

Assessment of Rural Women's Engagement in Livelihood Activities in Oyo State, Nigeria

Ibitunde, I.O.¹, Ayanboye, A.O.², Alao, O.T.¹ and Olaniran I.A.¹

¹Department of Agricultural Extension and Rural Development, College of Agriculture, Osun State University, Osogbo, Nigeria

²Department of Fisheries and Aquatic Resources Management, College of Agriculture, Osun State University, Osogbo, Nigeria

*Corresponding author's email: ibidun.ibitunde@uniosun.edu.ng

Abstract

The study assessed rural women's engagement in livelihood activities in Ogbomoso Agricultural Development Programme (ADP) Zone of Oyo State, Nigeria. A three-stage sampling procedure was used to select 120 rural women for the study. Structured interview schedule was used to elicit information on respondents' socioeconomic characteristics, extent of engagement in livelihood activities and constraints to engaging in livelihood activities. Results reveal that majority (61.7%) of the respondents indicated moderate level of engagement in livelihood activities; crop cultivation ($\bar{x}=1.57$) ranked 1st of all the on-farm livelihood activities, marketing of farm produce ($\bar{x}=1.49$) ranked 1st of all the off-farm livelihood activities and trading ($\bar{x}=1.72$) ranked 1st of all the non-farm livelihood activities. Low wages/poor condition of works ($\bar{x}=3.58$) ranked 1st of all the constraints. There was significant association between primary occupation ($\chi^2=22.007$), access to extension services ($\chi^2=10.518$), monthly income ($\chi^2=18.866$) and engagement in livelihood activities. The study concluded that rural women were moderately engaged in farming, trading, and marketing, with participation influenced by primary occupation, income, and access to extension services, while low wages and poor working conditions were key constraints. The study recommended that government and NGOs implement policies and programs to boost rural women's livelihood engagement by addressing constraints like low wages, improving extension services, skills training, market access, and cooperative support.

Keywords: women; on-farm; off-farm; non-farm; livelihood activities.

Introduction

Agriculture continues to play a critical role in Nigeria's socio-economic framework. It serves as a vital source of employment, enhances food security, and contributes significantly to the nation's GDP despite the dominance of the oil sector (Izuchukwu, 2011; Michael *et al.*, 2021). With a significant portion of the population engaged in agricultural activities, the sector contributes substantially to national GDP and provides livelihoods for millions of people (Michael *et al.*, 2021). Rural areas in Nigeria play a crucial role in driving economic development through agriculture. The fertile lands and favorable climatic conditions in rural areas make them conducive for crop cultivation and livestock

rearing. Additionally, rural communities contribute significantly to the supply of raw materials for agro-allied industries, further bolstering economic growth and development (Aremu, Muhammad-Lawal and Omotesho, 2023).

Rural women in Nigeria are fundamental contributors to agricultural production and household livelihoods, playing indispensable roles that extend far beyond traditional gender roles. Rural women are actively engaged in various activities, including crop cultivation, animal husbandry, and food processing (Jaka *et al.*, 2021). According to Abdulrahman *et al.*, (2016), a livelihood refers to the means by which individuals secure the necessities of life, encompassing their skills, assets, income

sources, and activities utilized to sustain well-being. Beyond their involvement in agricultural production, that is on-farm activities, rural women also participate in off-farm and non-farm activities to diversify their income sources and support household needs (Alkali, Tijani and Kura, 2021).

On-farm activities involve direct engagement in agricultural production, such as growing crops and raising animals. Off-farm activities include supplementary tasks like processing, packaging, and selling of agricultural produce, often conducted beyond the farm premises. Non-farm activities encompass ventures unrelated to agriculture, such as tailoring, carpentry, and education, and are vital for income diversification among rural households. (Isaac, 2023; Teshome, 2021) Engaging in off-farm activities like product processing, packaging, and marketing enables rural women to boost household income and cushion against farming risks. These roles, along with non-farm ventures such as tailoring or catering, broaden income streams and enhance household stability (Afodu *et al.*, 2019).

Despite the challenges they face, including limited access to resources and decision-making power, rural women demonstrate resilience and resourcefulness in navigating the complexities of rural life (Abdulrahman *et al.*, 2016). Their ability to balance multiple roles and responsibilities within the household and community underscores their importance in sustaining agricultural production and household livelihoods. Rural women often exhibit notable adaptability and determination in managing household responsibilities while sustaining productive economic roles, despite systemic barriers and limited resources (Alkali *et al.*, 2021). Through a combination of on-farm, off-farm, and non-farm activities, rural women employ diverse strategies to sustain their families and contribute to household welfare and community development.

Rural women often face key barriers, including restricted land rights, insufficient access to credit facilities, and inadequate technological support. These constraints hinder their ability to optimize livelihood activities and attain economic independence (Adebayo

and Adekunle, 2016). Cultural expectations and entrenched gender stereotypes frequently limit women's participation in economic decision-making, access to resources, and their ability to benefit fully from livelihood opportunities (Khatiwada *et al.*, 2018). Infrastructural inadequacies such as poor road networks and lack of market facilities, remain significant barriers to women's full participation in productive activities and market integration (Coster *et al.*, 2021).

This study, therefore assessed the livelihood activities (on-farm, off-farm and non-farm) engaged by rural women in Ogbomoso Agricultural Development Programme (ADP) Zone of Oyo State, Nigeria. The specific objectives were to describe the socio-economic characteristics of rural women in the study area, assess the extent of engagement in livelihood activities (on-farm, off-farm and non-farm) by rural women and identify the constraints to engaging in livelihood activities by rural women in the study area. Findings from the study can be used to guide policymakers and development agencies in strengthening rural women's livelihood activities by supporting the most engaged activities and addressing constraints limiting participation.

It is being hypothesized that there is no relationship between the socio-economic characteristics of rural women and engagement in livelihood activities.

Methodology

This study was carried out in Ogbomoso Agricultural Development Programme (ADP) Zone of Oyo State, Nigeria. Oyo State is an inland state in south western Nigeria. Its capital is Ibadan, the third most populous city in the country and formerly the second most populous city in Africa. Oyo State is bordered to the north by Kwara State, to the east by Osun State, and to the southwest by Ogun State and the Republic of Benin. It has a population of 7,976,100 (2022 projection, National Population Commission, 2022). Oyo State is the fifth most populous in the Nigeria. The state economy remains largely agrarian, with the western city of Shaki being described as the state's breadbasket. Cassava, cocoa, and tobacco are among the most important

crops to Oyo State's economy. The population of the study includes the rural women in some selected Local Government Areas in Ogbomosho Agricultural Development Programme (ADP) Zone of Oyo State, Nigeria.

A three-stage sampling procedure was used to select the respondents. At the first stage, simple random sampling technique was used to select two Local Government Areas namely: Orire and Surulere from the zone. At the second stage, two farming communities were randomly selected from each of the selected Local Government Areas. These were Fapote and Ilupeju from Orire Local Government Area, Okin and Oko from Surulere Local Government Area. At the third stage, simple random sampling technique was used to select varying numbers of rural women from each of the communities; Fapote (21), Ilupeju (23), Okin (36) and Oko (40). This selection gave a total of one hundred and twenty (120) rural women. Primary data were used in this study. The data were collected with the aid of a well-structured interview schedule.

Measurement of variables

Respondents' engagement in livelihood activities was measured on a scale of "never" (00), "occasionally" (01) and "always" (02). Constraints to engaging in livelihood activities were measured on a scale of "Strongly Agree" (4), "Agree" (3), "Undecided" (2), "Disagree" (1) and "Strongly Disagree" (0).

Analysis of data

The data collected were analyzed using both descriptive and inferential statistics. Descriptive statistics used are frequency counts, percentages, mean and standard deviation. Also, chi-square analysis was carried out to determine the existence of relationships between selected socio economic characteristics of the respondents and engagement in livelihood activities.

Results and discussion

Socio-economic characteristics

Results in Table 1 reveal that majority (75%) of the respondents were within age 31-60 years. Some (18.3%) were 61 years and above while few (6.7%) were below 30 years

of age. The mean age of the respondents was 48.76 ± 12.18 years. This shows that majority of the respondents were middle aged women and were therefore still energetic enough to engage in several livelihood activities. This result agrees with the findings of Belonwu *et al.* (2023) that majority of the respondents were middle aged. The results further reveal that majority (89.2%) of the respondents were married, few (0.8%) was separated, few (1.7%) were single and few (8.3%) were widowed. This indicates that the rural women had marital relationships and as such may have responsibilities. This result agrees with the findings of Ibitunde *et al.* (2024) that majority of the sampled respondents were married. In addition, close to half (47.5%) of the respondents had secondary education, also, some (17.5%) had primary education, some (17.5%) had tertiary education and some (17.5%) had no formal education. This indicates that majority of the respondents had secondary education.

Also, some (35.8%) of the respondents had farming as their primary occupation, some (30.8%) had trading as their primary occupation, some (17.5%) had artisanship as their primary occupation, and some (15.8%) had civil service as their primary occupation. These results show that farming and trading are the predominant primary occupations among the respondents. The results further show that majority (66.7%) of the respondents were members of cooperative society while some (33.3%) were not a member of any cooperative society. This indicates that majority of the respondents were members of a cooperative society. Membership in cooperative societ(ies)/enterprise associations enhances access to credit, this indicates that rural women would be able to access credit that would enhance their engagement in livelihood activities. This result agrees with the findings of Ibitunde *et al.* (2023) that majority of the sampled respondents were members of palm oil processors' association.

Moreover, the results show that majority (59.2%) of the respondents had access to extension service while some (40.8%) did not have access to extension service. This reveals that majority of the respondents have access to extension service and therefore have

Table 1: Socio-economic characteristics of the respondents (n = 120)

Characteristics	Frequency	Percentage	Mean +S D
Age			
18-25	1	0.8	48.76±12.18
26-44	44	36.7	
45-59	51	42.5	
60 and above	24	20.0	
Marital status			
Single	2	1.7	
Married	107	89.2	
Separated	1	0.8	
Widowed	10	8.3	
Highest level of education			
No formal education	21	17.5	
Primary education	21	17.5	
Secondary education	57	47.5	
Tertiary education	21	17.5	
Primary occupation			
Trading	37	30.8	
Farming	43	35.8	
Civil service	19	15.8	
Artisanship	21	17.5	
Cooperative society membership			
Yes	80	66.7	
No	40	33.3	
Access to extension service			
Yes	71	59.2	
No	49	40.8	
Monthly income (in Naira)			
₦25,000-₦50,000	59	49.2	58,591.67±37,776.098
₦51,000-₦75,000	46	38.3	
₦76,000-₦100,000	10	8.3	
₦101,000 and above	5	4.2	

Source: Field Survey, 2024

knowledge of the advantages of having several livelihood activities. The results also show that some (49.2%) of the respondents had a monthly income between ₦25,000- ₦50,000, some (38.3%) had a monthly income between ₦51,000-₦75,000, few (8.3%) had a monthly income between ₦76,000- ₦100,000 while few (4.2%) had a monthly income of ₦100,000

and above. The mean monthly income of the respondents was ₦58,591.67+ 37,776.098.

Extent of engagement in on-farm livelihood activities

Results in Table 2 show that crop cultivation is the most widely practiced on-farm livelihood activity among rural women in the study area,

followed by horticulture and livestock rearing. The prominence of crop cultivation and horticulture suggests that these activities are more accessible, require fewer resources, and are deeply rooted in the local agricultural culture. Conversely, low engagement in specialized ventures like fish farming, beekeeping, and grass cutter production reveals limited awareness, technical know-how, capital, or infrastructural support for these enterprises.

ranked activities are closely linked to agricultural production and provide opportunities for women to add value and generate additional income. In contrast, activities such as handiworks, cosmetic production, and especially wine tapping, recorded relatively low levels of engagement, suggesting limited interest, skill, or support in these areas.

The dominance of marketing, processing, and packaging reflects women's strong

Table 2: Extent of engagement in on-farm livelihood activities

On-farm activities	Mean	S D	Rank
Crop cultivation	1.57	0.546	1 st
Horticulture(production of vegetables)	1.19	0.539	2 nd
Livestock rearing	0.92	0.717	3 rd
Harvesting farm produce	0.77	0.707	4 th
Fish farming	0.09	0.290	5 th
Bee keeping	0.02	0.183	6 th
Dairy farming	0.02	0.183	7 th
Produce buying	0.02	0.129	8 th
Grass cutter production	0.00	0.000	9 th

Source: Field Survey, 2024

These results highlight the need for targeted interventions that promote diversification within the on-farm sector. Agricultural extension services, skills training, and access to resources should be prioritized to enhance women's participation in underutilized but potentially profitable ventures such as fish farming and apiculture. Supporting women in diversifying their on-farm activities could improve income stability, food security, and resilience against agricultural risks such as climate variability and market fluctuations. This result agrees with the findings of Ibitunde *et al.* (2023) that livestock keeping, selling farm produce and crop farming were the major agricultural-based poverty mitigating strategies utilized by the respondents.

Extent of engagement in off-farm livelihood activities

Results in Table 3 indicate that marketing of farm produce/products is the most commonly practiced off-farm livelihood activity among rural women, followed by processing and packaging of agricultural products. These top-

involvement in the agricultural value chain beyond the farm gate. To enhance income generation and economic resilience, capacity-building programs should focus on improving women's skills in value addition, product standardization, and branding. Meanwhile, the low engagement in activities like handicrafts and cosmetics suggests untapped potential. Empowering women through training, access to raw materials, and market linkages could encourage diversification into these alternative off-farm livelihoods, thereby expanding their income base and reducing overdependence on a narrow range of activities. This result agrees with the findings of Belonwu *et al.* (2023) that more than half of the respondents sampled were engaged in mostly agricultural marketing.

Extent of engagement in non-farm livelihood activities

Results in Table 4 show that trading is the most dominant non-farm livelihood activity among rural women, with a significantly higher weighted mean score compared to other

Table 3: Extent of engagement in off-farm livelihood activities

Off-farm activities	Mean	S D	Rank
Marketing of farm produce/products	1.49	0.594	1 st
Processing of farm produce	1.32	0.676	2 nd
Packaging of farm produce/products	1.07	0.742	3 rd
Handiworks (e.g pottery, basket weaving, beadwork)	0.52	0.608	4 th
Production and sale of locally made cosmetics (pomade, soap)	0.46	0.620	5 th
Tapping of wine (e.g palm wine)	0.03	0.203	6 th

Source: Field Survey, 2024

activities. This suggests that trading is a familiar, accessible, and relatively low-capital avenue for income generation. Other non-farm activities such as catering services, hairdressing, and civil service recorded much lower participation, while fashion designing, medical services, and daycare services had minimal engagement. This indicates that any intervention that would be applied to further enhance the engagement in non-farm livelihood activities by rural women in the study area should be applied to bring about increased engagement in all the non-farm livelihood activities in ascending order.

Table 4: Extent of engagement in non-farm livelihood activities

Non-farm activities	Mean	S D	Rank
Trading	1.72	0.448	1 st
Catering services	0.57	0.561	2 nd
Hairdressing	0.40	0.640	3 rd
Civil service	0.32	0.733	4 th
Fashion designing	0.16	0.518	5 th
Medicals	0.14	0.395	6 th
Day care services	0.07	0.282	7 th

Source: Field Survey, 2024

Level of engagement in livelihood activities

Results in Table 5 show that the majority of rural women were at a medium level of engagement in livelihood activities. Medium engagement could reflect a balance between household responsibilities and economic activities, but also points to untapped potential for higher involvement. This reveals that there is a need for targeted interventions to enhance the level of engagement of rural women in livelihood activities.

Table 5: Distribution of respondents by level of engagement in livelihood activities (n=120)

Level	Values	Freq.	%
High	≥16.43	26	21.7
Medium	Btw 10 and 15	74	61.7
Low	≤9.25	20	16.7
Total		120	100

Source: Field Survey, 2024

Constraints to engaging in livelihood activities

Results in Table 6 show that low wages and poor working conditions represent the most significant constraint to rural women's engagement in livelihood activities, followed closely by inadequate access to credit, modern technology, and the lack of supportive policies for women's entrepreneurship. Other critical barriers include the absence of social security, high production costs, insufficient skills training, and low educational attainment. Infrastructure-related issues and security concerns, though ranked lower, still contribute meaningfully to limiting women's economic participation. These constraints underscore the structural and systemic challenges rural women face in pursuing sustainable livelihoods.

The prominence of economic and institutional barriers suggests a pressing need for policy-level interventions aimed at improving working conditions, expanding access to affordable credit, and promoting gender-inclusive policies. Furthermore, investment in skill acquisition, adult education, rural infrastructure, and technology dissemination is crucial to enhance women's capacity and productivity. Addressing these constraints

Table 6: Constraints to engaging in livelihood activities

Constraints	Mean	S D	Rank
Low wages/ poor condition of works	3.58	0.588	1 st
Inadequate credit facilities	3.45	0.808	2 nd
Lack of access to modern technology	3.39	0.555	3 rd
Lack of enabling policy environment to promote women's entrepreneurship	3.39	0.714	4 th
Absence of social security benefits (e.g. pension)	3.30	0.894	5 th
High cost of production leading to less competitive prices	3.22	0.712	6 th
Poor skill training	3.07	1.059	7 th
Poor educational attainment	2.95	1.289	8 th
Lack of access roads/ irregular means of transportation/ irregular electricity	2.53	1.402	9 th
Land tenure challenges	2.37	1.385	10 th
Lack of access to extension services	2.13	1.296	11 th
Lack of personal security and risk of sexual harassment	1.86	1.434	12 th
Poor market networks	1.52	1.467	13 th
High health risks	1.23	1.205	14 th
Working longer hours	1.08	1.342	15 th
Not enough customers	1.07	1.124	16 th

Source: Field Survey, 2024

holistically will not only boost women's participation in livelihood activities but also contribute to rural economic development and household resilience. This result agrees with the findings of Ifeanyi-Ubi and Ibanichukwu (2021) that lack of good policies to encourage women enterprise, poor educational background, inadequate training and skill acquisition programme, insecurity/poor working condition, inadequate finance/credit facilities constituted

the major constraints to engaging in livelihood diversification.

Test of hypothesis

The chi-square analysis in Table 7 revealed a significant association between primary occupation, access to extension services, and monthly income with the level of engagement in livelihood activities among rural women. This implies that women's involvement in livelihood

Table 7: Association between selected socio-economic characteristics of the respondents and engagement in livelihood activities

Variables	χ^2 -value	p-value	Decision
Age	4.507	0.342	Not significant
Marital status	2.876	0.824	Not significant
Level of education	10.540	0.104	Not significant
Primary occupation	22.007	0.001**	Significant
Membership of cooperative society	5.599	0.061	Not significant
Access to extension services	10.518	0.005*	Significant
Monthly income	18.866	0.004*	Significant

Significant at $p < 0.05$

Source: Data analysis, 2024

pursuits is strongly influenced by the type of work they primarily engage in, the support they receive from extension agents, and their financial capacity.

These results highlight the importance of tailoring livelihood support initiatives to women's occupational backgrounds and ensuring they have access to timely and relevant extension services. Additionally, improving women's income levels through access to credit, training, and markets can enhance their participation in a wider range of livelihood activities. Policymakers and development practitioners should prioritize interventions that strengthen rural women's economic base, build capacity through extension networks, and align livelihood programs with the women's primary occupations to maximize impact.

Conclusion and recommendations

The study concluded that the majority of rural women in the study area were middle-aged, married, and had at least a secondary level of education. Most were engaged in farming and trading as their primary occupations and were members of cooperative societies, with over half having access to extension services. A moderate level of engagement in livelihood activities was recorded, with crop cultivation, marketing of farm produce, and trading being the most practiced on-farm, off-farm, and non-farm activities, respectively. Low wages and poor working conditions emerged as the most pressing constraint. The study also found significant associations between primary occupation, access to extension services, monthly income, and women's engagement in livelihood activities.

The study recommended that policies and programs be designed by government and non-governmental agencies to improve rural women's engagement in diverse livelihood activities by addressing key constraints such as low wages and poor working conditions. Interventions should focus on enhancing access to extension services, providing skills training, improving market opportunities, and supporting cooperative membership to strengthen women's engagement in on-farm, off-farm, and non-farm activities.

References

- Abdulrahman S., David A.I., Yusuf O., Abdulazeez R.O., Binuyo G. (2016). Analysis of livelihood diversification by farming households in Kaduna State, Nigeria. 2nd International conference on Dry land Agriculture, Centre for Dryland Agriculture, Bayero University, Kano. 12th -16th December, 2016. Pp 45-49.
- Adebayo S.A., Adekunle O.A. (2016). Socio-economic status of women in group membership in selected areas of Kwara State, Nigeria. *Agrosearch* 16(1): 59 -67.
- Afodu O.J., Afolami C.A., Akinboye O. E., Ndubuisi-Ogbonna L.C. Ayo-Bello T.A., Shobo B.A., Ogunnowo D.M. (2019). Livelihood diversification and it's determinants on rice farming households in Ogun State, Nigeria. *African Journal of Agricultural Research* 14(35): 2104-2111.
- Alkali A., Tijjani H. Kura M.A. (2021). Constraints to rural women's livelihood activities in Maiduguri Metopolitan Area, Borno State, Nigeria. *International Academic Research Consortium Journals (IARCJ)* 9 (4): 67-75.
- Aremu A.O., Muhammad-Lawal A.A., Omotesho O.A. (2023). Assessment of the sustainability of agricultural livelihood activities among rural women in Kwara State, Nigeria. *Agrosearch* 22(1): 29-40. <https://dx.doi.org/10.4314/agrosh.v22i1.3>
- Belonwu N.E., Umeri C., Moseri H., Igene C.A. (2023). Constraints to rural women farmers' involvement in livelihood activities in Delta and Edo States of Nigeria. *Journal of Agriculture and Environment* 19(1): 95-107.
- Coster A.S., Balogun, O.L., Adekoya M.I. (2021). Determinants of diversification of income source among rural farming households in Oyo State, Nigeria. *Ifé Journal of Agriculture* 33(2): 26-39.
- Ibitunde I.O., Ajayi F.O. Olayode G.O, Akintayo A. (2023). Poverty mitigation strategies of the rural women in Ejigbo Local Government Area of Osun State, Nigeria. *Ifé Journal of Agriculture*, 35(1): 14-23.
- Ibitunde I.O., Alao O.T., Awotayo, E.O. (2023). Factors influencing women's involvement

- in palm oil processing in Ife North Local Government Area of Osun State Nigeria. *Poljoprivredna tehnika*, 48(3): 20-30.
- Ibitunde I.O., Odeniyi K.A., Akintayo A.O. (2024). Poverty status of the rural women in Ejigbo Local Government Area of Osun State, Nigeria. *Poljoprivredna tehnika*, 49(1): 97-104.
- Ifeanyi-Ubi C., Ibanichukwu T.S. (2021). Factors affecting rural women livelihood in Okirika Local government Area, Rivers State, Nigeria. *Journal of social sciences* 11(1): 8-14.
- Isaac K. (2023). Re: what is the difference between on-farm, off-farm and non-farm activity?. Retrieved from: <https://www.researchgate.net/post/What-is-the-difference-between-on-farm-off-farm-and-non-farm-activity/6412f5a374e3d9ff7501d0a6/citation/download>.
- Izuchukwu O.O. (2011). Analysis of the contribution of agricultural sector on the Nigerian economic development. *World review of business research* 1(1): 191-200.
- Jaka H., Mafashu E., Phiri M., Maruta E., Chazireni E. (2021). Rural women and livelihoods: options for poverty alleviation in drought risk areas of Bikita District, Zimbabwe. *European Journal of Social Sciences Studies* 6(1): 222-242. DOI: 10.46827/ejsss.v6i1.992
- Khataiwada P.S., Deng W., Paudel B., Khataiwada J.R., Zhang J., Wan J. (2018): A gender analysis of changing livelihood activities in the rural areas of central Nepal. *Sustainability*, 10(11): 4034. doi:10.3390/su10114034
- Michael A., Tashikalma A.K., Kolawole A.A., Akintunde M.O. (2021): Rural livelihood improvement: An assessment of household strategies and activities in Adamawa State, Nigeria. *The Journal of Rural and Community Development* 16(1): 1-22.
- National Population Commission of Nigeria (2022): Nigerian population figure.
- Teshome B. (2021). Re: What is the difference between on-farm, off-farm and non-farm activity? . Retrieved from: <https://www.researchgate.net/post/What-is-the-difference-between-on-farm-off-farm-and-non-farm-activity/6141ec892e6af22e6d26e4c5/citation/download>.