GENDER DYNAMICS IN AGRICULTURAL LABOUR DIVISION IN RURAL BAYELSA STATE: IMPLICATIONS FOR WOMEN'S EMPOWERMENT

Undutimi Johnny Dudafa

Department of Sociology and Anthropology Niger Delta University, Nigeria dudafaundu@gmail.com dudafaundu@ndu.edu.ng +2348068883474

Abstract

The objective of this study is to examine the gendered division of labour in agricultural activities in rural Bayelsa State, Nigeria, and its impact on women empowerment. The study seeks to explore how gender roles, access to resources, and decision-making authority influence women's participation in agriculture. A mixed-method approach was employed, combining quantitative household surveys with 300 respondents and qualitative interviews with 40 women and 20 men involved in agriculture. Data were collected on labour roles, access to resources, income, and decision-making power, and analysed using both descriptive statistics and thematic analysis. The findings reveal a stark gender division in agricultural tasks, with women primarily engaged in planting and marketing, while men dominate land preparation and harvesting. Decision-making within households is predominantly controlled by men, limiting women's influence on key agricultural decisions. The study concludes that these gender dynamics negatively affect women's access to resources such as land, credit, and agricultural extension services. The study recommends policy interventions aimed at improving women's access to land, credit, education, and decision-making authority. Legal reforms are also suggested to address cultural norms that limit women empowerment. These interventions are essential for promoting gender equity and sustainable agricultural development in rural Bayelsa State.

Keywords: Gender, Empowerment, Agriculture, Resilience, Division of labour

Introduction

Agriculture remains a cornerstone of rural economies globally, with women playing a critical role in food production and livelihood sustenance. Yet, gender dynamics in agricultural labour division continue to shape unequal access to resources, decision-making power, and economic opportunities. Globally, women account for about 43% of the agricultural labour force, especially in developing regions (FAO, 2011). However, despite their essential contributions, women often face systemic barriers, including limited access to land, credit, education, and extension services, which hinder their productivity compared to their male counterparts (Doss, 2018). This disparity is rooted in long-standing patriarchal structures that position men as primary decision-makers and resource controllers, while women are relegated to labour-intensive, low-visibility roles in food production (Quisumbing *et al.*, 2014).

In sub-Saharan Africa, the gendered division of labour in agriculture is evident, as women undertake the bulk of subsistence farming, including planting, weeding, harvesting, processing, and marketing (Lastarria-Cornhiel, 2006). Despite their substantial contributions, women's work is often invisible in formal economic assessments, categorized as unpaid labour or part of household responsibilities (FAO, 2011). While men tend to dominate cash-crop production and mechanized farming, women are largely confined to food crop cultivation and labour-intensive tasks. This division of labour not only reinforces gender inequalities but also impedes agricultural productivity and food security, as women's limited access to improved technologies and inputs reduces their farming efficiency (Njuki *et al.*, 2011).

In the Nigerian context, the agricultural sector remains the backbone of rural livelihoods, contributing to employment and economic growth. However, like in many other parts of sub-Saharan Africa, the division of labour in agriculture is deeply gendered. Women, who constitute nearly 60-70% of

the agricultural workforce, are often confined to subsistence farming, while men dominate commercial farming and control valuable resources such as land and capital (Aina *et al.*, 2008). In Northern Nigeria, for example, cultural and religious practices like 'kulle' (seclusion) and 'kunya' (modesty) restrict women's autonomy and participation in public spheres, including agriculture. These norms reinforce male dominance in household decision-making and limit women's access to agricultural extension services, land rights, and financial institutions (Imam, 2008). This gender inequality is further exacerbated by legal frameworks and customary laws that prioritize male inheritance and land ownership, making it difficult for women to secure land for farming (Izugbara, 2004).

Conversely, in the Southeast and North-Central regions of Nigeria, women's labour in agriculture is more visible and accepted, particularly in the cultivation of food crops such as yam, cassava, and maize (Akanji, 2003). However, despite this increased participation, disparities in access to agricultural inputs, extension services, and market opportunities remain pronounced. Women in these regions are often excluded from decision-making processes that shape agricultural policies and resource allocation, leading to unequal benefits from development interventions (Olawoye, 2011). This exclusion perpetuates gender disparities in agricultural productivity and limits women's potential for economic empowerment.

In Bayelsa State, located in the oil-rich Niger Delta region, agriculture, alongside artisanal fishing, forms the backbone of rural livelihoods. Women in this region play pivotal roles in smallholder farming systems, particularly in processing, marketing, and subsistence crop production (Alfred-Ockiya, 2000). They are heavily involved in labour-intensive activities such as weeding, harvesting, food processing, and the marketing of artisanal fisheries. However, their contributions remain undervalued, often categorized as part of household responsibilities rather than economic production (Oladejo *et al.*, 2011). Despite their critical roles in food security and rural economies, women in Bayelsa face significant gender-based barriers, including limited access to land, agricultural inputs, credit, and extension services (Siyao, 2012). The traditional gender norms in this region place men as the primary owners of land and decision-makers in household and agricultural matters, leaving women economically dependent and marginalized from key opportunities for agricultural advancement (Oladejo *et al.*, 2011).

Globally and within sub-Saharan Africa, addressing these gender disparities in agricultural labour division is critical to enhancing food security, reducing poverty, and promoting sustainable development. Studies have shown that if women had the same access to resources as men, their agricultural yields could increase by 20-30%, contributing to a significant reduction in global hunger (FAO, 2011). Therefore, understanding the gendered dynamics in agricultural labour is crucial for informing policy interventions that seek to empower women, promote gender equality, and increase agricultural productivity.

This study focuses on the gender dynamics of agricultural labour division in Bayelsa State, Nigeria, where systemic barriers continue to hinder women's access to resources and decision-making power in agriculture. The study seeks to highlight the importance of addressing gender inequalities in agricultural labour for the broader goal of economic empowerment and sustainable rural development. Understanding how gender norms and cultural practices affect the labour division in agriculture is vital for developing policies that enhance women's contributions to agriculture, improve their access to resources and reduce gender-based economic disparities. These persistent gender dynamics not only diminish women's contributions to agriculture but also impede their broader economic empowerment and social development. While previous studies have addressed women's roles in agriculture, they have not sufficiently explored the gendered nature of labour division in rural Bayelsa or the specific challenges women face in accessing agricultural resources. This study seeks to narrow these gaps by examining the gender dynamics of agricultural labour in rural Bayelsa State and proposing actionable strategies to enhance women's empowerment and economic participation in the agricultural sector.

Objectives

The objectives of the study include to:

- 1. examine the gendered division of labour in agricultural activities in rural Bayelsa State;
- 2. evaluate the decision-making power of women in agricultural households;

- 3. identify the implications of these gender dynamics for women's empowerment; and
- 4. propose policy recommendations to enhance women's empowerment in agriculture

Review of Literature/Theory

The gender dynamics in agricultural labour division have been widely studied across global, sub-Saharan African, and Nigerian contexts. Women make up a significant portion of the agricultural labour force, especially in rural areas, where they are responsible for a large share of food production (FAO, 2011). However, their contributions are often confined to subsistence farming and labour-intensive activities, while men tend to dominate commercial farming and have more control over valuable agricultural resources such as land, credit facilities, and technology (Doss, 2018). These inequalities are not only persistent but also deeply rooted in both economic systems and socio-cultural norms that limit women's empowerment in the sector (World Bank, 2021).

Globally, gender disparities in agriculture have been linked to broader issues of inequality, with women disproportionately affected by poverty and lack of access to resources. In sub-Saharan Africa, where women are key players in the cultivation of food crops, these inequalities are particularly pronounced (Fletschner & Kenney, 2014). Research indicates that women provide up to 60-80% of agricultural labour but own less than 20% of the land (UN Women, 2020). The limited access to land and other productive assets restricts women's ability to scale up their agricultural activities, and they are often excluded from formal agricultural decision-making structures (Quisumbing *et al.*, 2014).

In the context of Nigeria, the gendered division of labour in agriculture is similarly entrenched. Women perform essential tasks such as planting, weeding, harvesting, processing, and marketing agricultural products, but they are systematically marginalized in terms of access to inputs, credit facilities, and extension services (Aina *et al.*, 2008). This disparity is largely driven by cultural norms and legal frameworks that prioritize men in ownership and decision-making roles. Northern Nigeria presents a particularly rigid division of labour, where patriarchal practices like 'kulle' (female seclusion) and 'kunya' (modesty/shame) restrict women's participation in economic activities, including agriculture (Imam, 2008). These socio-cultural practices have a profound impact on women's economic opportunities, limiting their ability to own land or access training and agricultural extension services that are crucial for improving productivity.

Research further reveals that, in Southern Nigeria, while women's participation in agriculture is more accepted, gender disparities remain concerning access to resources and economic benefits. For instance, Akanji (2003) notes that women in the South-East and North-Central regions of Nigeria are highly involved in food production and small-scale commercial farming. However, despite their extensive involvement, women still face significant barriers when it comes to accessing improved technologies, credit facilities, and government support programs, limiting their capacity to fully benefit from agricultural activities (Fletschner, 2015). Additionally, cultural factors continue to influence gender roles, with men often being regarded as the primary decision-makers even in households where women contribute equally or more to agricultural labour (World Bank, 2020).

In rural Bayelsa State, the situation is no different. Women are central to the agricultural economy, particularly in activities related to food production, processing, and artisanal fishing (Alfred-Ockiya, 2000). Yet, despite their critical contributions, involvement in wage labour and agricultural, decision-making remains minimal. Gender norms that favour male dominance in both the household and agricultural sectors limit women's autonomy and restrict their access to vital agricultural services such as extension programs, market information, and technological advancements (Siyao, 2012). Studies such as Oladejo *et al.* (2011) highlight that women in Bayelsa face significant barriers in accessing extension services and modern agricultural inputs, which severely hampers their ability to improve productivity and adapt to environmental changes. Moreover, there is a notable gap in research specific to gender dynamics in agricultural labour division in rural Bayelsa. While studies have highlighted the importance of women's roles in agriculture and identified some of the challenges they face, there has been limited focus on how

these dynamics play out in specific localities, such as Bayelsa, where socio-cultural factors may have unique impacts (Oladejo *et al.*, 2011). Many existing studies have not sufficiently addressed the systemic barriers that hinder women's empowerment in the sector, such as limited access to decision-making platforms and agricultural extension services (Siyao, 2012). Additionally, while previous research has acknowledged the importance of women in the agricultural value chain, there has been little exploration of innovative solutions that could address these disparities, particularly in the context of climate change and technological advancements in agriculture (Doss *et al.*, 2021).

Theoretical Framework

The theoretical framework for this study is grounded in Social-Ecological Systems (SES) Theory and Feminist Environmental Justice Theory. SES theory emphasizes the interconnectedness between human societies and ecological systems, particularly how social roles and responsibilities influence the resilience and sustainability of agricultural systems (Folke et al., 2016). In rural Bayelsa, this theory is crucial for understanding how gendered labour divisions impact the adaptive capacity of farming households and the broader agricultural system. Women's roles in subsistence farming and food processing are key to maintaining the sustainability of agricultural practices, but their marginalization in decisionmaking processes weakens the system's resilience (Olsson et al., 2015). On the other hand, feminist environmental justice theory extends the concept of environmental justice to include gendered dimensions of inequality, focusing on issues of intersectionality, equity, and justice in access to resources and decisionmaking (Shiva, 1989). This theory is particularly relevant to the study of rural Bayelsa, where sociocultural norms limit women's access to agricultural inputs, land, and economic opportunities. By integrating SES and feminist environmental justice frameworks, this study can provide a comprehensive analysis of how social, economic, and environmental factors interact to shape women's experiences in agricultural labour and propose solutions that promote gender equity and empowerment (Agarwal, 1992). This combined theoretical framework allows for a deeper understanding of how gendered labour divisions affect not only the social structure of rural communities but also their ecological sustainability, thereby offering a holistic perspective on the challenges and opportunities for empowering women in agriculture.

Methodology

This study adopts a mixed-method approach, combining quantitative household surveys and qualitative interviews to explore gender dynamics in agricultural labour in rural Bayelsa State. A sample of 300 farming households was selected using a multi-stage sampling technique. Communities known for agricultural activities were purposively chosen, followed by random selection of households. The sample size was determined using Cochran's formula with a 95% confidence level and a 5% margin of error. Surveys captured information on key variables: labour roles, income, access to resources, and decision-making authority.

Variable	Measurement
Labour roles	Tasks performed in agriculture (number/type)
Income	Earnings from agriculture (in Naira)
Access to resources	Availability of land, credit, inputs (yes/no)
Decision-making authority	Control over key decisions (male/female/both)

Qualitative Data Collection

For the qualitative component, 60 respondents (40 women, 20 men) were selected through purposive sampling. Focus group discussions and in-depth interviews were conducted to explore perceptions of gender roles, resource access, and challenges. The sample size was based on data saturation.

Quantitative data were analysed using descriptive statistics and logistic regression to explore gender-related patterns.

15

Findings

Table 1 Socio-demographic Characteristics of Respondents

Variables	Response categories	Frequency (n=300)	Percentage (%)
Age range	18-23	50	16.67
	24-29	100	33.33
	30-Above	150	50.00
Religion	Christianity	185	61.67
	Islam	74	24.67
	Traditionalist	41	13.67
Ethnic group	Nembe	87	29.00
	Epie/Atissa	89	29.67
	Ijaw	100	33.33
	Others	24	8.00
Educational	Tertiary	150	50.00
level	Secondary	100	33.33
	Primary	50	16.67
	No education	-	0.00
Average	№ 10,00 - 20,000	85	28.33
income	₩30,000- 40,000	198	66.00
	₩50,000 - 60,000	40	13.33
	₹70,000 – above	23	7.67
Marital Status	Single	140	46.67
	Married	120	40.00
	Divorced	28	9.33
	Widowed	12	4.00
Household Size	1-3	85	28.33
	4-6	161	53.67
	7-9	50	16.67
	10 and above	4	1.33

The socio-demographic characteristics of the respondents reveal a diverse sample in terms of age, religion, ethnicity, education, income, marital status, and household size. The age distribution shows that half of the respondents are 30 years and above (50.00%), with 33.33% in the 24-29 age range and 16.67% between 18-23 years. Christianity is the predominant religion (61.67%), followed by Islam (24.67%) and Traditionalist beliefs (13.67%). Ethnically, the respondents are primarily Ijaw (33.33%), Epie/Atissa (29.67%), and Nembe (29.00%), with a small proportion belonging to other groups (8.00%). In terms of education, half of the respondents have tertiary education (50.00%), secondary education (33.33%), and primary education (16.67%). The majority of respondents earn between №30,000 and №40,000 (66.00%), with smaller proportions earning №10,000 - 20,000 (28.33%), №50,000 - 60,000 (13.33%), and №70,000 and above (7.67%). Most respondents are single (46.67%) or married (40.00%), with few divorced (9.33%) or widowed (4.00%). Household sizes predominantly range from 4-6 members (53.67%), with 1-3 members (28.33%), 7-9 members (16.67%), and 10 and above (1.33%) also noted.

Table 2: Agricultural Activities

Variables	Response categories	Frequency (n=300)	Percentage (%)
Which agricultural activities do you participate in?	Crop farming	74	24.67
	Livestock rearing	67	22.33
	Fishing	100	33.33
	Poultry	59	19.67
	Others	-	0.00
How many hours per day do you spend on agricultural	Less than 2 hours	80	26.67
activities?	2-4 hours	90	30.00
	4-6 hours	100	33.33
	More than 6	30	10.00
	hours		
Do you share agricultural tasks with other members of	Yes	236	78.67
your household?	No	64	21.33

The agricultural activities table indicates that a significant portion of respondents participate in fishing (33.33%), followed by crop farming (24.67%), livestock rearing (22.33%), and poultry (19.67%). None reported participation in other activities. The time spent on agricultural activities varies, with 33.33% dedicating 4-6 hours per day, 30.00% spending 2-4 hours, 26.67% less than 2 hours, and 10.00% more than 6 hours. A majority (78.67%) share agricultural tasks with other household members, while 21.33% do not.

Table 3: Gendered Division of Labour in household

Variables	Response categories	Frequency (n=300)	Percentage (%)
Land Preparation	Male	198	66.00
-	Female	68	22.67
	Both	34	11.33
Planting	Male	130	43.33
	Female	160	53.33
	Both	20	6.67
Weeding	Male	190	63.33
-	Female	30	10.00
	Both	80	26.67
Harvesting	Male	129	43.00
	Female	160	53.33
	Both	130	43.33
Marketing of	Male	95	31.67
produce	Female	198	66.00
_	Both	7	2.33

Gendered Division of Labour

Gendered division of labour shows a distinct distribution of tasks. Land preparation is predominantly done by males (66.00%), with females (22.67%) and both genders (11.33%) contributing less. Planting and harvesting are mainly performed by females (53.33% each), while males contribute significantly to weeding (63.33%) however, marketing of produce is dominated by females (66.00%). Tasks are shared by both genders to a lesser extent, particularly in marketing (2.33%).

17

Table 4: Decision-Making Power in household

Variables	Response	Frequency	Percentage
	categories	(n=300)	(%)
Type of crops to plant	Male	200	66.67
	Female	50	16.67
	Both	50	16.67
Use of income from agricultural activities	Male	185	61.67
-	Female	60	20.00
	Both	55	18.33
Purchase of agricultural inputs (seeds, fertilizers,	Male	188	62.67
etc.)	Female	80	26.67
	Both	32	10.67

Decision-Making Power

Decision-making power within households shows that males primarily decide the type of crops to plant (66.67%), use of income from agricultural activities (61.67%), and purchase of agricultural inputs (62.67%). Females and joint decisions are less common across these categories, with female decision-making ranging from 16.67% to 26.67%, and joint decisions from 10.67% to 18.33%.

Table 5: Implications for Women's Empowerment

Variables	Response categories	Frequency (n=300)	Percentage (%)
Do you feel that women have enough decision-	Yes	110	36.67
making power in agricultural activities in your community?	No	190	63.33
What are the main barriers to women's	Limited access to land	89	29.67
empowerment in agriculture?	Limited access to credit	80	26.67
-	Lack of education and training Cultural norms and gender	U	30.00
	roles	41	13.67
	Others	-	0.00

Implications for Women's Empowerment

Regarding women's empowerment, 63.33% of respondents believe women lack sufficient decision-making power in agricultural activities, while 36.67% feel they do. The main barriers identified include limited access to land (29.67%), limited access to credit (26.67%), lack of education and training (30.00%), and cultural norms and gender roles (13.67%).

Table 6: Policy Recommendations

Variables	Response categories	Frequency (n=300)	Percentage (%)
What policy changes do you believe	Improved access to land	99	33.00
would enhance women's empowerment	Enhanced credit facilities	41	13.67
in agriculture?	More education and training programs	80	26.67%
-	Legal reforms to support women's rights	80	26.67%
	Others	_	0.00%

Policy Recommendations

Policy recommendations to enhance women's empowerment in agriculture include improved access to land (33.00%), more education and training programs (26.67%), legal reforms to support women's rights (26.67%), and enhanced credit facilities (13.67%). These changes are seen as crucial for addressing the barriers identified and promoting gender equity in agricultural communities.

18

Results from Qualitative Data

These results are organized into key themes that reflect the experiences and perceptions of both men and women involved in agricultural activities. A recurrent theme was the distinct division of labour between men and women in agricultural tasks. Both men and women acknowledged that men primarily engaged in activities requiring physical strength, such as land preparation and fishing, while women were more involved in planting, weeding, harvesting, and marketing. This pattern was consistent among most participants, who viewed these roles as traditional but essential to the smooth functioning of agricultural activities.

"Men do the heavy work, like preparing the land and harvesting. Women take care of planting, weeding, and selling at the market." (Woman, Age 32, Christianity, Ijaw)

"Fishing is for men, but women help with processing and selling the fish. This is how things have always been done here." (Man, Age 40, Christianity, Nembe)

Despite the acceptance of these roles, many women expressed frustration that their contributions, especially in marketing and food processing, were often undervalued compared to men's work.

The discussions revealed that men held significant authority over household agricultural decisions, such as crop selection, allocation of income, and the purchase of agricultural inputs. Women's involvement in decision-making was minimal, even though they played critical roles in the actual labour.

"My husband decides which crops we plant and how we spend the money. He might ask for my opinion, but he makes the final decision." (Woman, Age 30, Christianity, Epie/Atissa)

"I make most of the decisions, but I try to involve my wife when it comes to selling the produce. Still, I have the final say on important matters." (Man, Age 38, Christianity, Nembe)

This theme reflects the entrenched gender norms that reinforce male authority in decision-making, even in cases where women's labour drives agricultural productivity. The lack of decision-making power left many women feeling disempowered, particularly in households where their contributions were essential to farming success. The participants identified several barriers that hinder women's full participation in agriculture, particularly in terms of decision-making and economic empowerment. These included limited access to land, credit, and agricultural extension services, as well as a lack of education and training opportunities. Women were generally excluded from land ownership, which reinforced their dependence on men for access to essential resources.

"It is difficult for women to own land. Even if we work hard on the farm, we still need our husbands or brothers to give us land to farm on." (Woman, Age 35, Christianity, Ijaw)

"We don't get much support from the government. Credit and loans mostly go to men, and they are the ones who get training from the extension services." (Woman, Age 29, Christianity, Nembe)

Cultural norms that restrict women's access to financial resources and educational opportunities were also highlighted as barriers that limit their economic mobility and decision-making power. The participants emphasized that these barriers prevent women from reaching their full potential in agricultural activities. While many participants recognized the traditional division of labour as an accepted norm, there were also calls for change, particularly among younger women. Some women expressed a desire for more equitable roles in decision-making and better access to resources, believing that such changes would not only benefit them but also improve the overall productivity of their agricultural activities.

"We do most of the work, but we don't have a say in what happens. Things would be better if women could make decisions too, not just follow the men's orders." (Woman, Age 31, Christianity, Epie/Atissa)

"If women are given more opportunities—education, credit, and land ownership—we can do more for our families and contribute to the community." (Woman, Age 28, Christianity, Ijaw)

This theme reveals a growing awareness of the need for gender equality in agriculture, with some participants advocating for policy changes that would grant women greater autonomy and access to resources. However, many still recognized the challenges posed by cultural norms and traditional practices that continue to limit women's roles.

Finally, when discussing potential solutions to these challenges, participants suggested several strategies to enhance women's empowerment in agriculture. These included providing women with more educational and training opportunities, improving access to credit and financial resources, and reforming land ownership laws to ensure women's access to land.

"If we had more education, especially in farming techniques, we could improve our yields and contribute more to the household income." (Woman, Age 34, Christianity, Nembe)

"Women need loans and access to credit to grow their farms. The men are the ones who benefit from government programs, but women are left behind." (Woman, Age 30, Christianity, Ijaw)

Participants also emphasized the importance of policy interventions to promote gender equity in agricultural practices. Many believed that empowering women through these strategies would not only improve their economic standing but also strengthen the agricultural sector as a whole.

The narratives from the participants underscore the importance of addressing these barriers through education, policy reforms, and community-based interventions aimed at promoting gender equality in agriculture.

Discussion of Findings

The results of the findings indicate that men dominate land preparation activities, while women take on more labour-intensive tasks like planting, weeding, harvesting, and marketing. This division of labour is consistent with previous studies, which suggest that men often perform tasks requiring physical strength, while women handle daily labour-intensive activities (FAO, 2011). Such patterns can be attributed to traditional gender norms that assign specific roles to men and women in agriculture. The findings highlight how this labour division tends to restrict women's involvement in higher-income agricultural activities, which are often controlled by men. The implications of this are significant, as women's exclusion from land preparation and commercial activities limits their economic empowerment and reinforces gender inequality.

Another important finding is the male-dominated decision-making processes within households, particularly regarding key agricultural decisions such as crop selection, income allocation, and the purchase of agricultural inputs. This finding mirrors broader research on gender inequality in decision-making within agriculture (Agarwal, 1997), where men typically control strategic and financial decisions. The gendered power dynamics in decision-making not only reinforce patriarchal structures but also limit women's potential to contribute to household agricultural strategies. A plausible explanation for this pattern is the prevailing cultural norms that place men in positions of authority, as well as women's limited access to education and training that could enhance their decision-making capacities.

The study also identified major barriers hindering women's access to resources and decision-making power. These include limited access to land, credit, education, and training, as well as entrenched cultural norms. These barriers have been widely discussed in previous literature (Fletschner & Kenney, 2014; Siyao, 2012), and the current findings reinforce the argument that these systemic issues continue to marginalize women in agricultural settings. The implications are profound, as they prevent women from fully participating in economic activities, thereby reducing the overall productivity and resilience of rural agricultural communities. Addressing these barriers would require a concerted effort to reform cultural practices, improve access to resources, and provide targeted educational programmes for women. While the findings generally support previous research on gender roles in agriculture, they also reveal regional nuances specific to Bayelsa State. For example, unlike Northern Nigeria, where seclusion practices further restrict women's participation in agriculture (Imam, 2008), women in Bayelsa are more involved in the marketing of agricultural products. This suggests that regional variations in cultural norms may provide

different degrees of participation for women, even though underlying gender biases persist. However, the study also contrasts with some previous research by showing a collaborative approach to agricultural tasks in many households. Despite the gendered division of labour, most respondents indicated that agricultural activities were shared among household members. This finding suggests that while traditional gender roles remain entrenched, there may be opportunities for more collaborative efforts that could be leveraged on to improve gender equity in agricultural work.

The findings of this study have several implications for policy and practice. First, policies that promote gender equity in agriculture must focus on providing women with better access to land, credit, and education. Legal reforms to support women's land ownership and access to agricultural inputs are critical. Additionally, the development of gender-sensitive agricultural extension services that address women's specific needs would enhance their productivity and decision-making power. Finally, cultural norms that reinforce male dominance in decision-making must be addressed through community-based interventions and awareness campaigns. Empowering women through education and training can also help shift these norms and create more inclusive agricultural practices.

Conclusion and Recommendations

The findings from this study underscore the persistent gender disparities in agricultural activities and decision-making in the study area. Despite women's significant contributions to agricultural labour, they have limited decision-making power and face substantial barriers to empowerment, including restricted access to land, credit, and education. These gender dynamics reflect broader societal norms and structural inequalities that need to be addressed to achieve gender equity in agriculture.

Recommendations

Based on the findings, the study recommends the following:

- i. Access to Land and Credit: Policies should aim to improve women's access to land and credit facilities, enabling them to invest in and benefit from agricultural activities. Legal reforms and financial products tailored to women's needs can play a crucial role.
- ii. Education and Training: Implementing education and training programs specifically for women can empower them with the knowledge and skills needed to participate effectively in decision-making processes.
- iii. Cultural Norms and Gender Roles: Awareness campaigns and community programmes should focus on changing cultural norms and promoting gender equality in agricultural communities. Engaging both men and women in these initiatives is essential for long-term change.
- iv. Support Services: Government and NGOs should provide support services such as extension services, agricultural training, and access to markets tailored to women's needs. These services can help women improve productivity and participate more equally in agricultural value chains.
- v. Joint Decision-Making: Encouraging joint decision-making within households can enhance efficiency and fairness. Programs that promote shared responsibilities and respect for women's contributions can foster more balanced household dynamics.

By implementing these recommendations, stakeholders can address the identified barriers and promote gender equality and women's empowerment in agriculture, leading to more sustainable and inclusive agricultural development.

Contribution to Knowledge

This study advances understanding of gender dynamics in agricultural labour division in rural Bayelsa State, offering localized insights into how cultural and socio-economic factors shape women's roles. It highlights women's critical involvement in subsistence farming and marketing but emphasizes their exclusion from decision-making and resource access, such as land and credit. By focusing on a region less explored in existing literature, the research fills a gap and provides evidence-based recommendations for gender-sensitive agricultural policies. It underscores the need for addressing systemic barriers to enhance women's empowerment and productivity in rural agricultural communities.

References

- Agarwal, B. (1997). "Bargaining and Gender Relations: Within and Beyond the Household." *Feminist Economics*, 3(1), 1-51. doi:10.1080/135457097338799.
- Agarwal, B. (2010). Gender and Green Governance: The Political Economy of Women's Presence Within and Beyond Community Forestry. Oxford University Press.
- Aina, O. I., Imam, A. M., & Okunna, S. C. (2008). Gender relations in Nigeria: Implications for development. Heinrich Böll Foundation Publication.
- Akanji, O. O. (2003). Microfinance as a strategy for poverty reduction. *Central Bank of Nigeria Economic and Financial Review*, 39(4).
- Alfred-Ockiya, J. F. (2000). Gender roles in artisanal fisheries of the Niger Delta. *Gender & Development*, 8(3), 21-27. https://doi.org/10.1080/741923683
- Beuchelt, T. D., & Badstue, L. (2013). Gender, nutrition- and climate-smart food production: Opportunities and trade-offs. *Food Security*, 5(5), 709-721. https://doi.org/10.1007/s12571-013-0290-8
- Carr, E. R., & Thompson, M. C. (2014). Gender and climate change adaptation in agrarian settings: Current thinking, new directions, and research frontiers. *Geography Compass*, 8(3), 182-197. https://doi.org/10.1111/gec3.12121
- Cornwall, A. (2007). Buzzwords and fuzzwords: Deconstructing development discourse. *Development in Practice*, 17(4-5), 471-484. https://doi.org/10.1080/09614520701469302
- Dinye, R. D. (2003). Women in the Development Process: A Case Study of a Rural Area in Nigeria. *GeoJournal*, 7(3), 231-240.
- Djurfeldt, A. A. (2020). Gender and rural livelihoods: Agricultural commercialization and farm/non-farm diversification. Routledge. https://doi.org/10.4324/9781003054540
- Doss, C. (2018). Women and agricultural productivity: Reframing the issues. *Development Policy Review*, 36(1), 35-50. https://doi.org/10.1111/dpr.12243
- Ellis, A., & Spring, A. (2020). The role of gender in agriculture and climate change adaptation in Niger. Development in Practice, 30(8), 1054-1069. https://doi.org/10.1080/09614524.2020.1832285
- FAO (2011). The role of women in agriculture. ESA Working Paper No. 11-02, Agricultural Development Economics Division, Food and Agriculture Organization of the United Nations.
- FAO, IFAD, & UN Women. (2021). The status of rural women in agriculture: Key facts and figures. FAO Publications. https://www.fao.org/publications
- FAO. (2011). The role of women in agriculture. ESA Working Paper No. 11-02. Food and Agriculture Organization of the United Nations. https://www.fao.org/3/am307e/am307e00.pdf
- Fletschner, D., & Kenney, L. (2014). Rural women's access to financial services: Credit, savings, and insurance. In Gender in Agriculture (pp. 187-208). Springer.
- Floro, M. S., & Meurs, M. (2009). Global trends in women's access to land and property. *Gender and Development*, 17(1), 1-15. https://doi.org/10.1080/13552070802696807
- Food and Agriculture Organization of the United Nations (FAO). (2011). "The State of Food and Agriculture 2010-2011: Women in Agriculture Closing the Gender Gap for Development." FAO. Retrieved from http://www.fao.org/publications/sofa/2010-11/en/.
- Giller, K. E., Andersson, J. A., & Sumberg, J. (2019). Beyond gender-blind development interventions: Addressing gendered realities in agriculture and rural livelihoods. *World Development*, 120, 92-102. https://doi.org/10.1016/j.worlddev.2018.04.006
- Imam, A. (2008). Gender, religion, and the power dynamics of seclusion in Northern Nigeria. *Journal of Religion in Africa*, 38(3), 309-335. https://doi.org/10.1163/157006608X340223.
- Kabeer, N. (2005). Gender equality and women's empowerment: A critical analysis of the third millennium development goal 1. *Gender and Development*, 13(1), 13-24. https://doi.org/10.1080/13552070512331332273
- Kabeer, N., Razavi, S., & van der Meulen Rodgers, Y. (2021). Feminist economics: Struggles over justice, recognition and redistribution. Routledge. https://doi.org/10.4324/9781003051273
- Kristjanson, P., Waters-Bayer, A., & Johnson, N. (2014). Livestock and women's livelihoods: A review of the recent evidence. In Gender in Agriculture (pp. 209-233). Springer.

- Lastarria-Cornhiel, S. (2006). Feminization of agriculture: Trends and driving forces. World Development Report, 37(1), 116-127.
- Lwoga, E. T. (2010). Bridging the agricultural knowledge and information divide: The case of selected telecentres and rural radio in Tanzania. *The Electronic Journal of Information Systems in Developing Countries*, 43(1), 1-14.
- Meinzen-Dick, R., Quisumbing, A., Behrman, J., Biermayr-Jenzano, P., Wilde, V., Noordeloos, M., Ragasa, C., & Beintema, N. (2011). "Engendering Agricultural Research, Development, and Extension." International Food Policy Research Institute (IFPRI) Research Monograph. doi:10.2499/9780896291904.
- Meinzen-Dick, R., Quisumbing, A., Behrman, J., Biermayr-Jenzano, P., Wilde, V., Noordeloos, M., ... & Beintema, N. (2011). Engendering Agricultural Research, Development, and Extension. International Food Policy Research Institute.
- Nussbaum, M. C. (2000). Women and Human Development: The Capabilities Approach. Cambridge University Press.
- Oladejo, J. A., *et al.* (2011). Gender analysis of agricultural production in Oyo State, Nigeria. Agricultural Journal, 6(5), 266-271. https://doi.org/10.3923/aj.2011.266.271
- Oladejo, J. A., Olawuyi, S. O., & Anjorin, T. D. (2011). Analysis of Women Participation in Agricultural Production in Egbedore Local Government Area of Osun State, Nigeria. *International Journal of Agricultural Economics & Rural Development*, 4(1).
- Owoo, N. S. (2020). Gendered labour, climate change, and agricultural innovations: A review of African agricultural contexts. *Journal of International Development*, 32(2), 199-212. https://doi.org/10.1002/jid.3465
- Quisumbing, A. R., *et al.* (2014). Closing the gender gap in agriculture. In Gender in Agriculture (pp. 211-227). Springer.
- Shiva, V. (1989). Staying alive: Women, ecology, and development. Zed Books.
- Siyao, P. O. (2012). Barriers in accessing agricultural information in Tanzania with a gender perspective: The case study of small-scale sugar cane growers in Kilombero district. *The Electronic Journal of Information Systems in Developing Countries*, 51(1), 1-19. https://doi.org/10.1002/j.1681-4835.2012.tb00377.x.
- UN Women. (2020). The role of women in food security and nutrition. UN Women Policy Brief. https://www.unwomen.org/en/digital-library/publications/2020
- World Bank. (2020). Closing gender gaps in agriculture in sub-Saharan Africa: Evidence from Ten African Countries. World Bank Publications. https://doi.org/10.1596/978-1-4648-1503-9.
- World Bank. (2021). Women's empowerment in agriculture: What has worked and what hasn't. The World Bank. https://doi.org/10.1596/978-1-4648-1355-4.