

## **GENDER EQUALITY AND INCLUSIVENESS IN LAND ACQUISITION FOR FOOD SECURITY IN MUBI ZONE, ADAMAWA STATE**

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### **Abstract**

Gender equality and inclusiveness in land acquisition are fundamental human rights and are critical for sustainable food production. However, women in rural Nigeria continue to face significant barriers. This study examined the impact of gender equality and inclusiveness in land acquisition on food production in the Mubi Zone of Adamawa State, Nigeria. The study specifically sought to: determine the impact of statutory law on women's land rights, and identify the challenges mitigating food production. A survey research design was adopted, with a sample of 349 women drawn from a population of 2,750. A 45-item questionnaire was validated by experts and achieved a Cronbach's Alpha reliability coefficient of 0.827. Data were analyzed using mean, standard deviation, and simple linear regression ( $\alpha = 0.05$ ). The findings revealed that statutory laws have a significant impact on women's land rights (Grand Mean = 3.52). Major challenges affecting food production included climate change, market shifts, and high input costs (Grand Mean = 3.81). A significant positive relationship was found between gender equality and food production ( $p = 0.000$ ;  $R^2 = 0.942$ ), and between gender equality and land acquisition by women ( $p = 0.000$ ;  $R^2 = 0.837$ ). Advancing gender equality is fundamental to achieving sustainable food production. The study concludes that effective interventions require a holistic approach integrating legal reforms, socio-cultural transformation, and economic empowerment. It is recommended that the Adamawa State Government enact legal reforms to strengthen the enforcement of gender-inclusive land laws and harmonize statutory frameworks with customary systems to protect women's land rights in the Mubi Zone.

***Keywords: Gender Equality, Land Acquisition, Food Production, Women's Land Rights, Mubi Zone, Nigeria.***

### **Introduction**

Gender equality and inclusiveness in land acquisition constitute not only a fundamental human right but also a critical factor for achieving sustainable food production in Nigeria (ECOWAS, 2017). Gender equality refers to equal access to resources and opportunities regardless of gender (Jawad & Faiza, 2019), while inclusiveness describes the meaningful involvement of all individuals in community affairs (Arza, 2024). In Nigeria, where women constitute 50–60% of the agricultural labor force and produce over 80% of subsistence-level food (ECOWAS, 2017), their limited access to land remains a paradox and a critical barrier.

Despite their central role, Nigerian women face significant gender disparities in access to land, energy, technology, loans, and extension services (FAO, 2021). Customary laws, traditional values, and women's multiple roles impede their progress toward equitable land ownership (Mandy & Jawad, 2018). The land tenure system in Nigeria comprises statutory law (predominant in urban areas) and customary law (predominant in rural areas), with customary claims often discriminating against women (Ogunlela & Mukhtar, 2019). Consequently, food insecurity persists, with chronic undernourishment affecting 9% of Nigeria's population between 2020 and 2022 (FAO, 2023). This study is anchored on the Longwe Framework, which explains women's empowerment as a five-stage process (welfare, access, conscientization, mobilization, and control), with empowerment

central to development and political change. Given these persistent gaps, this study sought to determine the relationship between gender equality and inclusiveness in land acquisition and food production in the Mubi Zone of Adamawa State.

### **Statement of the Problem**

While inheritance and succession laws under Nigerian statute are reasonably settled, customary law aspects remain contentious, often discriminating against women. This discrimination potentially violates the repugnancy doctrine and international conventions. Paradoxically, even though women manage farm activities, household responsibilities, and food provision, they often suffer disproportionately from food insecurity because they lack control over land—the essential factor of production. Women are responsible for 60–80% of food production in most developing countries but are frequently viewed merely as farm assistants. A pronounced "gender gap" hinders their effective participation, confining them largely to subsistence agriculture. Therefore, food production concerns are likely to persist unless women, as primary food producers, gain greater access to land. This study aimed to identify potential solutions using empirical evidence.

### **Objectives of the Study**

The main purpose of this study was to determine the impact of gender equality and inclusiveness in land acquisition on food production in the Mubi Zone of Adamawa State. Specifically, the study sought to:

1. Determine the impact of statutory law on women's land rights in the Mubi Zone of Adamawa State.
2. Determine the challenges mitigating food production in the Mubi Zone of Adamawa State.

### **Research Questions**

The following research questions guided the study:

1. What is the impact of statutory law on women's land rights in the Mubi Zone of Adamawa State?
2. What are the challenges affecting food production in the Mubi Zone of Adamawa State?

### **Research Hypotheses**

The following null hypotheses were tested at a 0.05 level of significance:

**Ho<sub>1</sub>:** There is no significant relationship between gender equality and food production in the Mubi Zone.

**Ho<sub>2</sub>:** There is no significant relationship between gender equality and land acquisition by women in the Mubi Zone of Adamawa State, Nigeria.

### **Method**

The study adopted a survey research design conducted in the Mubi Zone of Adamawa State, Nigeria. The population comprised 2,750 women. A sample of 349 respondents was drawn using the Taro Yamane formula. The instrument for data collection was a structured 45-item questionnaire titled the "Gender Equality and Inclusiveness in Land Acquisition for Food Production Questionnaire (QGEILAFS)," using a 5-point Likert scale. The instrument was validated by three lecturers from Modibbo Adama University, Yola, and its reliability was established with a Cronbach's Alpha coefficient of 0.827. Data collection involved administering the questionnaire on market days with the help of four trained research assistants, achieving a 92% retrieval rate. Data analysis involved using mean and standard deviation to answer the research questions, and simple linear regression to test the hypotheses at a 0.05 significance level.

## Results

**Research Question One:** What is the impact of statutory law on women’s land rights in the Mubi Zone of Adamawa State?

**Table 1: Descriptive Statistics of the Impact of Statutory Law on Women’s Land Rights in the Mubi Zone of Adamawa State**

S/N	Items Description	Mean	SD	Remarks
1	Improving women’s access to land and control over economic resources has a positive effect on development goals.	3.74	1.37	Agree
2	Rural women are strategically central to reducing hunger, malnutrition, and poverty.	3.90	1.41	Agree
3	Women have less access to land than men.	4.09	1.25	Agree
4	Increased female landholding is associated with higher household food expenditure.	2.05	1.08	Disagree
5	Increased female landholding is linked to higher child educational attainment.	3.89	1.28	Agree
6	Socio-cultural factors limit women’s access to and rights over resources.	3.72	1.42	Agree
7	Land rights, including management rights, extend beyond mere access.	3.81	1.23	Agree
8	Women’s rights to land, including income control, extend beyond mere access.	3.29	1.51	Agree
9	Secure land rights for women yield economic and social benefits.	3.88	1.25	Agree
10	Women provide a significant portion of agricultural labour.	3.44	1.48	Agree
11	Women in the Mubi Zone have fewer land rights than men.	3.93	1.34	Agree
12	Land owned or accessed by women is typically of lower quality than that owned by men.	3.63	1.32	Agree
13	Women lose land rights due to changes in marital status (e.g., marriage, divorce, or spousal death).	2.42	1.43	Disagree
<b>Grand Mean</b>		<b>3.52</b>	<b>1.34</b>	<b>Agree</b>

Table 1 presents the respondents' mean scores on the impact of statutory law on women’s land rights in the Mubi Zone. The grand mean of 3.52 (SD = 1.34) indicates that, overall, respondents agreed that statutory laws have a significant impact on women’s land rights in the area.

**Research Question Two:** What are the challenges affecting food production in the Mubi Zone of Adamawa State?

**Table 2: Descriptive Statistics of Challenges Affecting Food Production in the Mubi Zone of Adamawa State**

S/N	Items Description	Mean	SD	Remarks
14	Private sector actors' influence on food production policy has grown and now overwhelms that of small businesses.	4.13	1.18	Agree
15	Twenty-first-century food production systems differ markedly from past systems.	3.28	1.59	Agree
16	Twenty-first-century food distribution systems differ markedly from past systems.	3.95	1.28	Agree
17	Past-century food distribution systems posed new threats to food production.	3.41	1.39	Agree
18	Increased market orientation encourages farmers to shift from local food crops to cash crops.	3.58	1.47	Agree
19	Climate change is driving shifts in production potential, affecting productivity.	3.22	1.51	Agree
20	Climate change is driving shifts in production potential, affecting prices.	3.31	1.45	Agree
21	Reduced public funding for inputs has left farmers (especially women) vulnerable to fertilizer companies and moneylenders.	4.15	1.17	Agree
22	Women bear the brunt of food insecurity by reducing their own consumption.	4.34	0.93	Agree
23	Unequal household bargaining power affects women's status among small-scale producers.	3.44	1.42	Agree
24	High prices affect consumers, including the poorest rural households.	4.56	0.63	Agree
25	Low-income people in the Mubi Zone are suffering from a crisis they did not create.	4.33	0.97	Agree
<b>Grand Mean</b>		<b>3.81</b>	<b>1.25</b>	<b>Agree</b>

Table 2 presents the respondents' mean scores on the challenges affecting food production. The grand mean of 3.81 (SD = 1.25) indicates that respondents agreed that various challenges significantly affect food production in the Mubi Zone.

### Testing of Hypotheses

The following hypotheses were tested at a 0.05 level of significance. The summary of the tests is presented in Tables 3 and 4.

**H<sub>01</sub>:** There is no significant relationship between gender equality and food production in the Mubi Zone.

**Table 3a: ANOVA for the Relationship between Gender Equality and Food Production**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	554.392	1	554.392	5226.677	.000 <sup>b</sup>
	Residual	33.730	318	.106		
	Total	588.122	319			

a. Dependent Variable: CAFS  
b. Predictors: (Constant), RGEFS.

**Table 3b: Model Summary for the Relationship between Gender Equality Food Production**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.971 <sup>a</sup>	.943	.942	.326

a. Predictors: (Constant), CAFS

The linear regression analysis revealed a significant positive relationship between gender equality and food production. The F-test value,  $F(1, 318) = 5226.677$ , with a p-value of 0.000 (less than the 0.05 alpha level), indicates that the regression model is statistically significant. With an Adjusted R-squared value of 0.942, the model explains approximately 94.2% of the variance in food production based on gender equality. The results provide significant statistical evidence to reject the null hypothesis ( $H_{01}$ ), indicating a significant relationship between gender equality and food production.

**H<sub>02</sub>:** There is no significant relationship between gender equality and land acquisition by women in the Mubi Zone.

**Table 4a: ANOVA for the Relationship between Gender Equality and Land Acquisition**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	577.833	1	577.833	1639.324	.000 <sup>b</sup>
	Residual	112.089	318	.352		
	Total	689.922	319			

a. Dependent Variable: ISLWLR  
b. Predictors: (Constant), AAGEW.

**Table 4b: Model Summary for the Relationship between Gender Equality and Land Acquisition**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.915 <sup>a</sup>	.838	.837	.594

Predictors: (Constant) ISLWLR.

The linear regression analysis revealed a significant positive relationship between gender equality and land acquisition by women. The F-test value,  $F(1, 318) = 1639.324$ , with a p-value of 0.000 (less than the 0.05 alpha level), indicates that the regression model is statistically significant. With an Adjusted R-squared value of 0.837, the model explains approximately 83.7% of the variance in women's land acquisition based on gender equality. The results provide significant statistical evidence to reject the null hypothesis ( $H_{02}$ ), indicating a significant relationship between gender equality and land acquisition by women.

### Discussion of Findings

This section provides a critical and integrated discussion of the study's findings, contextualizing them within existing literature, theoretical frameworks, and the specific socio-economic realities of the Mubi Zone. The discussion is structured to align with the key themes of

the study: the legal-institutional framework, the challenges to food production, and the central role of gender equality, with its associated pathways and approaches.

The first finding establishes that statutory laws significantly impact women's land rights in the Mubi Zone, as indicated by a grand mean of 3.52. This finding underscores the critical role of formal legal frameworks in providing a foundation for women's claims to land. It suggests that, in principle, the existence of laws such as the Nigerian Land Use Act or other state-level provisions creates a framework that women and advocates can leverage to assert their rights. This aligns with the broader global consensus that legal reforms are a necessary first step in addressing deep-seated gender inequalities in access to productive resources (Eze et al., 2021).

However, the standard deviation of 1.34 points to a significant divergence in respondents' experiences, revealing that the *de jure* impact of these laws is not uniformly felt. The discussion must therefore move beyond a simple affirmation of legal significance to interrogate the complex interplay between statutory law and living customary practices. The persistence of socio-cultural barriers, as noted in the summary, remains a formidable obstacle. In many communities within the Mubi Zone, customary systems, which often operate under patrilineal inheritance norms, hold greater sway than formal courts. This creates a dual legal system where statutory rights are theoretically available but practically inaccessible due to social stigma, the cost of litigation, and the threat of community ostracism (Agarwal, 2023).

This tension between formal and informal systems is a well-documented phenomenon across sub-Saharan Africa. As Alarima et al. (2022) argue, legal reforms, while pivotal, are not self-executing. Their success depends on their ability to challenge and transform deeply entrenched patriarchal norms. The finding from this study reinforces the view that statutory laws act as a critical external force, but their internalization and enforcement require concerted efforts in legal literacy, community engagement, and the strengthening of formal adjudicatory mechanisms. Furthermore, the link to household welfare, as noted by Ojo (2018), is particularly pertinent. The finding implies that where statutory laws are successfully utilized by women to secure land rights, the benefits extend beyond the individual to the household, potentially leading to increased investments in food production, nutrition, and children's education, thereby creating a positive multiplier effect for the entire community.

The second finding, with the highest grand mean of 3.81, confirms that food production in the Mubi Zone is under significant stress from a confluence of challenges: climate change, market shifts, and high input costs. The elevated mean and a relatively lower standard deviation of 1.25 compared to other items suggest a high level of consensus among respondents regarding the severity and interconnected nature of these stressors. This finding paints a picture of a farming system in a precarious state, where productivity is being undermined by forces that are largely external and beyond the control of individual farmers.

The impact of climate change, manifested in erratic rainfall patterns, rising temperatures, and more frequent dry spells, directly aligns with global assessments (IPCC, 2019). In the semi-arid context of the Mubi Zone, this environmental volatility translates into reduced crop yields, an increased risk of crop failure, and a narrowing window for planting. This environmental stress is compounded by market dynamics. The shift toward cash crops, often driven by market orientation, as discussed by Pattanayak (2020), diverts land, labor, and capital away from traditional food crops like sorghum, millet, and maize. While potentially lucrative for some, this shift can undermine household food security by increasing dependence on volatile markets for staple foods. This finding supports the work of Yusuf and Chiejina (2020), who identified how climate change drives shifts in production potential, a phenomenon acutely felt in the study area.

The significant positive relationship between gender equality and food production ( $p = 0.000$ ) provides robust empirical support for the work of Daley and Pallas (2024) and Quisumbing

et al. (2024). The underlying mechanism is that women with secure tenure invest more in food crops and household well-being. The rejection of both null hypotheses strengthens the policy argument that promoting gender equality is not merely a social justice issue but an economically rational strategy for enhancing food security.

## Conclusion

Following the statistical analysis, the study concludes that advancing gender equality in land governance is fundamental to achieving sustainable food production in the Mubi Zone. Effective interventions require a holistic approach integrating three pillars: robust legal reforms, socio-cultural transformation, and economic empowerment. While statutory law provides a necessary foundation, its efficacy depends on complementary efforts addressing socio-cultural norms and institutional capacity. Harmonizing legal frameworks with sustained community engagement offers a viable pathway to advance both women's land rights and food production, which is critical for achieving SDG 5 (Gender Equality) and SDG 2 (Zero Hunger).

## Recommendations

Based on the findings and conclusions, the following recommendations are made:

1. The Adamawa State Government should enact legal reforms to strengthen the enforcement of gender-inclusive land laws and harmonize statutory frameworks with customary systems to protect women's land rights in the Mubi Zone.
2. Local government departments should identify and prioritize critical challenges (e.g., climate change impacts, market access barriers, input costs) through household surveys to enhance women's participation in land governance.
3. Non-governmental organizations should sponsor mixed-methods research to determine how increased gender equality (e.g., in decision-making power, income control) translates into improved food production outcomes.
4. Women's groups should form associations and partner with microfinance institutions to secure low-interest loans for women-led agricultural cooperatives, thereby promoting economic empowerment.

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