

Challenges of Land Ownership Among Women Farmers: A Case Study of Bihar

Amrit Warshini & Veenita Kumari



**National Institute of Agricultural Extension Management
(MANAGE)**
(An organization of Ministry of Agriculture and Farmers' Welfare,
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Challenges of Land Ownership Among Women Farmers: A Case Study of Bihar

ABSTRACT

This study systematically examines the complex barriers inhibiting land ownership among women farmers in Bihar, India, where agricultural land distribution remains overwhelmingly skewed towards men, despite significant legal reforms aimed at gender equity. Women constitute only 13.31 percent of the registered landholders in Bihar, a disparity compounded by cultural norms, financial constraints, and institutional barriers. Utilizing an integrative mixed-methods approach, this research incorporates quantitative data from 150 respondents across three districts and qualitative insights from focus group discussions to analyze this inequity's socio-cultural, economic, and legal dimensions. Results indicate that traditional inheritance practices favour male beneficiaries, while limited access to financial resources and credit severely restricts women's independent land acquisition.

Furthermore, weak enforcement of pro-women land policies and restricted legal support exacerbate these challenges. Correlation analysis reveals a substantial positive relationship between access to legal services and women's land ownership, emphasizing the pivotal role of legal frameworks in facilitating equitable land tenure. Engagement in local community meetings was also positively associated with ownership, suggesting that participatory governance can enhance awareness and agency among women. This research calls for targeted policy interventions focusing on legal literacy, accessible credit mechanisms, and community-driven support structures to bridge the gender gap in land ownership and fortify women's economic empowerment within Bihar's agricultural economy.

Keywords: Women's land ownership, Bihar, gender equity, socio-cultural barriers, legal support, financial access, community participation, agricultural economy.

INTRODUCTION

In India, women's land ownership remains significantly low despite progressive legal reforms promoting gender equality in property rights. Nationally, women constitute approximately 13.9 percent of all landowners, owning only 11 percent of the agricultural land in rural areas (Agarwal *et al.*, 2021). The situation in Bihar is even more concerning, with only 13.31% of landholdings registered under women's names, compared to 87.27% owned by men (Singh *et al.*, 2019).

1.1. Importance of Agriculture in Bihar's Economy

Agriculture is the backbone of Bihar economy, employing about 77.0 percent of the workforce and contributing 35.0 percent to the State's gross domestic product (GDP). It is crucial in providing livelihoods, especially in rural areas where 88.0 percent of the population lives and poverty is widespread. Major crops in Bihar include rice, wheat, maize, and sugarcane, making the State a vital agricultural hub in India (Singh *et al.*, 2015). Despite being a crucial sector, agriculture in Bihar faces numerous challenges, including low productivity, poor infrastructure, and limited access to advanced technologies. The agriculture growth rate in Bihar has fluctuated, showing an average annual growth of 7.1 percent in the last five years, which is higher than the national average (Ranjan, 2020). This growth is critical for poverty alleviation, as most of the State's poor population depend on agriculture for their livelihoods.

1.2. Role of Women in Agriculture

Women are indispensable in Bihar's agricultural landscape, contributing significantly to various crop production and livestock management activities. In Bihar, 70.0 percent of agricultural labor is performed by women, highlighting their involvement in every aspect of farming, from planting and harvesting to animal husbandry (Kumar & Sharma, 2022).

Despite their pivotal role, women in agriculture face severe constraints:

- i. Only 13.31percent of the landholdings in Bihar are owned by women, restricting their access to resources such as credit, inputs, and technology.
- ii. Women's wage is 7.04 percent less than their male counterparts, revealing a persistent gender wage gap (Singh *et al.*, 2019).
- iii. Women's contributions to allied sectors such as dairying, beekeeping, and poultry farming are critical but often undervalued.

1.3. Legal Reforms and Their Impact

The Hindu Succession Act of 2005 was a significant legal reform granting daughters equal inheritance rights to ancestral property. However, cultural and social norms often prevent women from asserting these rights, leading to a vast disparity between legal entitlements and actual land ownership. Women are more likely to inherit land as widows than daughters, highlighting the deep-rooted social preferences prioritizing male inheritance (Agarwal *et al.*, 2021).

1.4. Barriers to Women's Land Ownership

Women in Bihar face multiple interconnected barriers to land ownership. Despite legal reforms, customary practices and patriarchal inheritance systems often override statutory laws, particularly in rural areas, leading to women being denied land or unable to claim it effectively (Agarwal, 1994). Deep-rooted social and cultural norms dictate that land ownership is a male prerogative, excluding women from land-related decisions even within their families and hindering them from asserting their legal rights (Khodary, 2022). Economic constraints, including limited access to credit, lack of independent financial resources, and lower incomes, further impede women's ability to acquire land independently. Additionally, while government schemes like National Policy for Farmers promote joint leasing of agricultural land, weak implementation, social norms, and bureaucratic inefficiencies exacerbate women's marginalization from land ownership (Singh *et al.*, 2019). These combined factors create a complex web of obstacles that perpetuate gender-based inequality in land ownership and control.

1.5. Impact of Land Ownership on Women

Land ownership has a transformative impact on women's lives, touching multiple facets of their personal and economic well-being. It is a powerful tool for economic empowerment and financial security, providing women with direct benefits through agricultural productivity and indirect advantages by facilitating access to credit. Beyond economic gains, land ownership significantly elevates women's social status within their households and communities, amplifying their decision-making power in various aspects of life. This enhanced status and authority often translate into improved agricultural productivity, as women landowners have more substantial incentives to invest in sustainable farming practices, leading to better crop yields.

Furthermore, land ownership acts as a protective factor against social vulnerabilities; women who own land are less likely to experience domestic violence or social exploitation and demonstrate greater resilience during economic hardships. In essence, land ownership for women is not just about property rights but a comprehensive pathway to empowerment, security, and improved quality of life.

1.6. Objectives of the Study

With these backgrounds, the following Study on "**Challenges of Land Ownership Among Women Farmers: A Case Study of Bihar**" was undertaken with the following specific objectives: ·

- 1) To study the profile characteristics of the respondents.
- 2) To examine the land status and factors influencing ownership by the respondents.
- 3) To develop strategies and recommendations for promoting land ownership and control over it by women farmers in Bihar.

1.7. Significance of Research on Women's Land Ownership in Bihar

Researching the barriers to women's land ownership in Bihar is crucial for several reasons:

- i. Understanding systemic inequalities that hinder women's economic and social empowerment.
- ii. Addressing gender inequality in agriculture sector.
- iii. Improving livelihoods and reducing poverty in rural areas.
- iv. Enhancing agricultural productivity and sustainability.
- v. Promoting social justice and women's rights.

1.8. Gap in Existing Research

- 1) **Limited Studies on Women's Land Ownership in Bihar:** There is a need for more comprehensive studies examining the socio-economic and cultural barriers faced by women in accessing land ownership in this region.
- 2) **Need for Updated and Region-Specific Data:** More updated, region-specific studies are required to address the evolving challenges faced by women in Bihar. Data on implementing policies like joint leasing or credit schemes for women remains limited.

Bibliometric Analysis of Barriers to Land Ownership for Women Farmers in Bihar

Bibliometric analysis is a research approach that examines academic publications to understand global research trends within a specific field. This method distinguishes between two types of academic research: review papers and bibliometric analyses, which primarily focus on the outcomes of a particular topic. In this study, data mining was conducted using the Scopus database to explore the barriers to land ownership for women farmers. The search strategy employed the following keywords: ("Barrier" OR "Land Barrier" OR "Challenges") AND ("Land Ownership"). This search yielded a total of 115 articles published between the years 2000 and 2024. The bibliographic data for these 115 articles was exported to Zotero software to create bibliometric maps. These maps will help visualize and analyze the research trends and insights related to women farmers' barriers in accessing land ownership.

Steps in a systematic review:

1. Creation of a precise research question
2. Developing a research procedure
3. Conducting literature review
4. Choosing studies based on the procedure
5. Examining studies in accordance with procedure
6. Extraction of Data
7. Analysis and Interpretation of Data

Systematic Review Procedure for Literature on Barriers to Land Ownership for Women Farmers

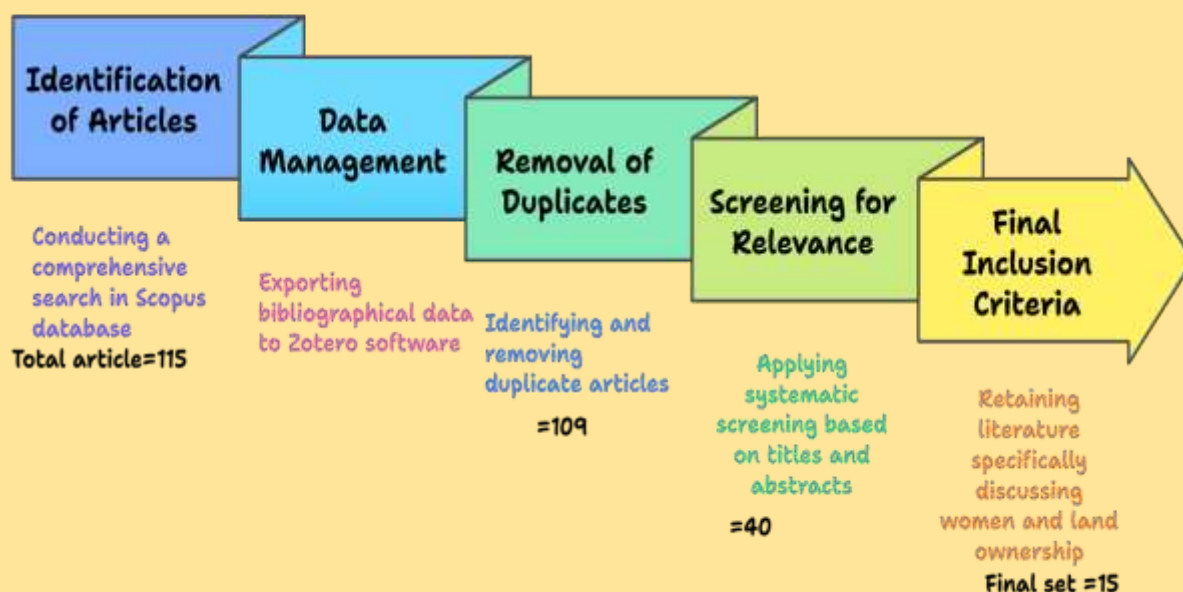


Figure 1: Systematic Review Procedure for Literature on Barriers to Land Ownership for Women Farmers

The systematic review procedure for examining barriers to land ownership for women farmers in Bihar began with a comprehensive search in the Scopus database, utilizing the search query ("Barrier" OR "Land Barrier" OR "Challenges") AND ("Land Ownership"). This search identified 115 relevant articles published between 2000 and 2024. Subsequently, the bibliographical data of these articles were exported to Zotero software for effective reference management and bibliometric mapping. After reviewing the imported articles, duplicates were removed, resulting in 109 unique publications for further analysis. A systematic screening process based on titles and abstracts was then conducted, focusing on various aspects of land, including land tenure and land rights, narrowing the selection to 40 articles. Only those discussing the intersection of women and land ownership were retained to refine the relevance to the research focus, culminating in a final set of 15 articles for inclusion in the systematic review.

1. Unmasking Gender Disparities in Cocoa Farming: The Case of Female Land Ownership in the Ashanti and Western North Regions of Ghana

Buabeng *et al.*, (2024) explored gender disparities in land ownership among Ghana cocoa farmers, focusing on women in the Ashanti and Western North regions. Since land ownership is essential to be recognized as a cocoa farmer in Ghana, traditional inheritance customs favor men and limit women's access to and control of agricultural land. Based on surveys with 160 women and 40 men across seven communities, this study reveals that while men largely dominate cocoa land ownership, women who make farming decisions tend to hold sole ownership of their plots. Marital status and land acquisition methods are identified as critical determinants of whether women achieve sole ownership. The findings underscore how land access could significantly improve women's productivity in cocoa farming but also highlight that structural inequalities diminish their economic potential and decision-making power. The authors emphasize the need for gender-focused policies to empower female farmers and promote equitable land ownership in Ghana's agricultural sector, urging policymakers to address gender-specific challenges within land reform initiatives.

2. Rural Livelihoods and Land Reform in South Africa: An Intersectional Perspective on Women's Lived Experiences

Makhetha (2024) explores the historical and ongoing effects of racialized land dispossession on South African black women, examining the complexities faced by female farmers post-apartheid. The study employs an intersectional lens to highlight how gender, race, age, and class intersect to influence the experiences of women involved in land reform. South Africa's 1994 democratic government introduced land reform initiatives focused on restitution, redistribution, and tenure reform to rectify racially unequal land ownership. However, the study reveals that women still face challenges due to systemic and social barriers. Makhetha argues that while policies prioritize women in land reform, their practical implementation needs to be improved, often leaving women reliant on informal land access. The paper also examines the potential of constitutional amendments supporting Land Expropriation without Compensation to address the gender, class, and age disparities in land ownership. Using data from the Limpopo Province, Makhetha highlights the continued struggle for meaningful land access and ownership among black women farmers and argues for more robust, inclusive policy implementations.

3. Land Ownership, General Land Survey, and Russian Colonization of Crimea in the Late Eighteenth and the First Half of the Nineteenth Centuries

Platonova (2024) explores the initial phase of Russian colonization in Crimea, focusing on land distribution and ownership issues during this period. The study emphasizes how the Russian imperial authority sought to manage the complexities of land ownership by enacting special land legislation and deploying land commissions to address land conflicts and delineate property boundaries. The paper details the development of a land tenure system in Crimea following its annexation by Russia in 1783. It examines the integration process of Crimea and its inhabitants and the governance mechanisms established by the Russian authorities. The General Land Survey, initiated in the Russian Empire in 1765, played a crucial role in demarcating lands in the Taurida governorate between 1798 and 1804, with significant advancements made in 1829-1843. This survey provided valuable cartographic and economic data essential for understanding the region. Platonova concludes that land commissions and surveying operations were instrumental in clarifying and regulating land rights for both native and non-native populations in Crimea. These initiatives helped address land ownership disputes and enhanced the authorities' understanding of the region's specific challenges and characteristics.

4. Indigenous Women's Connection to Forest: Colonialism, Lack of Land Ownership and Livelihood Deprivations of Dayak Benawan in Indonesia

Niko *et al.*, (2024) explored the vital relationship between Dayak Benawan women and their natural environment, emphasizing the importance of forests in their cultural and economic lives. The authors highlight that these women are critical protectors of native forests in West Kalimantan, Indonesia, yet face significant challenges due to colonial legacies and ongoing struggles for land ownership. The study is rooted in long-term ethnographic research and illustrates how the lives of Dayak Benawan women are intertwined with their forests. Despite their critical role in maintaining ecological knowledge and traditions, these women often endure poor living conditions and limited access to essential public services. Their daily activities in the forest are not just about survival; they are a means of preserving their cultural identity and ecological practices. The article argues that the connection between women and ecological knowledge has existed for centuries in the Dayak Benawan community, signifying a deep relationship between humans and nature. However, this connection is threatened by external pressures and a lack of recognition of their land rights, resulting in livelihood

deprivations. The authors advocate for greater recognition of Indigenous women's rights and the need for policies that support their roles in land stewardship and cultural preservation.

5. Women's Land Ownership in India: Evidence from Digital Land Records

Jain *et al.*, (2023) examined women's persistent barriers to securing land rights in India, despite policy reforms intended to promote gender equity. Drawing on a unique dataset of over 16,000 digital land records across 12 States and Union Territories, they highlight that women's land ownership remains limited and inequitable. Their findings indicate that women often receive smaller and lower-quality plots, demonstrating that legal land titles alone cannot overcome ingrained social and cultural biases in land distribution. The study also assesses State-level variations in implementing pro-women land policies, showing that while some States have introduced supportive provisions, results are mixed. This is attributed to weak enforcement and the continued influence of patriarchal norms, which hinder women's control over land assets. The authors argue for a comprehensive reform approach that addresses legal structures and cultural shifts, emphasizing that these changes are critical to empowering women farmers and enhancing their economic agency.

6. Gendered Effects of Land Access and Ownership on Food Security in Rural Settings in South Africa

Masuku *et al.*, (2023) examined rural women's challenges regarding land access and ownership in South Africa, highlighting its significant impact on food security. It reveals that the gendered nature of land distribution favors men, restricting women's access and exacerbating economic deprivation and food insecurity in households. Customary law is identified as a critical barrier, prioritizing male ownership and reinforcing inequalities. The authors recommend that the South African government implement better land policies to ensure equal access for both men and women, which would help alleviate food insecurity and empower women economically.

7. Inequality as a Cultural Construction: Women's Access to Land Rights in Madurese Society

Supraptiningsih *et al.*, (2023) delve into the systemic challenges women face in obtaining property rights, particularly land ownership, on Madura Island in East Java, Indonesia. The authors argue that in Madurese society, land rights are predominantly allocated to male offspring, perpetuating gender inequality through cultural norms and patriarchal structures.

Utilizing a constructivist perspective, the study draws on various data sources, including field observations, interviews, and document analysis, to explore how cultural practices and beliefs reinforce power imbalances. The findings reveal that the challenges women encounter in securing land rights stem from deep-rooted cultural constructions that lead to unjust treatment within the family unit. Despite women's significant contributions to domestic management and the family's well-being, their lack of access to land ownership severely restricts their independence and prospects. The article emphasizes that the prevailing cultural constructions surrounding gender and property rights in Madurese society contribute to ongoing discrimination against women. This not only hampers their economic opportunities but also perpetuates their reliance on male family members, thereby reinforcing the cycle of inequality.

8. Gender Perspectives in Namibia's Communal Land: Exploring Women's Hindrances to Equitable Land Ownership

Mwetulundila, P. (2022) examined the persistent challenges women face in acquiring equitable land ownership in post-independence Namibia despite the establishment of laws and policies to address gender inequalities. Conducting research among women aged 18–60 across nine regions, the study reveals a strong belief among women that they should have the right to own land in communal areas. However, significant barriers still exist that hinder their access to land. The findings suggest that the struggle for equitable land distribution is ongoing, necessitating a thorough overhaul of existing legal frameworks to ensure women's rights to land ownership and improve their socio-economic conditions.

9. Land Rights and Women's Rights in Morocco: Cooperation and Contestation among Rural and Urban Women Activists

Eddouada (2021) investigated the dynamics between rural women leaders, known as *sulaliyat*, and urban women activists in Morocco, as they navigate issues surrounding land rights and neoliberal privatization policies. Over the past two decades, *sulaliyat* has emerged significant in local struggles against privatizing communally held land, often conflicting with urban feminists advocating for universal gender equality. Eddouada's analysis highlights how the *sulaliyat*'s activism is grounded in socio-economic realities, including land expropriation and the displacement of local populations, which challenge abstract notions of feminism that urban reformers promote. The article emphasizes the intersectional inequalities perpetuated by both land privatization and the alliance between the open-market economy and patriarchal political structures. The article explores the subaltern agency of the *salariat* and its challenge to

dominant narratives of development and human rights through an interdisciplinary lens. This resistance underscores their capacity to redefine local concepts of land ownership, reflecting a nuanced understanding of gender dynamics in the context of Morocco's socio-political landscape.

10. Gender and Asset Ownership in the Old and New Lands of Egypt

Najjar *et al.*, (2020) investigate the significant gender disparities in land and asset ownership in Egypt, focusing on both the Old and New Lands. Despite the Middle East and North Africa region having the lowest levels of women's land ownership globally, the study reveals that women face specific barriers and constraints in acquiring land and other assets like houses and livestock. Through a combination of surveys and qualitative interviews, the authors find that while both men and women regard land and housing as vital assets, they differ in their perceptions of what assets are valuable for women. Notably, while women hold some land titles—20.0 percent in the New Lands—women remain reluctant to ensure equal inheritance for their daughters compared to their sons. The study emphasizes that achieving gender equity in asset ownership requires legal and economic reforms and consciousness-raising initiatives that challenge existing perceptions and norms around property ownership.

11. Enterprising Women in Southern Africa: When Does Land Ownership Matter?

Brixiova *et al.*, (2020) explore the impact of land ownership on the entrepreneurial performance of women in Southern Africa, particularly in the context of limited access to finance. It highlights how female entrepreneurs face significant barriers due to their lack of collateral assets, such as land, which restricts their access to credit compared to their male counterparts. The authors find that land ownership significantly contributes to higher sales level for women-led enterprises by utilizing data from the World Bank Enterprise Surveys in Eswatini, Lesotho, and Zimbabwe. However, while ownership is beneficial, it is less critical for sales growth and innovation, where access to short-term loans for working capital is more influential. The findings advocate for policy interventions to remove obstacles to female land tenure and enhance access to finance through movable collateral, thereby fostering women's entrepreneurship in the region.

12. Land as a Womb: Impact of Gender Imbalances on Land Redistribution in the Third Chimurenga

Muzenda (2020) explores the gender dynamics surrounding land redistribution during Zimbabwe's Third Chimurenga (or land reform). The author posits that while land is often metaphorically described as a womb due to its essential role in reproduction and production, women—who are central to this metaphor—have been marginalized in the processes of land redistribution in post-colonial Zimbabwe. The article highlights significant events, such as a protest by 90 women who ascended Mount Nyangani to draw attention to gender imbalances in land ownership. Muzenda argues that land is a vital resource for livelihood and a key component of identity and belonging. However, patriarchal land tenure systems continue to exclude women from owning land independently, relegating them to a subordinate position within these structures. Employing a black liberation theological perspective, the article illustrates the intersection of gender, land, and patriarchy, emphasizing the need for the emancipation of oppressed groups, particularly women. The theoretical framework highlights the importance of acknowledging and addressing the systemic inequalities within land redistribution efforts.

13. Cultural Practices and Women's Land Rights in Africa: South Africa and Nigeria in Comparison

Eniola *et al.*, (2019) explore the interplay between cultural practices and African women's land rights, specifically focusing on Nigeria and South Africa. It highlights how traditional belief systems contribute to gender inequality, particularly in land ownership and access. The authors argue that these cultural norms limit women's property rights and hinder sustainable development across the continent. They emphasize that the challenges of land utilization, food security, and sustainable growth are directly linked to the denial of women's rights to land. The chapter concludes by calling for urgent action to promote gender equality in land ownership and resource management, deemed essential for Africa's sustainable development and survival.

14. Pathways and Associations between Women's Land Ownership and Child Food and Nutrition Security in Pakistan

Rehman *et al.*, (2019) explored the impact of women's land ownership on child nutrition in Pakistan, addressing a gap in literature connecting women's land rights to child food security in regions with prevalent gender discrimination and malnutrition issues. Utilizing data from the 2012–2013 Pakistan Demographic and Health Survey, the study applies ordinary least squares (OLS) and quantile regression (QR) analyses. Findings reveal that women's land ownership and autonomy in large household purchases significantly improve food and

nutritional security, especially for children with severe stunting. The study also employs a structural equation model, demonstrating that women's increased decision-making power partially mediates the relationship between land ownership and child nutrition, underscoring the role of autonomy. The authors conclude that policies promoting women's land rights can enhance their autonomy and welfare and improve child nutrition, contributing to broader developmental goals.

15. Land Ownership Patterns and Livelihood of Women Entrepreneurs: Implications for Sustainable Development in Ado-Odo Local Government in Ogun State, Nigeria

Yusuff (2019) investigated the relationship between land ownership and the livelihoods of women entrepreneurs in Ado-Odo Local Government. The study highlights the critical role land plays as a resource for farming and other subsistence activities while addressing the systemic barriers women face regarding land ownership due to gender discrimination. The key findings indicate that the prevailing patterns of land ownership in the region significantly affect the livelihoods of women entrepreneurs. Many respondents expressed a desire for change, sharing their land ownership and access rights challenges. The study concludes with the recommendations for reforming customary laws related to land inheritance to enhance women's rights to land ownership, which is deemed essential for sustainable development in Ogun State.

METHODOLOGY

The present investigation examines the barriers to land ownership for women farmers in Bihar, in 2024. This study employed a mixed-method research design, integrating quantitative and qualitative approaches to ensure comprehensive data collection and analysis. The methodology was designed to capture measurable variables and socio-cultural factors that influence women's access to land ownership in agriculture sector.

3. Study Area and Sampling Framework

3.1. Selection of Study Area

The research was conducted in Bihar's Tirhut division that represents a significant agricultural region of the State. A strategic sampling approach was implemented to ensure representative coverage of the region's diverse agricultural landscape. Three districts were purposively selected based on their geographical area to capture potential variations in land ownership patterns: West Champaran (5,228 km²), representing the largest district; Muzaffarpur (3,173 km²), representing a medium-sized district and Sheohar (349 km²), representing the smallest district in the region.



Figure 2: Map of Bihar

3.2. Sampling Design and Selection of Respondents

A multi-stage sampling technique was employed to ensure systematic and representative sample selection.

Administrative Level	Sampling Method	Selection Details	Sample Size Distribution
District Level	Purposive Sampling	Three districts from Tirhut Division: West Champaran, Muzaffarpur, Sheohar	West Champaran (n=60) Muzaffarpur (n=50) Sheohar (n=40)
Block Level	Random Sampling	One block per district: Chanpatia (West Champaran) Bandra (Muzaffarpur) Dumri-Katsari (Sheohar)	Total villages: 6 (2 per block)
Village Level	Random Sampling	Bandra Block: Pirapur and Harpur West Champaran: Puraina Chaube and Bhaisahi Pokahriya Sheohar: Bhatha and Borha Mohanpur	Total respondents: 150

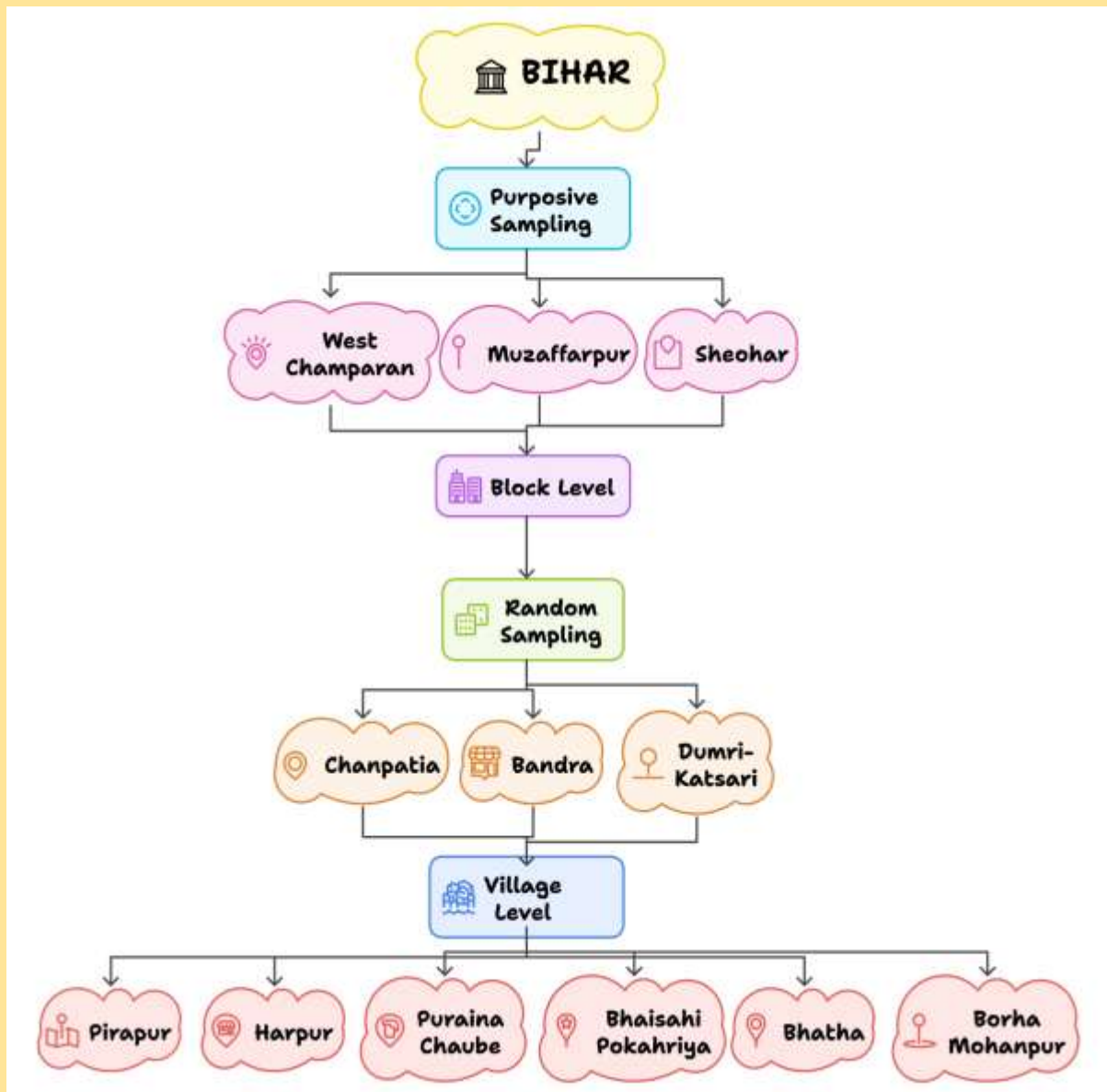


Figure 3: Pictorial representation of Sampling Design

3.3. Data Collection Methods and Tools

3.3.1. Primary Data Collection

The study utilized multiple data collection instruments to ensure comprehensive coverage of the research objectives. Primary data was collected through face-to-face structured interviews, employing a carefully designed interview schedule. The schedule incorporated closed and open-ended questions to capture quantitative metrics and qualitative insights. Focus group discussions (FGDs) were conducted to gather collective perspectives and understand community dynamics regarding women's land ownership.

3.3.2. Survey Implementation

Field surveys were conducted through personal visits to the selected villages. The interview schedule was administered in the local language to ensure accurate communication and authentic responses. Focus group discussions were organized with careful consideration of local social dynamics and cultural sensitivities. The total sample size of 150 respondents was distributed proportionally across the three districts based on their geographical area and population density.

3.4. Analytical Framework

3.4.1. Quantitative Data Analysis

The quantitative data analysis framework was developed to ensure a robust statistical examination of the collected data. A comprehensive database management system was established using MS Excel for initial data entry and organization. The analytical process included:

- Application of descriptive statistics (means, frequencies, and standard deviations)
- Correlation analysis to examine relationships between variables
- Multiple regression analysis to identify significant predictors of land ownership patterns
- Percentage analysis for demographic and socio-economic variables

3.4.2. Qualitative Data Analysis

Qualitative data obtained through open-ended questions and focus group discussions were analyzed using NVIVO software. The analysis followed a systematic approach, including:

- Thematic analysis of narrative responses
- Content analysis of focus group discussion transcripts
- Identification and categorization of emerging patterns and themes

3.5. Data Processing and Quality Assurance

A rigorous data processing protocol was implemented to ensure data quality and reliability. This included:

- Development of a structured database management system

- Implementation of systematic data entry protocols
- Regular consistency checks and data validation
- Cross-verification of entered data
- sorting and categorization of qualitative responses

3.6. Demographic Context and Regional Characteristics

The study area encompasses regions with distinct demographic characteristics, particularly gender distribution. The sex ratio varies across the selected districts: West Champaran (906 females per 1000 males), Muzaffarpur (900 females per 1000 males), and Sheohar (893 females per 1000 males). These demographic patterns provide essential context for understanding gender-based disparities in land ownership.

3.7. Ethical Considerations

The research methodology was implemented with strict adherence to ethical research principles. Informed consent was obtained from all the respondents, and confidentiality of their responses was maintained throughout the study. Cultural sensitivities and local customs were respected during the data collection process.

RESULTS AND DISCUSSION

The collected data were analyzed and logically presented to comprehend the findings better. This section presents the discussion of the results under the following sub-heads:

- 1) To study the profile characteristics of the respondents.
- 2) To examine the land status and factors influencing ownership by the respondents.

Profile characteristics of the respondents

Districts: The distribution of the respondents is presented in Table 1. It shows that 40.0 percent of the respondents were from the West Champaran district, 33.33 percent were from Muzaffarpur, and the remaining 26.67 percent were from the Sheohar district.

Table No. 1: Distribution of the Respondents District-wise

S. No.	Districts	Frequency	Percentage
1.	West Champaran	60	40.00
2.	Muzaffarpur	50	33.33
3.	Sheohar	40	26.67
	Total	150	100.00

Profile Characteristics of the respondents

Profile characteristics of the respondents was studies to collect information on Age, Education, Marital Status, Family type, Annual Income, Occupation, Access to Credit, Types of farming practiced, Agricultural practices and technologies used, Decision making power in agricultural practices, Participation in local meetings on land use planning, Awareness of women's land ownership Rights, Access to legal services related to land rights, Socio-cultural attitudes towards women land ownership and Land ownership status for women farmers. The distribution of the respondents based on the selected characteristics is presented in the following tables:

1. Age

The barriers to land ownership for women farmers are determined based on their age, which plays a vital role. The age distribution of farmers was determined and shown in Table 2

Table 2: Distribution of respondents according to their Age

S. No.	Age Category	Frequency	Percentage
1.	Young (≤ 30)	33	27.50
2.	Middle age (31-46)	70	58.33
3.	Old age (≥ 47)	17	14.17
	Total	120	100.00

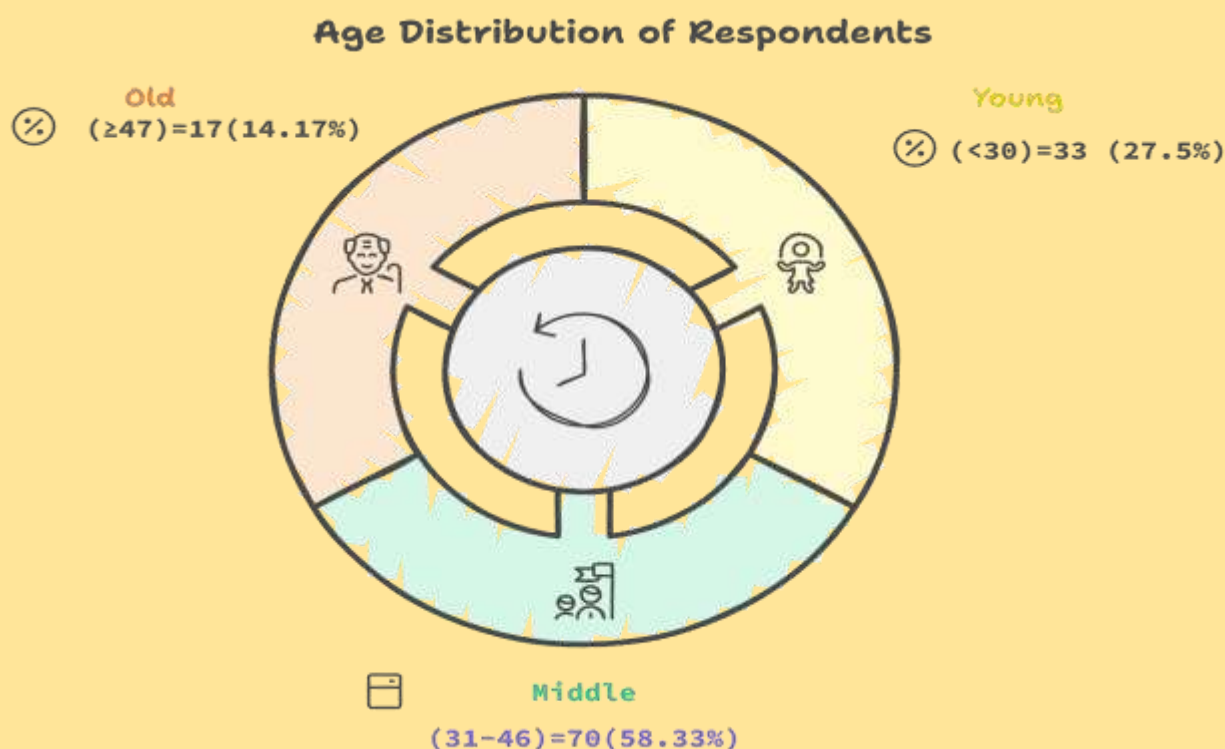


Figure 4: Age Distribution of the Respondents

As per the data of Table 2, majority of the women farmers fall within middle-age category, comprising 58.33 percent of the respondents. This is followed by 27.5 percent of young farmers (under 30 years) and 14.17 percent in the old age group (47 years and above). The results

suggest that a significant proportion of women are at a middle stage in their lives, which likely means they are balancing critical responsibilities, including managing agricultural duties and family obligations. This stage is often characterized by increased responsibilities, where women may be taking on both domestic and agricultural roles, which can influence their access to land and resources. The relatively lower representation of young women indicates potential barriers they face in accessing land ownership early in their farming careers, possibly due to cultural, financial, or legal challenges. On the other hand, the lower presence of older women may be attributed to their reduced activity in agriculture as they age, possibly transitioning to less physically demanding roles or retiring from farming altogether. These findings underscore the need for targeted interventions to support women farmers at various life stages, ensuring that both younger and older women can overcome the challenges they face in land ownership and actively participate in agricultural development.

2. Education

Education improves an individual's ability to seek knowledge, use things and understand more effectively, hence assessing respondent's educational attainment was critical. The data on the respondent's educational backgrounds was gathered, tallied and examined. The results are shown in Table 3.

Table 3: Classification of the Respondents according to their educational level

Sl. No.	Education Level	Frequency	Percentage
1.	Illiterate	4	3.33
2.	Can read only	2	1.67
3.	Can read and write	7	5.83
4.	Primary	22	18.33
5.	Middle	20	16.67
6.	High School	63	52.50
7.	Graduate	2	1.67
	Total	120	100.00

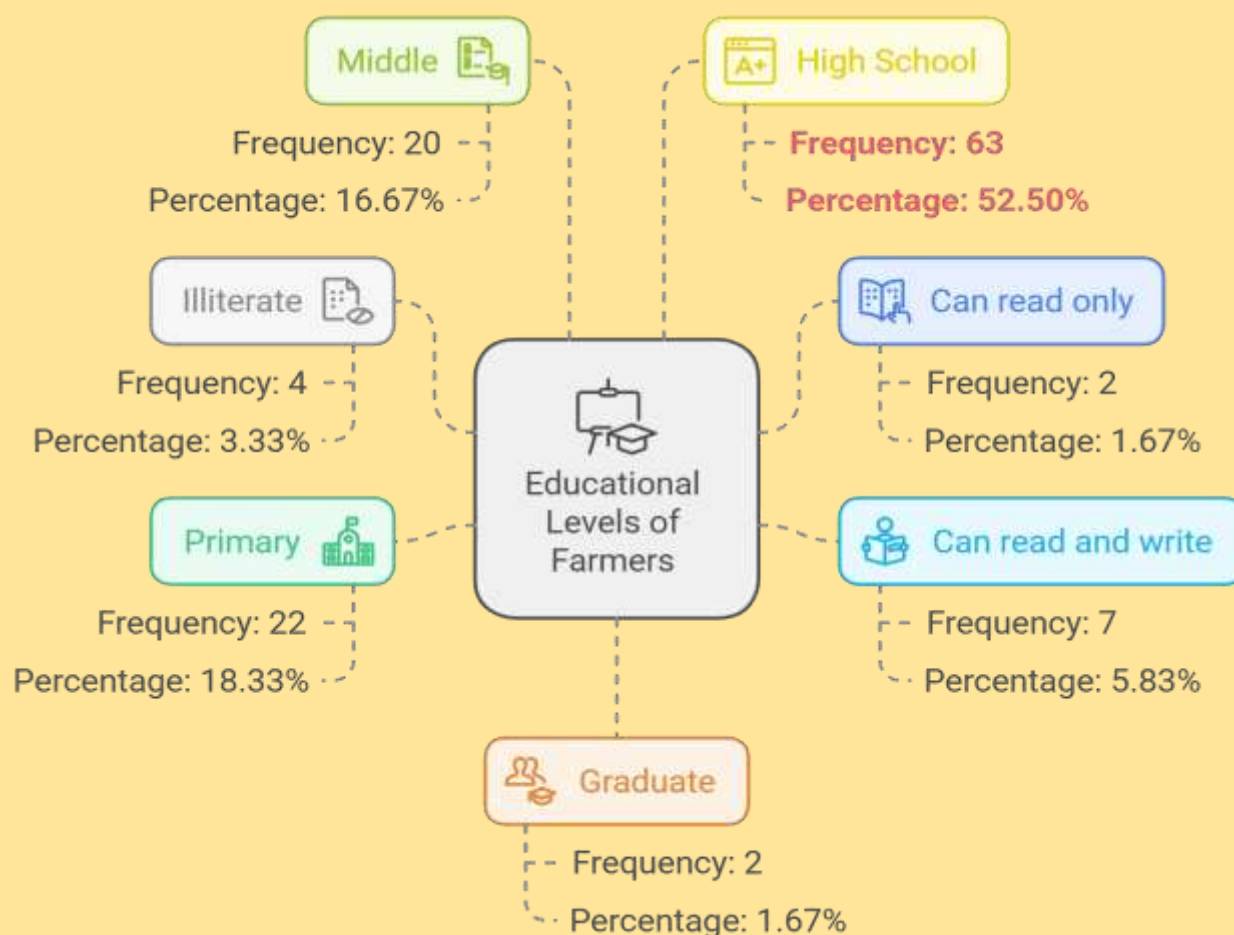


Figure 5: Classification of the Respondents according to their educational level

The education level distribution among the respondents reveals that 52.50 percent had high school education, indicating a significant investment in secondary education within the community. This trend may stem from local cultural norms prioritizing education but restricting further studies, particularly for girls. Many families are reluctant to send their daughters to distant place to study because of safety concerns and societal pressures, resulting in limited opportunities for higher education.

18.33 percent of them had primary level of education, 16.67 percent with middle school level and only 1.67 percent with graduate degree. It reflects low level of literacy among women in the selected locale, at foundation level as well as at higher level. The presence of illiterate women (3.33%) reflects the continued barriers, likely linked to socio-economic factors.

3. Marital Status

Marital status refers to an individual's legal relationship status, which can influence social, economic, and cultural dynamics in various contexts, including agricultural practices. The data is shown in table 4.

Table 4: Marital Status of the Respondents

S. No.	Marital Status	Frequency	Percentage
1.	Unmarried	28	23.33
2.	Married	91	75.83
3.	Divorced	0	0
4.	Widow	1	0.83
	Total	120	100.00

Table 4 shows that majority (75.83%) of the respondents are married, unmarried women make up 23.33percent, reflecting some independence in agriculture. Notably, there were no divorced women and only one widow (0.83%), suggesting that divorce is rare or a social stigma in this context. These findings highlight the significant influence of marital status on women's participation in agriculture and land ownership. Marriage, in particular, may affect women's roles and access to resources, as married women may be more likely to engage in family farming activities, while unmarried women could exhibit more autonomy in agricultural decision-making. The lack of divorced women points to potential societal pressures or stigmas surrounding divorce, which could limit women's opportunities or rights in the agricultural sector. These insights underscore the need for supportive policies that are sensitive to the diverse circumstances of women farmers, ensuring that both married and unmarried women, as well as widows, have equal access to land, resources, and agricultural opportunities.



Figure 6: Marital Status of the Respondents

4. Family Type

Family type refers to the structure of a family unit, which can influence social roles, responsibilities, and access to resources in agricultural settings.

Table 5: Distribution of the respondents according to their types of family.

S. No.	Family Type	Frequency	Percentage
1.	Nuclear Family	36	30.00
2.	Joint Family	84	70.00
	Total	120	100.00

The data in Table 5 indicates that 70.0 percent of the respondents in the selected locale belonged to joint families, while 30.0 percent had nuclear families. The predominance of joint families suggests a strong tradition of extended familial support in agricultural practices, potentially providing shared resources and labor.

In contrast, the presence of nuclear families (30.0%) may reflect a shift towards more independent family structures, which can impact women's access to collective resources and landownership. Overall, these findings highlight the importance of family type in shaping the dynamics of land ownership and support systems for women farmers.

Distribution of Farmers by Family Type

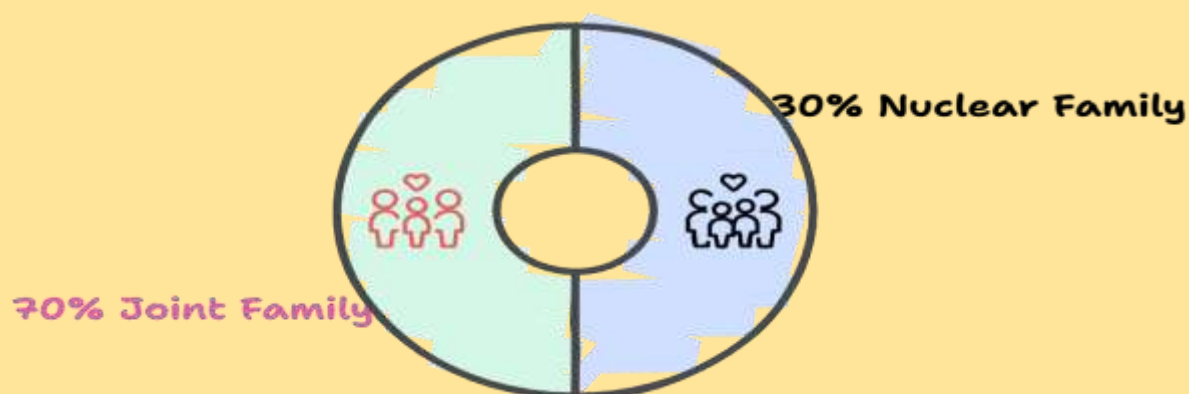


Figure 7: Distribution of the Respondents according to their types of family.

5. Occupation

Occupation refers to the primary work activities of individuals, influencing their economic status and roles within the agriculture sector.

Table 6: Distribution of the respondents according to their Occupation

S. No.	Occupation	Frequency	Percentage
1.	Farming	24	20.00
2.	Agricultural labor	4	3.33
3.	Non-agricultural work	6	5.00
4.	Homemaker	17	14.17
5.	Farming and others	69	57.50
	Total	120	100.00

Table 6 reveals that majority (57.5%) of the respondents in the selected locale are engaged in farming and other occupations, indicating a multifaceted approach to livelihood. A smaller percentage, (20.0), practiced farming as their sole occupation, while 3.33 percent of them worked as agricultural laborers and another 5.0 percent were in non-agricultural occupations.

The remaining 17.0 percent are homemakers, highlighting the significant domestic roles played by women.

The data suggests that women balance multiple responsibilities, which may impact their access to land and resources, as the time and energy spent on various tasks may limit their ability to focus on securing land rights or fully participating in agricultural decision-making. Furthermore, this balancing act often forces women to prioritize immediate domestic or supplementary income needs over long-term land ownership and resource management. The reliance on farming alongside other work underscores the need for policies that support diverse income strategies, helping to reduce the economic burden on women and enhance their empowerment in agriculture. These policies should focus on improving access to land, financial resources, and training that accommodate their multiple roles.

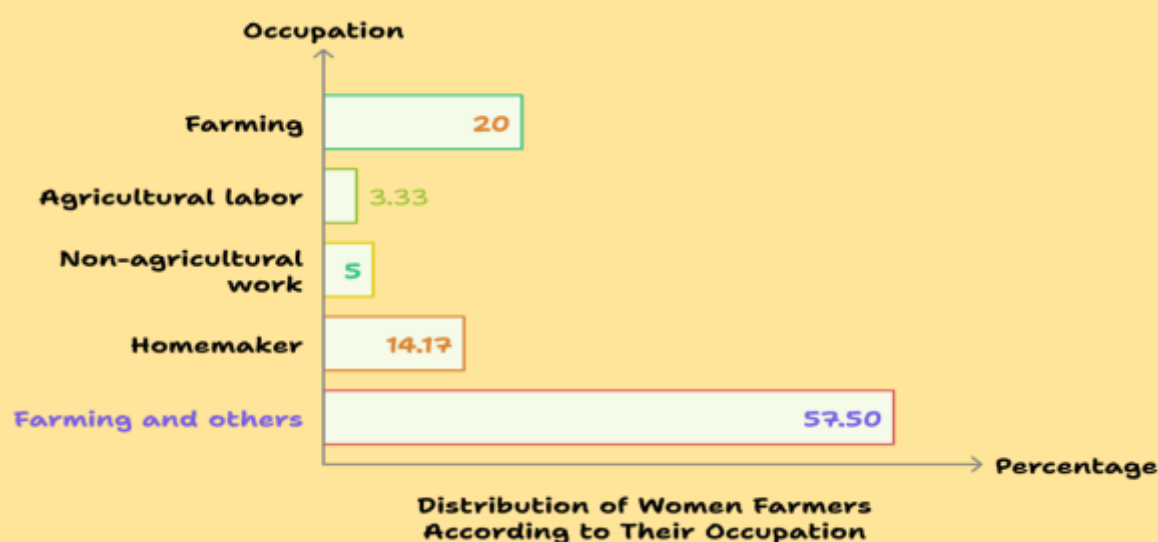


Figure 8: Distribution of the respondents according to their Occupation

6. Annual Income

Income category classifies individuals based on their earnings, which can influence their access to resources and opportunities in agriculture.

Table 7: Distribution of the respondents according to their Annual Income

S. No.	Income Category	Income Range (INR)	Frequency	Percentage
1.	Low Income (Mean-SD)	59,013 and below	16	13.33
2.	Medium Income (Mean)	59,014 to 2,72,826	86	71.67
3.	High Income (Mean +SD)	2,72,827 and above	18	15.00
	Total		120	100.00

Table 7 shows that majority (71.67%) the respondents in the selected locale had medium income (INR 59,014 to 2, 72,826). This suggests a relatively stable economic status for most of them, who may afford to invest significant income in agriculture. In contrast, 13.33 percent had low income (INR 59,013 and below), indicating financial vulnerability that could limit their access to land and resources.

Only 15 percent of the respondents had high income (INR 2, 72,827 and above), which implies that a small percentage of the women had achieved significant economic success. Overall, these findings emphasize the importance of addressing income disparities to enhance women's access to land ownership and support in the agricultural sector.

Distribution of Women Farmers by Annual Income

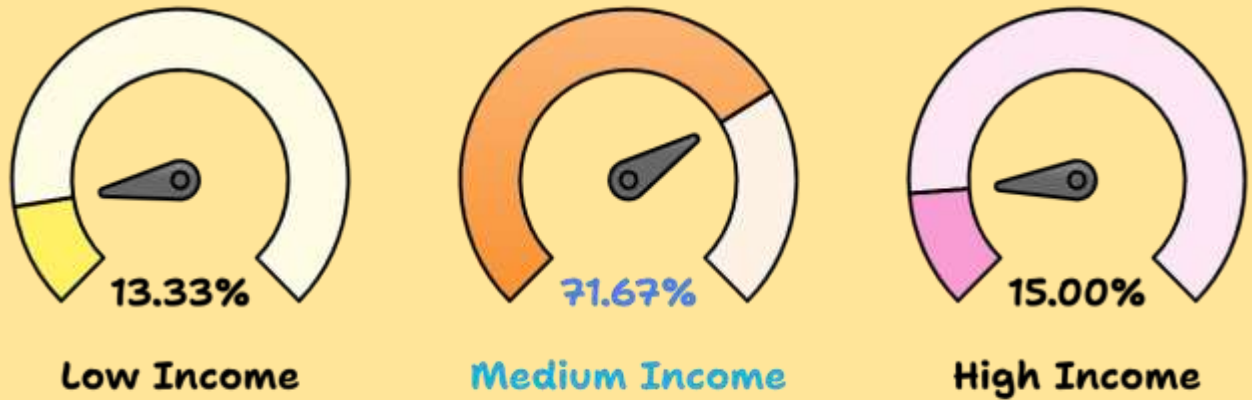


Figure 9: Distribution of the Respondents according to their Annual Income

7. Access to Credit for Agricultural Purpose

Access to credit refers to the ability of individuals or groups to obtain financial resources for agricultural activities, which can significantly impact their productivity and investment capacity.

Table 8: Distribution of the Respondents according to Access to Credit for Agricultural Purpose

S. No.	Access to Credit	Frequency	Percentage
1.	Yes	112	93.33
2.	No	008	06.67
	Total	120	100.00

Yes: Farmers who have access to credit are often able to invest in entrepreneurial activities like opening shops, buying goats (especially for goat farming), or expanding their agricultural ventures.

No: These farmers lack access to credit, potentially limiting their ability to expand agricultural activities or invest in farm inputs.

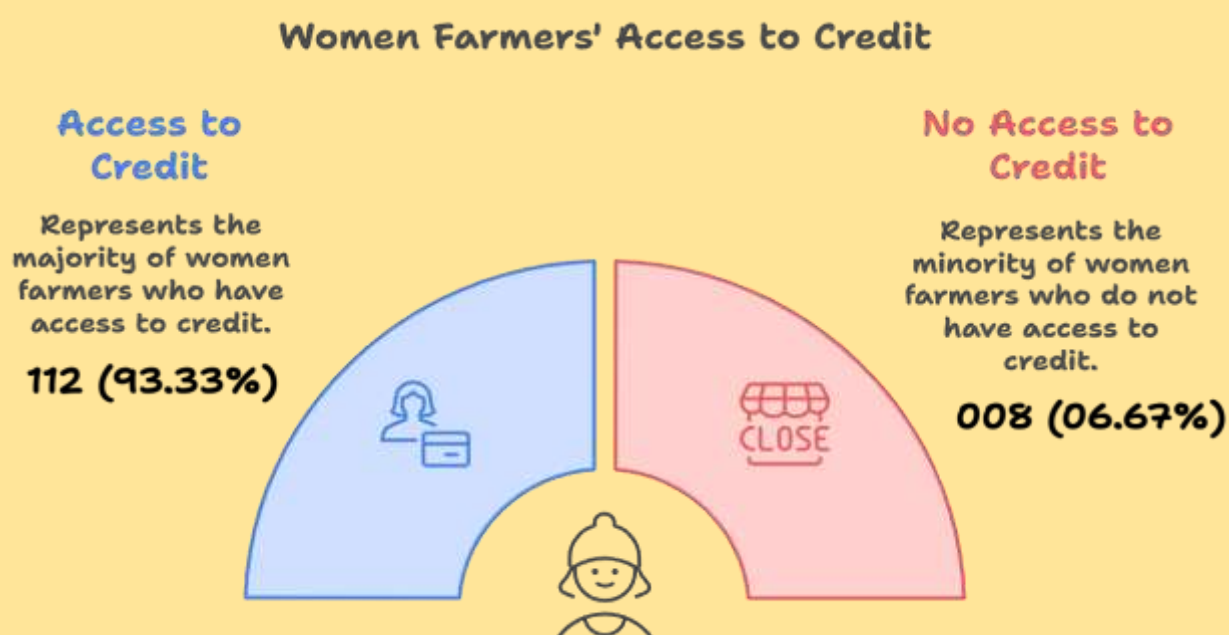


Figure 10: Distribution of the Respondents according to Access to Credit for Agricultural Purpose

Table 9: Primary Source of Credit for the Respondents (n=112)

Source of Credit	Frequency	Percentage
Institutional		
Banks	10	08.90
Microfinance institutions	8	07.10
Self-Help Groups (SHGs)	12	10.70
Non-Institutional		
Informal lenders	30	26.80

Family/Friends	40	35.70
NGOs/Development Organisations/International Orgs	12	10.70
Total	112	100.00

Institutional Sources (Banks, MFIs, SHGs, and NGOs): Farmers access formal channels for credit, which are often more regulated but might involve a more complex process. These channels can provide structured loans, often at lower interest rates.

Impact on Farmers: Institutional credit is generally used for more significant investments, such as purchasing livestock (e.g., goats for goat farming) or establishing small businesses like village shops.

Non-Institutional Sources (Informal Lenders, Family/Friends): These sources are more flexible but may come with higher interest rates, especially for informal lenders.

Impact on Farmers: Credit from these sources might be more accessible in urgent situations, allowing farmers to buy agricultural inputs or livestock quickly, but it could result in higher long-term financial pressure.

Family/Friends (35.70%) and Informal Lenders (26.80%) were the most common sources of credit, showing a high reliance on non-institutional credit. This might be due to ease of access and fewer formalities.

Institutional sources like SHGs and NGOs (10.70% each) also play a significant role, indicating their importance in empowering women farmers by providing structured financial support.

Majority of the respondents (93.33%) had access to credit, through family and friends as the primary source for 35.7 percent. The reliance on informal credit networks indicates limited trust or access to formal financial institutions, particularly in rural settings where social ties are often crucial for securing loans. Informal lenders also play a significant role, for 26.8 percent of the respondents. This suggests that, despite higher interest rates and exploitation, informal credit systems are more accessible or convenient for majority of the respondents.

A significant percentage of the respondents (8.9%) reported banks as their primary source of credit. This low engagement with formal financial institutions could be attributed to the

stringent collateral requirements, complex application procedures, and the distance of banking services from rural areas. 10.7 percent of the respondents obtained credit through self-help groups (SHGs), which provide an alternative credit system for rural populations, especially women, through community-based savings and lending system. NGOs and development organizations also play a significant role in credit provision for 10.7 percent of the respondents, particularly in contexts where formal financial inclusion is low.

6.67 percent of the respondents didn't had any source of credit access. The prime barriers to obtaining agricultural credit include lack of collateral, limited financial literacy, and distrust in formal institutions. Many rural farmers, particularly women, need help to meet the requirements of formal lenders such as banks and microfinance institutions. Additionally, cultural and systemic barriers, such as absence of land titles or ownership documents, restrict access to credit. Without sufficient access to affordable credit, they are left with limited resources to invest in improving agricultural productivity or expanding their livelihood.

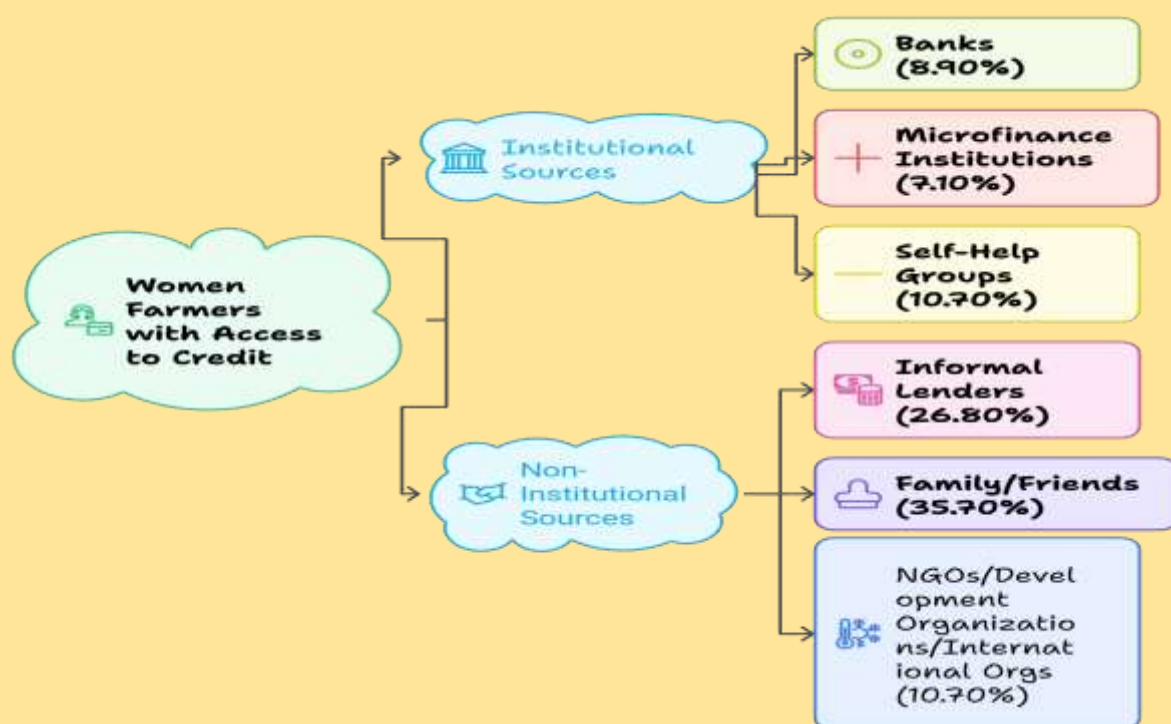


Figure 11: Primary Source of Credit for the Respondents (n=112)

8. Types of farming

1. Subsistence Farming: Subsistence farming refers to agricultural practices aimed primarily at producing food for the farmer and their family, with little to no surplus for sale. This type of

farming is typically small-scale, with minimal mechanization and reliance on traditional farming techniques.

2. Commercial Farming: Commercial farming is characterized by large-scale production of crops or livestock primarily for sale in the market, rather than for personal consumption. It often involves the use of advanced agricultural technology and practices aimed at maximizing profit.

3. Mixed Farming: Mixed farming involves simultaneous production of crops and livestock on the same farm. This practice can enhance sustainability of farming systems by allowing farmers to diversify their source of income while improving soil fertility through the integration of crop and animal waste.

4. No Land: This category includes individuals who are involved in farming activities but do not own land. They might engage in share cropping, lease land, or work as laborers on others' farms.

Table 10: Distribution of the Respondents according to Types of Farming

S. No.	Type of Farming	Frequency	Percentage
1.	Subsistence	25	20.83
2.	Commercial	57	47.50
3.	Mixed	33	27.50
4.	No land	5	4.17
	Total	120	100.00

The predominant crops grown include sugarcane, wheat, rice, vegetables, and maize.

According to the data of Table 10, commercial farmers (47.50% of the respondents) were found to be engaged in diverse cropping patterns to maximize profits, often focusing on cash crops like sugarcane and vegetables, which can yield higher returns. This approach not only enhances their income but also supports local economies.

Subsistence farmers (20.83%) primarily grow crops for their families, often cultivating staples like rice and wheat alongside some vegetables for daily consumption. They may plant fewer varieties due to limited resources.

Mixed farming (27.50%) practices are common, where farmers integrate both subsistence and commercial crops, ensuring food security while generating some income too.

Distribution of Women Farmers by Farming Type

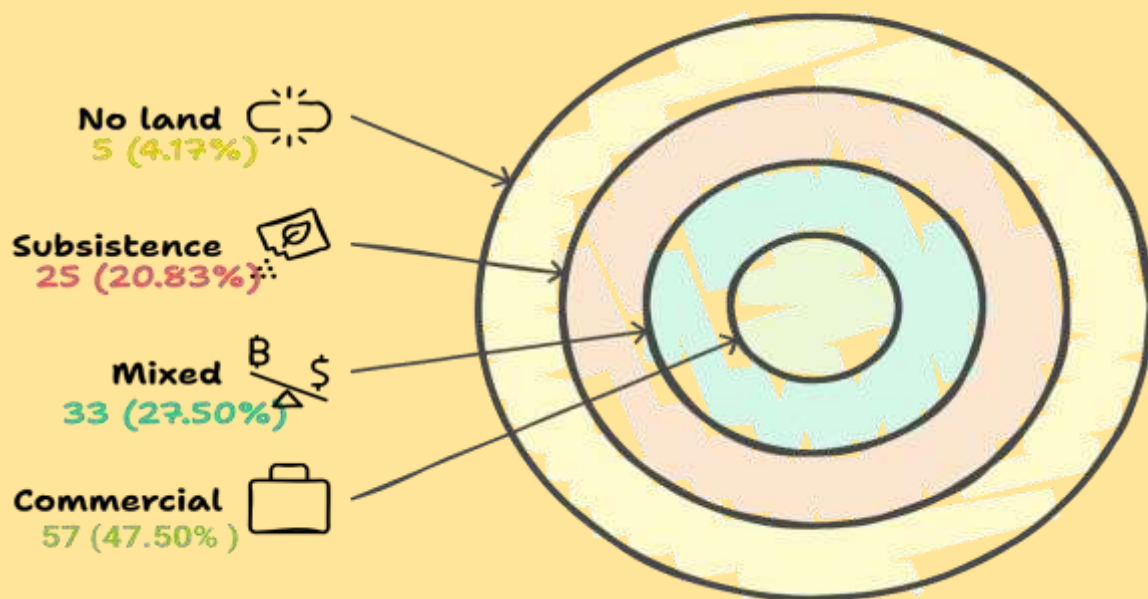


Figure 12: Distribution of the Respondents according to Types of Farming

9. Practices and Technologies Used in Agricultural Activities

Agricultural technologies refer to the tools, machinery, and techniques that improve efficiency, productivity, and sustainability in farming practices. These technologies range from traditional methods, like hand tools, to more advanced systems such as power-operated machinery, drones, and digital platforms. The aim of using agricultural technology is to optimize crop production, reduce labor costs, and manage resources like water and soil more effectively.

Table 11: Agricultural Technologies Used in Agricultural Activities

S. No.	Technology Used	Frequency	Percentage
1.	Hand machines	45	37.50
2.	Power operated machinery	54	45.00
3.	Both hand machines and power operated	21	17.50
4.	Drones	0	0.00
5.	Smart agriculture technologies	0	0.00
6.	Mobile apps	0	0.00
	Total	120	100.00

Respondent's distribution based on agricultural technologies adopted indicates a notable reliance on traditional and mechanized methods. Power-operated machinery is the most prevalent, with 45.0 percent of the respondents using these technologies, highlighting a shift towards more efficient farming practices that can enhance productivity and reduce labor intensity.

In contrast, hand machines are also significantly used by a significant percentage (37.5%) of the respondents, suggesting that many farmers still rely on manual methods for specific tasks, likely due to economic considerations or the nature of specific agricultural practices. The use of both hand and power-operated machines by 17.5 percent of the respondents further illustrates a mixed approach, balancing efficiency with traditional methods.

The non-usage of advanced technologies such as drones, innovative agriculture technologies, and mobile apps indicates a significant gap in adopting innovative farming solutions. This could be attributed to several factors, including lack of awareness, high costs, limited access to technology, and inadequate training to integrate such innovations into existing practices.

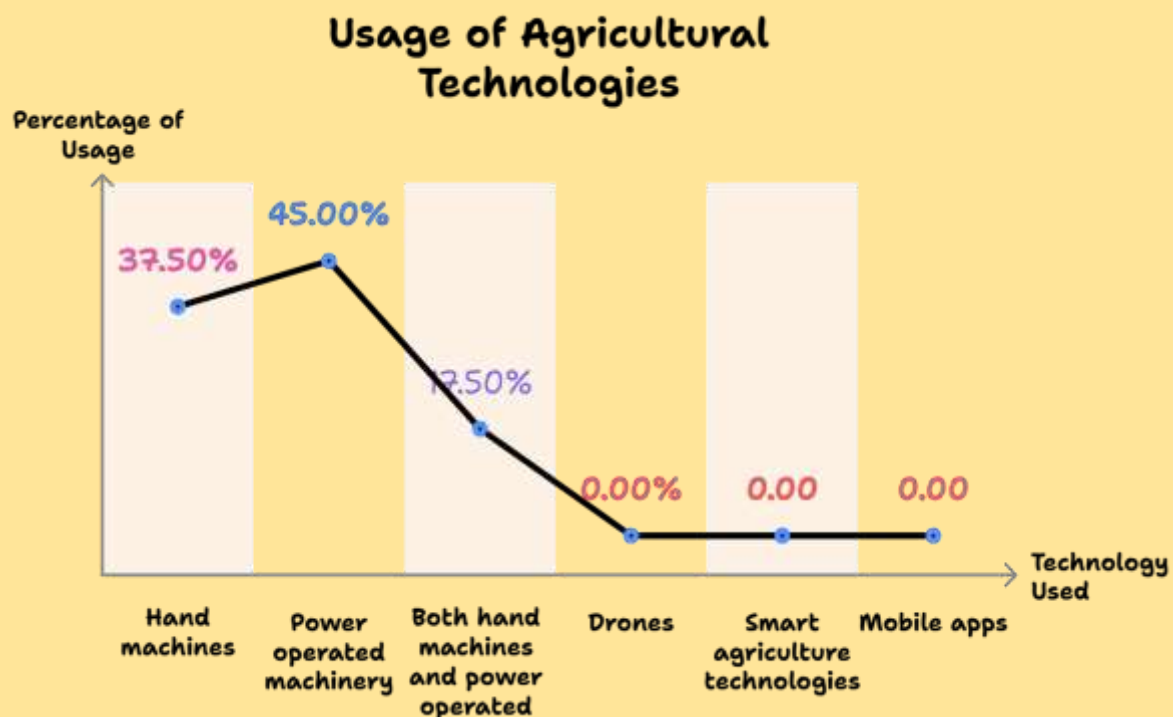


Figure 13: Agricultural Technologies Used in Agricultural Activities

10. Decision-Making about agricultural Practices

Agricultural decision-making refers to who has the authority and responsibility for making key decisions regarding agricultural activities such as crop selection, planting, resource allocation, and farm management. In many rural communities, decision-making is influenced by social structures, traditions, and gender roles.

Table 12: Distribution of the Respondents according to Agricultural Decision-Making Authority

S. No.	Decision Maker	Frequency	Percentage
1.	Self	35	29.17
2.	Spouse	14	11.67
3.	Jointly with spouse	65	54.17
4.	Other family members	6	5.00
5.	Other	0	0.00

	Total	120	100.00
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According to Table 12, majority of the respondents (54.17%) reported joint decision making with their spouse, indicating a collaborative approach to agricultural management. This trend highlights the importance of partnership in farming households, reflecting shared responsibilities and mutual interests in agricultural productivity.

29.17 percent of the respondents reported that she makes decisions on her own for agricultural choices. This signifies the degree of empowerment of the respondents to make decisions independently, possibly due to the experience, knowledge, and/or confidence in their capabilities.

Conversely, only 11.67 percent of the respondents indicated that their spouse solely makes decisions. This reflects traditional gender norms, where men are often perceived as the primary decision-makers in agriculture and other matters. However, the high percentage of joint decision-making suggests a shift towards a more equitable roles within households, challenging traditional norms and indicating a growing recognition of women's contribution to agriculture.

Only 5.0 percent of the decisions were taken by other family members , indicating that, while the focus remains primarily on the spouse, there may still be instances where extended family members influence agricultural decisions. This could be particularly relevant in joint family systems prevalent in many rural areas, where extended family dynamics often play a significant role in decision-making processes.

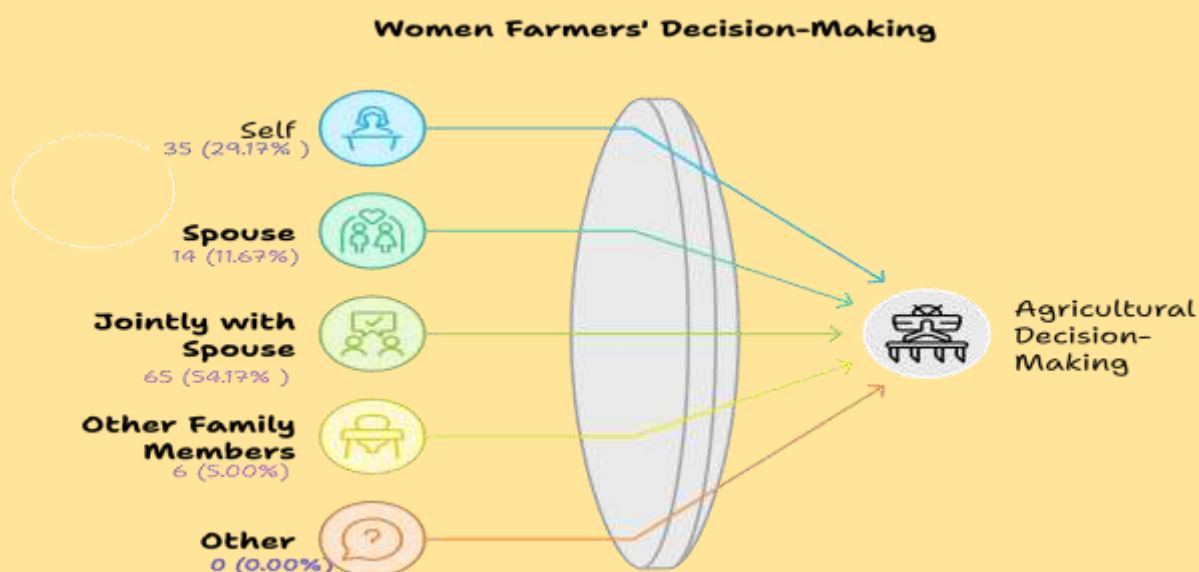


Figure 14: Distribution of the Respondents according to Agricultural Decision-Making Authority

11. Participation in Local Meetings

Participation in local meetings refers to the involvement of farmers in community-based gatherings, discussions, or forums that address agricultural issues, resource management, market conditions, and other relevant topics. These meetings often provide an opportunity to exchange ideas, access new information, and collectively make decisions that impact agricultural practices in the area.

Table 13: Distribution of the Respondents according to Participation in Local Meetings

S. No.	Participation Frequency	Frequency	Percentage
1.	Always	25	20.83
2.	Sometimes	59	49.17
3.	Rarely	26	21.67
4.	Never	10	08.33
	Total	120	100.00

Data of table 13 reveals that nearly half of the respondents (49.17%) participated in local meetings occasionally, while 20.83 percent attended always. Only 8.33 percent of the respondents reported that they had never participated, indicating that majority of the respondents had some degree of engagement in community affairs.

Several local dynamics can explain this trend. For instance, in Muzaffarpur district, women have increased opportunities for participation through community-based organizations. A notable example is the Samakhya group, an NGO actively engaging local women in regular meetings to gain exposure to various fields, including agricultural practices, entrepreneurship, and everyday life challenges. This group helps enhance women's involvement in decision-making, offering them vital social and economic support.

Additionally, many women in the region are associated with Jeevika, a government-backed self-help group initiative. Women contribute savings to these groups, allowing them to access funds for entrepreneurial activities, such as setting up shops or engaging in goat farming (bakri palan). The regular contribution of money to Jeevika acts as a safety net and a source of credit, promoting women's economic empowerment. Jeevika's financial assistance, particularly in agriculture and small-scale businesses, has encouraged more active participation in local governance and economic activities.

21.67 percent of the respondents rarely participated in local meetings; this could be attributed to barriers like limited mobility, domestic responsibilities, or lack of information. However, the engagement levels in Muzaffarpur suggests that women are becoming increasingly involved in local decision-making, mainly through NGOs and self-help groups that foster financial independence and community involvement.

Women's Participation in Local Meetings

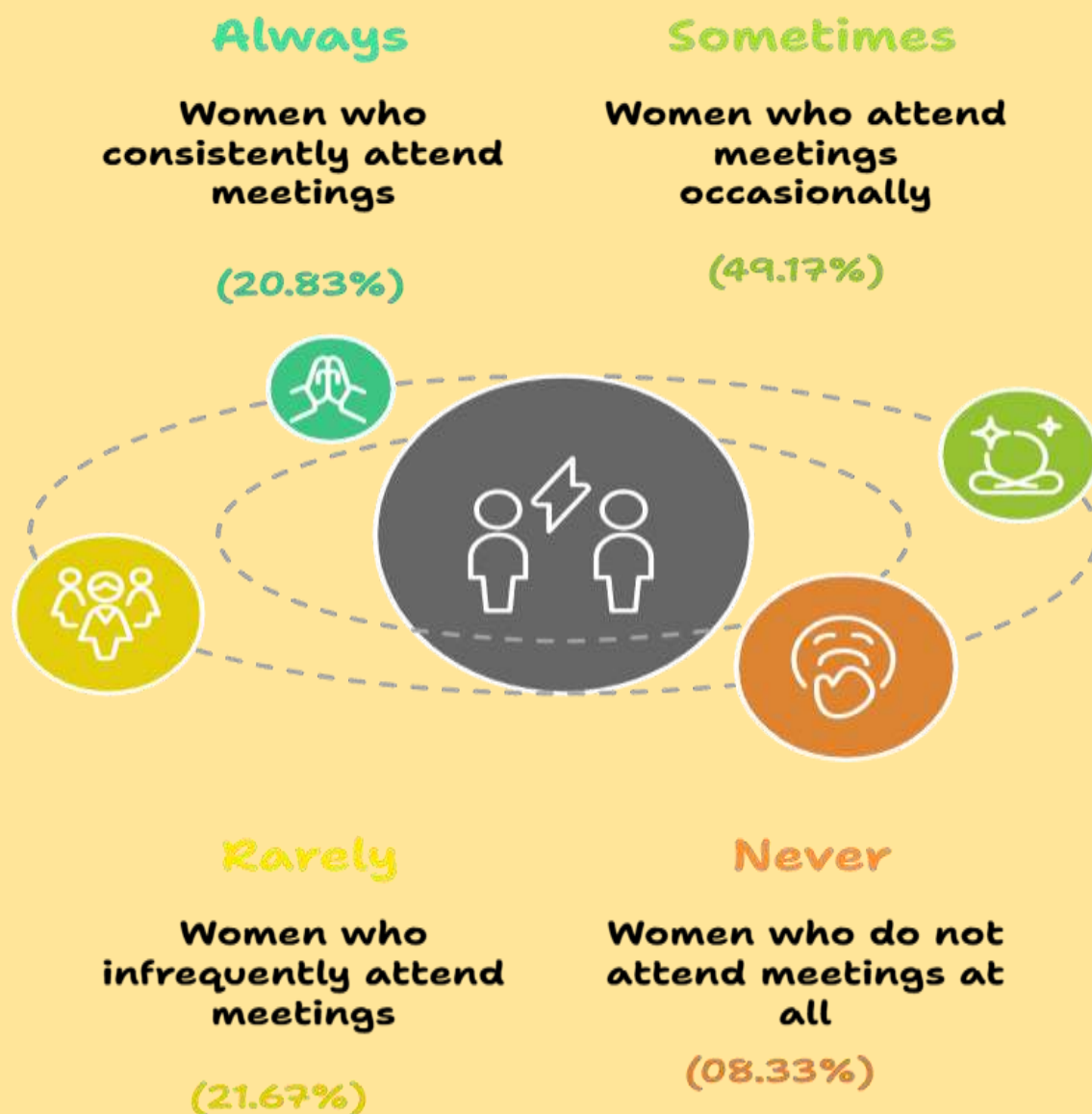


Figure 15: Distribution of the Respondents according to Participation in Local Meetings

12. Awareness regarding Laws Related to Women's Land Ownership Rights

Awareness of women's land ownership rights refers to the extent to which women farmers understand their legal rights to own, inherit, or control land. These rights are critical for ensuring women's economic independence, security, and equality in agricultural activities.

Table 14: Distribution of the Respondents according to Awareness Regarding Laws Related to Women's Land Ownership Rights

S. No.	Level of Awareness	Frequency	Percentage
1.	Very much aware	19	15.83
2.	Somewhat aware	73	60.83
3.	Not aware at all	28	23.33
	Total	120	100.00

The results in table 14 shows women's awareness of land ownership rights highlighting that majority of the respondents (60.83%) were somewhat aware of these rights, while only 15.83 percent were highly informed, and the remaining 23.33 percent were completely unaware. While these data suggests that majority of the respondents had some understanding of their legal entitlements, further analysis indicates gaps in detailed knowledge, especially regarding specific legislation.

Many women in the surveyed sample expressed that legal frameworks exist to support their land ownership rights, but lacked the detail knowledge on the provisions of these laws. Only a small percentage of the respondents (15.83%) who are "very much aware" with such laws were familiar with the Hindu Succession (Amendment) Act, 2005, which grants equal inheritance rights to daughters. This act represents one of India's most significant legal reforms regarding women's property rights. However, awareness of this law remains low, even though many respondents understand that some protection exist in principle.

For majority of the respondents who were "somewhat aware," their knowledge was more generalized. They understand that women are entitled to land rights, especially after marriage or inheritance, but lacked further detailed knowledge about how these rights are enforced or how to navigate through the legal processes. This gap can be attributed to several factors, including limited access to legal education, traditional social norms prioritizing male land inheritance, and inadequate dissemination of information regarding women's legal entitlements in rural areas.

23.33 percent of the respondents who reported being "not aware at all" regarding land ownership rights likely represent those who are the most affected by entrenched patriarchal

practices that exclude women from property-related discussions. In many cases, these women may rely entirely on male family members to handle land and property matters, making them more vulnerable to marginalization.

This lack of comprehensive awareness is a critical barrier to achieving gender equality in land ownership. Although India has made strides with laws like the Hindu Succession Act, the gap between legal provisions and their implementation is evident in rural areas, where women often need to be made aware of how to exercise their rights

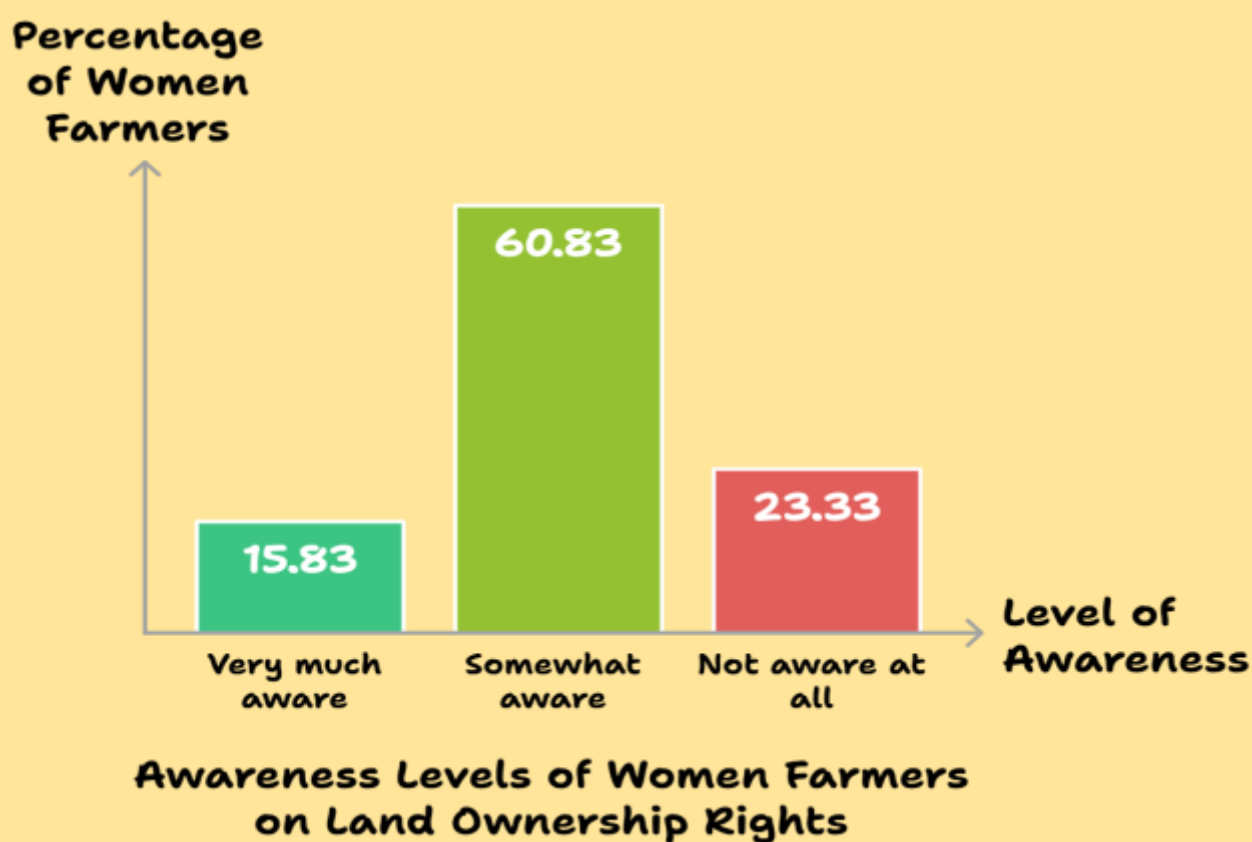


Figure 16: Distribution of the Respondents according to Awareness Regarding Laws Related to Women's Land Ownership Rights

13. Access to Legal Services related to Land Rights

Access to legal services refers to the ability of individuals to obtain legal advice, representation, and assistance in matters related to land ownership, property rights, inheritance, and other legal disputes. This includes access to lawyers, legal aid clinics, or organizations that provide support for navigating the legal system.

Table 15: Distribution of the Respondents according to Access to Legal Services

S. No.	Access to Legal Services	Frequency	Percentage
1.	Yes	011	09.17
2.	No	109	90.83
	Total	120	100.00

Table 16: Types of Legal Services Accessed

S. No.	Type of Legal Service	Frequency	Percentage
1.	Legal Counselling	05	45.45
2.	Documentation Support	06	54.55
3.	Representation in Court	00	0.00
4.	Others (please specify)	00	0.00
	Total	11	100.00

The data of table 15 highlights the type of legal services accessed by the respondents. The results show that only 9.17 percent of the respondents had accessed any form of legal assistance, indicating a significant barrier to legal service utilization by women farmers. Majority (90.83%) of the respondents reported having no access to legal services, which raises alarming concern about the availability, awareness, and accessibility of legal support mechanisms, particularly for the marginalized communities.

Among those who had access to legal services, further analysis shows that majority had sought documentation support (54.55%), followed by legal counselling (45.45%). None of the respondents sought support for representation in court, which might imply on the financial, logistical, and social barriers to seeking support for formal judicial process.

The fact that 90.83 percent of the respondents did not access legal services of any type indicates multiple barriers. This might be due to lack of awareness about available legal services, the prohibitive cost of legal proceedings, geographical distance from legal

institutions, and entrenched social norms that discourage women, in particular, from seeking formal legal redressal. In many rural areas, informal or traditional dispute resolution mechanisms may still be preferred due to ease of access and lower costs.

None of the respondent sought support for court representation to file the case, which is a critical finding. This could be due to the high litigation costs, long duration of court procedure, and the cultural reluctance to pursue formal legal action, particularly in personal or family-related matters. In rural areas like West Champaran, women may also face additional social barriers, such as pressure from family members or communities to resolve disputes privately rather than through formal legal channels.

Table 17: Distribution of the Respondents Based on Legal Services Accessed

S. No.	Access to Legal Services	Frequency	Percentage
1.	Alone	00	0.00
2.	With Husband/Male Relative	11	100
	Total	11	100.00

The results of table 17 shows that none of the respondent had accessed legal services independently, and all the 11 respondents who reported accessing legal services were accompanied by their husbands or male relatives. This indicates that women face significant barriers to accessing legal services, including cultural, social, and financial factors. In patriarchal societies like those in rural India, women often defer to male family members when engaging with formal institutions, including legal procedure.

Barriers Faced by Women

Cultural Barriers: In rural areas, traditional gender roles often limit women's agency in decision-making, especially in legal matters. The male head of the household often takes the decision related to legal services, leaving women with limited opportunities to act independently.

Lack of Awareness: Women by and large need to be made aware of their legal rights or services. Legal literacy in rural areas is often low, especially among women, which might prevent them from seeking help without the guidance of their husbands or male relatives.

Social Norms: Social pressure to resolve disputes within the family or community, rather than through formal legal channels, is common. Women are particularly discouraged from going against family or societal expectations, which explains why no woman in the sampled area sought legal representation alone.

Financial and Logistical Barriers: Even if women have knowledge about legal services, the costs associated with hiring lawyers, filing cases, and attending court proceedings can be prohibitive. Moreover, lack of female-friendly infrastructure and long travel distance to legal institutions further dissuade women from taking legal action independently.

Impact on Access to Justice: The fact that no women reported seeking representation in court, either independently or with the help of male family members, raise concerns about access to justice for women in rural areas. Informal dispute resolution mechanisms, which are more accessible and affordable, may be preferred. However, these informal systems often do not provide the same level of legal protection, particularly for women's rights related to land and property.

This dependence on male family members for legal access can hinder women's empowerment and their ability to claim their land rights or resolve property disputes in a way that favors them. It underscores the need for a more gender-sensitive legal services, including free legal aid, awareness programs, and female legal advisors who can provide a more accessible pathway for women seeking justice.

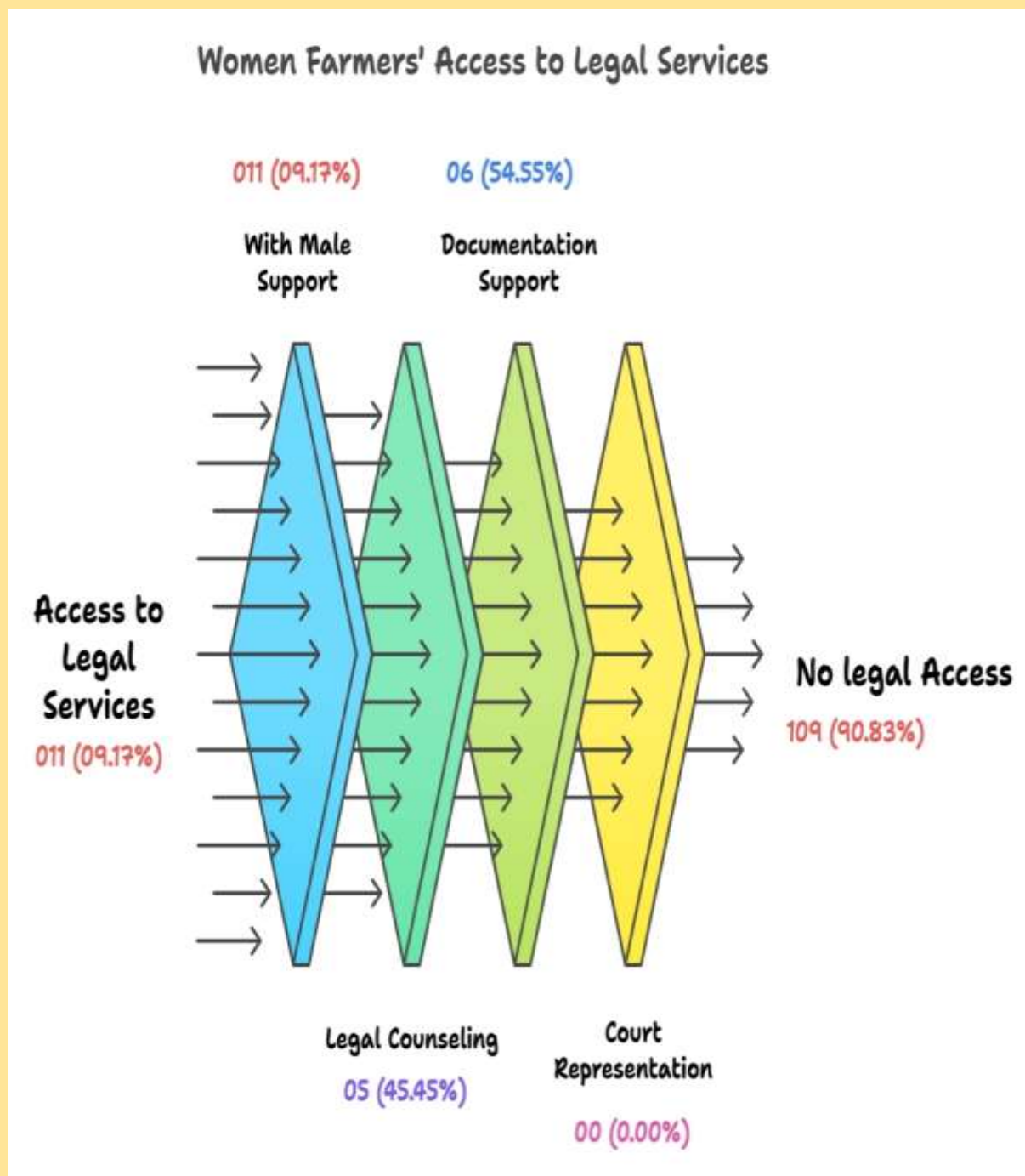


Figure 17: Distribution of the Respondents according to Access to Legal Services

14. Socio-cultural Factors Related to Women's Land Ownership

Socio-cultural factors refer to the beliefs, traditions, norms, and practices within a community or family that influence attitude towards women's land ownership. These factors play a crucial role in determining whether women are supported or restricted in owning and controlling land, which directly impacts their economic independence and social standing.

Table 18: Distribution of the Respondents according to Socio-Cultural Factors Related to Women's Land Ownership

S. No.	Statement	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
1.	Women should have equal rights to own land	00 (0%)	02 (01.67%)	14 (11.67%)	56 (46.67%)	48 (40.00%)
2.	In my community, it's acceptable for women to own land	00 (0%)	03 (02.50%)	18 (15.00%)	66 (55.00%)	33 (27.50%)
3.	Inheritance practices in my family favor sons over daughters	03 (2.5%)	20 (16.67%)	25 (20.83%)	51 (42.50%)	21 (17.50%)
4.	Women face more challenges than men in accessing land ownership	01 (0.83%)	10 (08.33%)	18 (15.00%)	64 (53.33%)	27 (22.50%)
5.	Land ownership would improve a woman's social status in the community	0 (0%)	1 (00.83%)	12 (10.00%)	71 (59.17%)	36 (30.00%)

The data in table 18 presents a compelling insight into the socio-cultural attitudes and practices shaping women's land ownership in Bihar, illuminating key barriers and social dynamics. A structured discussion of the findings is presented below:

i. Attitude Towards Women's Rights to Land Ownership

Majority (86.67%) of the respondents had either agreed or strongly agreed that women should have equal rights to own land. This suggests an ideological support for gender equality in land ownership, possibly influenced by recent awareness and advocacy efforts. However, a small percentage (13.34%) of the respondents who were neutral or disagreed implies that certain socio-cultural beliefs and perceptions hinders women's land ownership rights. These dissenting

views could stem from long standing cultural norms where land ownership is traditionally associated with male authority and inheritance rights.

ii. Social Acceptance of Women's Land Ownership

Responses indicate that 82.5 percent of the respondents agreed or strongly agreed that it is an accepted norm for women to own land within their communities. This shows a gradual cultural shift towards accepting female land ownership. However, 17.5 percent of the respondents were neutral or disagreed, that reflects existing community resistance to certain extent still. This could be due to the embedded patriarchal values where land ownership is perceived as a male privilege. Regional differences and the influence of community leaders also play a role in shaping acceptance, indicating that targeted interventions may be necessary to address these specific areas of resistance.

iii. Gender Bias in Inheritance Practices

The statement on inheritance practices reveals that 60 percent of the respondents agreed or strongly agreed that family inheritance favors sons over daughters, portraying a strong adherence to patriarchal norms in property transfer. While 19.17 percent disagreed or strongly disagreed with the statement, indicating that some families challenge traditional practices, and are breaking the barriers to women's land ownership. The tendency to favor sons aligns with the cultural expectations of sons as lineage carriers and protectors of family wealth, underlining a need for legal and social reforms to encourage equitable inheritance.

iv. Challenges Faced by Women in Accessing Land Ownership

Responses reveal that 75.83 percent of the participants acknowledged that women face more challenges than men in getting land ownership, with only 9.16 percent of the respondents who disagreed. The recognition of these challenges by both the genders suggests widespread awareness of the social, legal, and logistic hurdles women face, such as limited access to financial resources, lack of familial support, and inadequate legal awareness. This acknowledgment also underscores the necessity for gender-sensitive policies and support systems that directly address these barriers and empower women with resources and knowledge to overcome them.

v. Perceived Social Status Benefits of Land Ownership for Women

Finally, 89.17 percent of the participants agreed or strongly agreed that land ownership would improve a woman's social status, reflecting an understanding of the respondents that land ownership is a tool for women's empowerment. This indicates that land ownership is a pathway to increased respect and autonomy for women within the community. It also suggests that initiatives promoting female land ownership can have far-reaching positive effects on women's social positioning and community roles. However, a small percentage (11.67%) of them who were neutral or disagreed with the statement signifies the traditional beliefs that question the alignment of land ownership with feminine roles or status, potentially hindering women's confidence in pursuing ownership.

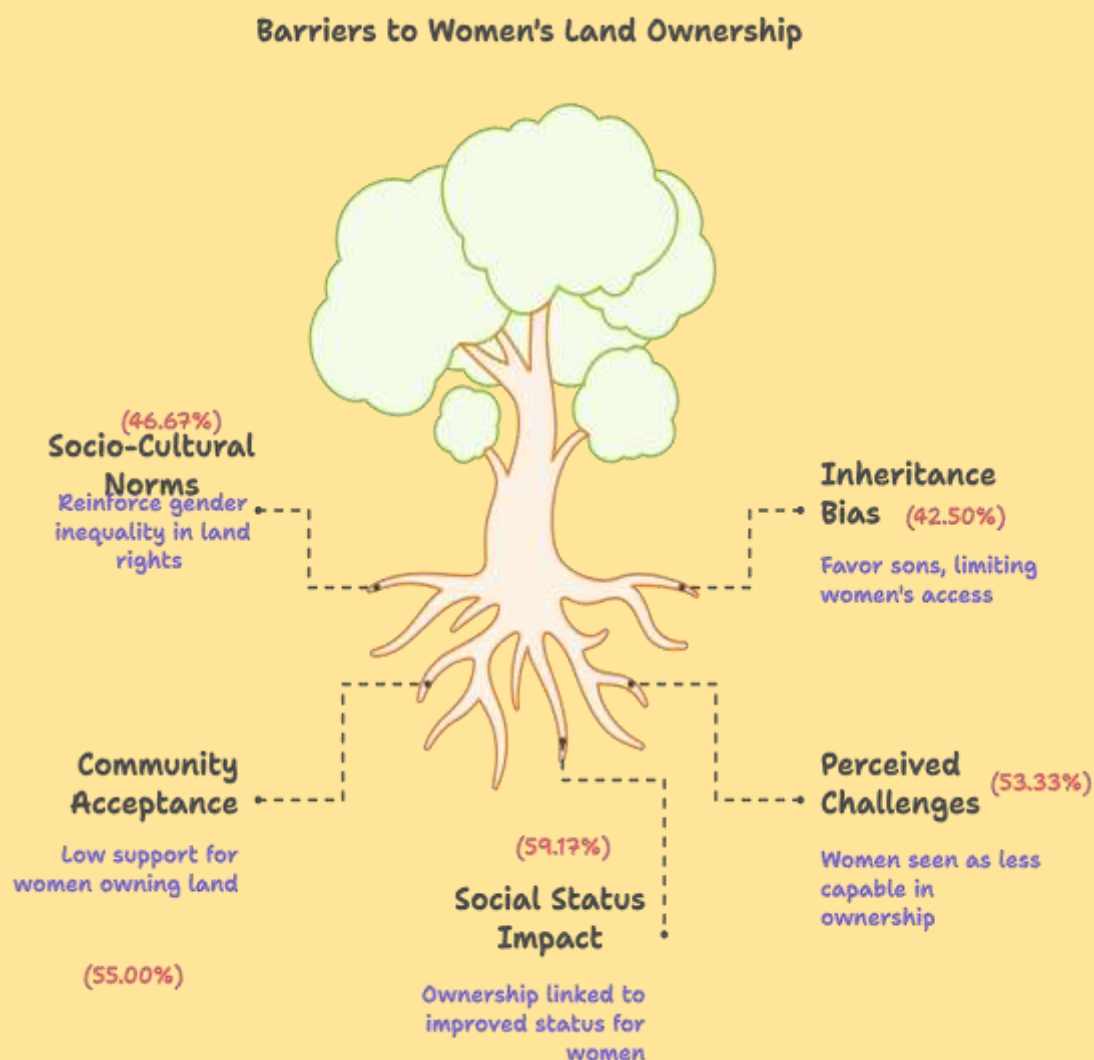


Figure 18: Distribution of the Respondents according to Socio-Cultural Factors Related to Women's Land Ownership.

15. Agricultural Land Ownership Status

Land ownership status refers to whether individuals have legal rights to own and control land. This includes the ability to buy, sell, inherit, or use land for agricultural activities. Ownership status is a significant factor influencing a farmer's economic security, autonomy, and access to resources.

Table 19: Distribution of the Respondents according to Land Ownership Status

S. No.	Ownership Status	Frequency	Percentage
1.	Yes	009	07.50
2.	No	111	92.50
	Total	120	100.00

Among the nine respondents who owned land, 11.1 percent reported that she owned 5 katha of land, followed by 22.2 percent of the respondents owning 2 katha, 11.1percent possessed 0.5 katha of land, 11.1 percent owning 3 katha, and the remaining 11.1 percent owned 2 decimil. Larger landholdings were also reported by 11.1 percent of the respondents owning 5 bigha, followed by 11.1 percent owning 1 bigha, and 11.1 percent owning 3 bigha of land. These findings indicate a relatively small distribution of land ownership among the respondents, majority of them owning between 0.5 and 5 bigha of land.

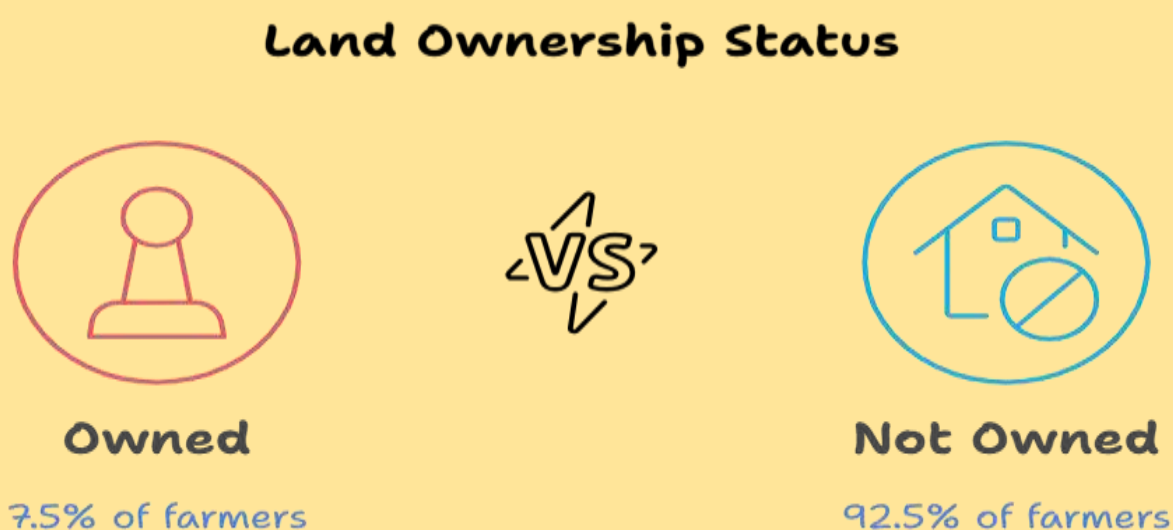


Figure 19: Distribution of the Respondents according to Land Ownership Status

15.1. Mode of Land Acquisition

Table 20: Distribution of the Respondents According to the Mode of Land Acquisition

S. No.	Mode of Land Acquisition	Frequency	Percentage
1.	Inherited from family	4	44.40
2.	Purchased	1	11.10
3.	Purchased and inherited from mother	2	22.20
4.	Purchased by husband	1	11.10
5.	Other	1	11.10
	Total	9	100.00

The findings of table 20 represents the mode of acquisition of land by the respondents.

i. Inheritance as the Primary Method of Acquisition

Inheritance accounts for the largest share, for 44.4 percent of the respondents acquiring land through family inheritance. This aligns with the traditional practices where land ownership is passed down within families, typically favoring male heirs but sometimes including women, primarily if no male descendants exist. However, the relatively low overall frequency (4 out of 9) suggests that even within families, inheritance is not a standard route for women to gain land. Cultural norms and legal limitations around inheritance rights still pose challenges, restricting many women from inheriting land unless exceptional circumstances allow it.

ii. Purchasing Land as an Emerging, Though Limited, Option

Only 11.1 percent of the respondents had acquired land through direct purchase, reflecting limited economic capability among the women farmers. The significant financial constraints, lower income levels, and limited access to credit often hinders women's ability to purchase land. It also suggests that social reluctance or discouragement for women to purchase land independently, as cultural norms might favor male-dominated land transactions.

iii. Combined Acquisition Through Purchase and Inheritance

22.2 percent of the respondents had acquired land through purchase and inheritance from their mothers. It indicates that women inherit land specifically from maternal lines in some instances, potentially due to cultural or legal allowances that facilitate inheritance through the mother's lineage. This combined acquisition could reflect a growing acceptance of women as landowners and possibly a more flexible approach within families that supports women's rights to inherit property.

iv. Land Purchased by Husbands

11.1 percent of the respondents, was acquired/owned land through purchase by their husbands, which means that they gained indirect access to land through marriage rather than ownership. This highlights the common practice where land purchases are made by male household heads, leaving women with limited or secondary access rights rather than ownership. It may also underscore the dependence of women on male family members to acquire land, limiting their autonomy and decision-making power regarding land.

v. Other Means of Acquisition

“Other” mode of land acquisition also accounted for 11.1 percent, which could encompass a variety of informal or alternative means, such as land gifted by relatives or access provided through community-based agreements. Such mode of acquisition suggests that, in some cases, women may gain access to land outside traditional inheritance or purchase methods, potentially indicating adaptive or informal mechanisms that enable women to use land without formal ownership.

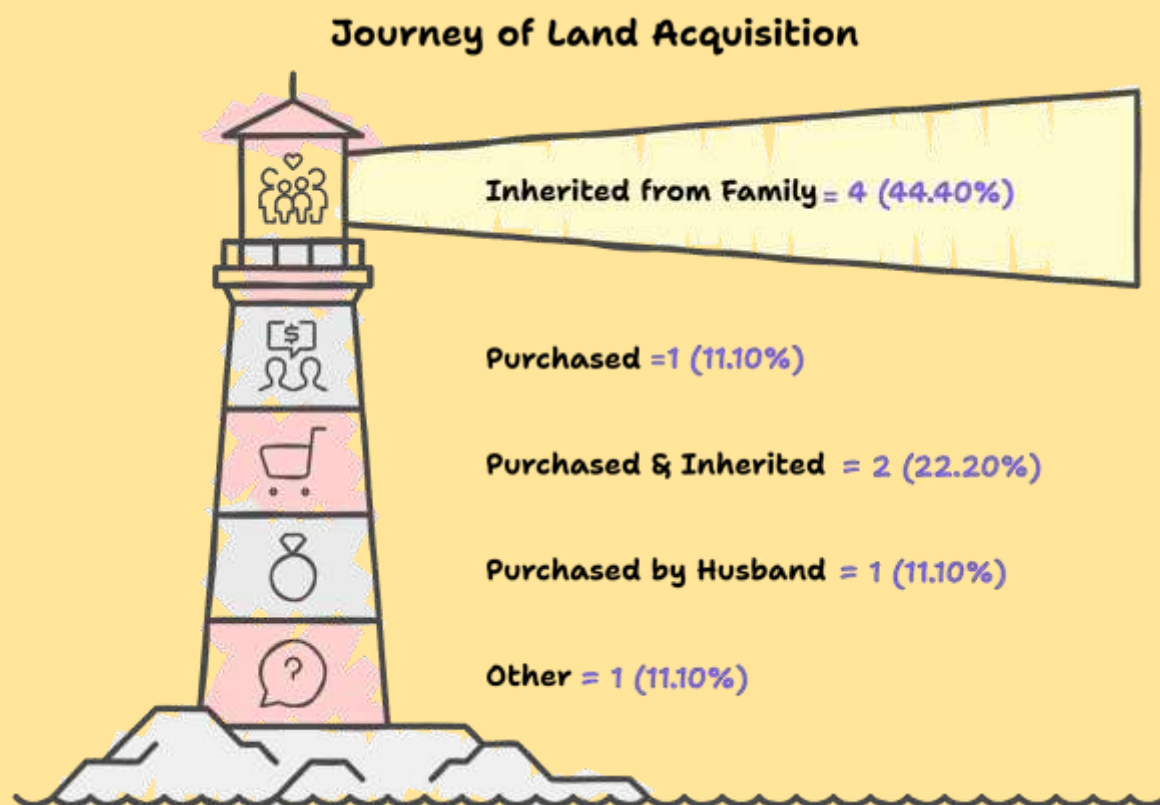


Figure 20: Distribution of the Respondents According to the Mode of Land Acquisition

Reasons for Not Owning Land (111 Respondents)

Table 21: Reasons for Not Owning Land by the Respondents

S. No.	Reason	Frequency	Percentage
1.	Lack of financial resources	70	63.10
2.	Cultural norms	20	18.00
3.	Legal barriers	10	09.00
4.	Lack of awareness about rights	7	06.30
5.	Other (unspecified reasons)	4	03.60
	Total	111	100.00

According to the data of table 21, the most significant barrier to land ownership in Bihar is lack of financial resources (63.1%). Majority of the women and their families, cannot afford to

purchase land due to poverty. In rural Bihar, many households depend on agriculture, and acquiring land requires substantial financial investment, which is beyond the reach of most of them.

Traditional and cultural norms (18.0%) play significant role in limiting land ownership among women in Bihar. In many cases, women's access to land is dependent on their relationship with male family members, in-laws etc. It is a common practice in Bihar, for land to be passed through the male lineage, and women often do not receive land even after the death of their husbands.

A small percentage of women sees legal processes (9.0%) for land acquisition and registration as a significant barrier. The legal system can be perceived as complex, time-consuming, and burdensome. This deters many from getting legal ownership, even if they inherit land or have rights to it.

In Bihar, where a large percentage of rural women have limited education, awareness about land rights is low (6.3%). Government programs aimed at educating women about land rights are either insufficient or not well-promoted, leaving women unaware of their entitlements.

A few respondents cited various other reasons (03.60%), such as bureaucratic hurdles and family disputes over land inheritance, as barriers to land ownership.

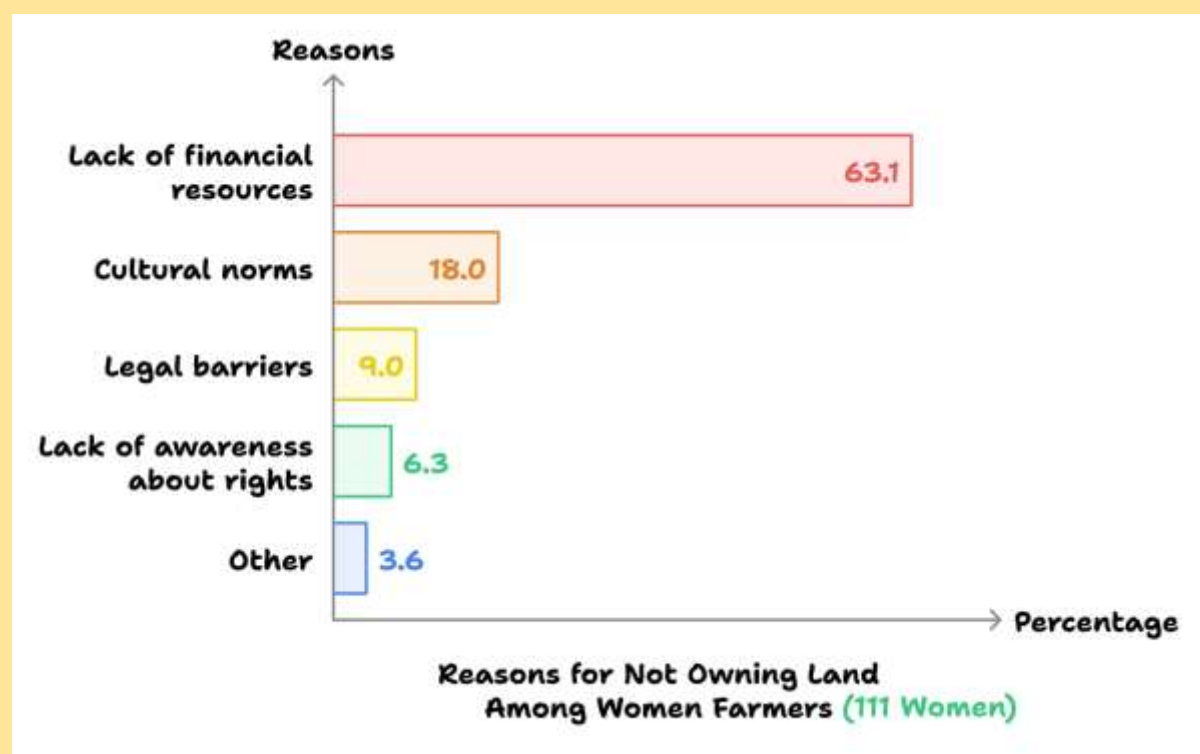


Figure 21: Reasons for Not Owning Land by the Respondents

15.3. Association between Profile Characteristics of the Respondents with the land ownership status.

Table 22: Correlational Analysis between Profile Characteristics of the Respondents with the land ownership status.

S.NO.	Variables	Coefficient of Correlations “r”
1.	Age	0.118 NS
2.	Education	0.138NS
3.	Marital Status	0.181*
4.	Family Type	0.150NS
5.	Occupation	0.218*
6.	Annual Income	0.109NS
7.	Access to Credit	0.119NS
8.	Types of farming	0.229*
9.	Practices and Technologies Used in Agricultural Activities	-0.034NS
10.	Decision-Making about agricultural Practices	-0.003NS
11.	Participation in Local Meetings	0.239**
12.	Awareness of laws regarding Women’s Land Ownership Rights	0.213*
13.	Access to Legal Services related to Land Rights	0.497**
14.	Socio-cultural Factors Related to Women's Land Ownership	0.039NS

** Correlation is significant at the 0.01 level

*Correlation is significant at the 0.05 level

According to the data of table 22, the fourteen selected independent variables were analysed to see the association with land ownership among women farmers in Bihar through correlation analysis. The findings revealed a complex interplay of social, economic, legal, and institutional factors that influence women's land ownership patterns. The correlation coefficients (r) obtained through the analysis demonstrate varying degrees of association, ranging from highly significant to non-significant relationships, providing crucial insights into the determinants of women's land ownership in the region.

Highly Significant Correlations

Among all the variables examined, **access to legal services emerged as the most significant variable with land ownership** ($r=0.497$, $p<0.01$). This high positive correlation underscores the critical importance of legal support systems in facilitating women's land ownership. The strength of this relationship suggests that women who can access legal services are significantly more likely to own land, possibly due to their enhanced ability to navigate through the legal procedures, understand their rights, and challenge discriminatory practices. This finding emphasizes the crucial role of legal infrastructure in promoting women's land rights and suggests that facilitating an enabling environment for access to legal service could be a key intervention point for policy makers.

The next highly significant correlation was observed for **participation in local meetings** ($r=0.239$, $p<0.01$). This positive relationship indicates that women who actively and regularly attend community gatherings and remain active in local governance activities are more likely to own land. This correlation might reflect a bidirectional relationship - women landowners may feel more empowered to participate in community meetings, while participation in such forums might enhance women's knowledge, social capital, and ability to secure land rights. The finding highlights the importance of social engagement and community participation in strengthening women's property rights.

Moderately Significant Correlations

Several variables showed moderate but statistically significant correlations with land ownership. **Types of farming demonstrated a positive correlation** ($r=0.229$, $p<0.05$), suggesting that certain agricultural practices or farming systems may be more conducive to women's land ownership. This could be related to the scale of operations, profitability, or social

acceptance of women's involvement in particular farming types. The variable occupation exhibited similar level of correlation ($r=0.218$, $p<0.05$), indicating that women's occupational engagement and economic activities influence their likelihood of owning land. This relationship might reflect the role of financial independence and economic decision-making power in facilitating land ownership.

Awareness of laws regarding women's land ownership rights exhibited a positive correlation ($r=0.213$, $p<0.05$), emphasizing the importance of legal literacy for women farmers. This finding suggests that women who understand their legal entitlements are better positioned to claim and maintain land ownership. **The variable marital status had moderate correlation** ($r=0.181$, $p<0.05$),, indicating that marital status also plays a role in women's land ownership, possibly through inheritance patterns, joint ownership arrangements, or social norms regarding property rights within marriage.

Non-significant Correlations

Interestingly, several variables that was intuitively expected to have a strong influence on land ownership revealed non-significant correlations. Education ($r=0.138$, NS) and age ($r=0.118$, NS) demonstrated weak, non-significant relationships with land ownership, suggesting that formal education and life experience alone may not be decisive factors in Bihar context. This finding challenges the assumptions about direct relationship between educational attainment and property ownership.

Family type ($r=0.150$, NS) and annual income ($r=0.109$, NS) also showed non-significant correlations, indicating that traditional family structures and household income levels may not directly determine women's land ownership. This could suggest that cultural norms and social practices regarding property rights operate independently of family configuration and economic status.

Access to credit ($r=0.119$, NS) showed surprisingly a weak correlation, possibly indicating structural barriers in the credit system or suggesting that financial access alone doesn't guarantee property ownership. The negative but non-significant correlations with **practices and technologies used in agricultural activities ($r=-0.034$, NS) and decision-making about agricultural practices ($r=-0.003$, NS)** also suggest that technical knowledge and decision-making authority in farming operations don't directly translate to land ownership rights.

The weak correlation with socio-cultural factors ($r=0.039$, NS) is particularly noteworthy, as it suggests that the influence of social and cultural norms on women's land ownership might be mediated through other variables rather than operating as a direct determinant.

15.4. Multiple regression analysis between profile characteristics of the Respondents with the land ownership status.

Through regression analysis we can determine the overall or individual influence by the selected independent variable and its contribution in predicting dependent variable. The results related to regression analysis is presented in Table 23.

Table 23: Model Summary

Model Summary				
Model	R	R square	Adjusted R square	Standard error of estimate
Predictors: Age, Education, Marital Status, Family Type, Occupation, Annual Income, Access to Credit, Types of farming, Practices and Technologies Used in Agricultural Activities, Decision-Making about agricultural Practices, Participation in Local Meetings, Awareness of laws regarding Women's Land Ownership Rights, Access to Legal Services related to Land Rights, Socio-cultural Factors Related to Women's Land Ownership	.621a	0.386	0.306	0.251869157551563

Table 24: Multiple Regression Analysis between Profile Characteristics of the Respondents with the land ownership status.

S.NO.	Variables	Beta	t	Sig
1.	Age	-0.055	-0.653	0.515
2.	Education	0.022	0.257	0.798
3.	Marital Status	-0.006	-0.063	0.950
4.	Family Type	0.032	0.384	0.702
5.	Occupation	-0.087	-1.053	0.295
6.	Annual Income	0.125	1.418	0.159
7.	Access to Credit	0.062	0.728	0.468
8.	Types of farming	0.193	2.412	0.018
9.	Practices and Technologies Used in Agricultural Activities	-0.119	-1.483	0.141
10.	Decision-Making about agricultural Practices	-0.040	-0.493	0.623
11.	Participation in Local Meetings	0.031	0.376	0.708
12.	Awareness of laws regarding Women's Land Ownership Rights	0.005	0.066	0.947
13.	Access to Legal Services related to Land Rights	0.608	5.487	0.000
14.	Socio-cultural Factors Related to Women's Land Ownership	-0.272	-3.131	0.002

* Significant at 0.05 level

** Significant at 0.01 level

According to the data of table 24, multiple regression analysis yielded a multiple correlation coefficient (R) of 0.621, indicating a moderately strong relationship between the predictor variables and land ownership status. The R-square value of 0.386 suggests that approximately 38.6% of the variance in women's land ownership can be explained by the fourteen independent variables included in the model. The adjusted R-square of 0.306 (30.6%) provides a more conservative estimate of the model's explanatory power, accounting for the number of predictors in relation to the sample size. The standard error of estimate (0.252) indicates the average deviation of predicted values from actual values, suggesting reasonable precision in the model's predictions.

15.4.1. Detailed Analysis of Significant Predictors

Access to Legal Services ($\beta = 0.608$, $t = 5.487$, $p < 0.01$)

The strongest predictor in the model is access to legal services, with a highly significant positive beta coefficient of 0.608. This substantial coefficient indicates that for each unit increase in access to legal services, there is a 0.608 unit increase in land ownership status, holding other variables constant. The high t-value (5.487) and nil p-value (0.000) demonstrate the robust statistical significance of this relationship. This finding strongly suggests that legal service accessibility is the most crucial determinant of women's land ownership in Bihar, potentially due to: enhanced ability to navigate through the complex legal procedures, better understanding and assertion of legal rights, increased capacity to challenge discriminatory practices, improved access to documentation and property registration processes

Socio-cultural Factors ($\beta = -0.272$, $t = -3.131$, $p < 0.01$)

This is the second most influential predictor showing a significant negative relationship with land ownership. The negative beta coefficient (-0.272) indicates that traditional socio-cultural factors act as barriers to women's land ownership. This finding is particularly noteworthy because it quantifies the detrimental impact of social norms and cultural practices, highlights the persistent influence of traditional gender roles, suggests the need for interventions targeting social transformation, indicates that the more socio-cultural constraints, the less likelihood of land ownership by women farmers.

Types of Farming ($\beta = 0.193$, $t = 2.412$, $p < 0.05$)

The third significant predictor showed a positive relationship with land ownership. This is moderate but significant beta coefficient suggests that: certain farming types are more

conducive to women's land ownership, and the scale and nature of farming operations influence ownership patterns. There might be specific agricultural sectors where women's ownership is more accepted, the type of farming could be linked to economic viability and social acceptance.

15.4.2. Non-Significant Predictors

Economic Factors

- **Annual Income** ($\beta = 0.125$, $t = 1.418$, $p = 0.159$)
- **Access to Credit** ($\beta = 0.062$, $t = 0.728$, $p = 0.468$)

These variables showed positive but non-significant relationships, suggesting that economic factors alone may not be influencing factor to ensure land ownership.

Personal Characteristics

- **Age** ($\beta = -0.055$, $t = -0.653$, $p = 0.515$)
- **Education** ($\beta = 0.022$, $t = 0.257$, $p = 0.798$)
- **Marital Status** ($\beta = -0.006$, $t = -0.063$, $p = 0.950$)

The non-significant results for these independent variables suggest that personal characteristics have limited direct influence on land ownership.

Agricultural Practices

- **Practices and Technologies** ($\beta = -0.119$, $t = -1.483$, $p = 0.141$)
- **Decision-Making** ($\beta = -0.040$, $t = -0.493$, $p = 0.623$)

The negative but non-significant coefficients suggest that technical aspects of farming have limited direct impact on ownership pattern.

Social Engagement

- **Participation in Local Meetings** ($\beta = 0.031$, $t = 0.376$, $p = 0.708$)
- **Awareness of Laws related to Women's Rights** ($\beta = 0.005$, $t = 0.066$, $p = 0.947$)

Despite their theoretical importance, these variables showed minimal direct influence in the regression model.

16. NVivo Analysis: Male Farmers' Perspectives on Land Ownership for Women Farmers.

NVivo software was utilized to analyze open-ended responses from 30 male farmers in Bihar regarding the barriers to land ownership for women farmers. NVivo is a qualitative data analysis (QDA) software that allows researchers to systematically organize, code, and analyze large amounts of qualitative data, such as interview transcripts, open-ended survey responses, or field notes. It helps identify themes, patterns, and sentiments within the data, which is essential for drawing meaningful insights.

The study involved 11 in-depth questions to understand farmers' perceptions about women's land ownership in Bihar. The questions covered challenges to land ownership, inheritance practices, women's roles in agriculture, and community attitudes. With 30 farmers responding to each of the 11 questions, collected total of 330 responses were collected. NVivo was chosen to assist in managing data, grouping responses into meaningful themes, and identifying the sentiments behind them.

The analysis grouped the responses into three main themes: Land, Ownership, and Farming. These themes emerged as the most significant areas of discussion based on the farmers' responses. **Within these central themes, sub-themes were identified to provide a more granular understanding of the data.**

1. Land

The first and the most prominent theme was land. Farmers freely discussed various aspects related to land, including:

- **Land Ownership Records:** Farmers mentioned the importance of documenting ownership records, highlighting challenges related to bureaucratic processes.
- **Land Rights:** Discussions on land rights focused around the legal entitlements and barriers women face to claiming these rights.
- **Clear Land Records:** Some farmers emphasized the need for a clear and accurate land records to avoid disputes and facilitate smooth ownership transfers.
- **Fair Land Distribution:** Discussions centered on rightful claims to land, with farmers reflecting on the fairness of ownership distribution in their communities.
- **Managing Land:** Issues related to land management were discussed, where some farmers opined how difficult it is for women to manage agricultural land without male support.

- **Land Survey Results:** Many farmers referred to the results of land surveys, which had been conducted in Bihar recently, before the data collection, and how these surveys influence ownership rights.
- **Owning Land:** The general sentiment around land ownership was often linked to security and economic stability, with most of the farmers acknowledging that land ownership is a significant asset.
- **Land Laws and Documentation:** Farmers also discussed the importance of understanding land laws and having the proper documents to prove ownership.
- **Land Division and Inherited Land:** A common inheritance practice that often leave women disadvantaged. This is a critical issue that affects women's opportunity to own land.
- **Local Land Administration:** Farmers expressed the challenges women face in dealing with local land administration and how it affects land registration procedures.
- **Agricultural Land:** Lastly, the role of agricultural land and its value for farmers was highlighted.

2. Ownership

The second central theme that emerged from the responses was ownership, with sub-themes including:

- **Land Ownership Records:** Like the land theme, ownership records was a recurring topic of discussion. Farmers highlighted the established process and necessity of creating and maintaining such records.
- **Establishment of Ownership Rights:** Farmers also discussed the difficulties faced in proving land ownership, especially for women, who may need more access to necessary documentation.
- **Ownership Opportunities:** Though some farmers acknowledged that there exist ownership opportunities, but are not equally accessible to women.
- **Ownership Issues:** Farmers identified specific issues, such as land disputes and the complexities involved in securing legal ownership.
- **Legal Ownership:** Legal ownership was discussed in the context of securing rights through legal procedures, which women find more challenging to navigate through.
- **Unfavourable Attitude towards Land Ownership:** Some of the responses reflected a discouraging unfavorable attitude towards women owning land, citing traditional gender norms and societal expectations as significant barriers.

3. Farming

The third theme was farming, and within this theme, the sub-themes reflected various aspects of farming life in Bihar:

- **Small Farming Businesses:** Some farmers mentioned that small-scale farming operations are often more accessible to women, though still limited by land ownership barriers.
- **Farming as Livelihood:** There were discussions about women practicing farming as a means of livelihood; while some farmers expressed support and others viewed it as an obstacle.
- **Women Farmers:** This sub-theme focused on the role of women in farming, with most of the respondents recognizing that women are involved in agricultural labor but are often excluded from decision-making roles.
- **Neighboring Farmers:** Comparisons were made between the practices of neighboring farmers and their attitudes toward women's land ownership.
- **Farming Tradition:** Farming traditions, which often favor men in land inheritance and decision-making, were discussed as a significant barrier to women's full participation in agriculture.

16.1. Sentiment Analysis

NVivo facilitates sentiment analysis, uncovering the emotional tone behind participant's responses. The sentiments expressed by farmers varied widely, from frustration over the bureaucratic obstacles encountered during land registration to a sense of resignation regarding societal norms that limit women's land ownership. The "sense of resignation" refers to the feeling of acceptance or helplessness some farmers experienced in response to these norms, as if they had come to terms with the barriers being difficult, if not impossible, to change. Despite these challenges, there were instances of optimism, particularly in areas where attitudes toward women's land ownership were gradually shifting, suggesting hope for future progress and change.

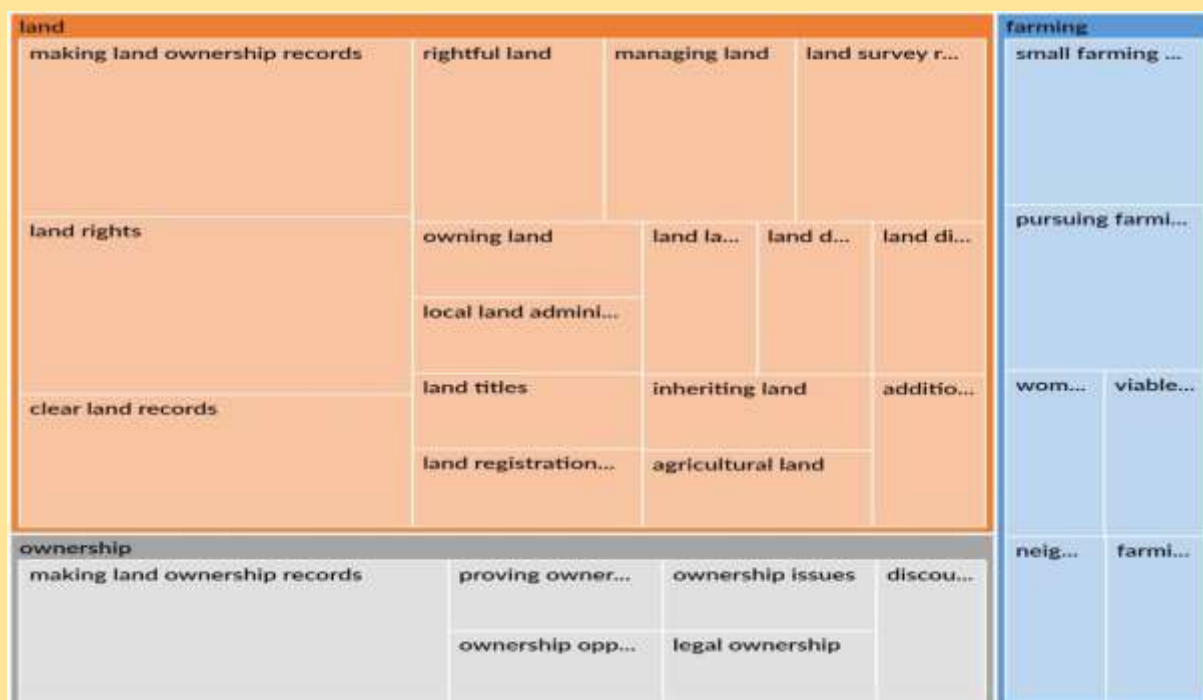


Figure 22: NVIVO Analysis

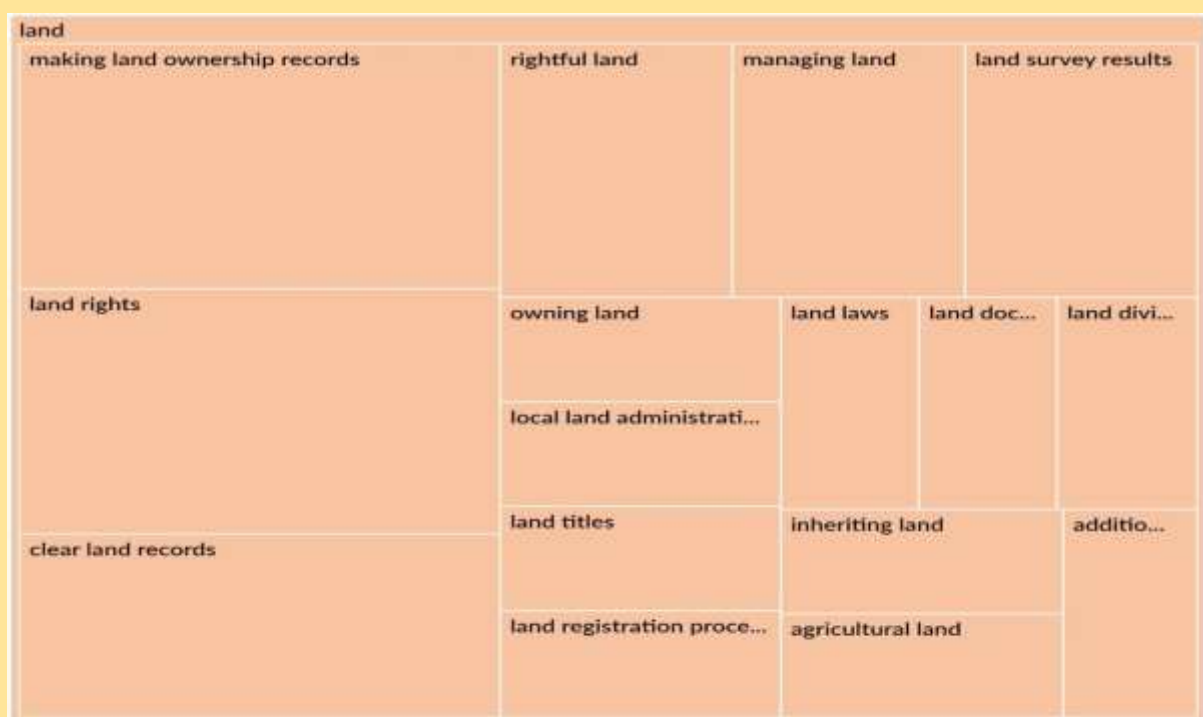


Figure 23: Theme 1 (Land)



Figure 24: Theme 2 (Ownership)

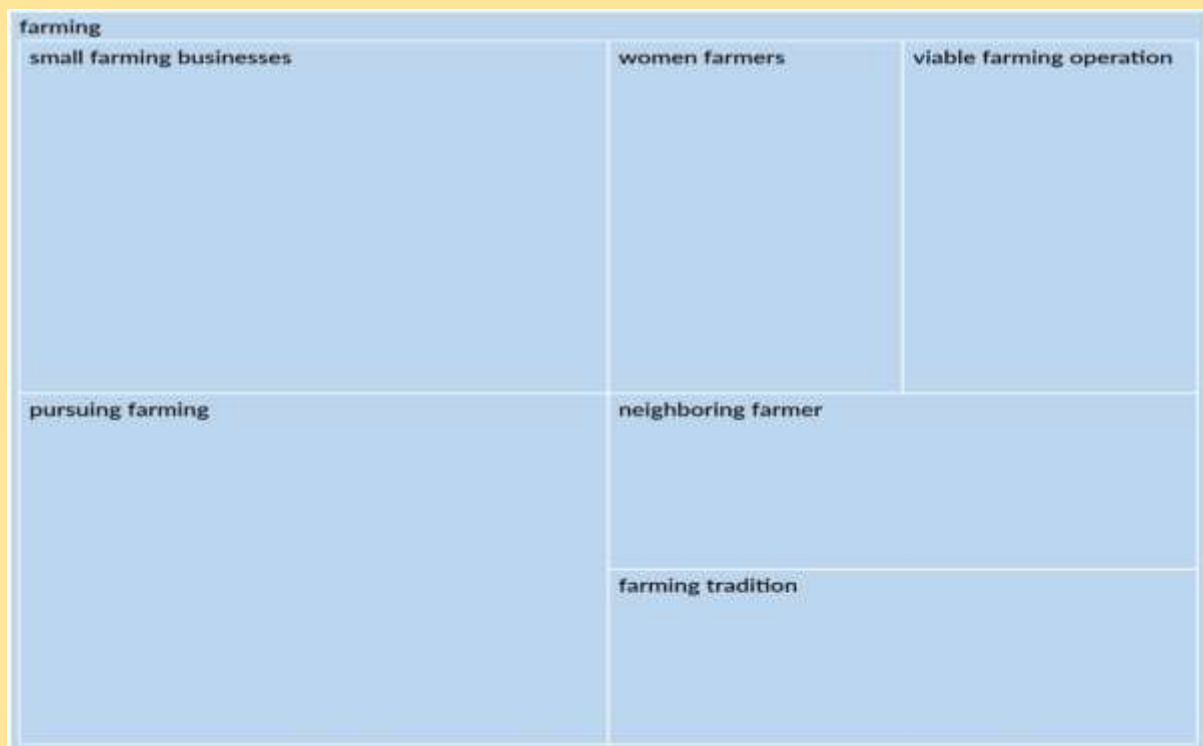


Figure 25: Theme 3 (Farming)

Figures 22, 23, 24 and 25 visually represents the themes and sub-themes derived from the NVivo analysis, offering a structured way to understand the complex issues around land ownership and farming. The image is divided into three sections corresponding to the identified themes: Land, Ownership, and Farming.

Land (in orange): This section dominates in the image, indicating that land issue is the most discussed theme. Sub-themes like “land ownership records,” “managing land,” and “land rights” are highlighted, reflecting the priority farmers place to these issues.

Farming (in blue): The next central theme was farming, where sub-themes like “small farming business” and “women farmers” indicated that although farming is the major activity, women face specific challenges in practicing agricultural operations.

Ownership (in grey): The theme ‘ownership’ is visually minor but still significant. Sub-themes like “establishing ownership” and “legal ownership” show that many farmers recognize the legal challenges in securing land, particularly for women.

By using NVivo to analyze the responses of 30 male farmers systematically, the data was categorized into three major themes—land, ownership, and farming. Each theme revealed critical insights into women's barriers to owning land in Bihar. NVivo allows to auto code the responses, helping to identify recurring patterns and sentiments, which are crucial for developing a deeper understanding of the issue. The visual representation further supports the thematic analysis, illustrating the prominence of land-related issues in the farmers' responses.

16.1.1. SENTIMENT ANALYSIS OF QUALITATIVE RESPONSES

The NVIVO sentiment analysis of the 330 responses revealed a predominantly neutral sentiment pattern across three significant domains: land, ownership, and farming. This neutrality in response provides significant insights into how male farmers in Bihar address and discuss women's land ownership issues.

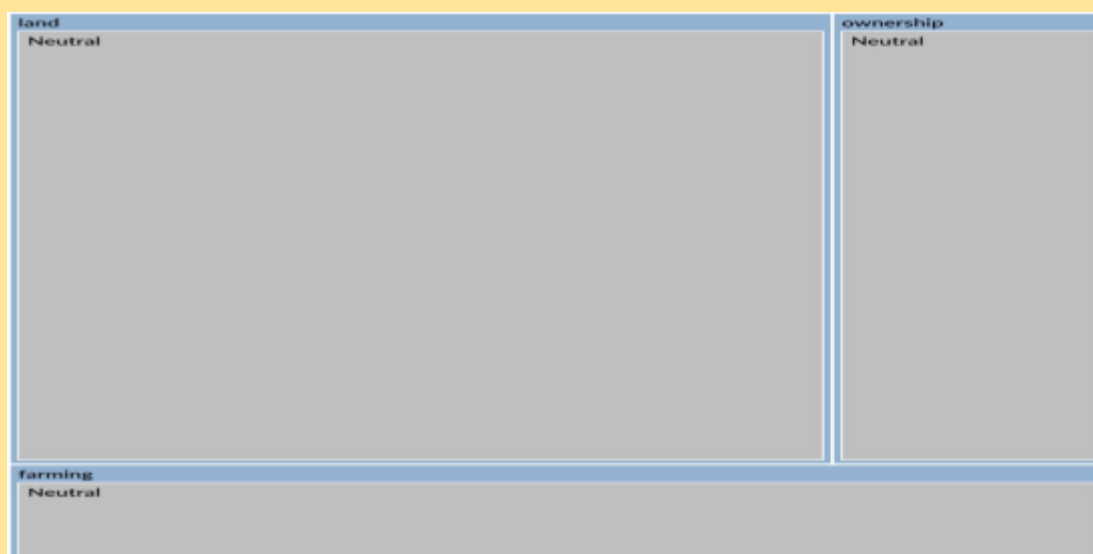


Figure 26: SENTIMENT ANALYSIS OF QUALITATIVE RESPONSES

Land-Related Sentiments

The predominant neutral sentiment in land-related discussions revealed several key aspects:

- Respondents see land matters from primarily an administrative and procedural perspective.
- Discussions focused on factual aspects of land documentation and registration processes.
- The neutral tone suggests a tendency to view land ownership as a technical rather than a social issue.
- Responses indicated a professional distance when discussing land-related challenges faced by women.

Ownership-Related Sentiments

The neutral sentiment pattern in ownership discussions indicate:

- A formal approach to discussing property rights and inheritance.
- An emphasis on legal and administrative aspects rather than personal opinions.
- A tendency to frame ownership issues within existing institutional frameworks.
- Limited emotional investment in discussions about changing ownership patterns.

Farming-Related Sentiments

The neutral sentiment in farming-related responses suggests:

- A focus on operational and technical aspects of agricultural practices
- An objective approach to discussing farming challenges and opportunities
- A preference for discussing practical rather than social aspects of farming
- A professional perspective on agricultural management and decision-making

This sentiment analysis provides valuable insights into how male farmers in Bihar conceptualize and discuss issues of women's land ownership. The predominantly neutral sentiment across all domains suggests a formalized approach to land-related matters, which has significant implications for research methodology and policy implementation. Understanding these sentiment patterns is crucial for developing effective interventions addressing both technical and social aspects of women's land ownership in Bihar.

16.2. Farmers' Perspectives on Land Ownership in Bihar: Summary of Key Responses

Question 1: Can you tell me about your experience with land ownership as a farmer in Bihar?

Most of the farmers stated that the land ownership is achieved through inheritance and purchase. Many inherited the land from their fathers or grandfathers, implying that their land had been in the family for generations. However, several farmers mentioned purchasing additional plots to expand their farms, particularly those who inherited small size of the land. Few farmers had no inherited land rather purchased it over the period of time, often through savings for years. The balance between inherited and purchased land reflects a mix of traditional and personal accomplishments in owning land. Overall, the responses show a firm reliance on familial inheritance and personal investment to sustain farming livelihoods in Bihar.

Question 2: What are the main challenges of women in owning land in your community?

The main challenges women face in land ownership in the community stem largely from cultural norms and legal complexities. Many farmers highlighted that traditional inheritance practice favors male heirs, leaving women with little to no land. Financial barriers also play a significant role, as women often lack access to the resources or credit support needed to purchase land independently. Even when women inherit land, they frequently face pressure to transfer ownership to male relatives, and social norms discourage women from asserting their land rights. Legal challenges, such as complex registration processes and lack of knowledge about women's land rights, further impacts on ownership. In some cases, widows or divorced women struggle to retain their share of land due to interference from in-laws or the community. There is also a pervasive belief that women cannot effectively manage land, discouraging families from allowing women to own property.

In addition, the absence of women in decision-making roles within local land administration offices and village bodies makes it even harder for them to claim and manage land. Social pressures, such as expectations of maintaining family harmony and cultural beliefs about women's roles in land ownership, further restrict their access to land. Overall, the responses reflect deep-rooted structural and social barriers that prevent women from achieving equitable land ownership in the community.

Question 3: How does land ownership (or lack thereof) affects women's roles in agriculture and decision-making?

The farmers provided interesting insights highlighting the significant impact of land ownership on women's roles in agriculture and their decision-making power.

When women own land, their involvement in agriculture goes beyond labor; they take on leadership roles in farming decisions, such as crop selection and the management of farming methods. Ownership also grants them access to loans, agricultural training programs, and cooperatives, enabling them to improve their farming practices and increase their influence in the community. Women who own land are likely to adopt sustainable agricultural methods, experiment with new techniques, and contribute to household decisions on income use, nutrition, and education.

Conversely, landless women are often restricted to labor roles and have less say in agricultural strategies and community-level decisions. Without land ownership, they struggle to access financial resources, training, and government benefits aimed at farmers. Additionally, they have limited control over the income generated from agricultural activities and often lack bargaining power in household and community decisions. Overall, the responses suggest that land ownership significantly enhances a woman's role, status, and autonomy in both agriculture and family life, while landless status limits their opportunities for economic advancement and decision-making.

Question 4: Can you describe the typical land inheritance practice in your community? How do these affect women's opportunity to own land?

The responses from the farmers reflect deep-rooted traditions that largely favor male heirs in land inheritance. In most of the cases, land is passed down to sons, while daughters are given movable assets like jewelry or dowry. Even though the law grants women equal inheritance rights, traditional norms and social pressures often prevent them from claiming their share. The community largely views land as something that should remain in the male lineage, excluding daughters, because of the belief that after marriage they will move to their husband's family. This leaves many women without getting land share and hence the financial security that comes through it. Widows, while technically entitled to their husband's land, often lose out to sons or male in-laws. Daughters may sometimes inherit small or symbolic plots, but barely enough to

engage in viable farming activities. In some progressive families, women also get equal share, but such cases are an exception. Pressure on women to relinquish their rights to male siblings and the notion that daughters' share of the family assets comes through marriage and dowry, further reduces their access to land. These inheritance practices reinforce a cycle where women lack ownership and control over agricultural land, limiting their economic independence and decision-making power. Although some families are beginning to challenge these norms, the overwhelming pattern is that women are primarily excluded from land inheritance.

Question 5: What changes have you observed over time in the attitudes of families towards women's land ownership?

The responses reflect a gradual, albeit slow, shift in the traditional mindset surrounding women's land rights in various communities.

Emerging Discussions: Many respondents lately feel that the discussion around women inheriting land has begun, especially over the last decade. Though these discussions are yet to be impactful, families are increasingly aware of the issue.

Education and Generational Change: The younger generation, particularly those from urban areas and/or with higher education, appears more open to sharing land with their sisters. Families with educated daughters are more likely to consider them capable of managing land, contributing to a slow change in attitudes.

Government Programs and Legal Awareness: Government awareness programs and legal rights have begun to change the attitudes. Some families are now more conscious of women's legal entitlements to property, and in case of widows, communities are more resistant to attempts by in-laws to take away their land.

Economic Considerations: Families have started to recognize that land ownership can provide women with financial security, especially in case of marital instability. Women's ability to contribute economically through land ownership also influences attitudes, with families beginning to see the potential financial benefits of allowing women to own land.

Changing Inheritance Practices: Although many families still follow traditional male-dominated inheritance patterns, some have started sharing land with daughters, particularly in family who do not have sons. There are growing discussions on sharing land with daughters in the parent's inheritance will itself.

Widows' Rights: There is a slow but noticeable shift towards protecting widows' rights to their deceased husband's land, instead of passing it to sons or male relatives, by default. More families are now acknowledging widows' right to retain control of their land.

Influence of Political and Social Exposure: The political empowerment of women in some regions also fosters change. Families where women are politically active or involved in local governance seem to be more assertive of their right to own land.

Progressive Practices: Some families are experimenting with new models, like joint farming ventures involving daughters, and have begun giving land to their daughters as wedding gifts. The success of female farmers in certain areas has also challenged the traditional views about women's inability to manage land.

Maternal Influence and Filial Responsibility: Interestingly, mothers are starting to influence inheritance decisions by advocating for their daughters to receive land. Additionally, families are more likely to give land to daughters caring for the elderly parents, linking land rights with filial responsibility.

Awareness of Fairness: There is an increasing awareness of the unfairness of excluding daughters from land inheritance, even if this has not fully translated into action yet. However, the fact that this topic is being discussed more openly is a step forward.

Question 6: How would owning land change a woman's life in your community?

The responses highlight the transformative power of land ownership for women, affecting various aspects of their lives, from financial security to social status and decision-making power.

Owning land would transform a woman's life in the community, providing her with financial security and independence. With land as a personal asset, she would not have to rely entirely on her husband or sons for support, and in case of divorce or widowhood, it would serve as a crucial safety net. Land ownership would also elevate her status within her family and the community, allowing her opinions to be more valued in important decisions. This newfound respect would extend to agricultural matters, where she could exercise greater control over farming decisions, from choosing crops to implementing innovative techniques without male approval. Additionally, the land would offer her the collateral necessary to access loans, opening doors to entrepreneurship or investments in modern farming equipment.

From household perspective, owning land would enable a woman to ensure food security for her family by controlling what is grown and consumed. It would also enhance her bargaining

power within the family, giving her more influence over children's education and marriage decisions. Moreover, she could lease it out with land ownership or experiment with new farming techniques, contributing directly to household income. Beyond personal benefits, land ownership could have an inter-generational impact, as she could pass the land on to her daughters, challenging traditional inheritance norms and securing future generations. Women landowners would also gain access to community decision-making platforms, as they would be more likely to participate in village meetings and agricultural cooperatives, where they could benefit from better prices and resources. Land ownership would improve women's social standing, recognizing them as "farmers" in their own right and granting them access to government schemes and services, previously out of reach. Furthermore, it would give women a stronger voice in local governance, enhancing their influence in panchayat decisions and village resource management. On a personal level, land ownership would give women the means to resist domestic violence or other forms of abuse, as they would have the financial independence to support themselves.

Overall, owning land would allow women to make long-term investments, such as improving land productivity or planting orchards. It would also allow them to take leadership roles in farmer organizations, secure better futures for their children through improved household income, and strengthen their sense of identity and belonging in the community.

Question 7. What support systems or resources are available for women who want to own land?

Farmers in the community perceive that growing support systems and resources are available for women who want to own land. Government schemes offering subsidies, joint ownership policies, and financial assistance are vital tools that empower women to secure land ownership. Programs like Jeevika and microfinance institutions provide access to low-interest loans, making it easier for women to buy or lease land for farming. Women's self-help groups (SHGs) also play a crucial role in helping women save money and access loans for agricultural purposes. Legal aid clinics and NGOs are raising awareness about women's property rights and providing legal assistance to secure land titles, particularly in inheritance disputes. Additionally, cooperatives formed by women, collective purchases, and grassroots movements advocating for women's land rights are perceived as community-driven solid efforts to enable women to gain control over land. Farmers recognize the importance of these resources and see them as

key to promoting greater economic independence and empowerment for women in their communities.

Question 8. Have there been any instances where women in your community have fought for land ownership rights, either through legal means or community mobilization?

In the community, there have been several instances where women have fought for their land ownership rights, either through legal means or community mobilization. Some women have gone to court to claim their rightful share of ancestral land or inheritance, often with the help of NGOs and legal aid organizations. While these legal battles are long and challenging, a few have secured their land rights, inspiring other women to pursue similar actions. There are also examples of women coming together in groups to approach the Panchayat or collectively buy land, showing the power of solidarity in fighting for land ownership. In some cases, women have organized protests or worked with community leaders to demand fair land distribution, significantly raising awareness about women's rights to property. These instances are still relatively uncommon, but they signal a growing recognition of the importance of land ownership for women in the community.

Question 09: .What do you think needs to be changed to improve women's access to land ownership?

The farmers emphasized several vital areas for change. They highlighted the critical need for awareness programs and education about women's legal rights to land, especially in rural areas. Many suggested that the legal processes should be simplified and better enforced, particularly regarding inheritance laws. Financial support emerged as another crucial factor, with recommendations for low-interest loans, subsidies, and special programs targeting women buyers.

The respondents also emphasized the importance of institutional support, suggesting that Panchayats should be more active in supporting women's land claims and resolving disputes. They advocated for joint ownership between husbands and wives and recommended better access to legal aid and representation. Community-based solutions, including forming women's cooperatives for collective land purchase and programs like Jeevika for group savings, were frequently mentioned.

The cultural transformation was identified as fundamental, with farmers acknowledging that traditional attitudes often prevent women from being seen as legitimate landowners. They suggested that local leaders should advocate more strongly for women's land rights and that women should have more excellent representation in community-level decision-making processes about land matters.

Question 10. How do you see the future of women's land ownership in Bihar? What are your hopes and concerns?

The farmers generally expressed optimism about the future of women's land ownership, citing increasing awareness, education, and government support programs like Jeevika as positive indicators of change. They hope to see women having equal land rights as men and envision a future where women's land ownership becomes normalized in Bihar society.

However, their optimism is tempered by several significant concerns. The most prominent worry is the persistence traditional mindsets and patriarchal norms that could continue to resist women's land ownership. Many farmers expressed concern about family resistance, particularly in inheritance matters, where women might face pressure to give up their rights. They also expressed concern about practical challenges, including women's limited access to financial resources, complicated legal processes, and the potential lack of support from financial institutions.

The responses reflect a realistic understanding that while positive change occurs, the transformation will likely be gradual. Many farmers acknowledged that legal reforms and awareness programs are necessary steps forward. However, more profound challenge lies in changing cultural attitudes and ensuring reforms are effectively implemented, especially in rural areas. They emphasized that the success of women's land ownership will depend on legal and policy changes and broader societal acceptance and support from families and local communities.

Question 11. How has the land survey in Bihar impacted your community, particularly regarding women's empowerment or economic opportunities?

The farmers consistently reported positive impacts of the land survey on women's status and economic participation in their communities. A primary benefit has been increased transparency and clarity in land ownership records, making it easier for women to claim and

prove their land rights, especially in inheritance matters. The survey has helped ensure that women's names are included on land titles, providing them with legal ownership documentation.

This formal recognition has led to several concrete economic benefits. Women are better positioned to secure loans using their land as collateral, invest in farming activities, and participate in agricultural businesses. The farmers noted that women have gained more control over family assets and increased participation in household financial decisions. This has contributed to their economic independence and security.

The farmers also emphasized the broader empowerment effects of the land survey. Women are becoming more aware of their property rights and are increasingly involved in land-related decision-making. This has improved their status within the community and given them more confidence to pursue economic opportunities, particularly in agriculture and entrepreneurship. The survey catalyzes a shift toward more fabulous women's participation in economic activities and financial decision-making, at both household and community levels.

SUMMARY AND CONCLUSION

The Study entitled “**Challenges of Land Ownership Among Women Farmers: A Case Study of Bihar**” delves into the complex challenges that prevent women farmers in Bihar from owning agricultural land despite significant contributions to the State’s agriculture sector. Land ownership is widely recognized as a transformative asset that provides economic security, social status, and decision-making power. However, in Bihar, like in many rural parts of India, women face significant obstacles in securing this critical resource due to socio-cultural norms, economic constraints, legal barriers, and limited support systems. The research employs a mixed-methods approach, combining quantitative data with qualitative insights, to understand these barriers' root causes and identify potential pathways for empowering women through land ownership.

5.1. Background and Significance of the Study

The backdrop for this research is the pivotal role of agriculture in Bihar’s economy, where approximately 77.0% of the workforce is engaged in agricultural activities, and women constitute majority of the agricultural labor force. Despite performing critical roles in every aspect of farming, from planting to livestock management, women in Bihar own only a tiny fraction of the land. This disparity in land ownership has far-reaching implications: Without land, women are denied access to credit, agricultural subsidies, and the opportunity to make strategic decisions in farming, thereby restricting their economic independence and social mobility. This research highlights that land ownership is an economic asset and a catalyst for women’s empowerment, poverty reduction, and social equity.

5.2. Objectives of the Study

1. To study the profile characteristics of the respondents.
2. To examine the land status and influencing factors affecting ownership by the respondents.
3. To develop strategy and recommendations for promoting land ownership and control over it by women farmers in Bihar.

5.3. Key Findings

The research on barriers to land ownership for women farmers in Bihar provides a nuanced understanding of the multiple factors limiting women's access to land. Each finding sheds light on how social norms, economic challenges, and legal restrictions combine to marginalize women in property rights.

1. Legal Barriers and Awareness

One of the most significant findings was the correlation between legal awareness and land ownership. Access to legal services was the strongest predictor of ownership. Women with legal knowledge and support were more likely to navigate the complex land registration and inheritance systems. However, only 9.17 per cent of the respondents reported accessing any legal services for land ownership, and majority of whom needing more awareness of specific legal rights for claiming ownership.

Even with India's Hindu Succession Act of 2005, which grants daughters with equal inheritance rights, many women were unaware of how to exercise these rights. This lack of awareness is compounded by social norms prioritizing male inheritance, discouraging women from asserting legal claims. The limited access to legal services also highlighted systemic issues, such as logistic, financial, and social constraints that prevent women from accessing legal services independently. Social barriers, such as the need for male relatives to accompany women for legal proceedings, further restrict women's autonomy in exercising land rights.

2. Socio-cultural Constraints

Patriarchal norms and traditional beliefs pose formidable barriers to women's land ownership. The inheritance system strongly favors sons over daughters, a practice deeply ingrained in rural communities, where land is traditionally seen as a male asset. About 92.5 per cent of the respondents reported not owning any land, citing cultural norms as the primary reason for the disparity. Even in cases where women are legally entitled to inherit the land, societal expectations often pressurize them to transfer their inheritance rights to male family members or relinquish claims as joint owners.

Furthermore, women's social status within their families and communities is often low due to lack of property ownership. Without land, women are perceived as dependent on their husbands or male family members/relatives, impacting on their social stand and decision-making power. This cultural association of land ownership with male authority reinforces women's marginalization and prevents them from achieving economic independence.

3. Economic Limitations

Financial constraints are a central barrier to land ownership for women in Bihar. 63.1 per cent of the respondents without land cited financial hardship as the primary reason. Land acquisition is financially demanding, requiring substantial capital that many of the rural women lack. Despite relatively high credit access, 93.33 per cent of the respondents reported having some form of credit. Only a negligible percentage of this credit was used for land acquisition. The credit system in rural Bihar is often structured in ways that do not prioritize women's property acquisition, focusing instead on smaller loans for livestock or agricultural inputs.

Additionally, reliance on non-institutional sources such as family, friends, and informal lenders limits women's borrowing capacity and financial independence. Women who do not own land also face challenge in obtaining credit from formal financial institutions, as they lack the required collateral. This limitation restricts women farmer's ability to break free from the dependency on male members, who typically control land and other significant assets in rural households.

4. Participation in Local Governance and Decision-Making

Community engagement emerged as a positive factor in women's land ownership. Women who actively participated in local meetings or community groups, like Jeevika and Samakhya, were more likely to own land or understand the documentation process. Approx. 49.17 percent of the respondents reported attending local meetings, indicating an increasing trend of women's involvement in local governance. These meetings provided platforms for women to learn about property rights, access credit, and build social networks that can be pivotal for claiming land. Participation in these groups fostered a sense of empowerment among women, helping them break free from traditional roles and assert their rights. Jeevika and Samakhya, both of which are actively involved with women in promoting economic and social decision-making ability, offer significant support. For instance, Jeevika's Self-Help Groups provide women with a mechanism for savings and credit, which can indirectly support land acquisition. Through these groups, women gain exposure to legal and financial means, enhancing their ability to navigate property ownership.

5. Impact of Farming Type and Occupation on Land Ownership

The Study revealed a correlation between women's land ownership and the type of farming they practiced. Women involved in commercial or mixed farming (where they grow cash crops alongside subsistence crops) were more likely to own land than those engaged exclusively in subsistence farming. Commercial farming offers higher income and aligns with market demands, providing women with more financial independence and possibly the means to acquire land.

The findings suggested that women who diversified their occupations beyond agriculture, through small enterprise, were also more likely to own land. This underscores the importance of economic independence in enabling women to assert land ownership. However, traditional subsistence farming, which remains the mainstay for majority of the rural women, offers limited opportunities for land acquisition, as it is less profitable and has a lower market reach.

6. Influence of Education, Marital Status, and Age

Contrary to expectations, education, marital status, and age showed weak correlations with land ownership. These demographic factors did not significantly determine land owned by the respondents, which may be attributed to systemic issues that override individual characteristics. While education can enhance women's ability to advocate for their rights, it does not guarantee ownership from socio-cultural per se, where property rights are heavily skewed towards men.

Similarly, age and marital status had minimal impact on land ownership patterns, indicating that barriers to land access are deeply institutionalized and not easily influenced by personal attributes. This finding challenges the assumption that personal development alone can address gender-based disparities in land rights, suggesting the need for broader societal changes and policy interventions to empower women in land ownership.

These findings collectively illustrate that a complex interplay of socio-cultural, economic, and legal barriers determines land ownership among women in Bihar. While some women had made progress through community support and diversified income sources, majority of them remained marginalized due to traditional practices, lack of legal awareness, and economic dependency. Addressing these barriers requires targeted interventions, such as legal awareness programs, financial incentives for women's land acquisition, and community-based initiatives that challenge patriarchal norms.

5.4. Conclusion

The Study on barriers to land ownership for women farmers in Bihar has highlighted women's profoundly entrenched and multifaceted challenges in accessing and controlling agricultural land. Despite recent legislative reforms promoting gender equality in property rights, significant gaps persist in the practical realization of these rights. In Bihar, where agriculture is the cornerstone of the rural economy, and women contribute significantly to farming, limited land ownership among women restricts their potential for economic and social empowerment. The findings underscore that barriers to land ownership are rooted in economic limitations and heavily influenced by socio-cultural norms, legal complexities, and lack of support services.

1. Socio-cultural Norms and Patriarchal Inheritance Practices

Cultural norms and patriarchy remains the most significant barriers to women's land ownership. Although laws such as the Hindu Succession Act grants daughters with equal inheritance rights, traditional practices in Bihar often favor male heirs, sidelining women from land ownership. This preference for male inheritance is compounded by societal expectations, which frequently pressurize women to relinquish their claims to land in favor of their male family members. As a result, even when women are legally entitled to land, societal norms hinder their ability to claim and retain ownership, reinforcing their economic dependency on male members.

The social status of women in Bihar is closely associated with land ownership, which serves as both an economic asset and a symbol of social standing. In communities where land ownership is considered a male prerogative, women's lack of land significantly reduces their influence and decision-making power. Without land, women often struggle to assert themselves within their families and communities, reinforcing cycles of dependency and marginalization. Therefore, addressing these socio-cultural barriers is essential for promoting gender equality in land rights.

2. Economic Barriers and Limited Access to Financial Resources

Economic limitations represent another critical barrier, as financial constraints prevent many women from independently owning land. The land cost in rural Bihar is often prohibitive for women, particularly those with limited income sources. Although many women can access credit through Self-Help Groups (SHGs) and other informal networks, the study revealed that this credit is rarely directed towards land acquisition. This is partly due to the structure of credit systems, which prioritize smaller, short-term loans for agricultural inputs or livestock rather than the more significant, long-term investments needed for land purchases.

Additionally, women who do not own land face challenges in accessing institutional credit, as they need collateral for availing credit facilities from formal financial institutions. This limitation restricts their ability to invest in agriculture or diversify their economic activities. The cycle of economic dependency is thus perpetuated, as women without land remain dependent on male family members for financial resources and decision-making power. The findings suggest that economic empowerment programs and credit facilities explicitly designed to support women's land acquisition could be instrumental in bringing this gap.

3. Legal Awareness and Access to Judicial Support

The findings emphasized that legal awareness and access to legal services are crucial for enabling women to assert their land rights. Women with access to legal support were significantly more likely to navigate through the inheritance laws and pursue land claims. However, the study revealed that only a negligible percentage of the respondents had accessed legal services, while still a significant percentage of them need to be made aware of their rights under property laws. Moreover, logistic, financial, and social barriers restrict women's ability to access legal services independently, as male family members often accompany them in legal matters.

The gap between legal provisions and their implementation highlights the importance of strengthening legal literacy and expanding access to legal services for rural women. Legal literacy initiatives that educate women on inheritance rights, land registration procedures, and dispute resolution mechanisms could empower them to claim their land entitlements. Developing women-friendly legal aid services, community legal support groups, and partnerships with NGOs can create a more accessible and supportive legal environment for women seeking land ownership.

4. Role of Community Participation and Support Networks

Participation in local governance and support networks, such as Jeevika and Samakhya, positively impact women's land ownership and empowerment. Community involvement increases women's awareness of their rights and provides them with social networks that enhance their bargaining power. By actively participating in local meetings, women are more likely to understand property rights, gain access to credit, and advocate for their ownership claims. Jeevika and Samakhya, for instance, offer platforms for women to discuss and address issues related to land ownership, economic independence, and social status.

These support networks also link women to financial resources, legal knowledge, and entrepreneurial opportunities that empower women economically and socially. The study suggests that strengthening these community-based initiatives and expanding their reach can further support women in securing land ownership. Encouraging women's participation in local governance and decision-making structures can help them build the confidence and social capital needed to challenge traditional norms and assert their property rights.

4. Influence of Farming Type and Economic Independence on Land Ownership

The type of farming women practice plays a significant role in determining their land ownership status. Women engaged in commercial or mixed farming were more likely to own land, as these practices give higher income and better market access, enabling women to invest in land and other assets. Economic independence, which allows women to take up diversified activities and help generate income beyond agriculture, was also found to significantly contribute to land ownership. This underscores the importance of creating economic opportunities for women in agriculture and non-agricultural sectors to increase their financial autonomy and capacity to acquire land.

However, many women in Bihar continue to be engaged in subsistence farming, which offers limited income and is often insufficient for land purchase. The study indicates that economic programs focused on sustainable agricultural practices, market access, and income diversification can support women in moving beyond subsistence farming, enhancing their financial independence and potential for land acquisition.

5.5. Final Reflections and Implications for Policy

The findings of this study illustrate the need for a holistic approach to address barriers to land ownership among women in Bihar. The complex and interconnected challenges require targeted interventions across social, economic, and legal domains. Policy measures focused exclusively on legal reforms will be more likely to achieve substantial progress with parallel efforts to address cultural norms, economic constraints, and access to support services.

Policy Reforms and Legal Awareness Programs: Enhancing legal awareness through community-based programs can empower women to claim their inheritance rights. Policies that promote gender-sensitive legal services and provide free or low-cost legal aid for rural women are essential in bridging the gap between legal rights and actual ownership.

Economic Empowerment Initiatives: Programs that offer financial incentives, targeted credit facilities, and training for women's entrepreneurship can help women overcome economic barriers to land ownership. Tailoring the functional mechanism in credit systems to support land purchases and agricultural investments by women could make land acquisition more feasible.

Strengthening Community-Based Support Systems: Expanding the scope and reach of women's groups, such as Jeevika and Samakhya, can amplify women's voices in local governance and create solidarity networks that support their rights. Encouraging local governments to collaborate with these organizations can provide a framework for promoting gender equality in land ownership.

Socio-cultural Awareness and Transformation: Addressing deep-rooted patriarchal norms requires sustained efforts, including community awareness campaigns, educational programs, and the involvement of local leaders in advocating for women's rights. Promoting gender-sensitive inheritance practices through community engagement can gradually transform social attitudes toward women's property rights.

Empowering women to own land is critical to achieving gender equality and sustainable development in rural Bihar. Land ownership provides women with economic security and independence and enhances their social status, decision-making power, and resilience against poverty. This study reinforces the need for a multi-dimensional approach to tackling barriers to women's land ownership, with a commitment to creating an inclusive and equitable environment for all women in the agricultural sector.

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APPENDIX - 1

MANAGE INTERVIEW SCHEDULE ON

Title of Research: Challenges of Land Ownership Among Women Farmers: A Case Study of Bihar

INTERN UNDER: Dr. Veenita Kumari (Dy. Director Gender Studies)

Name of Intern: Amrit Warshini

Objectives:

- 1) To study the profile characteristics of the respondents.
- 2) To examine the land status and influencing factors affecting ownership by the respondents.
- 3) To develop strategies and recommendations for promoting land ownership and control over it by women farmers in Bihar.

Quantitative Questionnaire

Name of respondent.....

District.....

A. Demographic Information

1. Gender

Male.....

Female.....

Other (please specify)

2. Age:

3. Education Level:

Sl.NO.	Category	Score
1.	Illiterate	1
2.	Can read only	2

3.	Can read and write	3
4.	Primary	4
5.	Middle	5
6.	High School	6
7.	Graduate	7
8.	Others (please specify)	8

4. Marital Status:

Sl. No.	Category	Marital Status (Score)
1.	Unmarried	1
2.	Married	2
3.	Divorced	3
4.	Widow	4

5. Family Structure

Sl. No.	Category	Marital Status (Score)
1.	Nuclear Family	1
2.	Joint Family	2

B. Land Ownership Status

6. Do you own any agricultural land?

Yes....

No.....

7. If yes, how much land do you own?..... acres

8. How did you acquire this land?

- i. Inherited from family.....
- ii. Purchased.....
- iii. Purchased and Inherited
- iv. Government allocation.....

v. Other (please specify).....

9. Is the land officially registered in your name?

- Yes.....
- No.....

10. What is the primary reason, if you don't own land?

- Lack of financial resources.....
- Cultural norms.....
- Legal barriers.....
- Lack of awareness about rights.....
- Other (please specify).....

C. Economic Factors

11. What is your primary occupation?

- Farming.....
- Agricultural labor.....
- Non-agricultural work.....
- Homemaker.....
- Other (please specify):

12. Annual Household Income: INR

13. Do you have access to credit for agricultural purposes?

Yes.....

No.....

14. If yes, what is the primary source of credit?

- Banks.....
- Microfinance institutions.....
- Self-Help Groups.....
- Informal lenders.....
- Family/Friends.....
- NGO/Development Organisation/ International Organisation.....

Other (please specify):

D. Agricultural Practices

15. What type of farming do you primarily engage in?

- Subsistence farming.....
- Commercial farming.....
- Mixed farming.....
- Other (Please specify)....

16. How many different crops do you grow in a year?

17. What are the innovative practices or technologies that you implement in your agricultural activities?"

- Hand machines.....
- Power operated machinery.....
- Drones.....
- Smart agriculture technologies.....
- Mobile apps

E. Decision-Making and Empowerment

18. Who makes decisions about agricultural practices in your household?

- Self.....
- Spouse.....
- Jointly with spouse.....
- Other family members.....
- Other (please specify): ____

19. Do you participate in local meetings or forums that discuss land use planning and development in your village?

- Always.....
- Sometimes.....
- Rarely.....
- Never.....

F. Awareness and Access to Rights

20. Are you aware of laws regarding women's land ownership rights?

- Very much aware.....
- Somewhat aware.....
- Not aware at all.....

21. Which laws are you familiar with regarding land ownership or land-related matters?

22. Have you ever accessed legal services related to land rights?

Yes.....

No.....

23. If yes, what type of and purpose for seeking legal services?

- Legal counselling.....
- Documentation support.....
- Representation in court.....
- Other (please specify): ____

G. Socio-Cultural Factors

For the following statements, please indicate your level of agreement:

(1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

24. Women should have equal rights to own land.

- 1 []
- 2 []
- 3 []
- 4 []
- 5 []

25. In my community, it's acceptable for women to own land.

- 1 []
- 2 []
- 3 []
- 4 []
- 5 []

26. Inheritance practices in my family favour sons over daughters.

- 1 []
- 2 []
- 3 []
- 4 []
- 5 []

27. Women face more challenges than men in accessing land ownership.

- 1 []
- 2 []
- 3 []
- 4 []
- 5 []

28. Land ownership would improve a woman's social status in the community.

- 1 []
- 2 []

- 3 []
- 4 []
- 5 []

Part B: Qualitative Interview Schedule

- 1) Can you tell me about your experience with land ownership as a farmer in Bihar?

- 2) What do you think are the main challenges women face in owning land in your community?

- 3) How do you think land ownership (or lack thereof) affects women's roles in agriculture and decision-making?

- 4) Can you describe the typical inheritance practices in your community? How do these affect women's opportunity to own land?

- 5) What changes have you observed over time in attitudes of family towards women's land ownership?

- 6) How would owning land change a woman's life in your community?

- 7) What support systems or resources are available for women who want to own land?

- 8) Has there been any instances where women in your community have fought for land ownership rights, either through legal means or community mobilization?

- 9) What do you think needs to change to improve women's access to land ownership?

- 10) How do you see the future of women's land ownership in Bihar? What are your hopes and concerns?

- 11) How has the land survey in Bihar impacted your community, particularly in terms of women's empowerment or economic opportunities?"

Glimpse of Data Collection



Focus Group Discussion with the Farm Women



At Sheohar District



Focus Group Discussion with the Member of Same Family



Focus Group Discussion with Male and Female Farmers



Discussion with Farm Women

ABOUT THE AUTHORS



Ms. Amrit Warshini, Research Scholar

Ms. Amrit Warshini worked as an intern at the Centre for Gender in Agriculture, Nutritional Security & Urban Agriculture at the National Institute of Agricultural Extension Management (MANAGE), Hyderabad. She is a Ph.D. Scholar in the Department of Extension Education at Acharya Narendra Deva University of Agriculture and Technology (ANDUAT), Ayodhya, Uttar Pradesh. She completed her post-graduation from Jawaharlal Nehru Krishi Vishwa Vidyalaya (JNKVV), Jabalpur, Madhya Pradesh. She has qualified the ICAR-SRF, UGC-NET, and ICAR-NET (2023) examinations, and is also a recipient of the prestigious ICSSR Doctoral Fellowship. Her strong academic record reflects her dedication to research and scholarship. Ms. Warshini has published several book chapters, research articles, and popular articles and has actively participated in national and international seminars, conferences, and training programs. She has also delivered radio talks and guest lectures, focusing on gender and social awareness in agriculture. Passionate about knowledge sharing, she aims to contribute meaningfully towards empowering rural communities and promoting inclusive agricultural development.



Dr. Veenita Kumari, Deputy Director (Gender Studies)

Dr. Veenita Kumari is currently Deputy Director, Centre for Gender in Agriculture, Nutritional Security & Urban Agriculture at National Institute of Agricultural Extension Management (MANAGE). She is also the Principal Coordinator of Post Graduate Diploma in Agricultural Extension Management (PGDAEM). Prior to joining MANAGE, she had worked as Assistant Professor (Extension & Communication Management) in College of Home Science, Central Agricultural University, Tura, Meghalaya for more than 13 years. At CAU Tura, she was primarily involved in teaching (B.Sc. and M.Sc.), research and outreach activities of the college (on and off-campus). A university gold medalist during her M.Sc., Dr. Veenita has 35 published research articles in refereed academic national and international journals, editor of five books, and three book chapters. Her areas of specialization include Women Empowerment, Gender Studies, Women in Agriculture, Women Entrepreneurship, Community Nutrition, Rural Development, Foods & Nutritional Security, Nutrition Sensitive Agriculture, Biofortification, One Health, Family Farmer, Urban Agriculture and Microgreens. She has received Young Scientist Award and Young Teacher Award for her academic excellence.



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