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**Factors Influencing Women's Empowerment in
Agriculture in Developing Countries**

BACHELOR'S THESIS

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Declaration

I hereby declare that I have done this thesis entitled “**Factors Influencing Women’s Empowerment in Agriculture in Developing Countries**” independently, all texts in this thesis are original, and all the sources have been quoted and acknowledged by means of complete references and according to Citation rules of the FTA.

In **Prague** 18th April,2024

.....

Abai Ekenson

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Abstract

The role of women in Agricultural enterprises cannot be overemphasized. Their involvement is important not only because of their contributions to marketing, food processing, cropping, and animal husbandry but also because of their decision-making abilities. This research therefore looks at the extent to which women participate in agricultural activities to characterize women and their access to services in the agricultural sector. According to the assessment, a large number of rural women in developing nations rely heavily on agriculture for their daily needs and as a source of employment. Women farmers continue to play a leading role in the agricultural sector of the countries despite several challenges, such as low customary land tenure, poor resource allocation, limited or no access to agricultural extension services, and unfavourable policy and implementation that frequently limit their productivity. However, their full potential is still far from being realized. As a result, it has been suggested that steps be taken to ensure that women farmers receive the necessary funding and operational status for them to be effective and to increase the number of women working as agricultural extension practitioners. This thesis reiterates the critical role that women play in developing countries' rural businesses and agriculture. However, women's roles vary widely, and making unwarranted generalizations about policies compromises their planning and relevance.

Keywords: Women, Gender, Agriculture, Empowerment, Nigeria

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Abbreviations

Asian Rice Farming Systems Network	ARFSN
Women in Rice Farming System	WIRFS
Food And Agriculture Organization	FAO
International Rice Research Institute	IRRI
National Agricultural Research and Extension Systems	NARES
National Gender Policy in Agriculture	NGPiA
National Gender Policy on Agriculture	NGPA
Community-based Agriculture and Rural Development	CBARDP
Agricultural Promotion Policy	APP
The Graduate Unemployed Youth and Women Agro-Preneur Support Program	GUYS
The Women and Youth Empowerment Program	WYEP
Agro-Processing Productivity Enhancement and Livelihood Improvement Support Project	APPEALS

1. Introduction

Women work in agriculture in a variety of capacities related to the production, processing, and sale of food (Boserup et al. 2013). Hence, women actively participate in many agricultural tasks like planting, weeding, harvesting, processing, and selling, alongside their responsibilities of animal care.

For a country to develop effectively and sustainably, this calls for its incorporation into planning, policies, and programs (Oladejo et al. 2022). Thus, it is impossible to overstate the contribution that women make to agricultural production in underdeveloped countries (Barau & Oladeji 2017). The process of producing agricultural products is labour-intensive and complex. In rural areas, women farmers are essential to food production and security. They make up 70 percent of agricultural labourers, 80 percent of food producers, 100 percent of those who process staple foods, and 60 to 90 percent of those who market them, making four of every ten agricultural labourers worldwide female (UN Women 2014; Adebayo & Worth 2024). As a result, the importance of agriculture has been reevaluated with a focus on women's involvement in agricultural activities, as well as its influence on industrialization and relevance to peaceful development, political stability, and economic stability.

Being denied the right to possess resources and to own the resources within their community is one of the biggest issues facing women. One of the main issues preventing women from contributing to agricultural output is based on this issue. Patriarchy prevents them from having full access to agricultural resources, despite their significant contributions to agricultural productivity. The marginalization of women and their duties being limited to traditional agricultural and economic analysis is another issue that women in the agriculture sector confront (Midamba & Kizito 2022).

Even though they contribute significantly to agricultural productivity, they are only afforded the same opportunities as men in some situations. Better yet, several customs restrict the membership of women in cooperative societies, making it extremely difficult for women to obtain financial facilities and income (Abdallah & Abdul-Rahaman 2016). This illustrates the antiquated belief that men are farmers and women are not. This condition hampers women's complete involvement in agricultural production. Another issue is the difficulty in obtaining technological equipment for higher-producing labour, which limits women's capacity to generate revenue and engage in entrepreneurship. Since most women do not possess assets and cannot provide collateral security to be used toward the purchase of this modern apparatus, it is very difficult for women to obtain credit facilities (Arah et al. 2015).

Women face greater challenges than men when it comes to farming, labour, and entrepreneurship. The "gender gap" in agricultural output prevents women from effectively participating in the industry. They need help to obtain land needed for automated farming, which limits their ability to contribute to the achievement of larger societal goals. Women in rural areas primarily carry out subsistence farming. It is thought that men would be more successful or have greater access to property, but most women are not allowed to own a sizable portion of land or are not allowed to access land at all. Women own less land than men do, and when they do, it's usually smaller and less fertile acreage. Due to limited or non-existent land, women who possess expertise and ideas for agricultural production are unable to farm on a large scale. As a result, they engage in subsistence agriculture and small-scale farming to provide for their families and make a meager living (Atsbeha & Gebre 2021). Similar to this, the issue of women's education in agricultural production training impedes progress in general.

Farmers in rural areas cannot use contemporary agriculture technologies because gender inequality has prevented most women from having better access to healthcare and education. One of the biggest barriers to women's advancement in society is a lack of formal education and training in agriculture. The majority of women cultivate land and produce food using traditional agricultural methods that are familiar to them. In developing countries, illiterate women were over 50% in 2007, compared to 38% of men (Awili et al. 2016). Therefore, this study was conducted to assess the factors affecting women's agriculture empowerment and development and the policies formulated to tackle the problems faced by women in agriculture development. Also, a case study on the problem facing Nigerian women in agriculture development and its policies was discussed.

2. Objective of the Study

This study aims to comprehensively analyze the socio-economic and cultural dynamics that influence women's roles and participation in agriculture, to develop targeted strategies that can enhance their involvement and empowerment in the agricultural sector.

The specific objective is;

1. To identify the role of women in different agriculture sectors.
2. To examine the socio-economic and cultural factors influencing women's participation in agricultural production.
3. To assess the effectiveness of existing policies and programs promoting women's empowerment in agriculture.

3. Methodology

For this review paper, data was collected from secondary sources. This includes internal sources (e.g.in-house research) or, more commonly, external sources (such as government statistics, organizational bodies, and the internet), government, non-government agencies, trade body statistics, company reports, and research, competitor research, public library collections, Textbooks, and research journals, Media stories in newspapers, Online journals, and research sites. However, this was conducted by searching the extant literature, screening for inclusion, assessing the quality of primary studies, and extracting data from previous studies. Notwithstanding, the arguments of different researchers and results were taken and interpreted. Also, the references used in the Nigeria study signify the quality of the work and detail the primary sources, which are indicative of the extent of information used by the authors.

4. Literature Review

4.1. Women in Agriculture

Women perform productive roles in the agricultural sector. Women comprise 43 percent of all agricultural labour attributed to women (Tisdell 2017; Haug et al. 2021) and find some variation in gender decision-making across six African countries such as South Africa, Kenya, Rwanda, Malawi, Tanzania, and Ethiopia. Some selected cities of South Africa, Rwanda, and Malawi (Haug et al. 2021), show that women farmers dominate agricultural production decision-making, while men farmers dominate production decisions in Tanzania and Ethiopia, with mixed results in Kenyan sites. They reported that small-scale farming characterizes women's agricultural workload in this region of Africa. In their lengthy discussion of the feminization of agriculture, (Adebayo & Worth 2024) pointed out that males abandoned farming in Africa, the Caribbean, and Latin America in search of better economic prospects, which in turn led to an increase in the number of women farmers. According to the report (Petesch & Badstue 2020), three out of ten farms in the study region were managed by women farmers as of 2013. Furthermore, depending on the crop, the task, or both, gender determines and divides labour in agriculture in several African nations (Flatø et al. 2017; Annosi et al. 2022).

Alongside contributing unpaid labour in their husbands' income crops, women farmers are primarily in charge of domestic chores and producing food crops (Martina Miotto 2023). In addition to their agricultural tasks, which include clearing land, planting, tending to crops, and selling their produce, female farmers often handle household duties like cooking, watching over their kids, and obtaining firewood and water. Their workload becomes so much more as a result that it surpasses that of male farmers (Haug et al. 2021).

Studies by Petesch & Badstue (2020), and Tarekegne & Dessie (2020) have demonstrated that compared to their male counterparts, female farmers have comparatively less access to markets, land, finance facilities, and extension services. The structural disadvantage female farmers face stems from their frequent inability to get land, implement irrigation, and implement agriculture (Seleti & Tlhompho 2014). Women's access to productive resources, services, and inputs has been restricted or denied due to the glaring gender imbalance and inequities, and they are frequently more vulnerable to bias, prejudice, and discrimination in rural labour markets (Hossain et al. 2023).

The marginalization or exclusion of women farmers from extension services and other productive resources can seriously impede agricultural development agendas by negatively impacting their productivity and efficiency in the field (Tarekegne & Dessie 2020). Oluwatayo et al. (2019), assert that if female farmers have equal access to productive resources as their male counterparts, they can make a substantial contribution to household food security and economic prosperity. Consequently, research from Miotto (2023), indicates that policies and extension delivery services should be changed to ensure that women and men farmers receive equal services to improve the status of women farmers. Depending on how big the difference is, policies that cater specifically to the needs of women farmers may even be necessary.

Women contribute more to food production in Asia and Latin America (Vemireddy & Pingali 2021). According to Abdul-Majid et al. (2024), approximately 79% of Ethiopian rural women labour 13 to 17 hours a day, which is nearly twice as much as men. Crop and animal production are important sources of income, according to several case studies on gender analysis of small-scale farms across Africa. The farm family can support themselves through remittances, pensions, off-farm activities, and part-time work. Rural women in poor nations are an extremely productive resource in the agricultural industry.

Whether as family members or contributions independent women running their own homes; they significantly contribute to the agricultural workforce. New governmental attempts have been made to improve the status of women in the agriculture industry. To defend rights like those to land, credit, and other productive resources, as well as to shield women from other forms of discrimination, violence, and extended workdays, the Plan for Accelerated and Sustained Development to End Poverty, 2005/2006 to 2009/2010 (PASDEP) was introduced in 2005.

Despite these recent initiatives, a mixture of economic constraints, cultural norms, and practices continue to limit women's contribution to household food security and, to a lesser extent, inhibit the commercialization of the agricultural sector. Gender roles and relationships influence the division of work, the use of resources, and the sharing of production benefits between women and men. In particular, introducing new technologies and practices, underpinned by improved service provision, often disregards the gendered consequences of market-oriented growth, and many benefits bypass women (Masset et al. 2023).

Men are typically seen as having defined, directed roles in agricultural operations in most societies. However, the contribution of women to agriculture has yet to be acknowledged. Thus, a comprehensive understanding of women's involvement in agriculture is required. Even though the number of women working in agriculture has increased recently, it is challenging to determine the locations and conditions where women engage in farm labour (Bryan 2022). Due to their definition of agricultural activities in their intervening producer, national statistics have undercounted women's agricultural labour, despite the steady rise in microstudies highlighting the significance of women's roles in agriculture. Women are crucial to meeting the world's food needs since they support their families and the community at large.

The community has yet to give much thought to the effort that they have put out over the past few years, which is the most shocking thing of all. Almost half of the labour needed to produce the food consumed in developing nations is performed by women who work in agriculture and rural development (Johnston et al. 2018). Establishing a shared understanding of the societal perception of female farmers is a challenge in this context. Based on observations, it is often believed that female farmers are marginalized in agricultural development and should be treated as co-farmers. This perception is especially true for influential individuals in agribusiness, research, extension, and development.

4.2. The Role of Women in Different Agriculture Sectors

It is impossible to determine with any degree of precision how much women contribute to agriculture and food production in the majority of cases (Doss 2015). Typically, men and women work together to generate food. Men and women work together to generate the majority of food through collaborative processes. It is arbitrary to quantify the proportion of food produced by women because these assumptions about gender roles in the production process are unlikely to hold for all producers (Anderson et al. 2021). Both sexes are involved in harvesting, for instance, men usually work to clear the field while women plant and weed the crops (Johnston et al. 2018). Gender-based output separation becomes unfeasible in these and comparable scenarios. Nevertheless, it seems implausible that women produce as much as 60 to 80 percent of the food in underdeveloped nations, according to all the indirect data discussed above regarding labour participation and productivity by different definitions of gender. Though their duties vary depending on the locale, women are essential to all phases of the food cycle.

If policies and interventions are to be successful, it is imperative to consider the variety of their contributions (Doss 2015). Over the years, women have established more defined roles in agriculture.

In Nigeria, women are involved in agricultural production, processing, and utilization. A woman's role in the agricultural sector is significantly affected by socio-economic factors such as income, education, and access to infrastructure. Gender-specific policies and services tailored to women in the value chains should be developed for agriculture to advance in Nigeria.

According to the Federal Ministry of Agriculture & Rural Development, women account for 75 percent of the farming population in Nigeria, working as farm managers, and suppliers of labour (Onyalo 2019). Although women make up a large portion of the farming population, formal and traditional rules limit women's opportunities in agriculture. Generally, the extent of gender involvement in agricultural production varies across ethnic groups in Nigeria. Nigerian women farmers work alongside their male counterparts, with some clear distinctions in activities between them. In most cases, the men execute tedious tasks such as land clearing and felling of trees, gathering and burning of bush, and making ridges, while the women engage in planting (Oluwatayo et al. 2019). In addition, women also participate in weeding, harvesting, on-farm processing, and selling farm produce. Generally, women are rarely connected with agricultural export crops such as cocoa, rubber, and cotton, but rather involved with the production of food crops such as maize, cowpea, melon, pepper, cassava, and vegetables. In some cases, women participate in small-scale animal production, including small ruminants, poultry, and aquaculture.

4.2.1. Women as Livestock Keepers

Women are heavily involved in the livestock industry, which supports and improves the socioeconomic status of women in pastoralist and mixed farming systems. Approximately 400 million people, or two-thirds of them, are poor livestock caretakers (Bernard et al. 2020). Women are more likely than men to be involved in certain animal species and activities, and they share responsibility for animal care with men and children.

For instance, women are frequently heavily involved in the care and management of dairy animals (Kristjanson et al. 2014; Dhaske et al. 2022; Montcho et al. 2023) poultry; and other animals kept and fed on the farm. Men are more likely to be active in construction, animal herding, and product marketing when jobs are separated, especially if women's mobility is restricted. Women frequently control the marketing and sales of these products, which has a significant impact on how people use eggs, milk, and chicken meat in the home. Perhaps this is why small-scale dairy and poultry enterprises have been well-liked investments in development initiatives meant to better the lives of rural women. Women also hold a dominant position in some nations' small-scale pig farming. In countries where land access is restricted to men, women find owning animals particularly appealing (Onyalo 2019).

4.2.2. Women In Fisheries and Aquaculture

Due to the demanding labour involved as well as women's family duties and/or social standards, women have seldom participated in commercial offshore and long-distance capture fisheries. In rural and coastal waters, women are more frequently employed in subsistence and commercial fishing from small boats and canoes (Bacher & Gee 2017). In both artisanal and commercial fisheries, women make significant contributions as entrepreneurs and labourers before, during, and following the capture. For instance, the so-called "Fish Mamas" are very important in West Africa.

They typically own capital and actively participate in coordinating the entire fishery chain, from fish production to fish sales. This amounts to 12% of the total. Women made up 21% and 24%, respectively, of all fishermen and fish farmers in China and India, two significant producing nations (Brugere & Williams 2017). Women are particularly engaged in all regions throughout the processing and marketing phases of both artisanal and industrial fisheries, where they play a major role. In several nations, women have emerged as significant players in the fish processing industry.

In reality, women handle the majority of fish processing, either as paid workers in the large-scale processing sector or their household-level businesses.

4.2.3. Role of Women in the Rice Ecosystem

Women are typically in charge of planting, weeding, harvesting, and processing rice in many regions (Kinkingninhoun Medagbe et al. 2020). Since the 1990s, the Asian Rice Farming Systems Network (ARFSN) has recognized the important roles played by women in rice-based agriculture through the Women in Rice Farming System (WIRFS) Network, which is based at the International Rice Research Institute (IRRI) and should be in collaboration with the National Agricultural Research and Extension Systems (NARES). This network quantified the labour and income contributions made by men and women in rice-based agricultural systems and allowed women to participate in decision-making, thereby addressing women's issues in specific key rice ecologies (Kinkingninhoun Medagbe et al. 2020). In the Asian locations where rice is grown, women make up a large portion of the farming workforce. Women contribute up to half of the workforce to the production of rice in Indonesia, Thailand, and the Philippines. Poor and landless women in Bangladesh and India perform the majority of the labour (Komatsu et al. 2018). They often take out the seedlings to be transplanted and carry out the transplanting.

4.2.4. Role of Women in Post-Harvest Activities

According to Lelea et al. (2022), the activities of farm women consist of transplanting (50%), harvesting (26.5%), and post-harvest chores such as threshing (50%), drying (33%), and parboiling (67%). For rice and other staples, Lelea et al. (2022) provided a thorough overview of the labour contribution by sex. According to reports, women in Nepal carry out 75% of the weeding, 66% of the planting, and all of the rice cleaning and storing labour. They work 6% in wheat production, 94% in maize, and 85% in oil seed production.

The majority of farm labour in West Africa is supplied by women, who rarely make the important decisions that affect a wide range of agricultural operations (Carranza & Niles 2019; Bendinelli et al. 2020).

Women's farms may generate 20%–30% more than they were previously generating if they have more access to agricultural resources (Tambo et al. 2021). Other scholars, however, contend that even if women and men had identical traits, equal access to resources for earning a living, and consideration in policymaking, the productivity difference would still exist (Bello et al. 2021). As the gender gap within the family closes, women may find themselves in a stronger position, with greater access to productive resources, more responsibility for decision-making and bargaining power, and greater ability to make decisions that are in their best interests financially (Danquah et al. 2021). Using data and results at the household level, (Hirpa Tufa et al. 2022) have demonstrated that the gender gap in agricultural productivity is associated with either the gender of the head of the household or the gender of the person who runs the farm at home. Women, especially mothers, devote less time to farming operations than men do because of worries about household chores, childcare, and other responsibilities. Men, on the other hand, have fewer responsibilities at home.

4.3. Role of Women in Different Agricultural Production in Nigeria as compared to Ghana, Rwanda, and South Africa

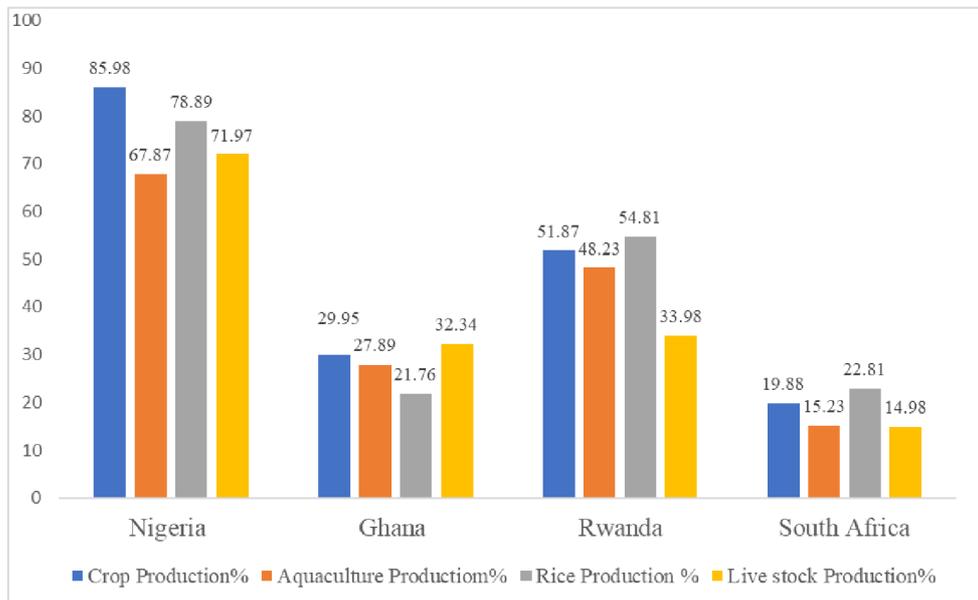


Figure 1. Role of women in different Agricultural production in Nigeria as compared to Ghana, Rwanda, and South Africa. Source: (Achandi et al. 2018; Schwab 2018; Bryan 2022)

Women work in agriculture as farmers on their accounts, as unpaid workers on family farms, and as paid or unpaid laborers on other farms and agricultural enterprises. They are involved in both crop and livestock production at subsistence and commercial levels. They produce food and cash crops and manage mixed agricultural operations, often involving crops, livestock, and fish farming. All of these women are considered part of the agricultural labor force (FAO 2010).

In crop production, Nigeria recorded about 85.98% as compared to other African countries, suggesting that Nigerian women are more involved in crop production than other African countries (Ghana, Rwanda, and South Africa) (Figure 1). The significant increase in these percentages might be because women are given leverage to farm as compared to other countries. In Nigeria, women are heavily involved in agriculture.

According to several studies conducted in the country's northern region (Nigeria), women make up between 70 and 80 percent of the agricultural labor force among the Jukun people, the nomadic Fulfude women, and the Kulka women farmers (Achandi et al. 2018). Furthermore, a survey of rural agricultural women in the region revealed that these women take part in income-generating activities, particularly in the processing of agricultural produce.

In terms of aquaculture production, South Africa ranks the highest (15.32%) as compared to Nigerian women, as seen in figure 1. It might interest you to know that aquaculture in Nigeria for women is still in the infancy stage, probably due to the awareness involved. Crude oil boosts Nigeria's economy, but because the government and financial institutions are only concerned with the money that comes from crude oil, concern about women in aquaculture is limited. Secondary livestock production is on the high side in Nigerian communities, with the belief that fish is mainly for the poor while the meat is for the rich, thus making this aquaculture industry slow and stagnant for women, coupled with the high cost of feed involved in the aquaculture industries.

4.4. Women in Agriculture: An Overview of Policy and Practice

In the context of this study, policy is seen as a catalyst for real and substantive change in the agriculture sector because of its capacity to eliminate obstacles and enable improvements like fair resource distribution among the many players in the agricultural value chain (Rawe et al. 2019). Also, five factors impact African agricultural policies: donor influence, ideology, electoral pressures, clientelist pressures, and interest groups (Joughin & Kjær 2010). According to their argument, interest groups are crucial to any change in policy. Therefore, many African nations' agricultural policies place a strong emphasis on female inclusion, particularly when it comes to land rights (Oluwatayo et al. 2019).

For instance, following 1994, the national and provincial departments of agriculture in South Africa made a determined effort to create policies and initiatives meant to fortify and expand the agricultural industry.

Central to these policies was the need to promote equity among farmers in terms of racial and gender representation. Among these is access by female farmers to land, modern technologies, and other inputs (Hart, T and Aliber 2012). In Ghana, land is generally grouped into public land tenure and private land tenure. The private land tenure system is predominantly communal; in this system, the land is jointly possessed by members of an extended family, clan, or entire community of the same ancestral background (Wily 2018). Under these tenure practices, women's kinship systems, which are headed by men in the families, as well as customary laws, norms, and practices that grant them control over land and other family resources, frequently prevent women from accessing, possessing, and controlling productive resources. Because of these persistently unfavorable customary tenure policies and practices, women have limited access to land (Labzaé 2014; Flora Kwapena 2018). Therefore, laws and policies that support or uphold women's rights, and access to and control over landed property to support the creation of livelihoods, food security, a store of wealth, and other economic benefits are required (Stanley & Lisher 2023).

In addition to social benefits like increased bargaining power in the home and community, ensuring women's land rights also promotes equality (Stanley & Lisher 2023). In Ghana and other African nations, land tenure patterns have changed significantly in recent years, moving from inheritance or extended family ownership to individual ownership, which has somewhat increased women's access to land (Graeb et al. 2016). Additionally, women who own property now have more leverage and capacity to use and rent out their land without running the risk of losing it, thanks to land tenure reform in African nations (Amadiume 2015).

The customary land certification system in Ethiopia and Zambia has benefited women, particularly those living in female-headed households, as it has significantly lowered tenure security limitations (Beegle et al. 2016). Women's involvement in family decision-making and community activities has increased, and they are now better informed about their land rights, tenure security, and other land-related benefits (Melesse et al. 2018).

In many African nations, discriminatory laws and patriarchy persist despite the implementation of equity-focused policies. Comparably, research by Haug et al. (2021) demonstrates that although women farmers play a significant part in Africa's agricultural landscape, they do not experience gender equality concerning their labour, family duties, mobility, opportunity, and independence. Much work remains to close the persistent gaps between policies and practices in the agricultural sectors of Africa. In some sections, biased practices that frequently treat women and minors unfairly restrict the rights of women farmers to agricultural land (Stanley & Lisher 2023). As a result, it is impossible to overstate the significance of legislative, regulatory, and policy changes since they are essential tools for improving women's access to and innovative uses of land (Stanley & Lisher 2023). Legislation recognizing women's ownership or property transfer, modifications to inheritance laws, and extensions of land rights for customary unions are a few examples of reforms (Stanley & Lisher 2023).

4.5. The Role and Status of Women's Participation in Agricultural Practices

4.5.1. Property Ownership, Income Generation, And Purchasing Power

In the past, women were only owners of the means of production when they inherited out into employment areas. In the last one and a half decades, urban women have had access to employment that does not require formal education (Njobe 2015). Women now fill jobs in the construction industry, factories, and sales and marketing services. In contrast, most rural women have no independent budget but depend on their husbands and income, even though they participate in different income-generating activities (Petesch & Badstue 2020). After the husband gives them the monthly budget of the family, they exchange this little amount of money to fulfill other family needs that could not be covered by what their husbands give them. Mostly, this portion is for the women to purchase household goods necessary to sustain the family. Women may be allowed to use some cash for their personal use if they consider it necessary; however, conditions are scarce enough to get the household through the season until the coming harvest.

Therefore, women rarely spend on themselves or their children without the approval of their partner, and even then, only for special occasions such as holy days (Petesch & Badstue 2020). What is surprising from this is that though women are doing a great job in both the triple roles (production, reproduction, and community management), they do not have the right to make a decision, and even their husbands do not consult them on the allocation of the produce. The United Nations statistically shows that women do two-thirds of the available jobs in the world and earn 1/10th of the income. On the other hand, they constitute 2/3rd of the illiterate people of the world and earn less than 1/100th of the world's wealth (Kansanga et al. 2019).

4.6. Women's Access to Key Economic Resources

Women made a far larger contribution than men during the earliest shifting agriculture in Africa when the hand hoe was the primary tool used for tilling the ground. In this arrangement, men's roles in farming were limited to clearing land, while women dominated agricultural activity. Women work in agriculture by tilling the land, planting, pulling weeds, gathering, threshing, and moving harvested goods (Lamontagne-Godwin et al. 2019). Rural women in developing nations who engage in more diverse economic activities than men do not own as much property, do not contribute to the economy and continue to live in unstable financial situations. Rural women actively participate in livestock management activities such as providing fodder, milking, and animal protection, and they have contributed significantly to livestock production in developing nations. Throughout the past three decades, African policymakers and land reform practitioners have needed to give women's land and property rights critical consideration (Fischer et al. 2018). In general, little attention is paid to the growing emphasis on a global realization of women's empowerment in Africa.

Women still lag far behind in terms of their access to important economic resources like land and other types of income-generating activities, especially in developing countries. Even though the government has worked to empower women by advocating for their equal rights to own property and to make economic and income-generating decisions alongside men, social courts and community elders were unaware of the need to change the way that people viewed reality on a local level. Political leaders and other officials at the local level also lack the information and expertise necessary to apply and interpret the legislation that the government has enacted. Women's ignorance and lack of access to information on how to challenge men's dominance, social prejudice, and conventional standards prevented them from taking advantage of these changes.

A woman's life is more difficult than a man's because of the complicated and interconnected issues surrounding women's status in society. Many of the issues that most rural women deal with include the allure of the UN lifestyle, low income, limited work prospects, high rates of illiteracy, and inadequate health facilities (Theis et al. 2019). Women play a very important role in both reproduction and productivity. However, women are accorded relatively little status or place in society.

Compared to what has historically been accepted, women have made a greater contribution to socioeconomic advancement and the quality of human life (Schwab & Hodjo, 2018). This indicates that women needed to be given more credit for their reproductive and productive duties and that their contribution to the long-term, sustainable advancement of human well-being was not prioritized as much. It is more significant for women than for men to contribute to reducing hunger and poverty in Africa. There are long-standing misconceptions and negative views about women's property rights in developing nations like Ethiopia, Nigeria, Ghana, and so on. These views profoundly impacted women's economic roles and were deeply ingrained in society. The government sector's employment and compensation policies are a direct or indirect reflection of the deeply ingrained negative image of society regarding the empowerment of women. Women play a crucial role in agricultural operations, from tilling farms to carrying goods to the homestead, as agriculture is the main driver of emerging nations' economies like Nigeria, Ghana, and Ethiopia. In addition, in developing countries, women generally make a significant contribution by helping their spouses in various economic endeavours. However, due to their customary low status in society, none of their responsibilities have been recognised (Vercillo 2020).

5. Factors Affecting Women's Participation in Agricultural Production

Several factors affect women's participation in agricultural production activities. Economic factors (such as the size of the farmland and access to key factors of production) and socio-cultural factors (such as attitudes toward women's work and culturally ascribed roles of women) have been used to explain the levels and trends of women's labour force participation.

5.1. Economic Factors

The other aspect influencing women's involvement in agricultural production is their ability to obtain and manage important inputs (Anik & Rahman 2021). Several studies have demonstrated that the majority of women participate actively in agricultural production (Baltenweck et al. 2021; Peterman et al. 2021). That is why their relationship to labour, land, agricultural inputs, and services like loans and extensions for agriculture is so important to their capacity to grow food and provide for their family. They have restricted access to these resources, nonetheless. One important reason typically mentioned for such restricted access to resources is the recognition of the household by males or husbands.

5.1.1. Household Farm Size

It was assumed that the larger the farmer's farm, the better the access to information and contact with extension agents (Tariq & Sangmi 2019). It is positioned to achieve food security and economic strength. The empirical study conducted by Peterman et al. (2021) shows that the larger the farm size the household has, the better participation and decision-making on a combination of technological packages. This means that farmers with relatively large farm sizes will be more inclined to participate in different agricultural practices and will be economically empowered.

The reverse is true for small farmers. Agricultural resource holdings such as land size and livestock size are supposed to contribute to household income positively (Baltenweck et al. 2021). The amount of farm size ‘owned’ is an indicator of wealth and a source of capital for agricultural production, particularly where agriculture is a major source of livelihood.

5.1.2. Household Income

According to Bahta et al. (2017), Tariq et al. (2019), Sultakeev et al. (2018), and Dorfleitner et al. (2021), who applied descriptive studies to investigate the impact of microfinance services on the economic empowerment of women's household income, there is a statistically significant influence on the economic empowerment of rural women. Hussain et al. (2019) argue that the annual farm income obtained from the sale of crops, livestock, vegetables, and other agricultural practices increases the farmers’ financial capacity and the probability of investing in and participating in new empowerment practices and technologies.

Income from non-farm activities given the uncertainties surrounding crop-livestock production and other farm activities and the inadequacy of the returns to maintain the household for the entire year, many rural households engage in undertaking diverse activities to seek additional income from sources other than agriculture (Peterman et al. 2021). He has also indicated the significant influence of income on household food security and, hence, poverty reduction. Though these off-farm activities are diverse, income sources from handcrafts, selling labour, and petty trade are considered in this study. The income households realized from these sources is analyzed based on participation in these activities and earning cash income.

5.1.3. Access to Owned Property

Moreover, applied descriptive studies on the role of women in agriculture in southern nationalities and people's regional states (Quisumbing et al. 2014). He stated that women were not owners of the means of production except when they inherited employment areas. Property ownership, particularly Livestock, is the most important asset and an index of wealth and prestige in rural communities. Consequently, he argues that access to property for rural women has a strongly significant influence on the empowerment of women (Anik & Rahman 2021).

The land is a critical asset for agricultural production, yet women often face significant land ownership and control barriers. In many countries, cultural and legal norms prioritize male inheritance and ownership, leaving women without access to land. Women also suffer from limited or absent access to physical assets, particularly land and financial support in rural areas. Lack of property rights to inheritance of land and other fixed assets—mainly driven through customs and social norms—and the socio-cultural factors that determine legacy severely limit women's access to and control over resources (Baltenweck et al. 2021). Furthermore, they are not reimbursed for family work, and many do not have control over their income when they work as wage labourers on other farms, especially when families are very poor. They mainly work as wage labourers when families are poor; otherwise, they prefer to stay home as a symbol of prestige and a symbol of wealth under MENA regional standards (Anik & Rahman 2021). Addressing these barriers and providing women with secure land tenure can improve their agricultural production productivity, income, and decision-making power.

5.1.4. Operational Family Size

Alemu et al. (2022) employed a multiple linear regression model to assess women farmers' participation in agricultural extension services for income and nutrition improvement in Ethiopia: the case of Becho district, South Western Oromia. The model result showed a strongly positive and significant influence of household size over women's empowerment. The literature shows that family size was another factor that affected the economic empowerment of rural women. The larger the household size, the more likely a woman is to be empowered in rural agricultural activities because family size is more related to the household efforts of rural women (Didana 2018). Households with large family sizes (in the productive age group) have been reported as one of the most important contributing variables for increased agricultural production, so it may favour the supply of labour for farm activities (Patrick 2022).

5.2. Socio-Cultural Factors

Cultural factors are the most proximate determinants of women's place and status in a given society (Baltenweck et al. 2021). In many societies, women have a subordinate status. It is documented in many studies that men feel that women's work is marginal or subordinate to what men do and consider it a wifely duty rather than work (Griffeth et al. 2018; Bernard et al. 2020). Similarly, women as well as men consider that men are responsible for performing 'heavy' and 'important' tasks, and they therefore are in charge of every privilege in the household. On the other hand, women are believed to engage in 'less important' work, and as a result, they enjoy less privilege. This is so believed despite the lack of a parameter that measures a given work to level it as either 'heavy' or 'important.'

According to Lokpobiri (2019), who bases themselves on direct matrix ranking and pilling methods, the time and labour demand of a given task taken to differentiate the nature of the disadvantageous position concerning access to resources is compounded by their lack of control over the use and management of such resources” (Patil & Babus 2018). Such lack is one of the reasons for women’s low levels of contribution to agricultural production work done by women and men. Accordingly, it is revealed that the longer the time and the more labour a certain task requires, the heavier the activity is. Moreover, some activities could be performed alongside other activities.

Powerful male supremacy norms dictate that a woman's status be defined only through the men who are responsible for her: father, husband, brother, and son (Griffeth et al. 2018). Within such a context of patriarchal values, women's work and economic contributions tend to be viewed as supplementary and auxiliary to men's work and breadwinning function. An implicit assumption is made that the woman is a mother and housewife; any productive work she carries out is considered socially secondary, an extension of her primary function, and thus it has tended to remain unnoticed, more so in the case of rural women. In societies with a rigid system of patriarchy, the norms, values, and social structures, create mechanisms that hide rural women's contribution to Third World agriculture, especially among the poor, and maintain the image of female dependency on men (Bernard et al. 2020).

5.3. Factors Affecting Women's Participation in Agricultural Production. A Case Study of Nigeria

With 34 million hectares of arable land, 6.5 million hectares of permanent crops, and 30.3 million hectares of meadows and pastures, Nigeria has a total agricultural area of 70.8 million hectares. Over 75% of Nigeria's population, who are primarily small-scale peasant farmers with one- to two-hectare farms in rural areas, depend on agriculture as their primary source of fresh produce, employment opportunities, and raw materials (Sasa et al. 2022). Except for planting, thinning, applying fertilizer, and harvesting, the majority of these peasant farmers are women. They actively participate in livestock production, especially small animal and dairy production, as well as post-harvest operations. Women make up a powerful and important labour pool for agricultural output in Nigeria, contributing 70% of labour to agriculture, 50% to animal husbandry, and 60% to food processing. Their involvement extended to every stage of the production process, including planting, weeding, irrigation, and the processing of agricultural products when the land was prepared (Nuhu et al. 2014).

Depending on the location, women are estimated to comprise between 60 and 80 percent of Nigeria's agricultural labour force and produce two-thirds of the country's food crops (Fabiya & Akande 2015; Baba et al. 2018) sadly and painfully concur with the previous report when they state that women make up roughly 60% of the labour force, produce 80% of the food, earn 10% of the revenue, and possess 1% of the farm's assets. However, in Nigeria, women have little voice in influencing agricultural decisions and regulations because men make the majority of farm management decisions at home and in society. Policies intended to boost food production and security either downplay or disregard the contribution of women to household decision-making in general and in production (Obayelu & Chime 2020).

Table 1. The Socio-Economic and Cultural Factors Influencing Women's Participation In Agricultural.

Factors Identified	Summary or Description of the Factors	Reference
Access to Land and Land Tenure System Issues	Due to customary authority, women typically hold less land. The average percentage of land owned by women in Nigeria was found to be substantially low, at less than 10%; in the North-East, it was 4%, while in the South-East and South-South, it was little over 10%. Furthermore, because they lack complete control over their land—a prerequisite for ensuring the supply of a consistent flow of produce—the majority of female farmers are presumably left out of contemporary contract farming arrangements due to uncertainty in the land tenure system.	(Chete 2018; Bakut et al. 2021).
Access to Finance and Agricultural Inputs	Less than 10% of the credit offered to small-scale farmers in Nigeria goes to female farmers. The bureaucratic maze, inappropriate loan amounts, and interest rates discourage women farmers from submitting official loan applications. It is also more challenging for female-headed businesses to be as successful and productive as male-headed ones due to the underlying sexism in the credit market.	(Echukwu 2022).

	<p>The precarious financial circumstances these women encounter frequently lead to difficulties obtaining essential agricultural inputs, including machinery, fertilizers, herbicides, and better seedlings. Female farmers have expressed that they cannot employ enhanced inputs because of their high cost on the open market. These factors reduce women's productivity by limiting their access to information about the input and output markets.</p>	
<p>Access to Agricultural Information</p>	<p>Due to societal hurdles, transportation facilities, and a need for more awareness, women's involvement in farmer training is frequently limited. Additionally, some women are unable to access information and communications technology (ICT) due to discriminatory cultural norms. In addition, the majority of rural women are constrained by illiteracy and a lack of formal education. The inability of rural women to manage and increase their productive potential results from their lack of education and illiteracy. Various variables that impact rural women's educational opportunities include social, political, religious, and economic aspects, many of which stem from discrimination against women.</p>	<p>(Adeyeye et al. 2019; Obayelu & Chime 2020).</p>

<p>Access to Agricultural Extension Services</p>	<p>The majority of Nigerian states still have cultural biases that prevent women from actively engaging in extension meetings and training sessions. As a result, government extension personnel have almost entirely failed to reach out to female farmers. The bulk of those providing these services have been men, and the extension agents have targeted male farmers or household heads while omitting families headed by women.</p>	<p>(Coker et al. 2018; Aimua et al. 2023).</p>
<p>Gender Division of Labour in Agriculture</p>	<p>Seventy-five percent of the country's farmers are women, who serve as labour suppliers and farm managers. Typically, different ethnic groups in the nation have different levels of female participation in agricultural output. Men typically handle the more labour-intensive jobs, like clearing ground and chopping trees, gathering and burning bush, and creating ridges, while women plant. In addition, women take part in the gathering, processing, selling, and weeding of agricultural produce.</p>	<p>(Baba et al. 2018; Chete 2018; Obayelu & Chime 2020).</p>

	<p>Instead of working on agricultural export commodities like cocoa, rubber, and cotton, Nigerian women are more often engaged in the production of food crops like corn, cowpea, melon, pepper, cassava, and vegetables, which bring in smaller amounts of money than export crops.</p>	
<p>Lack of participation in Farm management</p>	<p>Due to factors including age, education, land tenancy, and financial standing, women farmers in Nigeria are heavily involved in the agricultural sector, although their participation in farm management decision-making is relatively low. To increase women's access to essential farm inputs, including financing, and to increase their involvement in agriculture and its different decision-making processes, gender-specific policy initiatives were suggested.</p>	<p>(Oladokun et al. 2018; Ola 2020).</p>
<p>Lack of Agricultural Policy Deficiencies and other</p>	<p>Men are more likely to be selected for posts at the government level due to their higher educational attainment than women, which may be a contributing factor in the low representation of women in policy formulation. While it is evident that rural women's low socioeconomic level limits their ability to participate extensively in agricultural production, other factors, such as their assigned duties as caregivers,</p>	<p>(Owolabi et al. 2011).</p>

Socio-Economic Factors	homemakers, and child carriers, also contribute to this limitation. Their inability to participate in farm chores is a result of their pregnancy. This implies further that women's pregnancies may result in a reduction in the supply of domestic farm labour.	
Tradition of the people	The values that underpin people's traditions, conventions, beliefs, and practices are known as culture. These ideals may prohibit women from engaging in or accessing agricultural operations, instead of establishing male dominance and superiority in rural communities. Women are viewed and treated as the weaker mate or lesser of the species in many cultures, primarily in rural institutions. They consider that a lady marries a family, not a man. The justification of traditional practices that involve extorting wealth, properties, farms, and authority from the widows of male relatives hinders women's participation in agricultural operations.	(Owolabi et al. 2011; Olayide et al. 2021).

5.4. Social-Cultural Factor of Women in Agriculture Productivity in Nigeria as Compared to Ghana, Rwanda, and South Africa

In this review, Rwanda recorded the highest (51%) level of issues involved in social-cultural activities than other countries, as shown in Figure 2. This suggests that Rwanda could be facing issues in women's agriculture development compared to other countries. The agricultural sector accounts for a third of Rwanda's GDP, and more than 70 percent of Rwandan women have been farming since childhood. Yet they don't have the same access to land, production inputs, finance, or markets as men. As a result, women farmers are mostly relegated to subsistence farming. While their families rely on their harvests as the main source of food and nutrition, the lack of quality agricultural inputs and technology reduces the yield and diversity of their crops. This in turn impacts the food and nutritional security of their families.

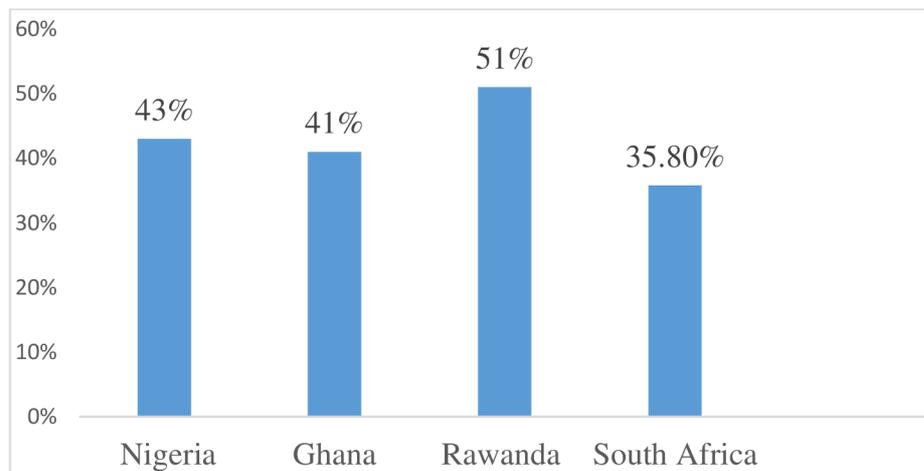


Figure 2. Social-cultural factor of women in agriculture productivity in Nigeria as compared to Ghana, Rwanda, and South Africa. Source: (Awili et al. 2016; Adeyeye et al. 2019)

Nigeria is the second with 43% indicating that gender issues are poorly addressed in research on vulnerability in agriculture with implications for food security in Nigeria.

They account for 70% of agricultural workers, 80% of food producers, and 100% of those who process basic foodstuffs and they undertake from 60% to 90% of the marketing. Four of the ten agricultural workers in the world are women. Failure to acknowledge women's roles will make human society's developmental efforts practically impossible due to the unique functions embedded in each gender. Therefore, an essential tool for society's development is understanding gender roles from the traditional African perspective, which is imperative for Africa's sustainable development.

6. **The Effectiveness of Existing Policies and Programs Promoting Women's Empowerment in Agriculture**

According to Griffeth et al. (2018), female farmers in Nigeria yield 30% less per hectare than male farmers. This low productivity level is caused by several variables. Women run businesses with lower capitalization and use a lot less inputs than men, who use 50% more herbicide and almost eight times more fertilizer per hectare. Additionally, female plot managers are said to use male labour which is noticeably less productive than that of male managers. This difference in productivity may be because women have less time to adequately supervise employees or do not have the money to hire more productive personnel. Similarly, female business owners typically sell their produce to consumers directly as opposed to companies, which lowers their profit margin by 46% when compared to companies that sell to traders or other businesses. As a result, the Nigerian government has implemented various institutions and policies to deal with this problem.

Table 2. Effectiveness Of Existing Policies and Programs Promoting Women's Empowerment in Agriculture. A Case Study in Nigeria

Institution Facilitating Policies	Summary or Description of the Policies	Reference
National Gender Policy in Agriculture (NGPiA)	The policy seeks to advance the production of small livestock and agribusiness, create equal access to land and increase awareness of existing credit services, facilitate access to mechanization, gender-sensitively distribute inputs, enhance the businesswomen farmers, and distribute information on market access and extension services through Farmer Field Schools.	(Adebayo et al. 2018; Coker et al. 2018; Lokpobiri 2019).
The National Gender Policy on Agriculture	The National Gender Policy on Agriculture was introduced by Nigeria in 2019, to ensure that women have equal access to and control over productive resources, the policy seeks to encourage the development of gender-sensitive and responsive techniques in the agricultural sector. The promotes public knowledge, understanding, sensitization, and collaboration with established women's groups, and cooperatives and increases the engagement of women farmers in agricultural decision-making.	(Odunze Daisy Ifeoma 2019).

<p>Community-based Agriculture and Rural Development (CBARDP)</p>	<p>The program is jointly funded by the International Fund for Agricultural Development (IFAD) and the Federal Government of Nigeria with a focus on eight participating states namely Borno, Jigawa, Kano, Katsina, Kebbi, Yobe, and Zamfara. Through various outreach programs, women farmers have been empowered through improved farming practices that have ultimately increased yields and family income. This program has created vast employment opportunities for rural women and small-scale entrepreneurs.</p>	<p>(Coker et al. 2018; Albert et al. 2021).</p>
<p>Agricultural Promotion Policy (APP)</p>	<p>This provides access to technical training and financial services for women farmers and decreases gender bias in land allocation.</p>	<p>(Albert et al. 2021).</p>
<p>The Graduate Unemployed Youth and Women Agro-Preneur Support Program (GUYS), The Women and Youth Empowerment Program (WYEP)</p>	<p>This was introduced to break down barriers to financing, expertise, and agriculture information, these policies/programs offer women in-kind subsidies, training, and business support.</p>	<p>(Abdullahi et al. 2021).</p>

<p>Agro- Processing Productivity Enhancement and Livelihood Improvement Support Project (APPEALS)</p>	<p>This policy involves providing female smallholder farmers and agripreneurs with capacity-building workshops on soft skills like negotiation, dispute resolution, and leadership.</p> <p>One such is the yearly Women in Agriculture conference, which aims to transform the perception of women working only in the less lucrative sectors of food and agriculture by showcasing the accomplishments of these women agripreneurs.</p>	<p>(Adebayo et al. 2018).</p>
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6.1. Effectiveness in Policies of Women in Agriculture Productivity in Nigeria as Compared to Ghana, Rwanda, and South Africa

In this review, the effectiveness of policies was higher in South Africa (75.45%) than in Ghana (57.81%) as compared to Nigeria, as shown in Figure 3. However, there was a significant reduction in the effectiveness of policies in other countries as compared to South Africa, which can be related to the fact that other African countries' governments lack coordinated planning and implementation of policies, which delays sustainable agriculture, even though there is a consensus that it can lead to overall economic growth. Many programs need to be more effectively implemented due to physical dispersal and a biased gendered approach. Furthermore, a lack of information-gathering systems focusing on gender also contributes to challenges facing other country's agricultural economic sustainability.

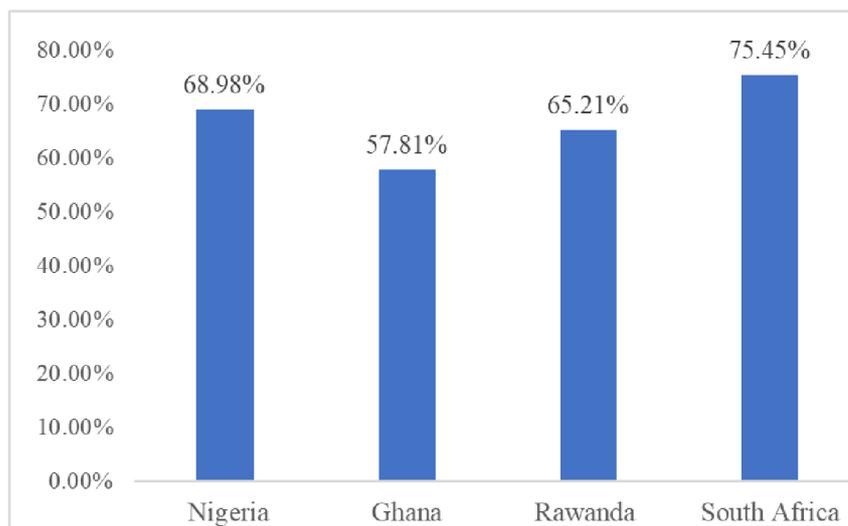


Figure 3. The effectiveness of policies of women in agriculture productivity in Nigeria as compared to Ghana, Rwanda, and South Africa. Source: (Chete 2018; Aimua et al. 2023)

However, most countries lack monitoring and evaluation even when the policies have been implemented. Most of the policy's effectiveness in agriculture is mainly managed by the white farmers who are experienced enough to facilitate, monitor, and evaluate policies that can be as coverage for women which are the engine room of agriculture production. Agriculture in South Africa has a central role to play in building a strong economy and, in the process, reducing inequalities by increasing incomes and employment opportunities for the poor, while nurturing the inheritance of natural resources. To achieve this is a formidable challenge to the Government, and in this policy document, has been explained how the intend to meet the challenge.

7. Conclusion and Recommendations

Objective one aimed to identify the role of women in different agriculture sectors. It was found that women participated more than men in crop production, and men performed best in livestock production. Female farmers have comparatively less access to markets, land, finance facilities, and extension services. The structural disadvantage that female farmers experience results from their frequent inability to acquire land, implement irrigation, and implement agriculture. The recommendation is that gender differences in socio-emotional skills and noncognitive talents, such as risk tolerance, motivation, and interpersonal skills, should be applied to differences in crop choice. Also, lobbying and education programs to address cultural behaviours that might impede women's productivity in various crop productions should be discouraged. Small incentives combined with a couples' workshop on changing norms regarding crop and livestock choice and women's land rights should be implemented. This, in turn, led to a significant increase in women's participation in high-value activities like crop and livestock production, marketing, and sales, as well as improvements in women's agency and control over productive resources.

Objective two aims to examine the socio-economic and cultural factors influencing women's participation in agricultural production, showing that factors such as household farm size, household income, access to own property, operationally, family size, and traditional beliefs were hindrances to women participating in agricultural production. It is recommended that land policy rules: (1) make it mandatory for spouses to jointly own land, and (2) prohibit customary landowner men from selling their property without their wives' permission. If there are no such rules, it ought to be required for males selling land to have their spouses' written consent.

(2). Give widows access to their husband's property. (3). Permit daughters to inherit their parents' land should be adopted. The agricultural and administrative authorities should work to raise the literacy rate among farmers, especially those who are led by women. Programs for adult literacy education for women farmers are necessary to support them in gaining the fundamental knowledge and skills needed to ask for and receive agricultural information from extension agents. They will read newsletters, bulletins, extension leaflets, and other materials more frequently as a result.

Objective three aimed to assess the effectiveness of existing policies and programs promoting women's empowerment in agriculture and found that women's policies are deprived because most girls and women are not educated. However, women are not involved in decision-making. Loan and policy offices. The recommendation is that policies and programs promoting women's empowerment in agriculture should be promoted by adopting girls and women in rural areas in the agricultural sectors and also choosing and giving positions where they can assist in decisions and policy-making, Therefore, leasing or employing such services might be a good policy solution.

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