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Examining rural women's role in agricultural decision-making in Bangladesh: A Study from Barishal division

Afruza Akter

Taylor's University

Subang Jaya, Malaysia

afruza.akter@sd.taylors.edu.my

Abstract

Despite playing a pivotal role in Bangladesh's agricultural sector, women's efforts are frequently overlooked in key areas such as decision-making and economic recognition. This study explores the role of female farmers in family-based agriculture, focusing on their involvement in cultivation, harvesting, and livestock care. Using a qualitative method, the study conducted in-depth interviews with 25 female substitute farmers in Chandpura village of Barishal for data collection. Participants were selected through purposive sampling, and a semi-structured questionnaire was used. Thematic data analysis was applied to interpret the findings.

The results reveal that despite their intensive labour and substantial support to male family members in farming, women's contributions receive little recognition within households and communities. In extended families, married women have limited decision-making power; although they are consulted on agricultural matters, men typically retain the final authority.

Many participants indicated that they lacked personal savings and had little to no control over the earnings from agricultural produce. Moreover, they are not routinely remunerated for their work, as their efforts are viewed as part of their social and household responsibilities. Several participants also said they had to drop out of school early to assist their families with agricultural work. Although these compromises have led to long-term dissatisfaction and a perceived loss of opportunity, the majority expressed a strong desire to engage in additional income-generating activities to enhance their sense of value, decision-making ability, and financial independence.

The study's findings could help policymakers design gender-inclusive agricultural policies that acknowledge and support women's contributions. Furthermore, the outcomes can assist NGOs and development organisations in implementing training and empowerment initiatives that improve rural women farmers' technical and financial literacy, strengthening their capacity to exercise greater control over farm operations and income.

Keywords: Agriculture, female farmers, economic empowerment, agricultural management, farm decision-making

1. Introduction

Globally, women are contributing significantly to agriculture, including food production, household food security, and rural livelihoods. These women constitute a large share of the agricultural labour force in low and middle-income countries (1,2). Due to male farmers' outmigration, women's involvement in agriculture has intensified in South Asia. However, structural constraints, including limited land ownership, restricted access to profit, limited decision-making power and lack of social recognition, are the major constraints that women farmers are regularly facing (3–5). Despite their increasing role in agricultural management, gendered bias and inadequate resource distribution continue to limit their contribution and economic autonomy. According to FAO (Food and Agriculture Organization), women in developing countries contribute between 60% and 80% of grain production, representing 50% of the global food supply (6). Bangladesh is a conservative society where men hold primary decision-making power within both the household and agricultural activities. The country relies heavily on agriculture, which accounted for 11.16% of GDP in 2024 (7). Approximately 84% of the population of the country finds their livelihood in this sector, with around 35% of the workforce involved in agriculture (8). In Bangladesh, women have historically been engaged in various agricultural tasks in addition to household responsibilities. Women play a critical role in agricultural growth and development through their active participation in crop cultivation, livestock management, fisheries, and the management of various resources, thereby meeting both livelihood and commercial needs (6). The participation rate of women in the labour force has reached 36.41% in 2020, contributing to nearly 20% of the total GDP (9). However, their contributions are considered as household duties, and rarely do they receive the acknowledgement for the role they play as farmers, which limits their opportunities for formal agricultural training, financial services, and social validation. In past scholarly investigation, women's contribution in this key economic sector has extensively concentrated on labour participation patterns, feminisation of agriculture, time burden, climate vulnerability, and technology access (10–12) rather than assessing the relationship between agricultural involvement and women's decision-making authority or financial empowerment. Islam et al. (13) identify that women contribute considerably to agricultural labour in South Asia but remain under-recognised due to unpaid household classifications. Similarly, (13) concentrates on the structural and social norms determining women's work participation in agriculture, emphasising labour contributions and social positioning, but ignores the area of farm-level decision autonomy. Research on the feminisation of agriculture in South Asia observes how male outmigration enhances women's farm duties without necessarily transforming gendered institutional structures (14,15). On the other hand, climate-focused research on coastal and drought-prone areas in Bangladesh (16,17) documents women's differentiated vulnerability and adaptation roles in agriculture, yet these studies mainly frame women within resilience and risk narratives. Other studies on Bangladesh frequently analyse labour division, time use, and productivity gaps (18,19) and avoid evaluating

women's financial control or decision-making power. Although all these studies considerably progress understanding of women's agricultural participation, labour burdens, and environmental challenges, a detailed analysis of their economic empowerment, decision-making capacity, and barriers limiting their agricultural agency remains inadequately examined. Examining the empowerment of Bangladeshi female farmers regarding their decision-making power and financial independence is vital since they contribute significantly to the sector, which is the primary means of livelihood (6). Decision-making power not only indicates individual autonomy within the household but also the competence to select production methods, adopt new technologies, and engage in markets (20,21). Similarly, women farmers' economic independence, including control over income, profit distribution, and ownership of land, has a direct impact on their negotiation strength, ability to handle economic challenges, and investment in their children's health and education (5,22). As a result, evaluating these factors is vital for emerging comprehensive agricultural policies, improving rural livelihoods, and promoting wider objectives of gender equality and socio-economic growth. In this context, the study examined women's participation in agriculture and their empowerment. It addresses the following research questions: How do women engage in agricultural activities in rural Bangladesh? To what degree does this engagement lead to decision-making authority, financial control, and social acknowledgement? What social and structural obstacles influence women's empowerment within agricultural livelihoods? To respond to these questions, this study conducted in-depth interviews among 25 female subsistence farmers in Chandpura village of Barishal, Bangladesh.

2. Literature review

Women's involvement in agriculture constitutes a foundational yet persistently undervalued component of rural livelihoods. According to recent empirical studies, women are actively involved at different stages of agricultural production, including crop cultivation, livestock and poultry management, homestead gardening, and post-harvest processing, particularly in subsistence and smallholder farming systems (11,23,24). Because of male labour out-migration, precarious livelihoods, and climate-related stressors, women's agricultural responsibilities have grown in recent years without consistent increases in authority or acknowledgement (25–28). Much of their contributions to agriculture go unnoticed and are often considered merely household duties (29,30). Some scholars further indicate that women's empowerment in agriculture is constrained by familial restrictions, religious doctrines, cultural barriers, early marriages, uneducated guardians, and a lack of awareness in society (6,31,32). Gender biases, driven by sociocultural and gender-specific dominant patterns, amplify men's control over resources, thereby restricting women's opportunities in agriculture (33). Recent studies largely agree that women's agricultural involvement is hardly recognised as productive farming at the social or institutional levels, despite their significant labour contributions (34). Similarly, Balezentis et al.(35) and Witinok-Huber et al.(36) argue that women are typically excluded from farmer identities, agricultural statistics, and extension programs because their contributions are often seen as an extension of household duties or unpaid family work. Similarly, Asadullah and Kambhampati (37) found that women farmers are less likely to be socially or economically recognised, even when they perform the same tasks as men, such as planting, harvesting, or caring for livestock. Several studies on gender and agriculture highlight the double stress that rural women bear as they manage voluntary caregiving and household responsibilities with

agricultural tasks (38,39). Besides, empirical data from Bangladesh show that women's link in agriculture commonly results in an escalation in overall workload rather than a reallocation of labour within the family circle, which can limit opportunities for education or skill development and cause physical exhaustion and chronic time poverty (6,40). While some scholars contend that greater involvement might advance women's capacities and self-assurance, others dispute this view, pointing out that labour intensification without resource control often strengthens gendered subordination rather than empowerment (27,41). Existing scholarship presents divergent findings regarding women's power in agricultural decision-making. Some studies emphasise that rural women farmers have minimal or no decision-making authority. In contrast, studies by Khed and Krishna (42) and Sell and Minot (24) based on Uganda found that, when it comes to women's decisions on income use, their power is relatively lower than men's, rather than absent. Okonya et al. (43) findings, in line with Khed and Krishna (42) and Sell and Minot (24), show women have moderate authority overall, and most decisions are made in concert rather than by male members alone. Extending this debate, Douangphachanh et al. (44) argues that economic growth alone is insufficient to achieve gender equality without policy interventions. Similarly, Okonya et al.(43) show that women's decision-making ability increases with age, income, education, farming experience, and membership in farmer groups, but declines when hired labour is included. However, Khed and Krishna (42) extend this discussion by showing that lengthier working time and less free time were associated with women's greater participation in decision-making, suggesting that empowerment may come at the cost of time poverty. He further added that in rural areas, women from marginalised caste groups were most burdened by this; they worked longer hours and had less free time than the non-marginalised. Extending this literature, Godara et al. (45) suggest that women's agency may differ prominently across regions due to local literacy levels, sociocultural norms, and the degree of patriarchal attitudes. Therefore, empowerment results are socially and geographically provisional rather than universally patterned.

On the other hand, women's power over financial resources is closely related to decision-making. Even though women play a significant role in production activities, a substantial body of recent research indicates that men account for the majority of Bangladesh's agricultural income (6). As a result, women's agricultural labour is often classified as unpaid family labour, limiting their access to money, savings, and discretionary purchasing power. However, studies on women's participation in non-agricultural revenue-generating activities such as tailoring, handicrafts, petty trade, or home-based businesses show stronger correlations with financial independence, bargaining power, and self-confidence (46,47). Beyond material outcomes, scholars increasingly highlight social recognition as a fundamental aspect of empowerment. Women's sense of self-respect, self-assurance, and agency is intensely shaped by financial independence and the recognition they receive from family and community members (48,49). While agricultural engagement can enhance resilience and a sense of contribution, a lack of recognition often weakens its empowering potential (50).

Taken together, previous studies offer considerable evidence of women's central role in agriculture and the multidimensional limitations they experience. However, much of the literature does not focus on the constraints they face due to their involvement in agriculture. Besides, most studies rely on quantitative indicators and offer limited insight into how women themselves interpret their roles, importance, and freedoms. Also, there remains a notable gap in qualitative studies that integrate women's agricultural contributions with their lived experiences of decision-making, financial control, social recognition, and constraints.

3. Methodology

This study employs a qualitative phenomenological approach to explore rural women's roles in agricultural decision-making in Bangladesh. This study aims to understand women farmers' lived experiences and conceptions of agency within patriarchal rural settings. Phenomenological design is especially suitable because it enables a thorough analysis of participants' lived experiences and subjective interpretations within a bounded context (51). Therefore, this method enabled the capture of subjective reality, emotional struggles, and sociocultural obstructions influencing women's engagement in agriculture, rather than measuring empowerment through predetermined indicators. The study was conducted in Chandpura village, Barishal Division, Bangladesh, known for intensive agricultural practices, a high volume of smallholder farming, and vulnerability to natural disasters (52). Women of the village actively participate in various agricultural activities; this provides a crucial backdrop for examining gender-based roles in agriculture. Although female farmers in Bangladesh make up a sizable share of the agricultural workforce, they have limited control over decision-making and income. Gaining insight into their decision-making processes advances more general conversations about sustainable agriculture, rural development, and gender equality. A total of 25 female substitute farmers were selected for the study using purposive sampling to ensure that all participants had relevant experience with the study area. Smaller samples are suitable for phenomenological research since depth, not breadth, is the primary focus. Data saturation was reached after 25 interviews, at which point no notably novel themes surfaced. Comprehensive semi-structured interviews were used to collect data, allowing participants to express their lived experiences in their own ways (54). Each interview lasted between sixty and ninety minutes. This method enabled participants to share their experiences willingly while allowing the researcher to delve into topics such as household issues, sociocultural constraints, and financial freedom. After manual coding, reflexive thematic analysis was applied to the data. To ensure that patterns were based on participant narratives, the analysis included familiarisation, initial coding, topic creation, theme refinement, and interpretation (55). The related institutional review board granted ethical approval. To maintain confidentiality, pseudonyms were used, and participants provided informed consent. Also, research informed the participants of their right to withdraw from the interview process at any time.

4. Findings

This chapter outlines the outcome of the study, which concentrated on the role of rural women in making agricultural decisions. It examines various roles of rural women in agricultural decision-making and associated socio-economic processes. Under decision-making power, the study also goes through trends in economic influence, social acknowledgement, labour appreciation, and limitations affecting women's involvement.

4.1 Socio-demographic information

Under personal and socio-economic information, it shows that the majority of participants (17) are married. Five are unmarried, and two are widows. Most of them had primary education (20), while others (5) reached secondary. Most households comprised 8–10 members (11), and a

significant number had 7–6 members (9). Economically, in most families, the husband was the primary breadwinner (25). The majority of families (10) had a monthly income ranging from BDT 8000 to BDT 14000 from agriculture. In terms of land ownership, 25 women worked on their family land. Among participants, 16 took part in planting and harvesting tasks, 14 were involved in the care of livestock, and 20 engaged in post-harvest processing activities like drying and storing.

Table 1: Socio –economic information of the participants

Marital Status	**Married**	**Widowed**	**Divorced**	**Unmarried**
	17	3	0	5
Education Level	Primary	Secondary	Higher Secondary	Graduate or above
	20	5	0	0
Family Members	8-10 members	7–6 members	5-3	
	11	9	5	
Main Earner	Husband	Wife	Both	Others
	25	0	0	0
Monthly income from agriculture (BDT)	Below 80000	8000- 14000	15000-19,000	20000-25000
	5	10	8	2
Land Ownership	Family land	Joint ownership	Work on others' land	
	25	0	0	
Agricultural activity ((Multiple responses allowed)	Planting and harvesting	Livestock care	Post-harvest processing, drying, storage	
	16	14	20	

4.2 Decision-Making Power

Regardless of their widespread involvement in agricultural activities, table one demonstrates that decision-making authority within agriculture is largely male-dominated. 21 participants informed that most agricultural decisions, including crop selection and product selling, are predominantly made by their male family members. Only four participants noted having occasional decision-making power, highlighting women's constrained autonomy in formal agricultural governance. One participant explained that although she and her mother work together with her father in their farming field, her father always decides what to do and what not to do.

"My mother and I always help my father in planting, harvesting, and even managing the crops, but he always makes the final decision. Sometimes my mother shares her thoughts, but the final decision always depends on him."(p7)

Most participants said their opinions are valued mainly in minor household farming choices (14), with very limited participation in the management of livestock or poultry (8), and some expressed that their views held no significance in any area (3).

"Sometimes he listens to me. Like in the last Eid-ul–Adha, the price of cattle went up. My husband wanted to sell all 10 of them. I asked him not to sell all of them, and suggested that we hold onto at least one cow and one heifer so they could have calves later on. He listened to me." (p10)

Barriers to their participation in decision-making were largely structural and cultural in nature. Numerous participants expressed facing obstacles in decision-making due to patriarchal traditions (15 participants) along with societal stereotypes (8 participants), as one participant shared that their male family members believe that women are not capable of making the right decision.

"I work day and night for my family, gather paddy, carry it home, parboil and dry it, and even grind the rice. That work is on top of taking care of children and other household chores. But when I share a helpful suggestion, my husband often says I am a woman and I have less knowledge."(16)

Furthermore, a small number of women (7 participants) indicated that they are frequently seen as having an inadequate understanding and less information of the complete agricultural cycle, which encompasses crop production, market access and sales, financial management, and savings. This viewpoint restricts their involvement in more extensive economic and strategic farming decisions. Such as participant number 23 shares the following experience

"I know how to cultivate crops and care for cattle. But that's not enough, I lack enough knowledge related to market trends or product demand. My husband is more knowledgeable about all the areas. This is why it's not always simple for me to make the appropriate decisions." (p23)

Table 2: Women farmers decision-Making Power in agricultural activities

key decision makes	Husband or other male members	Occasionally joint (husband & wife)	
	21	4	
Areas where women's opinions matter	Small household farming decisions	Livestock/poultry management	No area where opinion matters
	14	8	3
Experience of barriers when attempting to influence decisions (Multiple responses allowed)	Patriarchal norms	Social stereotype	Lack of knowledge
	15	8	7

4.3 Financial Control and Benefits

The table highlights a significant gap between women's labour contributions and their financial control. It reveals that most women (20 participants) reported having no control over income from product sales, while only five participants indicated partial control. Similarly, income distribution was largely controlled by male members (20 participants), with only 5 participants reporting occasional joint decision-making.

"He never shares with me about the allocation of the income. He simply provides me with a bit of cash for daily expenses, and he inquires about how much I use or what I spend it on. The remainder of the money, he keeps and uses as he sees fit."(p12)

Regarding payment for agricultural work, 8 participants reported that they receive cash from their husbands, while 18 women stated that their work is not paid and is considered part of household duties.

"Whatever money is generated from the farming goes totally to my husband. I end up with nothing. Sometimes I feel like he married me only to manage the house. If I raise an issue that I contributed and deserve a share, it will lead to problems. And even if I try to claim my share, what would I really achieve? Will I actually obtain anything?"(p23)

"He doesn't give me money in return for agricultural work. Occasionally, if I'm visiting my parents' place or going out somewhere, he hands me some cash. However, there isn't a set amount" (p25)

In terms of perceptions of freedom, all participants (25) believed that instead of involving in family farming activities involvement in non-agricultural work would offer full control over their own income (25), increase decision-making power (16) and reduced dependence on male family members (25) and receive greater Social recognition (11), and opportunities for skill development (7). Like participant 16 believe that working outside family-run agriculture would allow her to directly access her income, allowing her the capacity to make autonomous financial choices and support her elderly parents. Another participant's statement is as follows-

"It has been two years since my husband passed away. I reside at my brother's place and do as much work as I'm able. I take care of the cattle, feed the fish, and assist in harvesting vegetables in the fields. Yet people continue to say I am reliant on him. Holding even a minor job of my own would free me from depending on my brother, and others would not view me with disdain." (p20)

Table 3: Female farmers' financial control and benefit from agriculture

Control over product sale income	**No control**	**Partial control**
	20	5
Income distribution	Controlled by male members	Occasionally jointly decide
	21	4
Paid for agricultural work	No	Occasional cash
	18	7
Perception of Freedom from Engaging in Non-Agricultural Financial Activities	Yes, non-farm activities would provide more freedom	No, non-farm activities would not provide more freedom
	25	0

Reasons Why Non-Agricultural Financial Activities Are Perceived to Provide Greater Freedom ((Multiple responses allowed)	Greater control over income	Increased decision-making power	Reduced dependence on male family members	Social recognition	Opportunities for skill development
	25	16	25	11	7

4.4 Social Recognition and Empowerment

The table indicates that women's agricultural contributions are predominantly normalised and often overlooked within the community. The majority of participants (15) believed that women's farming roles were viewed as merely assisting the household instead of being recognised as "real" agricultural work. Furthermore, 10 participants expressed that their efforts are frequently ignored or made unseen within the community.

"People don't consider us as farmers, regardless of our contribution to all activities – from manufacturing to processing. Many think we do not work outdoors and spend most of our time at home. Thus, any agricultural work we perform is considered simply as part of our household responsibilities. (p12)"

The findings on social recognition show that the majority of women farmers (19) reported receiving no recognition for their agricultural contributions from family, neighbors or close ones. Meanwhile, 6 participants stated that they rarely receive recognition. These findings indicate that women's agricultural work is socially devalued and inadequately recognised, even though they are actively engaged in farming tasks.

"I put in so much effort. Regardless of scorching heat or pouring rain, I rush to the field whenever it's necessary. However, my husband has never acknowledged that his success is due to my hard work, and neither has anyone from his family. It really pains me to see that. It feels like they don't even notice my contribution." (p18)

Table 4: Female farmer's social recognition and empowerment

Social perception of women farmers	**As household help**	**Ignored/invisible**
	15	10
Social recognition	Rarely received	No recognition
	6	19

4.5 Challenges Faced by Women in Agricultural Involvement

Women recognised structural and socio-cultural obstacles as the primary challenges to their involvement in agriculture. The findings regarding significant challenges reveal that the most frequently mentioned problem was an overwhelming workload (16). Numerous women shared

that they juggle agricultural work while also taking full responsibility for household tasks, which leaves them with very little time for relaxation.

"My husband rests after he comes back from field work. But for me, even though I engage in farming, my tasks don't stop until I go to bed at night. I have to prepare meals, do laundry, look after the children, and run the household. Juggling so many obligations is truly overwhelming."(p12)

A lack of self-care was also emphasised (7), as many participants noted they often overlook their health and personal well-being. Besides, 10 participants raised concern about social restrictions that continue to pose a considerable challenge for them. They reported that their actions are heavily influenced by existing social norms. For instance, participant X stated that she has to dress conservatively, restrict interactions with non-related males, and steer clear of situations that could lead to gossip or harm their family's reputation. Some of the statements are as follows

"My son was born last November, and it was the Aman paddy harvesting season. I didn't even get weeks to take care of myself, and even now I don't. I took care of my son as well as harvested the paddy because if I didn't do it, who else would help my husband?"(p9)

Sometimes my clothes are not even in proper condition while working. Or let's say I am talking to male workers in the field for something – then rumours will start immediately. Neighbours will humiliate my family by saying inappropriate things about me. Even if there is no one to help us, there is never a shortage of people to criticise."(p4)

Likewise, early school dropout was noted by 9 participants, which was predominantly associated with financial difficulties and family obligations. Participant X shared that their families lacked the financial means to employ workers. Therefore, she and her other siblings had to contribute to household duties and farming responsibilities from an early age. Their participation in agricultural work, animal care, and domestic responsibilities gradually became more important than formal education.

"My brother and I were both attending school. My parents tried to keep continuing our school, but when we were in school, no one could support us in the field. My father couldn't afford to pay for extra labourers, so he had to stop sending me to school. My brother's schooling continued as he is a boy" (p1)

Table 5: Challenge that female farmers experiences

Major challenges (Multiple responses allowed)	Workload (double responsibility)	Lack of self-care	Social restriction	Early school drop-out
	14	8	10	9

5. Decision

This study discloses a profoundly gender-based structural order of agricultural contribution in which women's labour is noticeable in practice but unseen in power. Because of this ongoing structural paradox, the noteworthy participation of women in agricultural activities does not produce shared authority, financial power, or social recognition. Even though women were deeply involved in vital farming tasks, including crop cultivation, harvest processing and livestock care, key decisions related to agriculture and major financial commitments were largely made by male members of the family. Although women's influence did exist but generally limited to less critical or traditionally female-oriented areas. This outcome aligns with an increasing body of studies on agriculture, signifying that women's involvement in labour often escalates without a constant growth in their negotiating power at the household level (56,57). Although some studies noted that progressions in joint decision-making, evidence reveals that this collaboration often hides hierarchical power dynamics where men eventually maintain control (42,58,59). The current result supports this analysis and cautions against befuddling contribution with real empowerment. However, these partial involvements in empowerment are often linked to women's early school dropouts, insufficient formal education, and deeply rooted social norms about women's capabilities. These outcomes align with recent studies that highlight lack of education deters economic independence as well as declines women's perceived legitimacy as decision-makers, even when they have considerable real-world knowledge in agriculture (22). On the contrary, Peralta's (54) findings indicate that women's empowerment is not significantly associated with education, but is positively associated with participation in community activities. This discrepancy is critical for analysis as it questions development discourses that consider that greater involvement fundamentally leads to empowerment. As a substitute, empowerment tends to depend on structural transformation in gendered power relations rather than on labour engagement by itself (60). The outcome further demonstrates that women's roles in agriculture seldom contribute to minimal or no authority over the income produced from agricultural activities, with the financial gains typically handled by male family members. Their contributions were frequently characterised as a family duty and often ignored the notion that they have the right to agricultural profit. Yan et al. (61) extends the outcome further by addressing that education, policy propaganda, and economic and social underdevelopment hinder female farmers' awareness of women's rights. Feminist political economy standpoints emphasise that small-scale farmers are highly dependent on women's support (62), but exclude them from profit (63). Similarly global evaluations expose that women are noticeably less likely than men to have control over agricultural earnings despite contributing comparable labour efforts (42). This study found that non-agricultural income is more empowering, not due to the sector itself, but because it provides individuals with greater control over their earnings. This difference has theoretical significance in that empowerment is contingent upon one's authority over the distribution of income. Non-agricultural income, being less influenced by patriarchal control over land, provides a comparatively larger opportunity for agency (61).

In South Asia, the term farmer is connected with land ownership, access to market networks, and male dominance, which systematically deprives women. This embedded exclusion weakens women's social validity and professional identity (57,64,65). Although some women farmers receive acknowledgement, it's not broader, which reinforces critiques that empowerment without formal validation remains constrained (6,61,66). This study demonstrates how gender-specific roles in agriculture are reproduced across the life course by early school dropouts to post-marriage

unpaid agricultural contribution, emphasising an outline of increasing structural shortcomings. Scholars emphasise that empowerment cannot be ensured without overcoming limitations, including poverty, limited mobility, educational exclusion, and climate vulnerability (63,67). Furthermore, multiple household and agricultural responsibilities not only constrain women's economic power but also cause deteriorating health conditions due to sustained physical overwork. This pattern aligns with evidence from (42,65), where female farmers were less likely to report good health and gendered disparities in nutritional outcomes, reinforcing the intersection between gendered labour burdens and health vulnerability. All together similar to Chakma and Ruba (6), this study emphasises that women's empowerment in agriculture will not be implemented without overcoming family limits, educational gap, religious legislation, early marriage, illiterate guardians, and lack of social consciousness. Equality in education between spouses is more important than the average level of education of women farmers (24). Another author found that older age, higher education, and longer farming experience are positively associated with women's decision-making power (43). In contrast, our result demonstrates that, besides education, marital status also plays a significant role, with married women having greater power than unmarried or widowed ones, likely due to spousal acknowledgement and validation.

This study carries certain implications. From the theoretical perspective, it questions the participation-centred empowerment concept by indicating that true empowerment depends on factors including authority, income control, and formal recognition rather than purely on labour engagement. On a practical level, this study indicates that policies should concentrate on women's authority over income, ensure the right to land and assets, safeguard educational continuity, and ensure institutional acknowledgement in order to move beyond mere symbolic inclusion to genuine empowerment. The current study has certain limitations, such as self-reported data may be subjective due to internalised norms or a bias towards socially desirable responses. Also, it did not include male farmers or community leaders, which might limit a thorough understanding of how power dynamics are directed and rationalised within homes. Including a range of stakeholder viewpoints in future studies could offer a more thorough examination of gender-based authority systems and the dynamics of decision-making.

6. Conclusion

This study explored the relationship between women farmers' empowerment and their participation in rural Bangladeshi agriculture. The findings indicate that, despite women's lifelong contributions to agricultural production, which often begin in their parents' homes and continue after marriage, their contributions do not reflect the same level of decision-making control or financial autonomy. Their contribution is still unrecognised, voluntary, and socially despised, which extends women's subordination in both the family circle and farming systems. The outcome also shows that empowerment through agriculture is neither spontaneous nor reliable. Even though they make substantial contributions to farming, women are still not included in critical agricultural decisions or income management. These outcomes validate the constant effect of patriarchal norms, unsatisfactory access to resources, early school disruptions, and the continuing time limits brought on by the dual duties of household and farming. These boundaries escalate women's accountabilities without improving their decision-making capacity. Significantly, the consequences challenge the notion that an increase in female labour force participation necessarily denotes progress in gender equality in agriculture. For effective empowerment, it is indispensable to reinforce women's rights to land, income, and official recognition. To better capture

empowering journeys of female farmers in agricultural involvement, future research should concentrate on mixed-methods and longitudinal data.

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