Journal of Agricultural Extension
Vol. 30 (4) October, 2026
ISSN (e): 24086851; ISSN (Print): 1119944X
Website: https://www.journal.aesonnigeria.org; https://www.ajol.info/index.php/jae
Email: editorinchief@aesonnigeria.org; agricultural.extension.nigeria@gmail.com
Creative Commons User License: CC BY-NC-ND
This work is licensed under a Creative Commons Attribution-Non-Commercial 4.0 International License

Research Article

Gender Responsiveness of the Nigerian Agricultural Extension Policy based on the Food and Agriculture Organisation Gender in Agricultural Policies Tool

https://dx.doi.org/10.4314/jae.v30i4.4

Ifeanyi-obi, Chinwoke Clara
Department of Agricultural Extension and Development Studies, University of Port Harcourt, Rivers State, Nigeria
Email: clara.ifeanyi-obi@uniport.edu.ng
https://orcid.org/0000-0003-4816-6774

Akwiwu, Uzoamaka Nwugo
Corresponding Author
Department of Agricultural Extension and Development Studies, University of Port Harcourt, Rivers State, Nigeria
Email: uzoamaka.akwiwu@uniport.edu.ng
https://orcid.org/0000-0002-3198-6613

Mube-William, Elizabeth Chidinma
Department of Agricultural Extension and Development Studies, University of Port Harcourt, Rivers State, Nigeria
Email: yeyemube@gmail.com
https://orcid.org/0009-0002-9972-2160

Date Submitted: 16 May 2026
Date of First Request for Revision: 29 May 2026
Date of Revisions: 16 June, 11 August 2026
Date Accepted: 14 October 2026
Date Published: 30 October 2026
Cite as: Ifeanyi-obi, C.C., Akwiwu, U.N. & Mube-William, E.C. (2026). Gender responsiveness of the Nigerian agricultural extension policy based on the food and agriculture organisation gender in agricultural policies tool. *Journal of Agricultural Extension 30(4)* 36-47
Keywords: Gender-responsiveness in agricultural Extension policy, GAPo Tool, Women's empowerment, Nigeria
Data Availability Statement: No new dataset was generated in this study. The study used the GAPO Tool to assess an existing agricultural extension policy.
AI Use Declaration: No generative AI tools were used in the research, analysis, or writing of this manuscript.
Ethical Compliance: This study did not require ethical approval because it analysed publicly available data and did not involve human participants, personal information, or animal subjects. All procedures complied with institutional and national guidelines for research integrity
Informed consent: Informed consent was not required because the study used publicly available data and did not involve direct interaction with human participants.
Conflict of interest: The authors declare no potential conflict of interest.
Acknowledgement: The authors would like to acknowledge the African Women in Agricultural Research and Development (AWARD) for building capacity in the use of GAPo Tool
Funding: The authors did not receive any funding for this study
Authors' contributions:
ICC (45%): Conceptualisation, Policy assessment and interpretation of findings, writing the original manuscript, revision of manuscript.
AUN (35%).Writing the first draft, Discussion of findings, revision of manuscript
MEC (20%): Conceptualisation, policy assessment, writing the original manuscript

Abstract

The study analysed the gender responsiveness of the Nigerian Agricultural Extension Policy using the Food and Agriculture Organisation (FAO) Gender in Agricultural Policies Analysis Tool (GAPo Tool). Specifically, the study assessed how gender is integrated into the policy document's main features and components, examined gender considerations across six thematic areas essential

to promoting gender equality and women's empowerment, and assigned a gender integration level to the policy. A qualitative policy document analysis design was adopted, drawing on secondary data from the 2023 National Agricultural Extension Policy. Data were analysed through content analysis based on the GAPo assessment indicators. Findings revealed that the policy incorporated gender-responsive provisions, including recognition of women's roles, promotion of gender equality, women's participation, and gender-related climate concerns. However, gaps existed in gender indicators, budgetary allocation, gender-based violence, land access, financial services, and value chains. The policy was classified under Level 4 of the FAO GAPo framework, indicating substantial but not fully transformative gender responsiveness. The study concludes that, although the policy reflects progress toward gender inclusion, structural and institutional gaps remain, and recommends stronger monitoring mechanisms, broader thematic integration of gender, and the adoption of gender-transformative strategies in the implementation of agricultural extension policy in Nigeria.

Introduction

Agriculture remains central to Nigeria's economy because it drives food production, creates jobs, sustains rural livelihoods, and contributes to national economic development (Musa et al., 2025). Within this sector, agricultural extension services are essential for enhancing productivity by facilitating the transfer of knowledge, innovations, and advisory support to farmers. In recent years, international agricultural development discourse has increasingly prioritised gender-responsive extension approaches that ensure fair, inclusive access to agricultural inputs, services, and opportunities for both male and female farmers. Gender responsiveness in agriculture refers to the deliberate incorporation of the distinct needs, responsibilities, and constraints of men and women into agricultural policies, programmes, and service delivery systems, with the aim of fostering equity, inclusion, and balanced participation in the sector (Singh et al., 2022; Acosta et al., 2025).

Women contribute significantly to agricultural production, food security, processing, and marketing activities, particularly in developing countries (Wanjiru, 2021). However, women farmers continue to face several gender-based constraints, including limited access to land, extension services, credit facilities, agricultural technologies, and decision-making opportunities (Njoku et al., 2025). Boudalia et al. (2024) observed that gender disparities in access to agricultural services and technologies continue to hinder women's adoption of climate-smart agricultural practices in Africa. Agricultural extension services have therefore become an important mechanism for empowering women farmers through improved access to information, innovations, and capacity-building opportunities. According to Siaw et al. (2024), agricultural extension contributes significantly to women's empowerment and agricultural development. Similarly, Ifeanyi-obi and Tolumoyi (2025) found that extension services improved farmers' utilisation of climate change adaptation practices, although disparities existed between male and female farmers.

In Nigeria, the National Agricultural Extension Policy was developed to strengthen extension service delivery and support agricultural transformation. The policy promotes a pluralistic, market-oriented, and ICT-enabled extension system to improve agricultural

productivity and rural development. However, increasing attention is being directed toward the extent to which agricultural policies integrate gender considerations and address the unique challe nges faced by women farmers. Asanwana and Uloh (2025a) noted that gender-responsive agricultural extension policies are essential for promoting rural women's empowerment and inclusive a

gricultural development. Likewise, Nkanta et al. (2025) reported that gender inclusivity influences the responsiveness and effectiveness of agricultural services among farmers.

Despite growing advocacy for gender-responsive agricultural development, gender inequalities still persist within agricultural extension systems in Nigeria. Women farmers often have less access to extension services than men due to institutional, socio-cultural, and economic barriers (Ekanem & Uloh, 2025; Adekola et al., 2026). Although several studies have examined gender disparities in agricultural service delivery and women's empowerment, limited studies have specifically analysed the gender responsiveness of the Nigerian Agricultural Extension Policy using a recognised policy assessment framework. For example, Asanwana and Uloh (2025b) focused on gender mainstreaming practices among extension agents, while Njoku et al. (2025) examined gender-based constraints in accessing agricultural resources. However, these studies did not assess the extent to which gender considerations are integrated into the Nigerian Agricultural Extension Policy itself. This creates a knowledge gap regarding the policy's responsiveness to gender issues in the delivery of agricultural extension services.

Inadequate integration of gender considerations into agricultural extension policies risks perpetuating existing disparities in women farmers' access to agricultural information, modern technologies, and productive resources. Increased inequality could subsequently have a detrimental impact on agricultural productivity and food security, as well as rural inclusive development goals. In this regard, the study sought to analyse gender integration in the Nigerian Agricultural Extension Policy through an analysis of the policy with respect to food and agricultural organisation gender in the Agricultural Policies Analysis Tool (FAO GAPo Tool). To achieve this, the study assessed the presence of gender aspects in key characteristics and components of the policy, determined the level of gender integration in six key theme areas that address gender equality and women empowerment issues and assigned a general level of gender integration to the policy, given the results.

Methodology

The research approach used in this study was qualitative policy document analysis to determine the gender responsiveness of Nigeria's 2023 National Agricultural Extension Policy (NAEP), by the application of the Food and Agriculture Organisation's Gender in Agricultural Policies Analysis Tool (GAPo Tool). Policy document analysis refers to a systematic analysis of policy texts to understand themes, patterns and policy direction on a particular issue under consideration in this study, the integration of gender into Agricultural Extension Policy documents.

The analysis of policy documents is entirely secondary data research; the data obtained in this study came from secondary sources- the official 2023 NAEP document released by the Federal Ministry of Agriculture and Food Security (FMAFS), Nigeria and which was used as the unit of analysis.

The analytical framework for this study was FAO's GAPo Tool (2018), designed by the Food and Agriculture Organisation in consultation with international partners to assess the gender responsiveness of agricultural policies and programmes. The GAPo tool was used to assess how the policy incorporates gender equality and women's empowerment values to align with international frameworks, such as Sustainable Development Goal 5 (SDG 5).

The GAPo tool is categorised into three sections. The first section is a general appraisal of gender inclusion in the policy document, using 15 Yes/No indicators. It examines whether the policy recognises women's roles and limitations in agricultural activities and whether it embraces policy formulation to foster gender equality, as well as the incorporation of gender equality goals, gender-responsive measures in the policies; adoption of sex-disaggregated data; promotion of strong institutional gender capacity; the integration of aspects such as the impact of climate change and climate variability on women, promotion of non-discriminatory social norms and gender-based violence. The second part of the tool explores how gender is incorporated into different policy thematic areas relevant for promoting gender equality and women's empowerment in agriculture; these include land access; rural organisations; access to financial services; rural employment; markets and value chains; and research, technology and rural advisory services. This section was assessed based on whether these thematic areas recognize women in relation to each theme; whether it incorporates targeted actions towards eliminating gender inequality among rural people with focus on women.

The third section of the GAPo Tool involves gender grading of the policy document. Based on the overall level of gender integration identified in the policy, the document was assigned a gender integration level ranging from Level 1 to Level 5. Level 1 represents policies that ignore gender inequalities or contain discriminatory provisions, while Level 5 represents gender-transformative policies that intentionally address unequal gender power relations through transformative strategies and measures.

Data analysis was conducted through content analysis. Relevant sections of the policy document were carefully reviewed and interpreted based on the indicators and thematic assessment criteria provided in the GAPo Tool. Findings were presented using descriptive narration and tables.

Results and Discussion

General Assessment of Gender Integration into the Main Features and Components of the Agricultural Extension Policy

As reported in Table 1, the Nigerian Agricultural Extension Policy contained some gender responsive provisions. It recognised the challenges faced by women farmers and articulated that gender equality and women's rights in rural areas are among its basic goals. Gender-responsive provisions included: steps taken to overcome gender inequalities and to ensure women's empowerment; promotion of women's participation in policy development and implementation; strengthening of gender capacities of agricultural institutions; ensuring the availability and use of sex-disaggregated data; addressing norms that discriminate against genders; and addressing the gender dimensions of climate change.

However, there were significant shortcomings in the policy: no gender-sensitive indicators were clearly laid out for monitoring and evaluation; it did not provide any reference to national or international instruments such as CEDAW or SDG 5; and there was no provision for specific actions against gender-based violence. Although Nigeria has an agricultural gender policy, no clear budgetary allocation for gender-related activities was identified in the extension policy document. Overall, the findings indicate moderate integration of gender considerations within the policy framework.

The findings suggest increasing recognition of gender inclusivity within agricultural extension policy in Nigeria. The inclusion of provisions on women's participation, gender equality, and capacity strengthening aligns with Asanwana and Uloh (2025a), who reported that gender-responsive agricultural extension policies enhance rural women's empowerment and inclusive agricultural development. The findings also support Siaw et al. (2024), who observed that gender-sensitive extension systems contribute to women's empowerment and participation in agriculture.

Recognising gender-discriminatory social norms and climate-related gender concerns further reflects the growing emphasis on inclusive, climate-responsive agricultural systems. This aligns with Boudalia et al. (2024) and Teklu et al. (2026), who emphasised that gender-responsive agricultural policies are necessary to address inequalities in the adoption of climate-smart agriculture and improve women's resilience.

Despite these positive provisions, the absence of gender indicators, budgetary commitments, and references to international gender frameworks suggests weak implementation and accountability mechanisms. Acosta et al. (2025) reported that many agricultural policies acknowledge gender issues but lack adequate operational mechanisms for effective gender mainstreaming, while Mashi (2026) highlighted weak implementation structures as a major challenge to the effectiveness of gender policy in Nigeria.

The exclusion of measures addressing gender-based violence also represents an important gap, as gender vulnerabilities often affect women's participation in agricultural activities and extension services. Perez et al. (2025) noted that institutional gender practices that fail to address structural inequalities may weaken inclusion efforts. These gaps may contribute to the continued gender disparities in access to extension services reported by Ekanem and Uloh (2025), Njoku et al. (2025), and Adekola et al. (2026).

Table 1: General assessment of gender integration into the main features and components of the nigerian agricultural extension policy

Statements	Remark
Women's contributions and/or challenges in agriculture and rural development recognized and/or addressed.	Yes
Gender equality in agriculture and/or rights of rural women explicitly stated policy objectives.	Yes
Contains policy actions to achieve the goals on reducing gender disparities and improving women's empowerment.	Yes
Recommends the full participation of rural women in policy design, implementation, monitoring, and evaluation.	Yes
Promotes use and generation of sex-disaggregated data to monitor and evaluate the impact of the policy.	Yes
Supports building gender capacities within agricultural institutions and agencies.	Yes
Includes separate budget lines for the suggested gender-related activities (where budget is presented in policy, otherwise, indicated as N/A).	N/A
Includes gender-disaggregated indicators in monitoring and evaluation (where indicators are specified in the policy, otherwise indicated as N/A).	No
Includes relevant national legal framework and mandates that are supportive to gender equality such as constitution, development plans, and gender policies.	No
References gender equality international commitments such as CEDAW, MDG 3, and SDG 5.	No
Includes explicit mention of measures against discriminatory gender norms and practices.	Yes
Gender issues integrated in designing of climate change adaptation strategies, disaster risk reduction activities etc.	Yes
Acknowledges existence or addresses GBV related issues.	No
The country has a national strategy or policy adopted, which is specific to rural women, or agriculture and rural development gender issues. (e.g., Policy for gender equality in the agricultural sector", "National Agricultural Strategy for Rural Women")	Yes
Other gender sensitive measures – please Specify	Nil

The Degree of Gender Mainstreaming in Six Thematic Areas

The degree of gender inclusion across six key thematic areas is considered essential to achieving gender equality and further promoting the empowerment of women in the agricultural sector.

As observed from the results in Table 2, the Nigerian Agricultural Extension Policy contained few indications of gender mainstreaming across the majority of thematic areas discussed. Thematic areas such as access to land, rural organizations, finance services, rural employment and agricultural market and value chain show poor attention towards gender equality and contained no specific measures for the problems encountered by rural women. However, considerations and women support interventions regarding gender were detected under thematic area on research, technology and rural advisory service delivery. The analysis, however, revealed that gender inclusion is considered only to a certain degree in agricultural knowledge and extension services delivery.

The findings suggest that the Nigerian Agricultural Extension Policy places greater emphasis on gender responsiveness in extension and advisory services than in other critical sectors that influence women's empowerment. Including gender considerations in research, technology, and rural advisory services supports the findings of Priya et al. (2026) and Asanwana and Uloh (2025a), who reported that gender-responsive extension approaches improve women's participation and empowerment in agriculture. Lecoutere et al. (2023) also observed that targeted agricultural information and extension support enhance women's empowerment outcomes.

The absence of gender considerations in areas such as land access, financial services, rural employment, and agricultural markets reflects persistent structural gaps within agricultural policy frameworks. Hounkpatin et al. (2025) noted that unequal land access limits women's productivity and autonomy in agriculture. Similarly, Akokuwebe et al. (2021) and Apeh et al. (2023) reported that women farmers in Nigeria continue to face barriers in accessing productive resources, financing opportunities, and markets. These limitations may weaken the effectiveness of gender mainstreaming efforts within the agricultural sector.

The omission of gender-sensitive measures in rural organisations and value chains may also reduce women's participation in agricultural decision-making and economic empowerment. Quisumbing et al. (2021) and Prithika et al. (2024) stressed that women's empowerment in agricultural value chains depends on inclusive institutions and equitable access to opportunities. The findings further imply that the policy adopts a narrow approach to gender responsiveness, focusing mainly on delivering extension services while overlooking broader socio-economic constraints affecting women farmers. This supports the observations of Acosta et al. (2025) and Mashi (2026), who argued that many agricultural policies acknowledge gender issues without adequately addressing the structural factors sustaining inequality.

Table 2: Assessment of gender considerations across key thematic areas in the nigerian agricultural extension policy

Section 2	Takes into account concerns relating to gender equality and the challenges faced by rural women.	Takes account of strategies that address gender equality and the challenges facing rural women.
Land	No	No
Rural Organisations	No	No
Financial Services	No	No
Rural Employment	No	No
Agricultural Markets and Supply Chains	No	No
Research, Innovation, and Rural Extension Services	Yes	Yes

Gender Level of the Agricultural Extension Policy Based on the General Assessment.

The Nigerian Agricultural Extension Policy was classified under Level 4 of the FAO GAPo gender integration framework. This implies that it recognises the gender inequality and crucial contributions women make in the agriculture sector and lays down the specific measures for advancing women's gender equality and empowerment. Thus, the policy did not attain Level 5 because it lacked clearly defined gender-transformative measures to address unequal power relations and harmful gender norms. The finding, therefore, suggests that the policy demonstrates substantial gender responsiveness, although important gaps still exist in achieving a fully gender-transformative policy framework.

The classification of the Nigerian Agricultural Extension Policy at Level 4 indicates that the policy goes beyond recognising women's participation in agriculture by incorporating measures to improve gender inclusion in extension service delivery. This supports the findings of Asanwana and Uloh (2025a), who reported that gender-responsive extension policies are essential for strengthening rural women's empowerment and inclusive agricultural development. The finding aligns with Siaw et al. (2024), who noted that gender-sensitive extension systems improve women's access to agricultural knowledge, encourage greater participation, and promote their role in decision-making.

The policy's inability to attain the highest gender integration level suggests that transformative strategies addressing structural inequalities and unequal gender relations remain limited. Singh et al. (2022) emphasised that gender-transformative approaches are necessary to challenge harmful social norms and achieve sustainable empowerment

outcomes for women in agriculture. Similarly, Acosta et al. (2025) reported that many agricultural policies in developing countries remain gender-responsive without adequately addressing institutional and socio-cultural barriers sustaining gender inequality.

The absence of gender-transformative measures may explain the persistent gender disparities in access to agricultural resources and extension services reported by Adekola et al. (2026), Ekanem and Uloh (2025), and Njoku et al. (2025). Mudege et al. (2025) further noted that entrenched gender norms continue to limit women's economic resilience and adaptive capacity within agricultural systems. The findings further imply that although the policy reflects progress toward inclusive agricultural policy development, stronger implementation frameworks and transformative strategies are still required to improve women's participation, autonomy, and access to agricultural opportunities within the extension system.

Table 3: Gender grading of the Nigerian agricultural extension policy using the FAO GAPo tool

Gender Integration Levels	
Level 1 No reference is made to gender inequalities, or measures that discriminate against or exclude women are presented. **Level 2** Existing gender inequalities in agriculture are recognized, or women's roles in agriculture are recognized, but no action or strategy to promote gender equality and the empowerment of women is presented. **Level 3** Gender inequalities and the role of women in agriculture are identified, and proposed measures are introduced to address gender inequality and women's empowerment, although such measures are too general in their description of action, or not accompanied by strategies and/or procedures. The concept of gender inequality may or may not be discussed extensively in the document at this level, but at least one action should be clearly linked to gender issues. **Level 4** Gender inequalities and women's contributions to the sector are clearly identified and targeted through appropriate, precise actions to promote gender equality and women's empowerment. **Level 5** Gender inequalities are acknowledged, and actions to tackle them are specifically outlined. There should be at least one gender-transformative intervention which will aim to challenge harmful gender roles, reshape unequal gender roles and rebalance gender relations.	**Yes**

Conclusion and Recommendations

The study analysed the gender responsiveness of the Nigerian Agricultural Extension Policy using the FAO GAPo Tool and found that the policy demonstrates moderate to substantial integration of gender considerations. The policy recognised women's roles in

agriculture and included measures to promote gender equality and women's empowerment in the delivery of extension services. However, important gaps were identified, including the absence of gender indicators, weak budgetary commitments, limited integration of gender considerations across critical thematic areas such as land, financial services, and value chains, and a lack of gender-transformative measures to address structural inequalities and harmful gender norms. The policy was therefore classified under Level 4 of the FAO GAPo gender integration framework, indicating substantial gender responsiveness but limited transformative capacity.

Based on the findings, the Federal Ministry of Agriculture and Food Security should revise the Nigerian Agricultural Extension Policy to incorporate measurable gender indicators such as gender specific objectives and targets, explicit budgetary allocations for gender-related activities, and stronger monitoring and evaluation mechanisms to improve gender accountability within the policy framework. The Ministry should also expand gender integration beyond extension services by including gender-sensitive provisions in thematic areas such as land access, financial services, rural employment, and agricultural value chains to enhance women's participation and empowerment across the agricultural sector. Furthermore, policymakers and relevant agricultural institutions should incorporate gender-transformative strategies to address harmful social norms, unequal power relations, and institutional barriers that limit women's access to agricultural resources, opportunities, and decision-making processes in Nigeria. Ministries of Agriculture could support gender responsive practices and policies through adopting inclusive approach that ensures all categories of stakeholders particularly women are properly represented in planning and implementing their programmes.

References

Asanwana, V. A., & Uloh, C. O. (2025a). Gender-responsive agricultural extension policies and rural women's empowerment in Akwa Ibom State, Nigeria. *Journal of Philosophy, Policy and Strategic Studies, 1*(4), 137–149.

Asanwana, V. A., & Uloh, C. O. (2025b). Analysis of gender mainstreaming practices and job satisfaction among agricultural extension agents in South-South, Nigeria. *Journal of Agricultural Economics, Extension and Science (JAEES), 12*(1), 252–263.

Acosta, M., Osorio, M., Valverde, I., Vilimelis Lopez, S., Polli, M., Stloukal, L., & Phillips, L. M. (2025). Gender-responsiveness of agricultural policy: An analysis in low- and middle-income countries. *Global Food Security, 44*, 1–12. https://doi.org/10.1016/j.gfs.2025.100837

Adekola, O. A., Oyediji, B. I., Nwakodo, F. O., & Sennuga, S. O. (2026). Gender differences in access to agricultural extension services among smallholder farmers in Ibadan, Oyo State. *International Journal of Environmental & Agriculture Research (IJOEAR), 12*(2), 20–29. https://doi.org/10.25125/agriculture-journal

Akokuwebe, M., Amusan, L., & Odularu, G. (2021). Women's development in agriculture as an agency for fostering innovative agricultural financing in Nigeria. *African Journal of Food, Agriculture, Nutrition and Development, 21*(7), 18279–18299. https://doi.org/10.18697/ajfand.102.19345

Apeh, C., Ukwuaba, S., Osuagwu, O., Ugwuoti, P., & Apeh, P. (2023). Barriers to agricultural productive resources among female farmers in the southeastern zone of Nigeria. *Journal of Agricultural Extension and Entrepreneurship for Sustainable Development, 9*, 119–130. https://doi.org/10.56160/jaeess202392012

Boudalia, S., Teweldebirhan, M. D., Ariom, T. O., Diouf, N. S., Nambeye, E., Mwatitha Gondwe, T., Mbo'o-Tchouawou, M., Okoth, S. A., & Huyer, S. (2024). Gendered gaps in the adoption of climate-smart agriculture in Africa and how to overcome them. *Sustainability, 16*(13), 5539–5562. https://doi.org/10.3390/su16135539

Ekanem, J. T., & Uloh, C. O. (2025). Gendered perspectives on access to agricultural extension services: Voices from women farmers in Akwa Ibom State, Nigeria. *International Journal of Agricultural Economics, Management and Development, 13*(2), 188–208.

Hounkpatin, J. P., Houinsou, D., Femi, H. E., Victor, C., Emile, H. N., & Gauthier, B. (2025). Promoting women's autonomy in the agricultural sector: Is productivity land access mode-wise and gender differentiated? *Land Use Policy, 157*, 1–9. https://doi.org/10.1016/j.landusepol.2025.107656

Ifeanyi-Obi, C. C., & Tolumoyi, Y. E. (2025). Utilisation of extension services for climate change adaptation by male and female arable crop farmers in Bayelsa State, Nigeria. *Journal of Agricultural Extension, 29*(3), 118–133.

Lecoutere, E., Spielman, D. J., & Van Campenhout, B. (2023). Empowering women through targeting information or role models: Evidence from an experiment in agricultural extension in Uganda. *World Development, 167*, 1–14. https://doi.org/10.1016/j.worlddev.2023.106240

Mashi, A. L. (2026). Gender mainstreaming and policy implementation in Katsina State, Nigeria: Challenges and prospects. *African Journal of History and Archaeology, 10*(2), 33–46. https://doi.org/10.56201/ajha.v10.no2.2026.pg33.46

Mudege, N. N., Mdege, N., Adeyeye, O., Muzungaire, L., & Kakwasha, K. (2025). Gender norms and women's economic resilience to climate change challenges: A case study of Ogun and Oyo States in Nigeria. *International Journal of Agricultural Sustainability, 23*(1), 1–15. https://doi.org/10.1080/14735903.2025.2534316

Musa, U., Bala, S. A., Maigida, U. T., & Dukku, S. H. (2025). Role of agriculture in driving economic growth in Nigeria: Opportunities and challenges. *International Journal of Agriculture and Earth Science (IJAES), 11*(10), 94–105. https://doi.org/10.56201/ijaes.vol.11.no10.2025.pg94.105

Njoku, C. L., Mezu, O., Uzoma, I., Olesin-Ibrahim, S., Olaolu, M., Azuamairo, G., Agou, D. G., & Udokure, U. (2025). Sex-based constraints in accessing agricultural resources in Ebonyi State, Nigeria. *Journal of Agricultural Extension, 29*(1), 1–8. https://doi.org/10.4314/jae.v29i1.1

Nkanta, V. S., Achibong, I. V., & Uloh, C. O. (2025). Gender inclusivity and perceived agricultural service responsiveness among smallholder farmers in Akwa Ibom State, Nigeria. *UNICROSS Journal of Science and Technology (UJOST), 4*(3), 59–73.

Perez, D., Velicaria, A., Berja, V. R., Cruz, M., & Palmiano, D. (2025). Pathways and roadblocks in gender and development: A systematic review of institutional practices in higher education. *International Journal for Multidisciplinary Research, 7*, 1–11. https://doi.org/10.36948/ijfmr.2025.v07i04.53467

Prithika, C., Anjugam, M., & Sivasankari, B. (2024). Deciphering the crux of women's empowerment in agricultural value chains – A scoping review. *Outlook on Agriculture, 53*(4), 302–319.

Quisumbing, A., Heckert, J., Faas, S., Ramani, G., Raghunathan, K., & Malapit, H. (2021). Women's empowerment and gender equality in agricultural value chains: Evidence from four countries in Asia and Africa. *Food Security, 13*(5), 1101–1124. https://doi.org/10.1007/s12571-021-01193-5

Siaw, S. Y., Man, N., Ramli, N., Yusuf, M., & Umar, A. (2024). The contribution of agricultural extension to the empowerment of women for agricultural development. *Journal of Agricultural Extension, 28*(2), 66–84. https://doi.org/10.4314/jae.v28i2.7

Singh, S., Mohan, A., Saran, A., Puskur, R., Mishra, A., Etale, L., Cole, S. M., Masset, E., Waddington, H. S., MacDonald, H., & White, H. (2022). Protocol: Gender transformative approaches in agriculture for women's empowerment: A systematic review. *Campbell Systematic Reviews, 18*(3), 1265–1279. https://doi.org/10.1002/cl2.1265

Teklu, G., Alemu, T., & Zenebe, M. (2026). Gender-responsive climate-smart agriculture for sustainable and resilient livelihoods in Southern Ethiopia. *Scientific African, 32*, 1–15. https://doi.org/10.1016/j.sciaf.2026.e03369

Wanjiru, Q. (2021). The role of women in agriculture today. *Journal of Gender Related Studies, 2*(1), 33–42.