

Confirmed Land Rights and Women's Agricultural Productivity in Eastern Province of Rwanda

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Abstract

This study examines the impact of confirmed agricultural land rights, particularly through joint titling and legal recognition, on women's access to resources, decision-making power, and agricultural productivity in Eastern Rwanda. A mixed-methods approach was employed, involving 327 women cooperative members selected through stratified and purposive sampling across seven districts. Quantitative data were analyzed using descriptive statistics, ANOVA, Chi-square tests, and multiple regression analyses, while qualitative insights were drawn through thematic analysis, following Braun and Clarke's framework. Results show that 81.2% of women with confirmed land rights reported improved access to agricultural credit, and 76.4% experienced greater autonomy in land-related decisions. Women holding joint titles were significantly more likely to invest in quality inputs and utilize agricultural extension services, contributing to increased yields and income diversification. Nonetheless, challenges such as informal marital arrangements (reported by 26.8% of respondents) and persistent patriarchal norms continue to limit women's full control over land use. The study concludes that while land rights confirmation enhances women's productivity through improved tenure security and financial access, its transformative potential is constrained by sociocultural and institutional barriers. It recommends gender-sensitive land reforms, improved legal literacy, inclusive financial services, male engagement in land governance, and further research into the long-term impacts of secure land tenure on women's empowerment.

Keywords: *Land rights confirmation, women's agricultural productivity, gender equality, legal recognition, Rwanda*

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1. Introduction

Secure agricultural land rights form the cornerstone of unlocking women's agricultural potential, particularly in rural economies where women are central to sustaining food systems. In Rwanda's Eastern Province, women play a critical role in both household food security and the broader national economy through their participation in subsistence and commercial farming. Despite this, they continue to face systemic exclusion from secure land tenure. This exclusion is often marked by the absence of ownership documentation, limited decision-making power, and inadequate access to collateral necessary for agricultural finance, all of which constrain their productivity (Bayisenge, 2018). Ensuring land rights

through mechanisms such as formal titling and inheritance protections has proven essential in facilitating rural transformation. With secure land tenure, women are more likely to invest in agricultural inputs, adopt sustainable farming practices, and engage in profitable economic activities. According to Stribe (2021), equitable policies that recognize and protect women's rights to own, control, and utilize land are vital to improving agricultural productivity and advancing sustainable development.

Globally, secure land tenure is increasingly recognized as a prerequisite for economic inclusion and gender equality. International policy frameworks, including the Sustainable Development Goals, particularly Goal 1 on ending poverty, Goal 2 on achieving food security, and Goal 5 on promoting gender equality, as well as the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), all emphasize the need for equitable land access. Nonetheless, empirical data reveal ongoing disparities. Women account for less than 20 percent of titled agricultural landholders worldwide (FAO, 2023). This disparity significantly limits their ability to obtain agricultural loans, invest in productivity-enhancing resources, and influence decision-making processes both within households and at the community level. In developed countries, inclusive land tenure frameworks have narrowed this gap by providing strong legal protections and institutional support. Countries such as Sweden, Canada, the Netherlands, and Australia have introduced progressive land legislation and financial support tailored to women farmers (OECD, 2022; Green, 2023; Brock, 2020). Even so, structural exclusion remains a challenge for minority and immigrant women in these regions, demonstrating that legal reforms must be accompanied by inclusive implementation strategies (Adamopoulos & Diego, 2020).

In many developing contexts, especially in parts of Asia and Sub-Saharan Africa, policy progress has been uneven. Legal reforms have often been undermined by entrenched cultural traditions and weak enforcement. For instance, China's reforms extended land lease rights to women, but implementation of joint titling has remained inconsistent (Gong et al., 2023). In South Asian countries like India and Nepal, amendments to inheritance laws have encountered resistance from patriarchal norms and a general lack of public awareness (Singh, 2021; USAID, 2023). Across Sub-Saharan Africa, although women provide up to 70 percent of agricultural labor, they control less than 15 percent of agricultural land (Bird, 2019). In countries such as Kenya, Uganda, and Ethiopia, reforms have expanded formal land ownership among women without substantially improving their authority over land-related decisions (Lengoiboni & Groenendijk, 2015; Aragie & Genanu, 2017). In places like Burkina Faso and Nigeria, customary tenure systems continue to override statutory protections, highlighting the urgent need to align legal frameworks with culturally responsive, gender-inclusive practices (Clarisse, 2020).

Rwanda's approach to land reform presents a notable case. Through the 2004 Land Policy, the 2005 Organic Land Law, and the Land Tenure Regularization program, the country has made significant strides in promoting gender-equitable land rights. These efforts have led to the issuance of joint land titles to more than 80 percent of married women (USAID, 2023). Despite this progress, women still face considerable barriers, including patriarchal attitudes, limited access to agricultural credit, and insufficient extension services (Bayisenge, 2018; Musahara & Huggins, 2019; NISR, 2023). Furthermore, existing research has not fully explored the extent to which secure land tenure contributes to improved agricultural productivity among women. Studies by Ali et al. (2017) and Singirankabo and Willem Ertsen (2020) have pointed to the potential for impact, but the link between land rights and

productivity outcomes remains underexplored. This study seeks to bridge that gap by examining how confirmed land rights influence the agricultural productivity of women in Eastern Province, Rwanda, while highlighting the practical limitations that impede the realization of these benefits.

1.1 Problem Statement

Despite constituting approximately 82% of the agricultural workforce in Rwanda (Sesonga, 2023), women continue to experience significantly lower levels of agricultural productivity compared to their male counterparts. This productivity gap is largely attributed to women's limited access to and control over land, which restricts their ability to secure critical agricultural resources such as credit, inputs, and income-generating opportunities. In rural regions like the Eastern Province, patriarchal norms, constrained legal literacy, and exclusion from household and community decision-making processes exacerbate this marginalization (Del Prete et al., 2019). Although progressive policies such as the 2006 land reform, joint land ownership initiatives, and the Agricultural Gender Strategy (AGS) have been introduced, implementation challenges persist. Deep-seated cultural barriers and limited awareness of legal rights continue to hinder women from fully realizing the benefits of these reforms, thus undermining their productivity and broader empowerment (de Dieu & Zaiman, 2019).

The consequences of these systemic exclusions are far-reaching. If unresolved, women's continued marginalization will reinforce economic vulnerability, entrench poverty cycles, and hinder the productivity of Rwanda's agricultural sector. The underutilization of this vital segment of the workforce not only constrains household food security and rural livelihoods but also poses a structural threat to the country's long-term socio-economic ambitions. Gender inequality in land access undermines efforts to achieve national development goals, including inclusive economic growth, gender equity, and sustainable agriculture.

While numerous studies have examined Rwanda's land reform journey, they often overlook the micro-level impacts of land rights confirmation on women's agricultural performance. Specifically, existing research provides limited insight into how access to formally recognized land rights influences productivity metrics such as yield per hectare, investment in farm inputs, and engagement with extension services. Notably, studies by Kamande and Bahati (2019) and Polavarapu (2018) provide broad perspectives on policy impacts but fall short of dissecting the lived realities and structural barriers that women face in accessing, using, and controlling land.

This study, therefore, sought to fill this void by interrogating the relationship between agricultural land rights confirmation and women's agricultural productivity in Rwanda's Eastern Province.

1.2 Study Objective

The study sought to investigate the influence of agricultural land rights confirmation on women's agricultural productivity in the Eastern Province of Rwanda.

1.3 Research Question

What is the influence of agricultural land rights confirmation on women's agricultural productivity in the Eastern Province of Rwanda?

2. Literature Review

2.1 Theoretical Review

Empowerment Theory, advanced by Perkins and Zimmerman (1995), emphasizes the ability of individuals and communities to gain control over their lives amid social, economic, and political constraints. Central to this theory is the enhancement of agency, participation, and institutional support systems that enable marginalized groups to make autonomous decisions and access the resources necessary to improve their well-being and economic standing (Hardina, 2021). In the context of this study, the theory offered a critical framework for assessing the challenges women in Eastern Rwanda face in accessing, owning, and utilizing agricultural land. It provided the conceptual basis to explore how land rights confirmation can contribute not only to improved productivity but also to broader empowerment across household and community levels.

While tools like the Gender Analytical Framework (GAF) are often employed to evaluate gender disparities, their applicability in non-Western contexts such as rural Rwanda can be limited. GAF tends to operate on standardized assumptions about empowerment and gender roles that may not fully reflect local socio-cultural dynamics (Moser, 1993). In contrast, Empowerment Theory accounts for both formal and informal structures that affect women's ability to access and benefit from land. This theory thus enabled the study to delve deeper into the intersection of policy, culture, and institutional dynamics, offering a more nuanced lens through which to understand how structural and relational power imbalances shape women's agricultural outcomes.

A core proposition of Empowerment Theory is that empowerment is a multidimensional process, involving access to tangible resources (such as land, finance, and tools), acquisition of skills, and control over decision-making. In Eastern Rwanda, these assumptions are especially relevant given that women often possess land titles but remain constrained by local norms that limit their control over land use decisions, income, and agricultural investments. While the Agricultural Land Rights Confirmation Policy has improved formal access, the continued influence of gender bias, limited financial literacy, and weak enforcement of legal protections impedes the translation of ownership into productivity and livelihood gains.

Empowerment Theory was particularly well-suited to this study for its emphasis on both structural transformation and socio-cultural agency. Unlike policy-centric or technocratic models that focus narrowly on legislative change, this theory recognizes that enduring empowerment depends on shifting community norms, redistributing decision-making authority, and expanding access to productive resources. Its relevance to the study lies in its alignment investigating how land tenure reforms influence not just formal land ownership, but also women's actual capacity to enhance agricultural productivity, assert economic agency, and participate in decision-making processes within households and cooperatives.

Empirical applications of Empowerment Theory in African contexts reinforce its value. Studies by Jemaneh and Shibeshi (2023) and Bryan and Garner (2022) have shown how women's access to productive assets strengthens household resilience, boosts food security, and enhances socio-economic autonomy. In this study, Empowerment Theory offered a critical interpretive lens to understand why, despite policy reforms, women in the Eastern Province remain marginalised in terms of actual land use benefits. Nonetheless, the theory is not without limitations. The lack of standardized metrics for measuring empowerment outcomes makes it challenging to quantify change across different communities. Moreover,

its assumption that empowerment follows from legal reform may overlook the persistence of informal constraints, such as customary inheritance practices and male-dominated decision-making structures (Joseph, 2020). To address these limitations, the study integrated complementary theoretical frameworks that offer structured, context-sensitive perspectives—allowing for a more comprehensive analysis of how land tenure systems intersect with gender and productivity in rural Rwanda

2.2 Empirical Review

A substantial body of literature has examined the relationship between agricultural land rights confirmation and productivity, particularly in relation to secure tenure, investment incentives, and land use efficiency. Tai (2023), in a cross-state study in the United States, found that confirming land rights significantly increased farmers' willingness to invest in long-term land improvements, adopt modern agricultural practices, and improve output. By minimizing disputes and clarifying ownership, such policies created stable environments conducive to productivity. Nonetheless, Tai's study focused predominantly on economic outcomes and failed to account for gender-specific dynamics, a critical oversight given the often-informal landholding status of women. This omission limits its applicability in settings like Rwanda, where land rights reforms must engage directly with the gendered nature of land access and use.

In rural China, Hong, Yu, and Long (2023) explored how land rights confirmation interacts with clan-based governance systems. Their findings revealed that confirmed land rights enhanced tenure security and investment behavior while weakening the conservative effects of restrictive kinship networks. Though informative, these findings have limited transferability to the Rwandan context, where land governance is more state-driven and where patriarchal norms play a larger role in regulating land access. The present study, therefore, applies a contextually grounded lens, investigating how land rights confirmation operates within Rwanda's hybrid statutory-customary land framework and its specific impact on women's productivity in rural Eastern Province.

Similarly, Lu et al. (2022) examined farmland leasing patterns in China, highlighting how land rights confirmation encourages farmers to lease in land while discouraging leasing out, mediated through agricultural input behavior. While this study provided insights into behavioral responses to tenure security, it did not unpack the mechanisms by which specific components of confirmation translate into productivity gains. Moreover, gender considerations were absent. Addressing this gap, the current study analyzes how land rights confirmation policies affect female farmers' access to land, input utilization, and long-term investment decisions, providing a more granular view of the pathways through which land policy reforms influence agricultural productivity.

In another study, Cong (2022) found that Agricultural Land Rights Confirmation significantly improves technical efficiency in wheat production in China. Farmers with secure tenure invested more in equipment, insurance, and improved practices. However, the benefits were largely skewed toward farmers with existing resources and skills. Importantly, the study did not explore whether these gains were equally accessible to marginalized groups, particularly women. The current research responds to this omission by investigating how women are affected by similar policies. It considers whether tenure confirmation enables comparable investments among female farmers and examines contextual barriers that might hinder equitable outcomes in Rwanda.

Regional research from Sub-Saharan Africa offers an additional perspective. In Burkina Faso, Séogo and Zahonogo (2023) linked land rights confirmation to increased productivity and household income. They also found that education, cash transfers, and social capital positively influenced outcomes. However, the narrow focus on formal education and cash transfers overlooked critical socio-cultural variables like customary tenure norms, gendered resource access, and intra-household dynamics. Similarly, Aha and Ayitey (2017), in Ghana, observed that secure land tenure improved technical efficiency and investment but warned of negative consequences from land dispossession tied to transnational land deals. Both studies reinforce the importance of tenure security but underscore the need for gender-responsive research. The present study addresses these gaps by investigating the effect of land confirmation policies specifically on women in Rwanda's rural areas, where formal rights often coexist with patriarchal restrictions.

Closer to the Rwandan context, Bizoza and Opio-Omoding (2021) reviewed 26 studies on the effects of Land Tenure Regularization (LTR) in Ethiopia and Rwanda, reporting positive impacts on soil conservation and, in some cases, women's empowerment. However, evidence from Rwanda was mixed, and few studies disaggregated findings by gender or youth. Gerezihar and Tilahun (2014) similarly found that land certificates in Ethiopia increased adoption of soil conservation techniques, but not the intensity of those investments. Neither study accounted for the specific dynamics affecting women's agricultural productivity. The current research, therefore, builds on these insights by incorporating a disaggregated, gender-specific analysis within the Rwandan LTR context. It further draws on findings from Mbudzya et al. (2022), who showed that land titles improved maize productivity in Kenya, primarily through enhanced access to credit. However, that study focused largely on land titles as a proxy for tenure security and did not examine land use rights or decision-making power, both of which are critical for understanding women's agricultural outcomes. This study advances the discourse by addressing these dimensions, offering a more inclusive, context-specific understanding of how land rights confirmation policies impact productivity among women in Rwanda's Eastern Province.

2.3 Conceptual Framework

The conceptual framework presented in Figure 1 is designed to guide the investigation into how agricultural land rights confirmation influences women's agricultural productivity in the Eastern Province of Rwanda.

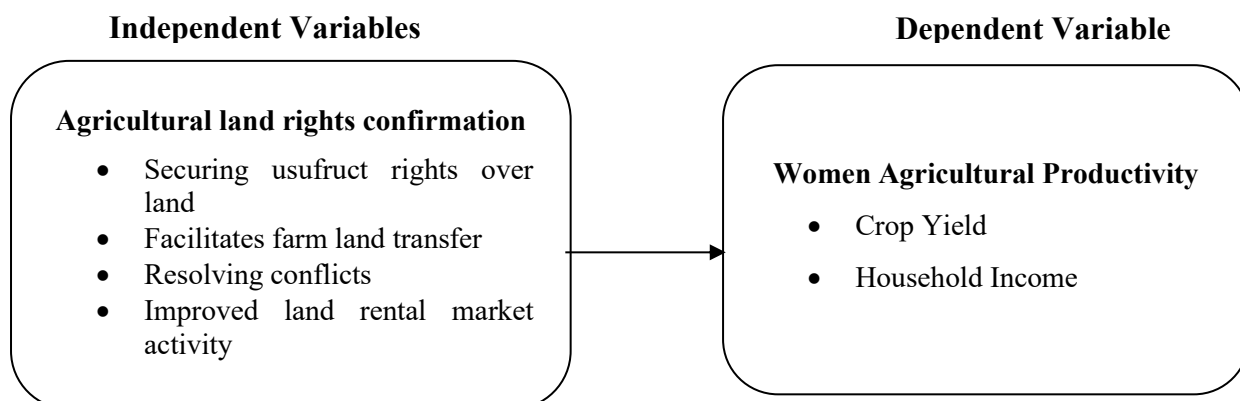


Figure 1: Conceptual Framework

The framework posits that formal recognition of women's land rights via securing usufruct rights, enabling land transfers, resolving disputes, and enhancing rental markets, directly boosts agricultural productivity. These mechanisms reduce tenure insecurity, empowering women to invest in land and access credit. Productivity is measured through crop yield and household income, linking legal reforms to tangible economic outcomes. By centering women's experiences, the model offers gender-responsive insights for advancing equitable agricultural development in Rwanda.

3. Methodology

This study employed a mixed-methods research design grounded in relativist ontology to investigate the impact of agricultural land rights confirmation on women's productivity in Eastern Rwanda. By combining quantitative surveys and qualitative tools, the study enabled triangulation, capturing both measurable outcomes such as land access, rights confirmation, crop yield, and income, and contextual insights into socio-cultural and institutional influences. A total of 327 women cooperative members across seven districts were selected through stratified and purposive sampling. Data collection tools were pilot-tested and demonstrated strong reliability (Cronbach's $\alpha = 0.80$). Quantitative data were analyzed using SPSS with descriptive statistics, ANOVA, Chi-square, and regression techniques, while qualitative data were interpreted using Braun and Clarke's thematic framework. Ethical approvals were obtained from St. Paul's University and NISR, with strict adherence to confidentiality and informed consent.

4. Results and Discussion

4.1 Response Rate

The study achieved an impressive response rate, with 325 out of 327 distributed questionnaires being returned, representing 99.4% of the total issued. Scholars generally consider a response rate above 70% to be very good, as it suggests a high level of engagement and reliability in the data collected. For instance, Babbie (2020) argues that a high response rate reduces the likelihood of non-response bias, thereby enhancing the validity of the research findings.

Table 1: Response Rate

Questionnaires	Frequency	Percentages
Returned	325	99.4
Not Returned	2	0.6
Total Issued	327	100.0

The exceptionally high response rate in this study could be attributed to several factors. First, the relevance of the topic to the respondents, particularly in a region where agricultural land tenure policies directly impact women's livelihoods, likely motivated participation. Additionally, the researchers may have employed effective strategies for follow-up and encouragement, such as personal reminders or assurances of confidentiality, which often increase response rates. The strong community ties and the sense of shared interest in the subject matter could also have contributed to the respondents' willingness to participate in the study.

4.2 Participants' Demographics Data

The researcher sought to examine the influence of agricultural land tenure policies on women's agricultural productivity in the Eastern Province of Rwanda, and understanding the demographic characteristics of the population was an essential part of this investigation. These characteristics, including age, educational background, religious affiliation, marital status, and length of residency, provide critical insights into the social and economic dynamics that shape women's access to land and their capacity to engage in productive agricultural activities. The demographic characteristics of the participants of this study are shown in Table 2 below;

Table 2: Demographic Characteristics of Respondents

Characteristics	Frequency	Percentages
Age		
18-20	53	16.3
31-35	32	9.8
36-40	46	14.2
41-44	107	32.9
45 and above	87	26.8
Total	325	100.0
Educational Background		
None	30.0	9.2
Primary	260.0	80.0
Secondary	27.0	8.3
College	1.0	0.3
University	2.0	0.6
Others	5.0	1.5
Total	325.0	100.0
Religious Background		
Christian	317	97.6
Islam	7	2.1
Others	1	0.3
Total	325	100
Marital Status		

Single	26	8
Legally Married	179	55.1
Non-legally married	87	26.8
Separated	0	0
Widowed	33	10.1
Total	325	100
Time spent in the Area		
Less than 20years	150	46.1
More than 20 Years	175	53.9
Total	325	100

The demographic data presented in Table 2 provides valuable context for understanding the socio-economic landscape in which agricultural land tenure policies operate in Eastern Province, Rwanda. A notable proportion of respondents are within older age brackets, with 32.9% aged 41–44 and 26.8% aged 45 and above. This indicates an aging farming population, which may influence responsiveness to innovation and policy implementation. Older farmers, while experienced, often exhibit lower adaptability to new agricultural technologies and practices, as supported by Smith et al. (2022). Their familiarity with traditional methods may limit the effectiveness of policy reforms that assume rapid adoption of modern farming techniques, necessitating targeted training programs that address age-specific needs and learning curves.

Educational background reveals that a significant 80% of the respondents have only completed primary education, with minimal representation in secondary (8.3%), college (0.3%), and university (0.6%) levels. This low level of formal education can impede comprehension of land tenure policies, affect record-keeping practices, and restrict access to agricultural extension services. According to Abab et al. (2023), limited educational attainment among women in rural agricultural communities is closely linked with lower productivity and constrained access to financial and technical resources. This finding reinforces the need for land tenure reforms to be supported by farmer education and extension outreach, ensuring that policy interventions translate into tangible improvements in productivity.

The study reveals a predominantly Christian population (97.6%), highlighting the strong influence of religious values on land, farming, and community decisions, suggesting that land tenure policies aligned with Christian norms are more likely to gain community acceptance (Anderson, 2020; FAO, 2019). Marital status varied, with 55.1% legally married and 26.8% in informal unions, raising concerns over women's exclusion from land rights in non-formalized marriages (UNDP, 2021). Additionally, 46.1% of respondents had lived in the area for under 20 years, while 53.9% were long-term residents, reflecting a blend of traditional and modern land use practices. This demographic diversity presents both challenges and opportunities, requiring land reforms that are culturally sensitive and inclusive

of both newer and established perspectives to enhance policy effectiveness and women's agricultural productivity (Roberts & Nelson, 2023).

4.3 ANOVA Test: Assumptions, Type Used, and Research Questions/Hypotheses

The ANOVA results highlight the significant influence of demographic factors such as age, education level, religion, marital status, and household size on women's agricultural productivity and socio-economic outcomes in Eastern Rwanda. The observed statistical variation in age ($F = 4.782$, $p = 0.000$) indicates that women in different age groups interact with agricultural activities in distinct ways. Younger women tend to be more receptive to modern technologies and agricultural innovations, whereas older women often rely on conventional practices. This generational divide is supported by findings from Smith et al. (2022), who noted that age influences the adoption of farming methods and responsiveness to policy interventions. These findings suggest that land tenure reforms and agricultural support programs should integrate age-specific approaches. Tailored capacity-building initiatives that address the unique needs and strengths of both younger and older women are essential for enhancing agricultural productivity across generations.

The study reveals that demographic characteristics significantly influence the effectiveness of land rights confirmation in enhancing women's agricultural productivity in Eastern Rwanda. Education emerged as a key factor ($F = 4.109$, $p = 0.001$), with higher educational attainment enabling women to better understand land tenure reforms and adopt improved agricultural practices, consistent with Abab et al. (2023) and Mbudzya et al. (2022). Religion ($F = 2.833$, $p = 0.011$) and household size ($F = 16.796$, $p = 0.000$) also played influential roles, shaping land management behavior, community cooperation, and labor allocation, supporting findings by Anderson (2020), FAO (2019), and Daudu et al. (2022). Although "time spent in the area" did not reach statistical significance, its proximity to the threshold suggests it may still affect integration and land use behavior over time (Roberts & Nelson, 2023). These findings underscore the importance of tailoring land tenure policies to diverse socio-demographic realities, as also argued by Anditi et al. (2022), Dawadi et al. (2021), and Frankel et al. (2021), to ensure equitable and productive outcomes for women in agriculture.

4.4 Influence of Agricultural Land Rights Confirmation on women's agricultural Productivity

To gauge the impact of the Agricultural Land Rights Confirmation on women's agricultural productivity, the study began by assessing respondents' understanding of the policy. This step was crucial to ensure that participants' responses were based on a clear and consistent comprehension of what the policy entails.

4.4.1 Respondents' Understanding of the Policy

Participants were asked to describe their understanding of the Agricultural Land Rights Confirmation Policy, which aims to formalize and secure land ownership rights. The policy is designed to provide legal recognition of land ownership, which includes granting land titles and improving access to formal financial services. The majority of respondents demonstrated a solid grasp of the policy's objectives. For instance, one participant stated,

"The policy means that my land ownership is now officially recognized, which allows me to access formal credit and investment opportunities that were not available before" (Study Data, 2024).

This understanding reflects the policy's core purpose: to formalize land rights and facilitate better access to resources for agricultural development.

Another respondent noted,

"Before the policy, we didn't have official documents for our land, which made it difficult to prove ownership and secure loans. Now, the policy has given us the documents we need to access better financial support" (Study Data, 2024).

This feedback indicates that the policy is perceived as a significant step toward enhancing land security and enabling financial transactions related to agriculture. Other direct quotes that capture the diverse meanings attributed to the policy include:

To me, the policy means that both husband and wife have equal rights to the land. It's about fairness in land ownership between us."

"I think it means that we can find fertilizer and plant on time, or even get an agricultural loan by using the land as a guarantee."

"For me, it's about having the right to use the land for agricultural business. I can choose the crops I want to plant and make my own decisions."

"The policy gives me the right to use the land for whatever activities I choose without any interruptions from others. I feel like I finally have full control over my land."

"I understand it as a policy that ensures both husband and wife are on the same page when it comes to crops and land use. It's about mutual understanding and agreement."

The researcher probed further on challenges faced, and the respondents highlighted several issues as illustrated with the following quotes:

"One big challenge is illegal marriages. They create conflicts over land, especially when there's no clarity on rights."

"Family conflicts and polygamy complicate land management. Men often disrespect women when making decisions about the land."

"Poverty is another issue. It makes it hard to implement the policy because not everyone has the resources to use the land effectively."

"There's a lack of self-respect among some women, and gender inequality persists. Men still want to own everything because they see themselves as the head of the family."

"Some men haven't yet understood the importance of having equal rights on the land. They resist sharing control, which makes it difficult for us women to benefit fully from the policy."

The study demonstrates that the Agricultural Land Rights Confirmation policy has had a positive impact on women's agricultural productivity in Eastern Rwanda. By formalizing land ownership, the policy has enhanced women's access to credit and enabled them to make long-term investments in farming activities. A significant number of respondents reported that having secure land titles allowed them to purchase high-quality agricultural inputs, utilize extension services, and make independent decisions regarding land use. These outcomes align with previous research by Deininger et al. (2016) and Cotula (2014), which emphasized the importance of tenure security in empowering women. Many participants also noted

increased confidence and economic autonomy, as land titles served not only as collateral for financial services but also as formal recognition of their roles within cooperative enterprises. Despite these gains, the study also identified persistent cultural and social barriers that limit the full realization of policy benefits. Factors such as patriarchal norms, informal or unregistered marriages, and polygamous household structures continue to constrain women's authority and control over land. These challenges reflect enduring structural inequalities, as noted by Agarwal (2001) and the Food and Agriculture Organization (2009), and underscore the need for complementary social reforms alongside legal interventions.

Moreover, the policy's implementation remains uneven due to bureaucratic delays, lack of awareness, and resistance from local actors, particularly in rural areas where customary systems dominate. Although the legal framework supports gender equality, its benefits are not uniformly realized. Many women with confirmed land rights still face difficulties accessing markets, infrastructure, and agricultural inputs, limiting the full utilization of their land. This reflects a critical gap between policy intent and real-world outcomes. Nonetheless, the policy has empowered women to play more active roles in household and community decision-making, especially in food security and resource management. The study underscores the importance of complementing land tenure reforms with culturally sensitive education, institutional support, and targeted agricultural programs to ensure that confirmed land rights translate into tangible and inclusive development outcomes.

4.5 Summary

The study critically explored the impact of agricultural land rights confirmation on women's agricultural productivity in Rwanda's Eastern Province. It found that legally recognized land rights significantly empower women to participate more effectively in productive farming. Respondents who held formally documented land ownership reported improved access to agricultural credit, greater autonomy in decision-making, and an increased capacity to invest in their farms. These factors contributed to higher yields and more diversified sources of income. The confirmation process, particularly when it involved joint ownership with spouses, was associated with heightened tenure security and strengthened prospects for long-term agricultural planning. Despite these positive outcomes, several structural barriers remain. Persistent challenges such as patriarchal control over land, lack of recognition for unregistered marriages, and entrenched socio-cultural resistance continue to limit many women's ability to exercise their rights fully. These findings underscore that land rights confirmation serves as a powerful instrument for advancing women's agricultural productivity. However, its effectiveness is contingent upon supportive legal enforcement, inclusive financial systems, and gender-responsive implementation strategies that are attuned to the realities of rural communities in Rwanda.

5. Conclusion

The study concludes that agricultural land rights confirmation enhances women's productivity by improving land security, credit access, and investment capacity. Joint titling has supported income diversification, but cultural norms and informal land arrangements still limit women's decision-making power. Inconsistent policy implementation and weak enforcement further hinder the impact. A gap remains between land access and effective resource use. The findings call for reforms that combine legal recognition with targeted support services and social change. Comprehensive strategies are needed to ensure women fully benefit from secure land tenure.

6. Recommendations

Based on the study, several theoretical and practical recommendations are proposed. The Gender Analytical Framework and Empowerment Theory should integrate intersectional rural dynamics and account for cultural constraints limiting women's agency. Theories of Social and Pathways to Change must also reflect gendered land conflicts and gaps between legal awareness and empowerment. Practically, the study calls for gender-responsive land reforms, increased legal literacy, financial inclusion, and inclusive extension services. Engaging men in land governance and ensuring women's representation in decision-making are essential. Future research should focus on long-term impacts, regional comparisons, and the role of social networks in strengthening women's land rights.

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