

Shifting Realities of Gender, Land & Labour Relations: Field Experiences from Bihar

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ABSTRACT

This study explores the socio-economic status of women in agriculture through a village-level field survey conducted in Patna district, Bihar, India. Although Patna is the capital of Bihar and relatively more developed in terms of infrastructure and administration, its rural villages continue to reflect entrenched patriarchal norms, particularly in land ownership and gendered divisions of labour. The study draws on these localised experiences to highlight persistent structural inequalities in agriculture. Based on data from 62 respondents (31 women and 31 men), the research examines disparities in land ownership, access to resources, decision-making power, and the everyday challenges faced by women agricultural workers. Findings reveal that 61.29% of women are landless, compared to only 6.45% of men, pointing to a significant gender gap in land rights. Although women are actively engaged in crop production and post-harvest activities, they lack control over land, credit, and agricultural profits. Women's influence in decision-making is limited mostly to wage and casual labour choices, often a reflection of poverty and lack of alternatives. Widows showed slightly better land access than married women, but ownership remains minimal. Key challenges include limited mobility, economic insecurity, and the dual burden of domestic and agricultural responsibilities, all of which reinforce women's subordinate roles in the agrarian structure. Though based on a village-level study, the findings reflect broader structural patterns commonly observed across rural agricultural communities in Bihar, where patriarchal norms and gender-based exclusions continue to shape women's roles and access in agriculture.

Keywords: Gender, land ownership, decision making, empowerment

JEL codes: J16, Q12, Q15, O15, R20

I

INTRODUCTION

Agriculture has long been the foundation of civilizations and remains central to the global economy despite advances in capitalism and industrialization (Amin, 2012a). In addition to food production, contemporary agriculture addresses the residential and reproductive requirements of the worldwide population, particularly the underprivileged segment that relies heavily on unpaid labour, predominantly that of women and children, while today's globalized system reflects core-periphery dynamics, with wealthy nations dominating finance and technology while poorer ones depend on agrarian economies (ibid). Since World War II, agriculture has undergone major structural and technological changes, yet despite tripled output from the Green Revolution, food insecurity persists due to unequal distribution, leaving millions, especially in the Global South, malnourished and hungry (Jha and Yeros, 2023). The growing supremacy of 'capital-in-finance' over 'capital-in-production' has converted agriculture into an exploitative global system, primarily benefiting financial institutions and multinational corporations of the North rather than the Global South (ibid).

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In this framework, the 'agrarian question', subsequently assigned classical dimensions in Marxian political economy, was essentially concerned with the agrarian question of industrialisation, as first contested by nineteenth-century European theorists (Moyo et al., 2013). The nationalist and communist movements in the Global South redefined the agricultural question as a matter of national liberation, positing land reform as crucial not only for industrial development but also for dismantling imperialist dominance (Amin, 2012b). Although certain socialist nations, such as China, effectively combined land reform with industrialization, the majority of post-colonial states did not achieve this, resulting in exacerbated agrarian crises, land inequality, and reliance on foreign capital (ibid).

Under the subsequent neo-liberal policy framework, the swift transformation of agricultural land for non-agricultural uses, the elimination of tariffs, the privatization of input and output markets, and the consequent financial strain on farmers have precipitated crises such as farmer suicides and migration, necessitating the emergence of women, previously overlooked as auxiliary labourers on family farms, as primary cultivators in a male-dominated agricultural environment (Mehta, 2022). The restructuring of agrarian systems not only transformed class and land dynamics but also created new opportunities for women's political engagement, which had previously been neglected in both production and social reproduction. This shift necessitates the acknowledgement of women's labour, the pursuit of equitable remuneration, and the advocacy for reproductive rights as essential components of wider struggles against imperialism and class subjugation, thereby underscoring that control over land and agriculture is pivotal in combating gendered and imperial exploitation in the Global South today (Amin, 2012b). Recent discussions regarding the feminisation of agricultural labour underscore land as a vital productive resource for rural women in Asia, with secure entitlements augmenting their participation in household and community decision-making, thereby empowering them to challenge injustices, assert agency, and seek independent, sustainable livelihoods (Kelkar & Krishnaraj, 2020).

Building on these perspectives, a recent study by Andrews et al., 2025 in the Central and Volta regions of Ghana reveals that while patriarchal structures continue to limit women's control over land resources, economic opportunities introduced through local projects have begun to enhance women's financial independence and decision-making power within households. This transformation, though promising, has also generated tensions as men perceive the shift as a threat to traditional gender roles. By unpacking these nuanced and intersecting gendered experiences, the study deepens the feminist political ecology (FPE) framework. It underscores how broader socio-cultural and economic forces within agrarian contexts shape access to and control over resources. Aligned with this analytical lens, the present study explores the status of agricultural women in the village of Patna district of Bihar, India. India, a country in the Global South where a significant proportion of the female workforce

is engaged in the primary sector. According to the Periodic Labour Force Survey (PLFS, 2023-24), 64.4% of Indian women are employed in agriculture and related activities, with Bihar recording an even higher 84.49% female participation in this sector. As India's poorest state, with 33.76% of its population categorised as multidimensionally poor (NITI Aayog, 2021), Bihar presents a critical site for examining the intersections of gender, poverty, and agrarian labour. This study specifically investigates women's roles in agricultural decision-making and the challenges they face, aiming to contribute to a deeper understanding of gendered labour dynamics, agency, and the structural constraints that shape everyday agrarian life in Bihar.

II

THEORETICAL FRAMEWORK

The origins of the Women in Development (WID) approach can be traced back to the early 1970s, emerging from a network of female development professionals based in Washington, D.C. (Tinker, 1990), who critically challenged the dominant "trickle-down" theories of development. They highlighted how modernisation processes differentially impacted men and women, often resulting in a decline in women's socio-economic status rather than improvements. Additionally, the resurgence of the women's movement in the Global North during this period significantly influenced the formulation of the WID agenda, particularly through the lens of liberal feminism, which advocated for equal rights, increased employment opportunities, and the dismantling of gender-based stereotypes (Miller & Razavi, 1995).

A major intellectual influence on the WID movement was Ester Boserup's seminal work, *Women's Role in Economic Development* (1970), which challenged the prevailing "welfare approach" to women in development. Boserup's research demonstrated that in many parts of the world, particularly in sub-Saharan Africa, women had historically played a crucial role in agriculture and economic production. However, colonial and post-colonial policies marginalised them by prioritising men's access to modern agricultural techniques and market-oriented farming. This led to the perception that women's productive contributions were secondary, reinforcing gendered economic disparities (Miller & Razavi, 1995). (Boserup, 1970; Prasad, 2021) and other feminist studies have demonstrated that capitalism and patriarchy are mutually reinforcing systems, exacerbating the commodification of agricultural production and resulting in the deterioration of women's rights, status, and egalitarian roles within households.

Agarwal (1994), in *A Field of One's Own*, emphasized the critical importance of land in influencing women's developmental pathways in South Asia. She classified the importance of land rights for women into three interconnected assertions: welfare, empowerment, and equality. Agarwal's contribution is crucial in demonstrating that

access to and control over land is fundamental to altering women's status within households and communities, particularly in rural cultures experiencing neoliberal transformation.

However, within global development discourse, gender issues have historically been ineffectively addressed, particularly by international financial institutions such as the World Bank. Early development strategies, especially those implemented under Structural Adjustment Policies (SAPs), largely overlooked the critical role of social reproduction and unpaid domestic and caregiving work in sustaining the labour force and broader economic systems. It was only after sustained critiques by feminist scholars and activists in the 1980s that gender specialists within the World Bank began to recognize women's reproductive labour as essential, arguing that economic policies must be evaluated not solely in terms of market production but also through the lens of the invisible labour that upholds households and communities (Razavi, 2003).

Since the 1980s, the rise of neoliberalism has significantly reshaped gendered land relations in the Global South. Economic liberalization policies such as land privatization, export-oriented agriculture, and deregulation of labour markets have disproportionately disadvantaged rural women. These reforms intensified the commodification of land and labour, undermining traditional access rights and deepening gender inequalities (Tsikata & Torvikey, 2021; Kalinda et al., 2022). Feminist scholars argue that women's access to land, credit, and productive resources has steadily declined, resulting in increased reliance on informal and precarious wage labour. Amanor-Wilks (2009) critiques the assumption that women can easily bargain for land rights within patriarchal systems, noting that larger economic structures such as resource scarcity, production technologies, and policy shifts mediate such bargaining power. Technological advancements in agriculture, she suggests, may offer potential for transformation, but only if accompanied by redistributive and gender-sensitive reforms (Tsikata & Amanor-Wilks, 2009).

The legacy of colonial and post-colonial land economies particularly the commodification of agriculture, also continues to shape these dynamics. Miller and Razavi (1995) contend that structural economic changes privileged male control over land and increased the burden of unpaid labour on women. During periods of high commodity prices, colonial policies prioritised cash crop production by male farmers (Palmer, 1991), systematically displacing women from subsistence agriculture and into the informal or unpaid labour force (Lockwood, 1992). These shifts had profound implications for social reproduction. Lockwood (1992) notes that despite women's crucial role in sustaining households and communities, this reproductive labour remained invisible and unremunerated.

At a deeper level, the intersection of gender, class, and land ownership is reinforced through ideological mechanisms. Amartya Sen's (1990) concept of

“adaptive preferences” explains how women internalize and normalize unequal roles, viewing subordination as natural. This ideological acceptance limits women's agency to resist structural inequalities. Social reproduction feminism provides a significant analytical divergence from traditional Marxist and intersectionality-focused frameworks. While the former frequently regard capitalism and patriarchy as separate systems, social reproduction feminists contend that these frameworks are mutually constitutive and must be analyzed collectively (Ferguson, 2020). This perspective prioritizes the structuring of capitalist domination and exploitation over a singular focus on gender, situating gender as a social structure within the wider context of production and reproduction relations. Patnaik (2020), drawing from Marxist theory, emphasizes that capitalism systematically undervalues the cost of labour reproduction. He argues that wages under neoliberal regimes are suppressed below subsistence, thereby shifting the burden of sustaining labour onto women through unpaid household work. These insights reveal that contemporary rural gender inequalities are not only about access to land or credit but also about the structural and ideological frameworks that regulate labour, resources, and economic agency.

In this context, Fraser (2009) offers a significant framework for comprehending justice, which includes both redistribution and equitable access to material resources, as well as acknowledgement and respect for social identities and contributions. She contends that justice necessitates that all individuals possess the resources and cultural esteem required for full participation in social and political life.

2.1 India and Bihar

Gender discrimination has a long history in India. Jha (2016), in his book "Labour in Contemporary India," explains the predicament that the labour force is experiencing. He shows that women, who comprise a significant share of the labour force, face more difficult circumstances than men. They are paid less than men, and they are assigned chores that men choose to avoid. Deshpande (2011) In India, intergroup differences are complex and influenced by a variety of factors, such as gender, class, location, religion, language, and caste. Even after twenty years of liberalization, the gap between castes has not started to close. Women, especially those from lower castes, were initially affected negatively by the growing formalization of employment. Even though we have come a long way from the ancient world to the present, Dalits and women continue to be oppressed. The caste system, according to socialists, governs both the division of labour and sexual division, which is why agricultural women are only allowed to manage water supplies, transplant, and weed but not plough. Traditionally, women have been treated more fairly by the Dalit caste. Industrialism stoked an unquenchable need for resource exploitation, and contemporary science provided people with the intellectual and moral freedom to do so in a way that is both desirable and morally sound. Therefore, the new ways that males dominated and controlled nature were also linked

to new ways that men dominated and controlled women, excluding them from participation as collaborators in research and advancement (Shiva, 2016).

Women's unequal access to the resources and opportunities they need to be more productive is one of the main causes of the agricultural sector's underperformance in many developing nations (FAO 2010-11). Securing women's independent land rights is essential for their economic security, social status, and empowerment, particularly in South Asia. In rural economies, land is a key factor in determining social standing and political power, impacting ties inside the family as well as with the larger community. However, the majority of women still lack the means to fully exercise their land rights, particularly as the number of families headed by women rises and their support systems from marriage and family diminish. The majority of South Asian women still experience disinheritance, even though they have successfully battled for and acquired substantial legal rights to inherit and manage land. Only a small percentage of women own land, and even fewer have any real influence over it. The struggles of female landless peasants have not received much attention lately, not only from policymakers but also from academics and grassroots organisations. The importance of property ownership and control, which has long been a key indicator of economic status for men and households, is sometimes obscured by the use of employment as the primary indicator of women's economic standing. Men might still keep different degrees of power over land even if women own it. Women are not allowed to freely dispose of their land in certain parts of South Asia. Especially in an economic crisis or even in non-crisis circumstances when land may be used as collateral for loans, the capacity to sell or mortgage land is a fundamental element of control. Compared to merely lifelong usage rights, this right gives the owner more leverage and a better safety net. Whether the land is completely owned or just under usage rights, it is imperative that one be able to decide how to manage it, allocate its produce, and use it. Though some cases do arise, women rarely manage land or have usage rights on their own. When striving to self-manage land, women encounter two main obstacles: direct pressure from relatives and indirect limits shaped by their larger social setting (Agarwal, 1994).

The 1979 Bodhgaya land rights movement is a notable representation of women's struggle for land ownership. Landless workers, both male and female, had been working the land at Bodhgaya, Bihar, for years without any ownership rights. The introduction of land reforms, however, reinforced gender inequality by granting land titles only to men. Women were not granted land titles, although they actively joined males in land rights initiatives. Due to their marginalization, women protested and demanded either independent land rights or joint ownership. In Bihar, women face deeply rooted patriarchy, particularly when it comes to land ownership. Widows who possess land are often stigmatized and associated with witchcraft. Additionally, agricultural practices in the region are male-dominated, with cultural beliefs dictating that if a woman participates in land preparation, it is believed to cause a failure in

rainfall that year. These superstitions and societal norms impose numerous restrictions on women, limiting their freedom and participation in both land ownership and agricultural work. (Agarwal, 1994).

Despite several legislative reforms, land tenure rights in Bihar remain weak and poorly enforced, especially for women and sharecroppers (Samanta, 2016). Although Indian law recognises women's equal rights to inherit paternal property, implementation is limited. Most women still lack formal ownership or control over land, making them highly vulnerable in both household and societal structures. Bihar's outdated land records, ambiguous titling, and frequent encroachments worsen access for marginalised groups, with women bearing the brunt of these structural failures.

Land ownership in India is not only a critical economic resource but also carries deep social and symbolic significance. In Bihar, patriarchal norms and discriminatory inheritance practices severely restrict women's access to land, undermining their bargaining power and agency. While there have been recent efforts to transfer land titles to women, these initiatives remain sporadic and insufficient to address the deeper inequalities (Samanta, 2016).

Recent national-level analyses show that Bihar continues to report among the lowest levels of female land ownership in India, underscoring persistent regional disparities (Mahato et al., 2025). Despite increasing recognition of women's land rights under the UN Sustainable Development Goals (particularly SDG 5), Bihar lags behind states like Kerala and Telangana in advancing gender-equitable land access.

Ownership of land directly impacts women's participation in decision-making, both within households and in agricultural production. However, in many areas of Bihar, patriarchal customs still prevent women from participating in critical agricultural activities such as ploughing or land preparation. Thus, ensuring secure land rights for women in Bihar remains central not only to gender justice but also to sustainable rural development.

III

METHODOLOGY

This study investigates the position of agricultural women in Patna district, Bihar, focusing on land ownership, decision-making roles, and related socio-economic barriers. Data were collected in Sarai village, located in the Maner block of Danapur subdivision, Patna district. Sarai village, located in the Maner block of Danapur subdivision in Patna district, was purposively selected for this study based on its demographic composition and labour profile, both of which align with the study's focus on gender, caste, and agrarian inequality. While Patna, as the capital of Bihar, has undergone rapid urbanisation, Sarai remains predominantly agrarian,

making it a suitable setting to explore how traditional rural power structures persist within an evolving economic landscape.

As per Census 2011, the village has a population of 7,198, with Scheduled Castes (SC) comprising 18.02 percent. This is significant, given the historical marginalisation of SC communities in land ownership and agricultural decision-making. Sarai has no Scheduled Tribe (ST) population. Out of the total population, 2,753 individuals are engaged in work. Of these, 1,983 are male and 770 are female, meaning women constitute 28 percent of the total workforce. Within the main worker category (workers engaged for more than six months), 529 are female (out of 2,284 total), while 241 women (31.3%) are engaged in marginal work, indicating a substantial degree of employment instability among women. Further, among the main cultivators (647 total), only 43 are women, while 604 are men, highlighting the gendered gap in land ownership. In contrast, of the 1,111 main agricultural labourers, 405 are women, making up 36.5 percent of all labourers, showing that women are heavily concentrated in wage labour rather than ownership roles.

These figures underline the structural exclusion of women from land ownership and capital-intensive farming activities, despite their significant contribution to the rural workforce. Given the high SC population, gendered concentration in agricultural labour, and prevalence of marginal employment, Sarai offers a relevant and representative site for examining the intersection of gender, caste, and land relations in Bihar's agrarian economy.

3.1 Sample and Data Collection

Data of 62 individuals, comprising 31 males and the remaining females. Thirty-one females have been assessed for the decision-making index. Land ownership among male and female farmers is categorised as landless, marginal, small, and large landowners, following the Census definition. Farmers who own less than one hectare of land are referred to as marginal farmers, those who own one to two hectares are called small farmers, and those who own more than ten hectares are called large farmers.

The sample size of 62 was purposefully chosen for a village-level mixed-methods study, aiming to generate rich qualitative insights supported by basic quantitative comparisons. According to Creswell and Clark (2018), such sample sizes are well suited for integrated designs where qualitative narratives are central. Moreover, Guest et al., 2006 suggested that data saturation in focused qualitative research can be achieved with as few as 20 participants, making this sample sufficiently robust to ensure both depth and comparative scope.

An index of decision-making is created to gauge the degree of women's decision-making in agriculture. The Decision-Making Index (DMI) used in this study is adapted from Baruah (2019), who applied this index to measure women's

participation in agricultural decision-making in Morigaon district, Assam. This index has proven useful in similar socio-economic and rural contexts and offers a structured way to quantify decision-making agency among women agricultural workers. Furthermore, the indicators for the selected domains were adapted from the Women's Empowerment in Agriculture Index (WEAI), developed by the International Food Policy Research Institute (IFPRI), which provides globally recognized measures of women's empowerment, particularly in agricultural contexts (Alkire et al., 2013). The WEAI framework emphasizes key areas such as control over production, access to and decision-making over resources, income control, community leadership, and time use, all of which are reflected in the activities selected for the DMI. Additionally, the indicators used to construct the index were refined and contextualized through field-level insights gathered during preliminary discussions and interactions with women agricultural workers in Bihar. These local perspectives ensured that the selected decision-making areas are both socially relevant and empirically grounded.

The DMI was developed using 11 activity domains, where respondents were asked to indicate their level of participation on a four-point scale: no involvement, just consulted, perspective considered, and active participation in the final decision. Each response was assigned a corresponding score of 0, 1, 2, and 3, respectively. The formulated Decision-Making Index is described below:

$$\text{Decision Making Index (DMI)} = N_0 \times 0 + N_1 \times 1 + N_2 \times 2 + N_3 \times 3$$

Where,

N_0 = Number of females with no involvement in decision-making processes.

N_1 = Number of females who were just consulted regarding the decision.

N_2 = Number of females whose perspectives were considered.

N_3 = Number of females actively participating in final decision.

The Decision-Making Index (DMI) for any decision-making item can vary from 0 to 93, with 0 signifying minimal involvement in decision making and 93 denoting substantial involvement in decision making. Rank order has been established for each selected decision-making item based on the degree of engagement in decision-making indices.

For finding the constraints encountered by females in performing agricultural activities, the Henry Garrett Ranking technique is used. The calculation is expressed as a percentage position for each rank, and the formula is as follows:

$$\text{Percentage Position} = \frac{100(R_{ij} - 0.5)}{N_j}$$

Where,

R_{ij} = rank given for i^{th} variable by j^{th} respondent

N_j = number of variables ranked by j^{th} respondent

The projected percentage position is transformed into scores using Garrett's Table, as referenced by Garrett and Woodworth (1969). Subsequently, for each factor, the individual scores are aggregated, followed by the computation of the total score and the mean score value. The elements with the highest mean value are deemed the most significant.

IV

RESULT

This study draws on a field survey of 62 respondents (31 female and 31 male), with detailed focus on 31 female respondents for decision-making analysis. The data illustrates pronounced gender disparities in land ownership. Table 1 shows the specifics of land ownership among men and women farmers together with their respective social categories. The statistics assert a notable gender gap in land ownership, with a far smaller percentage of female landowners than of their male counterparts. Just 6.45% of men fall into this category; shockingly, 61.29% of women are landless.

TABLE 1. SOCIAL GROUP AND TOTAL OPERATIONAL LAND HOLDING OF RESPONDENT

Social Group	Male (%)	Female (%)
SC	38.71	51.61
OBC	61.29	48.39
Total Operational Land Holding		
Landless	6.45	61.29
Marginal	80.65	35.48
Small	12.9	3.23

Legal clauses provide equal land ownership rights to both sexes, yet deeply ingrained patriarchal conventions still prevent women from accessing land, especially agricultural land. Consequently, men still hold most of the land, which helps to justify gender disparity in the agricultural sector.

Figure 1 illustrates the percentage of females owning land (both irrigated and unirrigated) based on their marital status. The data consists of 77.42% married women and 22.58% widows. The findings reveal that widows have greater access to land ownership compared to married women. A significant 66.67% of married women are landless, whereas only 14.29% of widows fall into this category. This suggests that widows are more likely to acquire land, possibly through inheritance after their husband's death. When considering landholdings of 1 hectare, 71.43% of

widows own land of this size, whereas only 33.33% of married women do. Additionally, 14.29% of widows own 2 hectares of land, while no married women in the dataset possess land of this size.

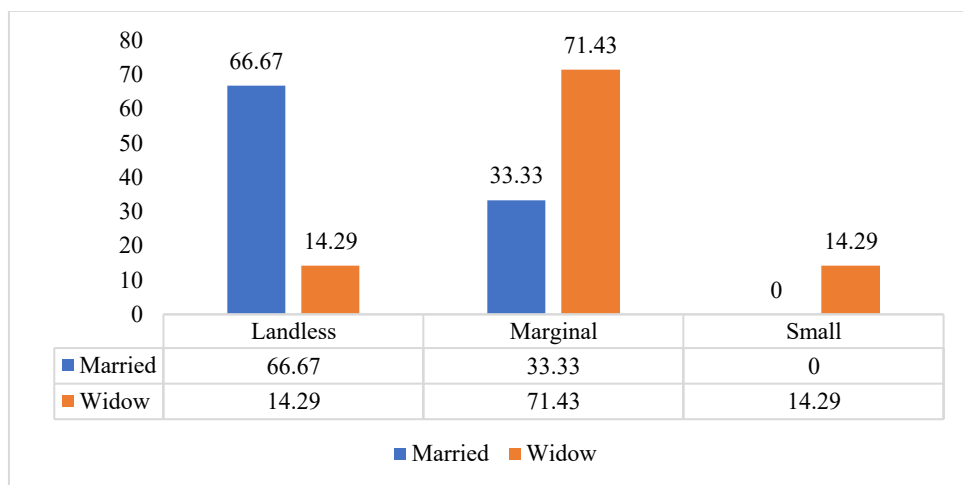


FIGURE 1. PERCENTAGE OF FEMALES OWNING LAND (IRRIGATED+UNIRRIGATED) ON THE BASIS OF MARITAL STATUS

These results emphasize how obviously different land ownership is depending on marital status. Though widows have more access to land than married women, probably because of inheritance following the death of their husband, their overall land ownership still is much less than that of men. Because property is usually recorded in the name of male family members, patriarchal rules and male-dominated inheritance systems can hinder married women from owning or controlling land. Though widows may inherit land, their access is nonetheless restricted, which reflects the more universal gender disparity in land ownership.

Figure 2 illustrates the percentage of females owning irrigated land based on their marital status. The data reveals that married women have greater access to unirrigated land than irrigated land, indicating a disparity in land quality and resources. While widows have some access to irrigated land, their ownership remains minimal, with only a small portion of land under their control. The data shows that 95.83% of married women are landless, compared to 57.14% of widows. Among widows, 42.86% own 1 hectare of irrigated land, whereas only 4.17% of married women have access to the same. This suggests that widows, although still facing limitations, have slightly better access to irrigated land than married women.

Despite these ownership patterns, neither married women nor widows own more than 1 hectare of irrigated land, highlighting a significant gender-based restriction on

landholding size. This indicates that even when women do own land, their holdings are typically small, reinforcing the broader issue of limited land access and control among female farmers.

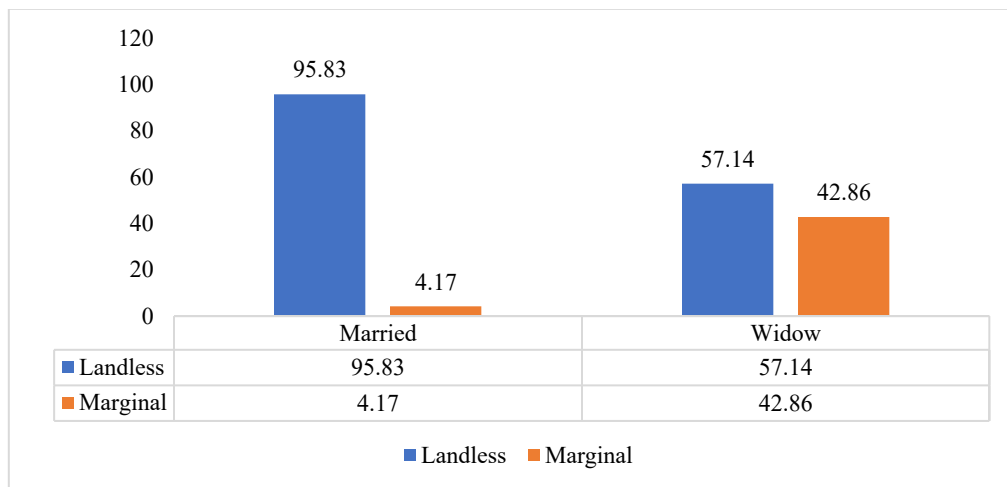


FIGURE 2. PERCENTAGE OF FEMALES OWNING IRRIGATED LAND ON THE BASIS OF MARITAL STATUS

Table 2 provides an in-depth analysis of the extent of female participation in decision-making across various agricultural and economic activities. The data reveals significant disparities in women's involvement, with higher participation in employment-related decisions but minimal influence over land transactions and major agricultural activities. Women have the most decision-making power in wage and salary employment, which ranks highest with a Decision-Making Index (DMI) score of 57. However, this does not indicate financial independence but rather reflects their compulsion to work as casual labourers due to poverty. Many women, especially from marginalized communities, take up daily wage work in agriculture or other labour-intensive sectors as a means of survival, given their limited access to land and economic resources.

A significant aspect of women's financial role is their access to Self-Help Groups (SHGs), which ranks second in decision-making. SHGs serve as the primary source of credit for rural agricultural households, offering loans at very low interest rates. Unlike men, who lack direct access to such credit and often face high-interest demands from informal moneylenders, women can secure loans through SHGs. As a result, men frequently rely on women to obtain loans, which explains the relatively higher decision-making power of women in this area. SHGs not only provide financial support but also play a crucial role in empowering rural women, enabling them to contribute to household income and gain some level of financial autonomy.

In terms of Decision-Making Index (DMI), the highest participation among women is in wage and salary employment (DMI = 57), followed by SHG loan borrowing (DMI = 45). These areas of influence largely stem from economic necessity. Similar findings are reported by Kelkar & Krishnaraj (2020), Mehta (2022) and Garikipati (2008), who observed that poor rural women often enter wage labour due to economic vulnerability, not empowerment. The relatively high participation in SHG borrowing is consistent with studies showing that microcredit access gives women some financial agency even within patriarchal structures (Basak & Chowdhury, 2024; Pandhare et al., 2024; Biju & Tantia, 2024).

In the agricultural sector, livestock raising emerges as the area where women have moderate involvement particularly in decisions related to small and large livestock transactions. However, when it comes to food and cash crop farming, their role is significantly lower, as these areas rank seventh and eighth, respectively, with DMI scores of 17 and 16. Women also have limited participation in marketing farm produce, with "taking crops to market" ranking tenth, further restricting their economic agency.

The most restricted area of decision-making is land transactions, with "selling, renting, or buying agricultural land" ranking last. A majority of women (27 respondents) reported having no involvement in such decisions, highlighting the male-dominated nature of land ownership and control. Even in the purchase or sale of farm equipment, women's participation remains low further reinforcing the gender gap in agricultural resource management. Land-related decisions (DMI = 5) and mechanized farming equipment purchases (DMI = 15) ranked lowest. This aligns with Agarwal's (1994) argument that ownership does not guarantee control, as women are often excluded from final decisions even when legal rights exist. The results suggest that financial roles are accessible to women due to systemic dependence (e.g., men relying on SHG loans), but control over capital assets remains out of reach.

Overall, the findings underscore that while women play a role in certain financial and livestock-related decisions, their control over key agricultural and land-related matters remains limited. Their involvement in wage labour is often driven by economic hardship rather than empowerment, as they are forced into low-paying jobs due to poverty and lack of land ownership. However, SHGs play a crucial role in bridging financial gaps for rural agricultural families, offering women an important avenue for accessing credit. The fact that men must depend on women for SHG loans increases female participation in financial decision-making. Despite this, broader economic and social barriers persist, preventing women from having true autonomy over land and agricultural resources. Addressing these disparities requires policy interventions, legal awareness, and socio-economic programs to enhance women's autonomy, improve their access to land, and create sustainable livelihoods beyond casual labour.

TABLE 2. PARTICIPATION OF FEMALES IN AGRICULTURAL DECISION-MAKING

Decision making areas	No involvement	Just consulted	Perspective considered	Active participation in final decision	DMI score	Rank
Food crop farming	19	7	5	0	17	7
Cash crop farming	19	8	4	0	16	8
Livestock raising	13	0	10	8	44	3
Wage and salary employment	12	0	0	19	57	1
Taking Crops to Market	19	12	0	0	12	10
Selling/Renting/Buying Agricultural Land	27	3	1	0	5	11
Selling/Renting/Buying Large livestock	20	1	2	8	29	5
Selling/Renting/Buying Small livestock	19	0	3	9	33	4
Selling/Renting/Buying Farm equipment (mechanized)	19	9	3	0	15	9
Selling/Renting/Buying Non-Agricultural Land	7	17	2	2	27	6
loan from Self Help Group	12	3	6	10	45	2

Table 3 presents challenges ranked using the Henry Garrett Ranking Technique. The top three ranked issues are low access to land (Mean = 73.68), poor economic conditions (70.87), and dual responsibility (67.03). These reflect structural inequalities, women juggle agricultural labour with unpaid domestic duties, as also noted by Razavi (2003) and Patnaik (2020). Health problems, limited mobility, and technical illiteracy further constrain their agricultural potential. The severity of challenges was computed by asking each respondent to rank 15 common constraints. Using Garrett's formula, each rank was converted to a percentage score, then translated into a standardized value from Garrett's table. These scores were averaged across all 32 women, enabling the prioritization of constraints by perceived intensity and frequency.

TABLE 3. PROBLEMS EXPERIENCED BY FEMALES IN AGRICULTURE

Indicators	Mean Score	Rank
Low access to Productive Capital (Land)	73.68	1
Poor Economic Condition	70.87	2
Dual Responsibility	67.03	3
Health and Mal-Nutrition Problem	66.90	4
Lack of Access to Credit	66.06	5
Reproductive Role and Care	53.32	6
Low Literacy	52.81	7
Lack of Mobility	51.81	8
Lack of Technical Know-how	49.06	9
Non-recognition of Women Contribution	43.13	10
Social Customs	41.52	11
Secondary Status in Decision Making	41.35	12
Lack of Family Support	39.26	13
Natural Environment	24.35	14
Male out Migration	15.84	15

Table 3 highlights the multiple challenges faced by women in agriculture, ranked according to their severity. The most critical issue is low access to productive capital that is land whose mean score is 73.68, which remains a major barrier due to patriarchal inheritance norms and male-dominated land ownership. Without land, women struggle to access credit, government schemes, and agricultural training, making them economically dependent and limiting their ability to make independent farming decisions. Poor economic conditions further intensify these struggles, as most rural women engage in low-paying, labour-intensive agricultural work with little financial security.

One of the key burdens on women is their dual responsibility as they are expected to manage both household duties and farm labour, leaving them physically exhausted and with limited time for skill development or decision-making. Health and malnutrition problems are another major concern, as poor dietary intake, lack of

medical facilities, and heavy workloads negatively impact their well-being, reducing their efficiency in both domestic and agricultural work. Limited access to credit is also a major challenge, as women generally lack collateral such as land or assets, making it difficult for them to obtain loans from formal institutions. Instead, they rely on Self-Help Groups (SHGs), which provide low-interest loans and serve as a crucial financial resource for rural women. Notably, men do not have direct access to SHG loans, forcing them to rely on women to secure credit, which explains women's relatively higher involvement in financial decision-making.

Social and educational barriers further restrict women's participation in agriculture. Low literacy levels prevent women from accessing modern agricultural knowledge, financial literacy, and skill development programs. Limited mobility makes it difficult for women to attend agricultural training, access markets, or participate in decision-making bodies, reinforcing their dependence on male family members. Additionally, lack of technical know-how limits their ability to adopt improved farming techniques, reducing their productivity and economic potential. Cultural and societal constraints further diminish women's autonomy in agriculture. Non-recognition of women's contributions remains a significant issue, as female agricultural labour is often seen as mere "assistance" rather than independent economic work, leading to lower wages and limited ownership rights. Social customs and secondary status in decision-making further reinforce male dominance in agriculture, restricting women's influence over critical farm-related decisions. Moreover, the lack of family support creates additional difficulties, as women are often expected to work without financial or emotional backing from their households.

Interestingly, natural environmental challenges such as climate variability and soil degradation rank lower indicating that gender-based socio-economic barriers have a much greater impact on women's agricultural struggles than environmental factors. The lowest-ranking challenge is male out-migration primarily because migration is relatively low in this region. Unlike other rural areas where male migration increases women's responsibilities, here, most men continue to reside in the villages and retain control over agricultural decisions, further limiting women's autonomy. Overall, the findings reinforce the need to move beyond legal entitlements and address the social, institutional, and cultural barriers that inhibit women's agricultural autonomy. Without redistributive reforms in land, credit, and agency, the role of women will remain constrained to informal and unrecognized labour, perpetuating structural poverty and inequality.

IV

DISCUSSION

The findings of this study must be situated within a broader historical and political economy framework that highlights the ongoing relevance of the agrarian question under neoliberal capitalism. Neoliberalism did not resolve the agrarian crisis

caused by monopoly-finance capital; instead, it re-emerged in a more intensified form as global capital intensified its grip over agriculture through financial speculation, corporate land acquisitions, and privatisation. In contrast to earlier capitalist eras that emphasised industrialisation, neoliberalism focused on profit extraction from agriculture while neglecting rural development, resulting in increased inequality and dispossession (Amin, 2012b). This transition stimulated discourses regarding the “disappearance” of the peasantry, with some progressives asserting that the agrarian and land issues had become outmoded, merely reframing them as an “agrarian question of labour” (Moyo et al., 2013; Amin, 2012a). Nevertheless, the semi-proletariat consistently pursued the struggle for land, as access to land is crucial for social reproduction in both rural and urban contexts, where it is currently disputed for housing, subsistence agriculture, and survival under precarious circumstances. In this context, Women are disproportionately impacted, as the degradation of communal farming traditions and the commercialisation of land have exacerbated unpaid work, limited land ownership, and strengthened patriarchal economic hierarchies.

Simultaneously, monopoly-finance capital has intensified its pursuit of land and natural resources, particularly in the Global South, where imperial countries, multinational agribusinesses, and developing semi-peripheries are competing to reestablish dominance. The current competition for land is fueled not only by the need for agricultural output but also by resource exploitation, carbon markets, and speculative investments that displace communities and exacerbate economic dependency. Consequently, the agrarian question continues to be pivotal in conflicts about sovereignty, gender equity, and alternatives to monopoly-finance capitalism (Amin, 2012b).

The institutional neglect of women’s land rights in India reflects long-standing historical and policy silences. Between 1975 and 1979, numerous committees and working groups on women’s status in India focused primarily on three topics: employment, education, and health. The demand for women’s land rights did not receive formal policy recognition until the Sixth Five-Year Plan (1980–1985), and even then, only in a limited manner. Later, the Eighth Five-Year Plan (1992–1997) acknowledged women’s right to land more explicitly, but implementation has remained weak, and legal reforms have not translated into actual control or ownership for most women (Agarwal, 1994). As this study shows, women’s marginal position in agriculture is not solely the result of legal or economic constraints, but is deeply rooted in patriarchal social norms, cultural restrictions, and a gendered division of labour that continues to reinforce structural inequality.

The Garrett ranking analysis underscores how these structural barriers manifest in women’s daily lives. Limited access to land remains the most significant constraint, followed closely by poor economic conditions and dual responsibilities of unpaid domestic and agricultural work. These are not isolated hardships but symptoms of a broader exclusionary system. Health and nutrition concerns, mobility

constraints, and low literacy further hinder women's participation in agriculture and restrict their access to training, credit, and markets. Despite playing a vital role in agricultural labour, women's contributions often remain unrecognised or devalued, reinforcing their secondary status in both household and community decision-making.

The low impact of male out-migration in this study area is notable; unlike other parts of Bihar, men remain present and retain control over resources and decision-making. This entrenches women's dependency and limits any potential empowerment through increased responsibility. Overall, the study confirms that even where women participate extensively in agricultural labour, they remain structurally marginalised, lacking ownership, voice, and recognition.

V

CONCLUSIONS AND POLICY IMPLICATIONS

This study reaffirms that while women in Bihar are significantly involved in agricultural labour, they remain marginalised in terms of land ownership, credit access, and decision-making authority. The mismatch between high female participation in agriculture (84.49%, PLFS 2023–24) and their limited control over productive resources reflects entrenched structural inequalities rooted in patriarchal norms, socio-cultural barriers, and institutional gaps.

Compared to states such as Kerala or Telangana, where progressive land reforms and greater legal literacy have improved women's landholding status (Mahato et al., 2025), Bihar presents a more constrained scenario. Field data reveals that 61.29% of women are landless, compared to just 6.45% of men, illustrating how male-dominated inheritance systems continue to dominate despite formal legal provisions ensuring equal rights. Even among widows, who generally have better access than married women, ownership remains limited: 66.67% of married women are landless, whereas only 14.29% of widows fall into this category. However, landholdings for women, when they exist, rarely exceed 1–2 hectares, highlighting a broader pattern of exclusion.

Women's decision-making power in agriculture remains equally constrained. The Decision-Making Index (DMI) shows active female participation in areas like wage and casual labour, primarily due to economic necessity, not empowerment. In contrast, their influence in key strategic areas, such as land transactions, purchase of mechanised farm equipment, or crop marketing, is minimal. One area where women have relatively greater involvement is Self-Help Groups (SHGs), which serve as the only accessible credit source for many rural households. Men often rely on women to access SHG loans, which increases female involvement in certain financial decisions. Nonetheless, this participation does not translate into broader agency or control over resources.

These patterns collectively reinforce women's secondary status in both household and agricultural systems, driven by a combination of poverty, lack of land rights, limited mobility, and social norms that undervalue their contributions.

- To address these disparities, the following interventions are recommended:
- Strengthen implementation of women's land rights through legal literacy campaigns, land titling in women's names, and incentives for joint ownership.
- Integrate gender-responsive reforms in agricultural extension services to ensure women's equal access to credit, training, and technology.
- Support and expand SHGs and women's cooperatives as platforms for financial empowerment and collective negotiation.
- Incorporate gender equity metrics into state agricultural policies and rural development programs, particularly in land redistribution and tenancy reforms.

In Bihar's context, where traditional structures continue to constrain women's autonomy, empowerment must go beyond welfare-based approaches. It requires systemic, redistributive reforms rooted in social transformation, institutional accountability, and a commitment to long-term gender justice.

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