded from the land documentation, credit, and machinery-related opportunities that could offset that loss. This finding extends the literature on mechanization and gender by suggesting that labor-saving technology does not automatically substitute for exclusionary institutions; without deliberate inclusion, it appears to compound them.

These dynamics matter because "farmer" functions less as a neutral occupational label than as a social and administrative category that channels access to resources. When agricultural programs define farmers through land documents, household headship, and public representation, they reproduce the very bias this study documents, even where such definitions are not intended to exclude women. Myanmar's recent political and economic instability likely intensifies these pressures by heightening livelihood insecurity and reducing rural investment (UNDP, 2022), making the practical costs of institutional invisibility, missed credit, missed training, and missed technology, more consequential for household welfare. The implication is that closing the recognition gap requires both practical measures, such as credit, training, and extension services that reach women directly, and structural measures that challenge the administrative default of treating men as farmers and women as dependents. Joint land titling and other legal reforms are important starting points,

but, consistent with the household bargaining evidence above, they are unlikely to achieve their intended effect unless accompanied by changes in local administrative practice and community expectations about who can legitimately claim the identity of farmer.

Closing the recognition gap will likely require more than isolated legal reform. Joint land titling, gender-responsive extension services, and women-focused credit mechanisms address the administrative side of exclusion, but the evidence on household bargaining and mechanization indicates that administrative access alone rarely translates into decision-making power unless local norms about who can legitimately represent a farm household also shift. Practical measures, such as credit, training, and extension services that reach women directly, and structural measures that challenge the default treatment of men as farmers and women as dependents, are therefore complementary rather than substitutable. Community dialogue involving men, local leaders, and youth is particularly important in this respect, since exclusion is sustained as much by administrative routine as by explicit intent, and administrators are themselves embedded in the same norms that shape household headship. Sustained change is likely to depend on aligning legal, institutional, and community-level expectations around who counts as a farmer.

Limitations

This study has several limitations that should be considered when interpreting the findings. The sample of 24 participants, 8 men and 16 women, drawn from mixed-gender focus group discussions, is sufficient for identifying recurring qualitative patterns but is small and geographically concentrated in a subset of Delta townships; the findings are therefore not statistically representative and should be extended to other regions of Myanmar with caution. Because focus group discussions relied on self-report and took place in mixed-gender settings, some participants, particularly women, may have shaped their answers in socially desirable ways, and the group format may have produced more collective than individual accounts. The cross-sectional design also limits the ability to track how recognition, documentation status, or decision-making power change over time within the same households. Finally, data collection took place during a period of political and economic instability in Myanmar, which may have shaped how participants described both their current circumstances and their expectations for the future of farming. Despite these constraints, the consistency of themes across participants and their alignment with prior research on gender and agriculture in Myanmar support the credibility of the findings.

Future Research

Future research could build on these findings in several ways. Longitudinal studies following households through land registration reform, mechanization adoption, or changes in household headship would help clarify the direction of causality between formal recognition and women's bargaining power. Comparative studies across Delta townships and other rice-growing regions of Myanmar would help test whether the patterns identified here reflect broader national dynamics or specific local conditions. Quantitative surveys with larger and more representative samples could complement this qualitative account by estimating the prevalence of joint land titling, women's access to credit, and participation in agricultural training across the region. Finally, future work should examine the perspectives of local administrators and extension officers directly, since their routine practices appear central to reproducing, or potentially disrupting, the default assumption that farmers are male household heads.

CONCLUSION

This study shows that the label "farmer" in Myanmar's Ayeyarwady Delta remains deeply gendered: the person most likely to be counted as a farmer is still the male household head, land document holder, and public representative, even though women's field work, household management, subsistence production, and financial contributions continue to sustain agricultural livelihoods. The core problem is not that women are absent from farming but that the systems used to define and support farmers routinely fail to recognize them, producing a gap between women's de facto labor and their de jure recognition. Closing this gap requires joint land titling, credit and training that reach women directly, inclusive mechanization, and community dialogue that challenges the assumption that farmers are automatically men. Recognizing women as farmers is both a matter of fairness and a practical requirement for stronger, more resilient agricultural systems in the Delta.

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