



Women Participation Towards Achieving Food Security in Nigeria: A Case Study of Zuru Local Government in Kebbi South Senatorial District (A TETFUND SPONSORED RESEARCH, 2024)

Shehu Aliyu¹, Shehu Alh. Shehu² & Garba Bala³

*Department of Social Studies & Department of Geography
Adamu Augie College of Education, Argungu, Kebbi State, Nigeria
¹Corresponding Author*

Date of Submission: 12-12-2024

Date of Acceptance: 24-12-2024

Abstract

Despite facing numerous obstacles, including limited access to resources, insecurity, land tenure rights, discriminatory social norms, Nigerian women have demonstrated commendable elasticity and determination in the agricultural sector. From small-scale farmers tending to family plots, to agricultural entrepreneurs leading innovative ventures, women are at the forefront of Nigeria's agricultural and economic transformation. Their knowledge of local crops, cultivation techniques, and sustainable practices is invaluable in ensuring the availability and diversity of nutritious foods for Nigerian families. Many citizens are about dying because they cannot afford what to feed themselves and most vulnerable groups are the children and women suffering from hunger and starvation. However, the study will use primary and secondary sources of data and questionnaire to collect information from the samples of population. The study will equally find out the vital roles that could be played by women in agricultural activities such as dry and rain seasons farming, like poultry, aquaculture, fishing, livestock and gardening. The paper suggests that when women are empowered to live out their full potential, the level of poverty and food insecurity in the society will reduce because women commit a large portion of their income to the family and localities.

Keywords: Women in Agriculture, Food Security, Achievement, Government, Nigeria

I. Introduction

Amaonwu (2024), stated that Nigerians are currently experiencing difficulties as our nation grapples with a cost-of-living crisis characterized by rising inflation, food insecurity, high levels of unemployment, and diverse socio-economic

challenges. However, one often overlooked but indispensable group is quickly emerging as a beacon of hope. Agriculture is the crucial sector for human survival, and women contributions to it is undeniable. Women play a crucial role in agriculture both in small and big farms, producing food for their households, communities, and beyond. However, despite their significant contribution, women often face cultural, social and economic challenges that limit their productivity and ability to fully participate in agricultural development. These challenges include gender based violence, limited access to education, training and land ownership, finance, technology, and markets. Addressing these challenges and empowering women in agriculture is a critical for achieving food security and rapid economic growth. In Nigeria and other developing countries of the world women play important roles in ensuring food become affordable and available to every household.

Babasanya et al (2021), described food security as a state of having security and sustainable access to sufficient food for active and healthy life. In developing world like Nigerian people are under harsh economic transformation as inflation in food stuffs have risen considerably to the extent that poor individual citizen can no longer withstands the situation. Many people cannot afford two square meals per day. Worryingly, the vulnerable groups including children, women and elderly are dying every day. In view of the above, this necessitates the researchers to focus their attention towards encouraging women to actively participate in agriculture with a view to providing food security to nation. Women in Nigeria play major role in sowing, weeding, application of fertilizer and pesticides, harvesting, threshing, food processing, transportation and marketing. Therefore, women can



be regarded as an agent of achieving food security not only in Nigeria but world at large

II. Literature Review

In Nigeria the involvement of women in agriculture has attracted the attention of scholars, public and private organizations in recent years. The United Nation report of 2017 asserts that women contribute 43% to the agricultural labor force in developing countries, ranging from about 20% in south east Asia and sub Saharan Africa. Some sources even claim that in African countries up to 80% of farm labor is done by women. Women play important roles in agriculture, undertaking a wide range of activities relating to food production, processing and marketing and beyond farming, they are involved in land and water management, most often they fetch water used on farms, houses, organizations etc, firewood and other useful agricultural activities. Women whether skilled or unskilled have contributed immensely through the use of plants in curing sicknesses to both humans and animals. They have been at the fore front of soil conservation program and perform most of the household labors dedicated to animal rearing (Common wealth, 2015).

Balkisu (2011), stated that women participation in agricultural production across various subsectors, planning and marketing and beyond, farming as well as livestock cannot be overemphasized. Uche (2023), supported the idea that role of women in agricultural production in the developing nations including Nigeria can never be neglected as women participation in agricultural production across various subsectors is rated high. Uke & Jobaputra (2024), stated that rural migration has constituted one of the greatest challenges hindering agricultural development in developing countries. Survey has shown that women in Africa have a strong desire to participate in agricultural activities in their community affairs and contribute to its development

Pearce at el (2011), stated that the international development community has recognized that agriculture is an engine of growth and poverty reduction in countries where it is the main occupation of the poor. Rural women often manage complex household and pursue multiple livelihood strategies. Their activities typically involve producing of agricultural crops, tending, animals, processing and preparing foods, working for wages in agricultural or other rural enterprises and marketing, caring for family members and maintaining their homes

2.1 Contributions of Women Towards Achieving Food Security in Nigeria

The issue of food security has been on the front burner for long and statement about several countries in Africa that are food insecure, Nigeria inclusive. This is why, Pearce at el (2011), stated that various international organizations and individual countries had embarked on aggressive food security crusades to remedy the situation in order to make food available and affordable to all citizens

Amaonwu (2024), stated that women are poised by the circumstance of time to play a significant role in the economic boom to come through agriculture, they are dominant players in the food value chain-from farm to fork. Across Nigeria, the world Bank estimated that women account for 30 to 50 percent of the farmers and entrepreneurs who are growing crops, raising livestock and selling food in local markets. Added that, when women are empowered to live out their full potential, the level of poverty and food insecurity in the society is reduced because women commit a large portion of their income to the family, localities, and extended to the larger areas.

Through careful observations in these selected areas of study, women supply most of the labor needed to produce food crops and control the use of sale of food produce grown on plots they manage. Women's in Nigeria play major role in sowing, weeding, application of fertilizer and pesticides, harvesting, threshing, food processing, transportation and marketing. Therefore, women can be regarded as an agent of achieving food security not only in Nigeria but world at large. This is why, Dashora (2013) stated that women are real agents of change especially in food production. Notwithstanding, there is need to recognize and encourage women to actively participate in agricultural activities to achieving foods security in the society. Women need to be valued as they add much value locally and internationally markets.

2.2 Factors Militating Against Active Participation of Women in agriculture

Global food crisis has been attributed to a number of factors including climate change, population growth, increased demand for bio-fuels, failure to improve crop yield, high oil prices leading to increased input loss for producers and traders. The structural problems like under-investment in agriculture and dominance in supply chain of food and agricultural policies sky rocketed prices of foods beyond the expected limits. Rapid urban growth for instance, is raising concerns about food



supply (Modupe et al, 2019)

Ledezma, (1999) stated that women low level of participation in agricultural activities could be attributed to a number of factors. Ranging from cultural factor, political, economic, religious considerations etc. Women suffer from the highest illiteracy rates and are most vulnerable in poverty and they are often at a severe disadvantage when it comes to securing land tenure rights or owning land out rightly, owning livestock, accessing financial services, receiving the kind of extension services and resources that will increase their outputs (Mbah, at el, 2017)

Lack of proper collection and dissemination of gender disaggregated data is one of the underlying causes of this neglect of women's contributions to agricultural production and food security. Women are also neglected and not properly considered in policy-making and decision-making at all levels. Similarly, many agricultural development policies and programs have yet to adequately address the needs of women farmers' participation particularly those in rural areas (Enete& Amusa, 2010)

2.3 Effects of Food Insecurity

Food insecurity and hunger are forerunners to nutritional, health, human and economic development problems. They connote deprivation of basic necessities of life. As such, food security has been considered as a universal indicator of households' and individuals' personal well-being. Therefore, the effects of hunger and malnutrition are adversely affecting the livelihood and well-being of a massive number of people and inhibiting the development of many poor countries, Nigeria as an example. Nigeria's situation on food security is highly precarious and pernicious as significant percentage of the Nigerian population is left with only the bilious taste of poverty (Wada, 2012). Food insecurity causes persistent malnutrition, leaves children weak, vulnerable, and diminished capacity to learn, decreased ability to resist infections and illnesses, such common childhood illnesses as diarrhea, acute respiratory infections, and malaria. Malnutrition can lead to decreased energy levels, delayed maturation, growth failure, reduced work and school performance, reduced income earnings etc (Fawole, at el, 2015)

III. Methodology

The researchers have carefully selected and applied a tested instrument through which

quantitative methodology was used with a view to collecting plausible information in order to reach an unbiased and an acceptable conclusion.

A descriptive survey design was used in this research. It aims at primary describing, observing and documenting a situation as they happen rather than explaining them. The design produces high-quality amount of responses from a wide-range of people using the same set of questions through personal contacts (David & John, 2010).

The selection of a sample from the larger population was in a deliberate manner to have a fair representation of participants to answer the research questions. Because of this, the total number of participants chosen from four (4) different areas as potential participants count to 120 as sample size. The four (4) local government areas that made up of Zuru emirate are in Kebbi south senatorial district. The estimated number of women actively engaged in food production from these local government areas are Zuru 30, Sakaba 30, Fakai 30, Danko Wasagu 30. The essence is to create convenience where the participants from the chosen areas share their experiences. In the same way, this research chose to use a quantitative approach as Harwell (2012), stated that the quantitative approach is an attempt to maximize objectivity, reliability, and generality of findings where the expectation is that the researchers set aside experiences, perceptions, and biases to ensure objectivity in the conduct of the research and conclusion to be drawn. Golafshani (2003) added that quantitative research allows the researchers to familiarize themselves with the problem under study, and with the hope to generate hypotheses to be tested. In this, a questionnaire was used to collect vital information from respondents. This questionnaire contains planned set of questions that require a respondent to respond, with a view to providing available information for the research to attain its greater height

IV. Results and Discussions

The results collected from the study area were presented and the findings were also discussed

Discussion of Tables Based on Mean

The provided data explores the level of engagement and the level of productivity in farming activities, measured using a 3-point Likert scale. The means give insights into the general trends for each variable.



Table1: Level of Engagement in Farming Activities

Level of Engagement Variables	Always 3	Sometimes 2	Never 1	Total	Mean
Level of engagement in farming activities					
How often do you participate in land preparation activities?	80	25	15	255	2.13
How regularly do you engage in planting or sowing crops on the farm?	85	23	12	313	2.60
How often do you take part in weeding and maintaining the farm?	95	20	5	330	2.75
How frequently do you participate in harvesting crops on the farm?	98	15	7	331	2.75
How involved are you in post-harvest activities such as sorting, cleaning, and storage of produce?	119	10	8	385	3.20
How often do you assist in marketing or selling farm produce?	87	23	10	317	2.64

Source: Field Survey, 2024

Analysis of specific components in table 1 reveals the following trends. Land preparation, with a mean of 2.13 shows moderate engagement, indicating that some farmers may rely on external labor or mechanized tools for this stage. Planting or sowing with a mean of 2.60, engagement is relatively high, demonstrating strong participation in one of the most critical stages of farming. Weeding and maintaining the farm has a high mean score of 2.75 which indicates significant involvement, emphasizing farmers' focus on ensuring crop health. Harvesting crops Similar to weeding, a mean of 2.75

suggests that farmers are highly involved in reaping their produce, showing ownership and effort in concluding the farming process. Post-harvest activities The highest engagement mean, 3.20, demonstrates strong participation in sorting, cleaning, and storage. This focus reflects the importance farmers place on preparing their produce for markets or consumption. Marketing or selling farm produce with a mean of 2.64, engagement remains high, indicating farmers' active role in connecting their produce to markets

Table 2: Level of Productivity in Farming Activities

Variables	High 3	Moderate 2	Low 1	Total	Mean
Level of productivity in farming activities					
How often do you achieve your expected yield during farming seasons	67	50	13	314	2.61
To what extent do you complete your farming activities on time (e.g., planting, weeding, harvesting)?	90	20	10	320	2.66
How would you rate the effectiveness of your farming techniques in increasing productivity?	85	25	10	315	2.63
How consistent is your crop or livestock output across different farming seasons?	88	20	12	316	2.63
How well does the quality of your produce meet market or consumption standards?	95	15	10	325	2.70
How would you describe your ability to manage resources (e.g., labor, inputs) for optimal productivity?	40	70	10	270	2.25

Source: Field Survey, 2024

The mean level of productivity in farming activities in table 2 is 2.61, indicating that farmers often achieve their expected yield. This is a positive

sign of reliability in their output. Completing farming activities on time with a mean of 2.66, timeliness in farming operations appears consistent,



suggesting efficient time management by many farmers. Effectiveness of farming techniques with the mean of 2.63 shows that most respondents consider their techniques to be moderately effective. This highlights the potential for improvement in adopting advanced or more efficient methods. Consistency in crop or livestock output with the mean here, also 2.63, suggests steady but not optimal output. Seasonal factors or resource limitations may play a role in these trends. Quality of produce with the highest mean score under productivity is 2.70, suggests a stronger focus on meeting market or consumption standards, indicating that farmers prioritize quality. Resource management with a lower mean of 2.25, highlights challenges in managing resources effectively, which may be a critical bottleneck for increasing productivity.

Comparison of Engagement and Productivity

The correlation coefficient of 0.077 indicates a weak positive relationship between engagement and productivity. Despite high engagement in farming activities, productivity remains moderate, suggesting that factors beyond engagement influence outcomes. For instance, Challenges in resource management (mean: 2.25) could hinder productivity. The emphasis on post-harvest activities (mean: 3.20) and produce quality (mean: 2.70) suggests that while engagement is high, external factors like market conditions and infrastructure may limit gains in productivity.

Interpretation: This indicates a very weak positive relationship between engagement in farming activities and productivity based on the provided means. This suggests that, while there might be some connection, it is not strong, and other factors may influence productivity significantly.

Table 3: Coping Strategies used by Women to Achieve Food Security

Variables	Always ³	Sometimes ²	Never ¹	Total	Mean
Coping Strategies on Food Security					
How often do you grow your own food to ensure food availability?	90	20	10	320	2.67
Do you participate in small-scale trading or other income-generating activities to buy food?	85	20	15	310	2.58
How often do you rely on community support or networks to access food during shortages?	75	27	18	297	2.47
How often do you prioritize meal planning to ensure food lasts longer in the household?	65	40	15	290	2.42
Do you adopt preservation techniques to extend the shelf life of food?	98	15	7	331	2.75
Do you reduce the number of meals per day during periods of food scarcity?	102	10	8	334	2.78
Do you attend training or workshops to learn new agricultural or coping strategies?	40	55	25	255	2.13

Source: Field Survey, 2024

The results in Table 3 presents a list of coping strategies used by women to achieve food security, with their corresponding mean scores. The highest mean values (2.78) is observed for the strategy of reducing the number of meals per day during periods of food scarcity. This indicates that meal reduction is the most commonly practiced coping strategy among women. Reducing the number of meals per day reflects a reactive approach to immediate food shortages. This strategy addresses short-term scarcity, it may have long-term implications on nutritional health, particularly for vulnerable groups like children and the elderly.

Closely following this, is the adoption of preservation techniques to extend the shelf life of food, with a mean score of 2.75. This strategy demonstrates a proactive approach to food security, as women employ methods to prevent food spoilage and wastage. It underscores the significance of food preservation knowledge and resources in mitigating food shortages.

Growing food to ensure availability (mean = 2.67) is another notable strategy. This practice highlights women's efforts to enhance food self-sufficiency through agriculture, emphasizing the importance of access to arable land and agricultural



inputs. Participation in income-generating activities (mean = 2.58) also emerges as a vital coping mechanism, showing how financial resources are integral to securing food.

Strategies like relying on community support (mean = 2.47) and prioritizing meal planning (mean = 2.42) are practiced less frequently,

suggesting that social networks and planning may be secondary to more immediate or direct actions. Attending training or workshops on agricultural practices has the lowest mean (2.13), indicating limited opportunities or uptake of capacity-building initiatives among women in the study area

Table 4: Level of Women's Perceptions Towards Achieving Food Security

Variables	Agree	Neutral	Disagree	Total	Mean
Perceptions of women on Food Security					
Women's participation in farming activities can directly improve food security	70	40	10	300	2.50
Women's involvement in food storage and processing is essential for reducing food waste.	80	30	10	310	2.58
Limited access to land is a major barrier for women in achieving food security	75	27	18	297	2.48
Lack of financial resources hinders women's ability to contribute to food security	65	40	15	290	2.42
Inadequate access to farming tools and inputs affects women's productivity.	98	15	7	331	2.75
Encouraging women's access to credit or loans can improve food security	99	13	8	331	2.75
Women's participation in agricultural decision-making will lead to better food security outcomes.	40	55	25	255	2.13

Source: Field Survey, 2024

The results in table 4, revealed that the highest mean values (2.75) are attributed to two perceptions: Inadequate access to farming tools and inputs affect women's productivity and Encouraging women's access to credit or loans can improve food security.

The perception that inadequate access to farming tools and inputs significantly affects productivity underscores structural challenges women face in agricultural practices. This perception aligns with the importance of resources such as quality seeds, fertilizers, and modern equipment to boost crop yields. Without these essentials, women's efforts to ensure food security remain constrained, perpetuating cycles of poverty and dependency.

Similarly, the belief that access to credit or loans can improve food security highlights the critical role of financial inclusion. Access to financial resources (mean=2.42) empowers women to invest in farming activities, start income-generating ventures, or purchase food during shortages. This perception reflects an understanding that economic empowerment is key to breaking the cycle of food insecurity.

Other notable perceptions include the essential role of women's involvement in food storage and processing (mean = 2.58) and the impact

of limited access to land (mean = 2.48). These perceptions point to systemic barriers such as land ownership and infrastructure for food management. Women's participation in farming activities also receives a relatively high score (mean = 2.50), emphasizing the direct connection between women's labor in agriculture and household food security.

Lower mean scores, such as those for women's participation in agricultural decision-making (2.13), suggest that decision-making roles are less frequently associated with food security improvements. This may reflect prevailing gender dynamics that limit women's influence in strategic agricultural planning.

Conclusively, the coping strategies and perceptions highlighted in Tables 3 and 4 provide valuable insights into the challenges and opportunities surrounding women's roles in achieving food security. The predominance of meal reduction and preservation techniques as coping strategies indicate the immediate and long-term actions women employ to address food scarcity. On the other hand, perceptions emphasizing the need for access to farming tools, credit, and resources reveal systemic issues that must be addressed to ensure sustainable food security.



These findings suggest that empowering women through access to resources, financial inclusion, and capacity building is critical. Policies and programs should focus on enhancing women's access to agricultural inputs, credit, and training to strengthen their contributions to food security.

V. Conclusion and Recommendations

5.1 Conclusion

The study was carried out to investigate the level of women participation towards achieving food security not only in the study area but Nigeria at large. Agriculture is the crucial sector for human survival, and women contributions to it, is undeniable. The finding shows that women add much value to local and international markets and they play a crucial role in agriculture, both in small and big farms producing food for their households, communities and beyond

The problem of food insecurity must be seen as a serious security challenges to not only Nigeria but to the continent as a whole. In order to prevent possible negative consequences all African countries must devise ways of not only attacking but eliminating the menace. If the problem is attacked with all seriousness towards implementing the recommendations of various policy makers in the past, then the continent will be self-sufficient in terms of food security

5.2 Recommendations

- A positive change in the attitudes of the Nigeria leadership class is needed to end food insecurity
- A giant step should be taken to review the role of agricultural extension workers that established their works (services) with a view to having effective supervisions and awareness campaigns to improve agricultural activities not only in the area of study but across the country
- There is need for women farmers to be enlightened on crucial issues relating to agricultural activities in order to produce enough foods for the yearning population
- There is a need for women to have well defined association with agricultural agenda and coordination in order to create for more channels with a view to getting support from government
- Women are real agents of change especially in food production. Therefore, government should embark on aggressive food security crusades and awareness to remedy the situation in order to make food available and

affordable to all citizens

References

- [1]. Amaonwu, U. (2024). Nigerian Women in Agriculture: A Catalyst for Food Security, Economic Growth, and Family well-being
- [2]. Babasanya, B., Abdulkareem, S.B., Ganiyu, L., Uzza, B., Adetunji, A. J., Oluwole, A.T., Omodona, S., Olafemi, S.O. & Usman, M.B. (2021). Role of Women in Food Security in Nigeria: European Modern Studies Journal, Vol. 5, No. 3
- [3]. Balkisu, A.M. (2011). Women Participation in Agriculture the Role and Impact of Agricultural Development Project in Kogi State. Thesis Submitted to the Postgraduate School ABU, Zaria.
- [4]. Common Wealth (20015). Gender Mainstreaming in Agriculture and Rural Development: A Reference Manual for Government and other Stakeholders Abidjan Common Wealth.
- [5]. Dashora, K.B. (2013). Problems Faced by Working Women in India: International Journal of Advanced Research in Management and Social Sciences Vol. 2, No. 8
- [6]. David, M.A. and John, A.R. (2010). Questionnaire Development: Demystifying the Process: International Management Review.
- [7]. Enete, A.A & Amusa, T.A (2010). Determinants of Women's Contributions to Farming Decisions in Cocoa Based Agroforestry Households of Ekiti State, Nigeria: The Journal of Field Actions, Vol. 4
- [8]. Fawole, W.O., LLbasmis, E. & Ozkan, B. (2015). Food Insecurity in Africa in Terms of Causes, Effects and Solutions: A Case Study of Nigeria. A Paper Presented at the 2nd International Conference on Sustainable Agriculture and Environment Held at the Selcut University and Bahri Dagdas International Agricultural Research Institute Campus in the City of Konya, Turkey between September, 30 and October, 3, 2015
- [9]. Golafshani, N. (2003). Understanding Reliability and Validity in Quantitative Report, Vol.8, No.4
- [10]. Harwell, M.R. (2012). Research Design in Qualitative/Quantitative/Mixed Methods.
- [11]. Ledezma, L.R. (1999). Effects of Economic Adjustment Programs on Gender Inequality, Venezuela: A case Study 1989-1998



- [12]. Modupe, A., Bamidele, R. Olakunle, O. Susan, A. & Owoeye, G (2019). Food Sovereignty: An Enhance to Women Contributions to Food Security in Nigeria: Journal of Social Sciences and Public Policy, Vol. 11, No. 1
- [13]. Mbah, E.N., Onah, O., Amah, N.E (2017). Analysis of Factors Affecting Rural Women in Family Farming in Benue State, Nigeria: International Journal of Research Studies in Agricultural Sciences (IJRSAS). Vol. 3, Issue 8, PP15-20
- [14]. Pearce, J., McGee, R. & Wheeler, J (2011). Violence, Security and Democracy: Perverse Interfaces and their Implications for States and Citizens in the Global South
- [15]. Uche, A. (2023). Nigerian women in agriculture: A catalyst for food security, economic growth and family wellbeing
- [16]. Uke S.K, & Jobaputra M (2024). The Role of Agriculture in Rural Development (With Special Reference to the State of Chhattisgarh): GNA Journal of Management & Technology Vol. xv, NO. 1
- [17]. Wada, A. A. (2012). Food Security in Nigeria: The Role of Peasant Farmers in Nigeria: An International Multidisciplinary Journal, Ethiopia, Vol. 6 (4) No. 27; Pp.173-190