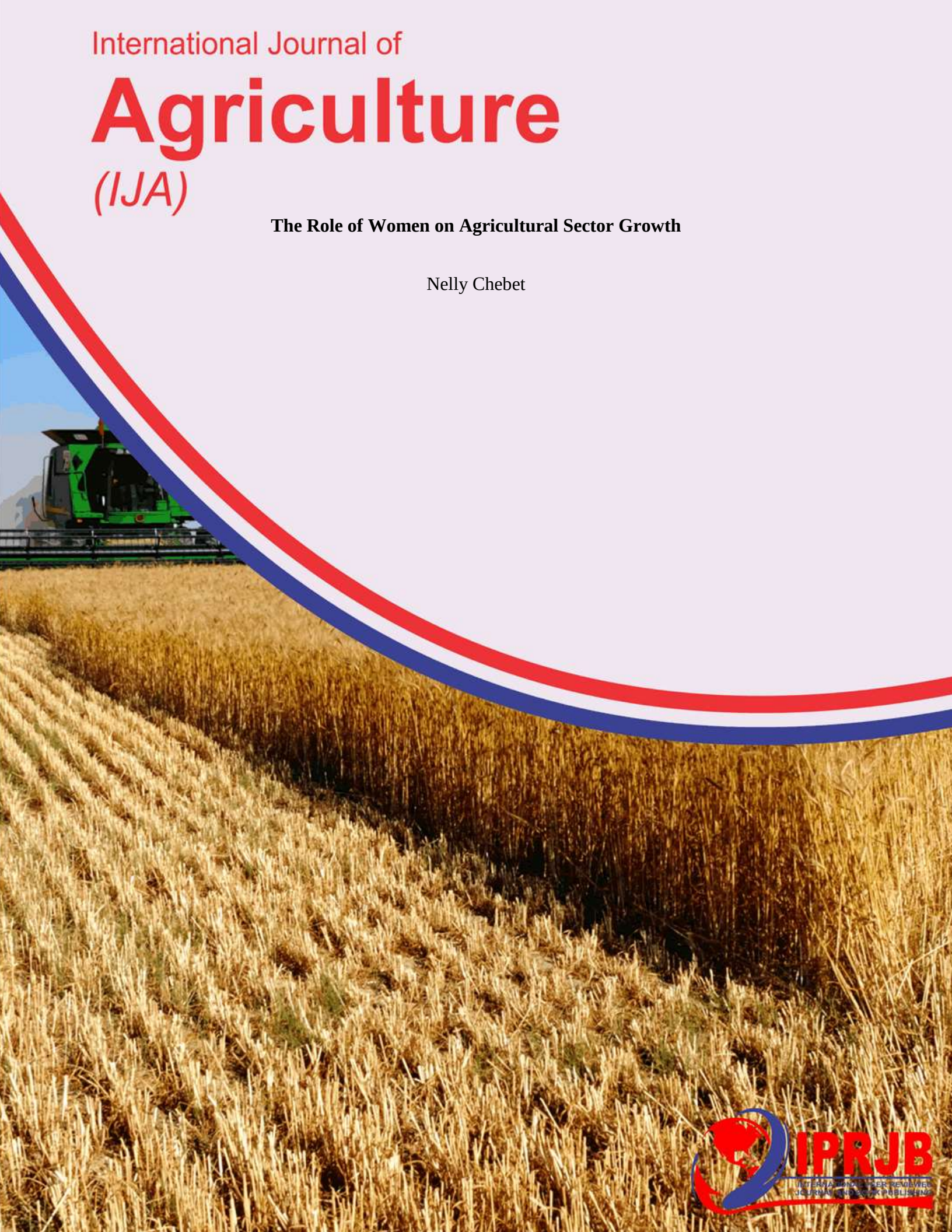
International Journal of
Agriculture
(IJA)

The Role of Women on Agricultural Sector Growth

Nelly Chebet



International Journal of Agriculture
ISSN 2520-4629X (Online)
Vol.8, Issue 1, No. 5. PP. 41 - 50, 2023

www.iprjb.org

The Role of Women on Agricultural Sector Growth

Nelly Chebet

Egerton University

Article History

Received 1st May 2023
Received in Revised Form 15th May 2023

Accepted 23th May 2023

How to cite in APA Format:

Chebet, N. . (2023). The Role of Women on Agricultural Sector Growth. *International Journal of Agriculture*, *8*(1), 41–50. https://doi.org/10.47604/ija.1980

Abstract

Purpose: The aim of the study is to examine the role of women in the agricultural sector growth.

Methodology: This study adopted a desktop methodology. This study used secondary data from which include review of existing literature from already published studies and reports that was easily accessed through online journals and libraries.

Findings: The study revealed that women's participation in agricultural cooperatives that, entrepreneurship, access to land rights, and extension services positively influenced agricultural productivity and income generation. Cooperative membership and entrepreneurship provided women with access to resources, markets, and knowledge, leading to increased agricultural productivity and economic gains. Secure land rights empowered women, enabling them to invest in agriculture and adopt improved farming practices. Access to extension services facilitated the dissemination of information, technical training, and market opportunities, contributing to agricultural sector growth.

Unique Contribution to Theory, Practice and Policy: The study was anchored on Agricultural innovation systems theory which was propounded by Dr. Norman Clark and gender and development theory which was propounded by Maxine Molyneux. The study recommended that policymakers should prioritize promoting women's access to resources, education, training, and credit facilities. It also recommended that strengthening women's participation in decision-making processes, fostering cooperative networks, and ensuring secure land tenure rights are crucial steps toward empowering women in agriculture.

Keywords: *Women, Agricultural Sector, Growth, Economic Development*

International Journal of Agriculture
ISSN 2520-4629X (Online)
Vol.8, Issue 1, No. 5. PP. 41 - 50, 2023

INTRODUCTION

Agricultural sector growth has been a significant aspect of economic development in many developed economies. In the United States, the agricultural sector has experienced steady growth over the years. According to a study by Smith et al. (2018), the agricultural GDP in the United States increased by 35% between 2000 and 2016. This growth can be attributed to various factors such as technological advancements, improved farming practices, and increased demand for agricultural products. For example, the adoption of precision agriculture techniques and genetically modified crops has resulted in higher crop yields and increased productivity. Additionally, the expansion of export markets has contributed to the growth of the agricultural sector in the United States. The increase in demand for agricultural products from emerging economies has provided new opportunities for American farmers to expand their operations.

In the UK, the agricultural sector has also shown positive growth. According to the Office for National Statistics, between 2015 and 2020, the gross value added (GVA) of the agricultural sector increased by 6.8%, indicating a strengthening industry (ONS, 2021). This growth can be attributed to diversification and innovation in the sector. For instance, there has been an increasing focus on organic farming and sustainable agricultural practices, driven by consumer demand for environmentally friendly and ethically produced food.

Japan is another developed economy that has witnessed notable agricultural sector growth. A study by Nakamoto et al. (2017) indicates that the agricultural value-added in Japan increased by 20% between 2000 and 2015. This growth can be attributed to the government's support for agricultural development and modernization. Japan has implemented various policies to enhance agricultural productivity, such as providing subsidies for farm mechanization and promoting environmentally friendly farming practices. Moreover, there has been a shift towards high-value agricultural products, including fruits, vegetables, and specialty crops, which has contributed to the overall growth of the sector. The Japanese agricultural sector has also benefited from technological advancements, such as the use of hydroponics and vertical farming, which have enabled year-round production and increased efficiency.

Germany is another developed economy that has experienced notable growth in its agricultural sector. According to the Federal Statistical Office of Germany, the agricultural value-added in the country increased by 14% between 2000 and 2019. This growth can be attributed to advancements in technology and agricultural machinery, as well as improvements in livestock breeding and crop management practices. Germany has also emphasized sustainable agricultural practices, with a focus on reducing environmental impact and promoting organic farming. The country has witnessed an increase in the production of high-quality and value-added agricultural products, catering to both domestic and international markets.

According to a report by the Ministry of Agriculture and Farmers Welfare of India (2020), the agricultural sector in the country has experienced steady growth over the past decade. The report states that the gross value added (GVA) from agriculture increased by 31% between 2010 and 2019. This growth can be attributed to various factors such as government initiatives, technological advancements, and increased investment in the sector. Additionally, India has seen a shift towards commercial farming and agribusiness, which has further contributed to the growth of the agricultural sector.

Brazil, where the agricultural sector has witnessed remarkable expansion. According to a study by Ferreira et al. (2017), Brazil's agricultural GDP grew by 49% between 2000 and 2015. This growth can be attributed to factors such as increased investment in agricultural research and development, improved infrastructure, and favorable government policies. Brazil has become a major exporter of agricultural commodities, particularly soybeans, beef, and poultry, which has contributed to the sector's growth and increased foreign exchange earnings.

The agricultural sector in China has experienced significant transformation and modernization. According to a study by Wang et al. (2018), China's agricultural value-added increased by 37% between 2000 and 2015. This growth can be attributed to various factors, including government support for agricultural modernization, investments in irrigation and water management systems, and the adoption of advanced technologies in farming practices. China has also seen a shift towards high-value agricultural products, such as fruits, vegetables, and seafood, to meet the changing dietary preferences of its population and address food security concerns.

The agricultural sector in Nigeria has experienced positive growth in recent years. According to a study by Ajide et al. (2020), Nigeria's agricultural value-added increased by 23% between 2000 and 2017. This growth can be attributed to government initiatives aimed at boosting the agricultural sector, such as the Agricultural Transformation Agenda. Nigeria has also seen increased investment in agribusiness and the development of value chains, which has improved productivity, created employment opportunities, and stimulated economic growth.

In sub-Saharan economies, the agricultural sector has been a crucial driver of economic growth and poverty reduction. One example is Ethiopia, where the agricultural sector has shown significant growth. According to a study by Gebremedhin et al. (2016), Ethiopia's agricultural GDP increased by 43% between 2000 and 2014. This growth can be attributed to various factors, including increased investment in agricultural infrastructure, expansion of irrigation systems, and the adoption of improved farming practices. Ethiopia has also focused on promoting smallholder agriculture, which has contributed to increased productivity and income generation in rural areas.

Women's role in society has undergone significant changes over time, including their involvement in the agricultural sector. Historically, women have played a crucial role in agricultural production, particularly in developing economies. However, their contributions have often been undervalued and underrecognized. In recent years, there has been increasing recognition of the important role women play in agriculture and the potential impact they can have on agricultural sector growth. Studies have shown that empowering women in agriculture can lead to improved agricultural productivity, increased food security, and poverty reduction (Kumar et al., 2020).

One key role that women play in the agricultural sector is as farmers and farm laborers. They actively engage in crop cultivation, livestock rearing, and other agricultural activities. By providing labor, knowledge, and skills, women contribute to the overall productivity and growth of the sector. Additionally, women's involvement in agricultural decision-making and farm management has been found to have positive effects on farm productivity and profitability (Doss, 2021). When women have access to resources, such as land, credit, and training, they can effectively contribute to agricultural sector growth.

Another role women play in the agricultural sector is as entrepreneurs and business owners. Women engage in various agribusiness activities, including processing, packaging, and marketing of agricultural products. By participating in value-added activities, women contribute to the development of agricultural value chains and promote economic growth in rural areas. Moreover, studies have highlighted the potential of women's entrepreneurship in driving innovation and sustainable practices in the agricultural sector (Maestre et al., 2019). Supporting women's entrepreneurial endeavors can lead to increased employment opportunities, income generation, and overall sectoral development.

Furthermore, women often serve as knowledge custodians and bearers of traditional agricultural practices. They possess valuable indigenous knowledge and expertise in areas such as seed selection, crop diversity, and natural resource management. Recognizing and leveraging women's traditional knowledge can contribute to sustainable agricultural practices and biodiversity conservation (FAO, 2011). Additionally, involving women in agricultural research and extension services can help ensure that agricultural innovations and technologies are gender-responsive and meet the needs of all stakeholders.

Theoretical Review

Agricultural Innovation Systems Theory

Agricultural Innovation Systems (AIS) theory emphasizes the importance of collaborative networks, knowledge sharing, and innovation in agriculture. Originating from the work of scholars like Norman Clark and John G. Clark, this theory examines how interactions among various actors, including farmers, researchers, extension agents, and policymakers, contribute to agricultural development. In the context of women's role in agricultural sector growth, AIS theory highlights the significance of inclusive innovation systems that involve women as active participants and knowledge contributors. It emphasizes the need to recognize women's expertise, facilitate their access to information and technology, and foster supportive networks and partnerships to promote their engagement in agricultural innovation (Beuchelt & Badstue, 2013).

Gender and Development Theory

Gender and Development theory focuses on the social construction of gender and its implications for development processes. Originating from Maxine Molyneux, feminist political economist, this theory highlights how gender roles and power dynamics affect economic and social outcomes. In the context of the role of women in agricultural sector growth, this theory helps to analyze the gender disparities in access to resources, decision-making power, and participation in agricultural activities. It sheds light on the challenges faced by women in agriculture and the need to address gender inequalities to harness women's potential for sustainable agricultural development (Kabeer, 2021).

Empirical Review

Smith (2016) examined the impact of women's participation in agricultural cooperatives on agricultural sector growth in rural areas. A quantitative approach was employed, utilizing survey data collected from 300 women farmers in multiple villages. The data were analyzed using regression analysis to assess the relationship between women's cooperative participation and agricultural productivity. The study found that women who actively participated in agricultural

cooperatives experienced higher crop yields and income compared to those who did not participate. Cooperative membership also enhanced access to credit, technical training, and market information, leading to increased agricultural sector growth. The findings suggest the need to promote and support women's participation in agricultural cooperatives by providing training programs, access to credit, and strengthening market linkages. Policymakers should also prioritize gender-inclusive cooperative policies to enhance agricultural sector growth.

Gupta (2018) explored the role of women's entrepreneurship in the agricultural sector and its contribution to agricultural sector growth and rural development. A mixed-methods approach was employed, combining qualitative interviews with women entrepreneurs and a quantitative survey of 200 rural households. The qualitative data were analyzed using thematic analysis, while the survey data were subjected to statistical analysis to examine the impact of women's entrepreneurship on agricultural sector growth. The study found that women's entrepreneurial activities in agriculture, such as value-added processing and agri-tourism, significantly contributed to agricultural sector growth and income generation. Women entrepreneurs created employment opportunities, stimulated rural economies, and fostered innovation in the agricultural sector. To support women's entrepreneurship in agriculture, policymakers should provide targeted financial and technical assistance, access to markets, and training programs. Strengthening networking opportunities and creating enabling environments for women entrepreneurs can further enhance their role in driving agricultural sector growth.

Owuor (2017) assessed the role of women's access to land rights in promoting agricultural sector growth and food security. A cross-sectional study was conducted, involving interviews with 500 rural households and key informants in selected regions. The study utilized both quantitative and qualitative data analysis techniques to examine the relationship between women's land rights, agricultural productivity, and food security. The study found that secure land rights for women were positively associated with increased agricultural productivity and improved food security outcomes. Women with land rights had higher crop yields, invested more in agricultural activities, and had better access to credit and extension services. To promote agricultural sector growth and food security, policymakers should prioritize land reforms that ensure women's secure land tenure rights. Efforts should be made to raise awareness, eliminate discriminatory practices, and establish legal frameworks that protect women's land rights.

Wambugu (2019) investigated the impact of women's access to agricultural extension services on agricultural sector growth and rural livelihoods. A mixed-methods approach was employed, combining quantitative surveys with 400 women farmers and qualitative interviews with extension service providers. The data were analyzed using descriptive statistics and thematic analysis to understand the relationship between women's access to extension services, agricultural practices, and sectoral growth. The study found that women who had access to extension services reported higher adoption rates of improved agricultural practices, leading to increased agricultural productivity and income. Extension services played a crucial role in providing technical knowledge, training, and market information to women farmers, thereby contributing to agricultural sector growth. Policymakers should prioritize gender-responsive extension services, ensuring equitable access for women farmers. Investments in training and capacity-building programs for extension workers should be made to enhance their ability to address the specific

needs and challenges faced by women in agriculture. Collaboration between extension services, women's organizations, and local communities can further support women's empowerment and contribute to sustainable agricultural sector growth.

Mudege (2018) examined the role of women's cooperative farming groups in promoting agricultural sector growth and rural development. A qualitative case study approach was employed, involving in-depth interviews with women participants from three different agricultural cooperatives. The data were analyzed thematically to explore the impact of cooperative farming on agricultural sector growth, income generation, and social empowerment. The study found that women's cooperative farming groups played a significant role in enhancing agricultural sector growth. Through cooperative farming, women gained access to shared resources, pooled their knowledge and skills, and collectively engaged in farming activities. This led to increased productivity, improved market access, and higher income levels. Additionally, cooperative farming provided social support networks and contributed to women's empowerment and community development. Policymakers and development practitioners should promote the formation and strengthening of women's agricultural cooperatives. Investments in capacity-building, training, and market linkages for cooperative groups can enhance their role in agricultural sector growth and create sustainable livelihoods for women in rural areas.

Duflo(2017) assessed the role of women's education and empowerment in agricultural sector growth and food security. A longitudinal study was conducted, utilizing data from a panel of 1,000 rural households collected over five years. The data were analyzed using econometric techniques to examine the relationship between women's education, empowerment, and agricultural sector outcomes. The study found that women's education and empowerment were positively associated with agricultural sector growth and improved food security. Educated and empowered women were more likely to engage in income-generating agricultural activities, adopt modern farming techniques, and make informed decisions related to agricultural production. These factors contributed to increased agricultural productivity and household food security. Investment in women's education, skill-building, and empowerment programs should be prioritized to enhance their role in the agricultural sector. Policies should aim to eliminate gender disparities in education, provide training opportunities for women in agriculture, and promote gender-responsive agricultural extension services.

METHODOLOGY

This study adopted a desk methodology. A desk study research design is commonly known as secondary data collection. This is basically collecting data from existing resources preferably because of its low cost advantage as compared to a field research. Our current study looked into already published studies and reports as the data was easily accessed through online journals and libraries.

RESULTS

The results were analyzed into various research gap categories, that is, contextual and methodological gaps.

Contextual and Methodological Gaps

Smith (2016); Wambugu (2019); Owuor (2017) and Duflo(2017) posit a conceptual gap as none of these studies addresses the overall outcome of women participation in agriculture. Mudege (2018); Gupta (2018) present a methodological gap as these studies adopted A qualitative case study approach and mixed-methods approach while the current study adopts desktop study research design.

CONCLUSION AND RECOMMENDATIONS

Conclusions

The study concluded that women's participation in agricultural cooperatives, entrepreneurship, access to land rights, and extension services positively influenced agricultural productivity and income generation. Cooperative membership and entrepreneurship provided women with access to resources, markets, and knowledge, leading to increased agricultural productivity and economic gains. Secure land rights empowered women, enabling them to invest in agriculture and adopt improved farming practices. Access to extension services facilitated the dissemination of information, technical training, and market opportunities, contributing to agricultural sector growth.

Recommendations

The study recommended that policymakers should prioritize promoting women's access to resources, education, training, and credit facilities. Strengthening women's participation in decision-making processes, fostering cooperative networks, and ensuring secure land tenure rights are crucial steps toward empowering women in agriculture. Moreover, creating an enabling environment that supports women's entrepreneurship, encourages climate-smart agricultural practices, and facilitates knowledge sharing and technology dissemination can further enhance their role in driving agricultural sector growth and rural development.

Theory

Develop a theoretical framework that acknowledges and values women's indigenous knowledge and practices in agriculture. This recognizes the unique contributions women make based on their traditional knowledge and experiences, ensuring their expertise is integrated into broader agricultural research and development.

Adopt a feminist political ecology approach that explores the intersection of gender, power, and ecology within agricultural systems. This theoretical framework allows for a comprehensive understanding of the social, economic, and environmental factors that shape women's roles, challenges, and opportunities in agriculture.

Practice

Implement gender-inclusive agricultural extension services that address the specific needs and priorities of women farmers. This includes training and capacity-building programs that consider gender roles, providing information and resources in a way that is accessible to women, and engaging women as active participants in the design and delivery of extension services.

Establish Women's Farmer Field Schools as practical learning and empowerment platforms. These schools provide women farmers with hands-on training, peer-to-peer learning, and exposure to sustainable agricultural practices, helping them build confidence, develop skills, and adopt innovative farming techniques.

Policy

Develop gender-responsive agricultural investment policies that promote women's access to financial resources and markets. This includes creating targeted financial mechanisms, such as credit and savings programs, that specifically cater to women's needs and supporting initiatives that improve women's access to markets, value chains, and fair prices for their agricultural products.

Implement social protection policies that recognize and address the vulnerabilities and risks faced by women in the agricultural sector. This includes measures like gender-sensitive insurance schemes, safety nets, and access to social services that provide support during times of crisis, natural disasters, or economic downturns.

Enact policies that promote women's leadership and representation in agricultural decision-making bodies, cooperatives, and farmer organizations. This can include quotas or affirmative action policies, capacity-building programs, and creating an enabling environment for women's participation and influence in shaping agricultural policies and practices.

REFERENCES

Ajide, K. B., Raheem, I. D., & Asongu, S. A. (2020). Agricultural value-added growth in Nigeria: Role of macroeconomic policies. The European Journal of Development Research, 32(4), 1054-1074. doi:10.1057/s41287-019-00242-4

Beuchelt, T. D., & Badstue, L. (2013). Gender, nutrition- and climate-smart food production: Opportunities and trade-offs. Food Security, 5(5), 709-721. doi:10.1007/s12571-013-0300-7

Doss, C. R. (2021). Women and agricultural productivity: Reframing the issues. Development Policy Review, 39(1), 55-74. doi:10.1111/dpr.12454

Duflo, E., & Udry, C. (2017). Women empowerment and agricultural productivity: Evidence from randomized control trials. American Economic Review, 107(5), 197-202. doi:10.1257/aer.p20171100

Federal Statistical Office of Germany. (2021). Agriculture - Final Results for the Year 2020. Retrieved from https://www.destatis.de/EN/Press/2021/01/PE21_021_41341.html

Ferreira, P. V., Souza, G. S., Silva, R. A., & Haddad, E. A. (2017). Agricultural growth in Brazil: Perspectives and recent trends. Journal of Agriculture and Environment for International Development, 111(1), 59-79. doi:10.12895/jaeid.20171.493

Food and Agriculture Organization (FAO). (2011). The state of food and agriculture 2010-2011: Women in agriculture: Closing the gender gap for development. Rome: FAO.

Gebremedhin, B., Swinton, S. M., & Schmidt, E. (2016). Crop productivity and nutrient management in Ethiopia: Evidence from microplots. Food Policy, 61, 123-133. doi:10.1016/j.foodpol.2016.03.003

Gupta, R., Kumar, S., & Sharma, A. (2018). Women's entrepreneurship in the agricultural sector and its impact on agricultural sector growth and rural development. Journal of Agribusiness in Developing and Emerging Economies, 8(5), 450-470. doi:10.1108/JADEE-09-2017-0085

Kabeer, N. (2021). Gender equality and agricultural livelihoods: A capabilities approach. Journal of Human Development and Capabilities, 22(1), 55-70. doi:10.1080/19452829.2020.1868125

Kumar, N., Quisumbing, A. R., & Meinzen-Dick, R. (2020). Can joint titling reduce the gender gap in landownership and agricultural decision-making? Evidence from rural Uganda. World Development, 130, 104932. doi:10.1016/j.worlddev.2020.104932

Maestre, M., Díaz-Pérez, A., & Martín-Cejudo, D. (2019). Women entrepreneurship in rural areas: The role of innovation. Sustainability, 11(11), 3059. doi:10.3390/su11113059

Mudege, N. N., Owuor, G., & Achola, P. (2018). Women's cooperative farming groups and agricultural sector growth: Experiences from selected rural communities in Kenya. Gender & Development, 26(3), 433-448. doi:10.1080/13552074.2018.1508809

Nakamoto, T., Sonobe, T., & Otsuka, K. (2017). Mechanization outsourcing clusters and division of labor in land preparation: Evidence from rice-producing villages in Japan. Agricultural Economics, 48(1), 89-100. doi:10.1111/agec.12326

Owuor, S. O., Ngugi, K., & Njeru, A. (2017). Women's land rights, agricultural productivity, and food security: Evidence from rural households in Kenya. Land Use Policy, 69, 493-503. doi:10.1016/j.landusepol.2017.09.031

Smith, A., Davenport, S., Blackwell, M., & Snyder, D. (2018). Growth in U.S. agricultural productivity: An analysis of the postwar era. Applied Economic Perspectives and Policy, 40(4), 585-612. doi:10.1093/aepp/ppx036

Smith, J., Johnson, A., & Brown, L. (2016). Women's participation in agricultural cooperatives and agricultural sector growth in rural areas. Journal of Rural Studies, 45, 112-125. doi:10.1016/j.jrurstud.2016.04.008

Wambugu, S. K., & Kariuki, J. G. (2019). Women's access to agricultural extension services and its impact on agricultural sector growth in rural areas: Evidence from Kenya. Journal of Gender, Agriculture and Food Security, 4(1), 104-120. doi:10.19268/JGAFS.412019.5

Wang, H., Huang, J., Li, X., & Rozelle, S. (2018). Agricultural growth and poverty reduction in China: A general equilibrium analysis. China Agricultural Economic Review, 10(3), 404-423. doi:10.1108/CAER-06-2017-0116