Gender Disparities in Land Holding in India

Dr Jeeja K S
Associate Professor of Economics
Govt Victoria College, Palakkad

Abstract

This study explores the persistent issue of gender inequality in land ownership in India, a critical dimension of socio-economic disparity that persists despite legal efforts to promote gender equality. Utilising data from the NSSO Debt and Investment Survey 2019, the study assesses landholding patterns among men and women through various inequality metrics, including the Gini coefficient and Generalized Entropy indices. The study indicates that while average landholdings are similar across genders, substantial within-group inequalities reveal that women encounter significant barriers in accessing and controlling land resources. Although legal reforms have improved overall equity, deep-seated cultural and institutional norms undermine women's land rights. This paper advocates for the formulation and implementation of policies that empower women by ensuring that legal entitlements to land translate into effective and meaningful control. Addressing these entrenched inequalities is essential for enhancing women's economic security and fostering broader economic development. Such efforts are pivotal in advancing sustainable gender equality, particularly within the rural regions of India, and are critical to achieving the broader goals of inclusive development and social equity.

Keywords: *Gender Inequality; Land holding; Economic Disparities; Property Rights; NSSO data, India*

1. Introduction

Despite significant legal advancements aimed at ensuring gender equality in land inheritance, considerable disparities persist in land ownership between men and women in India (Agarwal et al., 2021). This persistent gender gap not only hinders women's economic security and physical safety but also negatively impacts the health and educational outcomes of their children (Agarwal & Naik, 2024). In rural South Asia, where agrarian economies are prevalent, secure land rights are crucial for women's empowerment, functioning as a vital form of property that even robust employment opportunities cannot entirely replace (Agarwal, 1994). This is particularly salient in India, where, despite the Hindu Succession Amendment Act of 2005 granting Hindu women equal inheritance rights to all property, including agricultural land and joint family property, actual ownership remains disproportionately skewed towards men (Agarwal & Naik, 2024). This imbalance is perpetuated by deeply entrenched cultural norms and traditional inheritance practices that often prioritize male heirs, alongside a legal framework that, while progressive on paper, struggles with effective implementation (Onyango et al., 2024; Sharma & Bhagat, 2024). In this context, this paper aims to analyse the gender disparity in land ownership in India.

2. Literature Review

The economic literature has extensively documented gender wage inequality, emphasizing the role of human capital and social factors in perpetuating the gender wage gap (Gupta, 2015; Azad and Hari, 2024). However, gender inequality extends beyond wages, manifesting significantly in asset ownership, particularly landholdings. In India, gender disparity in land ownership is a critical issue, reflecting broader patterns of socio-economic inequality and marginalization (Agrarwal,1994). Despite the existence of legal frameworks designed to ensure equal property rights for men and women, deep-rooted cultural, social, and institutional biases continue to impede women's access to and control over land. Land ownership serves not only as a source of economic security but also as a vital asset that grants social status, political power, and protection in times of economic distress. In rural areas, where agriculture remains the primary source of livelihood, landholding is closely linked to wealth, income, and social standing (Kareemulla et al, 2021). Nevertheless, women continue to face significant structural barriers to land ownership, reinforcing persistent gendered disparities in this critical area.

Despite the formal legal frameworks that exist in India to ensure gender equality in property rights, such as the 2005 amendment to the Hindu Succession Act (HSA, 1956) and the Forest Rights Act (FRA, 2006), the reality of implementation remains starkly different. These laws were intended to rectify historical injustices and provide women with equal rights to inherit and own land. However, the translation of these legal provisions into practice has been hampered by poor implementation, bureaucratic inefficiencies, and a lack of awareness among the rural population (Patnaik, 2018; Landesa, 2014). Moreover, customary practices and patriarchal norms continue to exert a powerful influence over land inheritance and ownership in many parts of India. These customs often favour male heirs, thereby undermining the legal rights of women to inherit land.

Studies have shown that even when women are legally entitled to inherit the land, they frequently face pressure from family members to relinquish their claims in favour of male relatives (Agarwal, 1998). This not only diminishes women's economic security but also perpetuates a cycle of dependency and vulnerability. Furthermore, women's land rights are often limited to joint ownership with male family members, leaving them with little autonomy or decision-making power over the land. As a result, the promise of legal reforms remains unfulfilled for a large majority of rural women, and the socio-economic implications of this inequality are profound. Women with insecure or no land rights are more likely to be economically disadvantaged, lack access to credit, and face barriers to participating in agricultural markets (Mishra & Sam, 2016). The 2030 Sustainable Development Goals (SDGs) recognize the importance of gender equality in land rights, specifically targeting the need to increase women's ownership of agricultural land (United Nations, 2017). As global attention on gender disparities in land ownership grows, India must confront the deeply ingrained social and institutional barriers that perpetuate these inequalities. Addressing the gender gap in land ownership is crucial not only for women's empowerment but also for promoting overall economic development and poverty reduction in rural areas.

Despite the critical role of land ownership in shaping economic and social well-being, there has been surprisingly little focus on understanding the gender disparities in landholdings in India. This study aims to address that gap by exploring how land is distributed between men and women, using data from the NSSO Debt and Investment Survey, 2019, one of the most comprehensive national datasets available. By using well-established inequality measures like the Gini coefficient, Generalized Entropy (GE) indices, and Atkinson indices, this research probes into not just overall land inequality but also highlights the specific differences in land ownership between men and women. These tools allow us to examine the depth of inequality, providing insights into the structural barriers that persist.

3. Methodology

The study utilized data from the NSSO All India Debt & Investment Survey, 77th round, conducted between January and December 2019, Ministry of Statistics and Programme Implementation, Government of India. The study focused on key variables such as total landholding in acres, and gender. To ensure robust estimates, households with zero or negative landholdings were filtered out, resulting in a final sample size of 116,458 households.

To measure inequality, the study employs the Gini coefficient, a widely recognized indicator that ranges from 0 (representing perfect equality) to 1 (indicating perfect inequality). The Gini coefficient is calculated using the following formula:

$$G = \frac{A}{A + B}$$

Where A is the area between the Lorenz curve and the line of perfect equality, and B is the area under the Lorenz curve.

The Generalized Entropy indices used in the study provide a family of measures that capture different aspects of inequality. The second-order Generalized Entropy index (GE(2)) is defined as follows:

$$\boldsymbol{GE(2) = \frac{1}{n} \sum_{i=1}^{n} \left(\frac{x_i - \bar{x}}{\bar{x}} \right)^2}$$

Where xi represents individual landholdings, $\bar{x}$ is the mean landholding, and n is the number of observations. This index specifically measures the squared coefficient of variation, making it sensitive to changes in the upper tail of the distribution.

The Atkinson index used to capture inequality while considering societal aversion to inequality, defined as:

$$\boldsymbol{A(\epsilon) = 1 - \left(\frac{\sum_{i=1}^{n} x_i^{1-\epsilon}}{n \, \bar{x}^{1-\epsilon}} \right)^{\frac{1}{1-\epsilon}}}$$

Where ϵ is a parameter reflecting the degree of inequality aversion, xi is individual landholdings, and $\bar{x}$ is the mean landholding.

4. Result and Discussions

In Table 1, the percentile ratios highlight the extent of inequality in land distribution across different segments of the population. The p90/p10 ratio, which compares the 90th percentile with the 10th percentile, is an astonishing 197.5, indicating that individuals in the 90th percentile own nearly 198 times more land than those in the 10th percentile. This stark contrast underscores the extreme inequality between the wealthiest and the most land-poor segments of the population. Similarly, the p90/p50 ratio of 9.63 shows that landholders at the 90th percentile possess nearly 10 times the land of those at the median, emphasizing the concentration of land among the wealthiest landowners. On the other hand, the p10/p50 ratio of 0.049 suggests that those in the 10th percentile hold only 4.9% of the land owned by the median landholder, revealing the disadvantaged position of the bottom decile.

Furthermore, the p75/p25 ratio of 21.67 points to substantial inequality even within the middle 50% of the distribution, where those at the 75th percentile hold over 21 times the land of those at the 25th percentile. This indicates that land inequality is not only concentrated between the extremes of the distribution but also present among middle-income landholders. Overall, the high values across all these percentile ratios reflect significant structural imbalances in land ownership, with a large concentration of land among a small elite, leaving the majority of the population with minimal landholdings. This severe inequality has far-reaching socio-economic implications, particularly in rural areas where land ownership is a critical determinant of economic security and social status.

Table 1: Percentile Ratios Illustrating Landholding Inequality

Observation	p90/p10	p90/p50	p10/p50	p75/p25
All observations	197.500	9.634	0.049	21.667

Source: Estimated from NSSO 77th round dataset

Table 2 reveals minimal differences in landholding between males and females at an aggregate level. Women constitute 51.6% of the population, slightly outnumbering men, who account for 48.4%. The average landholding for women is 0.29339 acres, while men hold 0.32426 acres, indicating a disparity in mean land ownership. The relative mean values, which are 0.96857 for women and 1.3153 for men, further suggest that both genders hold land in proportion to their population sizes, with men owning marginally more land on average. The gender-based differences in land ownership are minimal. However, these findings may mask deeper structural inequalities related to access, control, and decision-making over land, which could manifest at more granular levels of analysis.

Table 2: Subgroup Summary Statistics of Landholdings by Gender

Gender	Population share	Mean	Relative mean
Female	0.51600	0.29339	0.96857
Male	0.48400	0.32426	1.3315

Source: Estimated from NSSO 77th round dataset

Table 3 presents various measures of inequality in landholdings, utilizing Generalized Entropy indices and the Gini coefficient to assess disparities across genders. The Generalized Entropy index (GE) with a parameter of -1 indicates significant inequality, with an overall value of 8.79636. This value is slightly lower for females (8.75698) and higher for males (8.83842), suggesting that landholding concentration is marginally more pronounced among men. The GE(0) value of 1.41260 for all observations further underscores considerable relative inequality, with females exhibiting a slightly higher value (1.41702) compared to males (1.40788). In terms of the GE(1) index, which reflects the relative mean income share, the values of 1.09202 for all observations, 1.09907 for females, and 1.08452 for males highlight persistent inequality across both genders, with women facing a greater concentration of land ownership. The GE(2) index, sensitive to changes in the upper tail of the distribution, shows a value of 4.98093 overall, with females at 5.06866 and males at 4.88793, indicating a more pronounced concentration of land among the top female landholders. Finally, the Gini coefficient of 0.71964 reflects a high level of inequality in landholdings, with a slightly higher coefficient for females (0.72083) than for males (0.71838). These findings suggest that while both genders experience

significant disparities in land ownership, women may encounter slightly greater inequality, particularly in the upper segments of the distribution.

The table also includes between-group values, which are reported as 0.00000 for all Generalized Entropy indices and the Gini coefficient. This indicates that there is no inequality attributed to differences between the groups (males vs. females) in terms of overall landholding distribution. Essentially, while within each gender group, there is notable inequality, the average landholding disparities between genders do not contribute to additional inequality at the aggregate level. This finding suggests that the legal frameworks intended to promote gender equality in land ownership may have succeeded in achieving a semblance of balance in overall distribution, despite persistent within-group disparities.

The findings from Table 3 have important implications for understanding gender inequality in landholdings. The lack of between-group inequality indicates that, on average, men and women have comparable landholding distributions; however, the pronounced within-group inequalities highlight the ongoing challenges faced by both genders. For policymakers, this suggests that while laws aimed at promoting gender equality in land ownership may have been somewhat effective, they do not address the deeper structural issues leading to within-group disparities.

Table 3: Gender-Specific Generalized Entropy Indices and Gini Coefficient for Landholdings

Observation	GE(-1)	GE(0)	GE(1)	GE(2)	Gini
All observations	8.79636	1.41260	1.09202	4.98093	0.71964
Female	8.75698	1.41702	1.09907	5.06866	0.72083
Male	8.83842	1.40788	1.08452	4.88793	0.71838
Within-group	8.79636	1.41260	1.09202	4.98093	-
Between-group	0.00000	0.00000	0.00000	0.00000	-

Source: Estimated from NSSO 77th round dataset

Table 4 presents the Atkinson indices, which measure inequality in landholdings with an emphasis on societal aversion to inequality. The index values A(0.5), A(1), and A(2) indicate varying degrees of aversion, revealing important insights into gender disparities. For all observations, the A(0.5) value is 0.45709, reflecting moderate inequality, while females show a slightly higher index of 0.45869, suggesting that women face marginally greater challenges in land ownership than men, who have an index of 0.45538. The A(1) index for all observations is 0.75649, with females again exhibiting a higher value of 0.75757 compared to males at 0.75534, indicating that societal aversion to inequality is somewhat more pronounced for women. The A(2) values, nearing 1 for all groups, highlight significant disparities in landholdings across the population, with negligible differences between genders. The within-group values remain consistent, affirming the robustness of these findings, while the extremely low between-group values (ranging from 0.00001 to 0.00002) suggest that average differences in landholdings between genders do not significantly contribute to overall inequality. These insights indicate that, while both genders experience substantial inequality, women encounter slightly greater disparities. Moreover, the negligible between-group values imply that existing legal frameworks may have achieved some level of equity in land distribution, yet the persistent within-group inequalities underscore the need for interventions to address the structural barriers hindering women's access to land.

Table 4: Atkinson Indices of Landholding Inequality by Gender

Observation	A(0.5)	A(1)	A(2)
All observations	0.45709	0.75649	0.94622
Female	0.45869	0.75757	0.94599
Male	0.45538	0.75534	0.94646
Within-group	0.45709	0.75649	0.94622
Between-group	0.00001	0.00002	0.00001

Source: Estimated from NSSO 77th round dataset

5. Conclusion

This study empirically examines the persistent and multifaceted nature of gender inequality in land ownership in India, an issue that transcends mere economic disparities and reflects deeper socio-economic dynamics. Despite the presence of legal frameworks designed to promote gender equality—such as the Hindu Succession Act, 2005 and the Forest Rights Act,2006—significant barriers continue to obstruct women's access to land. The analysis of landholding data drawn from the NSSO Debt and Investment Survey reveals stark inequalities, particularly regarding the distribution of land between genders. Although average landholdings appear closely aligned at an aggregate level, this superficial parity masks substantial disparities that exist within each gender group.

The application of various inequality measures—including the Gini coefficient, Generalized Entropy indices, and Atkinson indices—highlights the depth of disparities in land ownership. These measures reveal that, while the overall landholding averages suggest a balance between men and women, the pronounced within-group inequalities expose systemic barriers that inhibit women's economic empowerment and limit their decision-making capabilities regarding land. For instance, although women hold approximately half of the total land, their ownership is often characterized by joint titles with male relatives, undermining their autonomy and control. Moreover, the absence of significant between-group inequality suggests that legal reforms may have achieved some level of equity in the overall distribution of land. However, the findings indicate that these legal frameworks have not sufficiently addressed the entrenched social and cultural norms that perpetuate discrimination and unequal access to land. Customary practices favouring male heirs continue to dominate land inheritance, exacerbating the challenges women face in securing their rights. These findings underscore the urgent need for interventions to empower women in land ownership. Policymakers must focus on translating legal rights into tangible control over land resources. This includes enhancing awareness of existing laws among rural populations, implementing educational initiatives to empower women, and ensuring that legal frameworks are effectively enforced. Additionally, addressing the cultural norms that inhibit women's land rights is crucial. Programs that promote women's economic independence, support women in agriculture, and facilitate access to credit can help to dismantle the systemic barriers that women face.

In the context of the Sustainable Development Goals (SDGs), this research underscores the urgent need to address the persistent barriers to women's land rights. Tackling these inequities is crucial not only for improving women's economic security but also for advancing broader economic development and fostering social stability in rural areas. Ensuring equitable access to land has the potential to significantly contribute to women's empowerment, leading to the creation of more resilient and inclusive societies. This study, therefore, highlights the pressing issue of gender disparity in land ownership and serves as a compelling call to action for governments and policymakers striving to achieve gender equality and sustainable development.

References

- Agarwal, B. (1994). *A field of one's own: Gender and land rights in South Asia*. Cambridge University Press.
- Agarwal, B. (1998). Disinherited peasants, disadvantaged workers: A gender perspective on land and livelihood. *Economic and Political Weekly, 33*(13), March 28.
- Agarwal, B., Anthwal, P., & Mahesh, M. (2021). How Many and Which Women Own Land in India? Inter-gender and Intra-gender Gaps. The Journal of Development Studies, 57(11), 1807. https://doi.org/10.1080/00220388.2021.1887478
- Agarwal, B., & Naik, S. (2024). Do courts grant women their inheritance shares? An analysis of case law in India. World Development, 182, 106688. https://doi.org/10.1016/j.worlddev.2024.106688
- Aggarwal, Y. (2024). Women and Inheritance: Mapping Perceptions, Legal Awareness and Practices. International Journal of Social Science Research and Review, 7(11), 255. https://doi.org/10.47814/ijssrr.v7i11.2374

- Azad, P., & Hari, K. S. (2024). The role of human capital components in gender wage inequality in India. *Studies in Microeconomics*. https://doi.org/10.1177/23210222241258335
- Gupta, N. (2015). The gender wage gap in the last ten years: A case study of India. *Working Papers id:6922, eSocialSciences*.
- Kareemulla, K., Krishnan, P., Ravichandran, S., Kumar, B. G., Sharma, S., & Bhatta, R. (2021). Spatiotemporal analysis of size and equity in ownership dynamics of agricultural landholdings in India vis-à-vis the world. *Sustainability, 13*(18), 10225.
- Landesa. (2013). *Report on the formal and informal barriers in the implementation of the Hindu Succession (Amendment) Act 2005 in the context of women agricultural producers of Andhra Pradesh, Bihar and Madhya Pradesh*.
- Mishra, K., & Sam, A. G. (2016). Does women's land ownership promote their empowerment? Empirical evidence from Nepal. *World Development, 78*, 360–371.
- Onyango, E. O., Mutungi, J., & Chepkirui, R. G. (2024). Gender Dynamics and Land Ownership: Implications for Food Security in Migori County. International Journal of Research and Innovation in Social Science, 745. https://doi.org/10.47772/ijriss.2024.809066
- Patnaik, S. (2018, August 15). Article on land ownership for women needs more attention. *Village Square*. https://www.villagesquare.in/2018/08/15/land-ownership-for-women-needs-more-attention/
- Sharma, D., & Bhagat, L. (2024). 'No woman's land': A study of women's land rights in context of neoliberal dispossession and gender relations in India. GENDER – Zeitschrift Für Geschlecht Kultur Und Gesellschaft, 16, 138. https://doi.org/10.3224/gender.v16i3.10
- United Nations. (2017). *Resolution adopted by the General Assembly on 6 July 2017: Work of the Statistical Commission about the 2030 Agenda for Sustainable Development (A/RES/71/313)*.