

Engagement of Rural Women in Agricultural Activities for Income Generation in Borgu Local Government Area, Niger State, Nigeria

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Abstract

The study assessed engagement of rural women in agricultural activities as a means of income generation in Borgu Local Government Area, Niger state, Nigeria. The study made use of both primary and secondary data. The instrument used for collecting the primary data was a set of structured questionnaires. Data were collected from (180) rural women farmers from six rural communities around New bussa Urban of Borgu Local government area. Data generated were analyzed using frequencies, percentages and mean. Result obtained from the study showed that rural women engage and make more income from processing activities than production, and marketing activities. Under production activities, respondents engaged more on crop planting, harvesting and grain picking (roro). While in processing activities women engage more in Shea butter, fish, rice, groundnut oil and kulikuli, soya cheese, soya milk, snacks, frying of akara and masa. For marketing activities, majority of the respondents engaged in fetching and selling of firewood, cooking and selling food, fish, grains and vegetables. High enabling factors for success found are communication and market with mobile phone, electricity supply, input access and availability, personal experience, local knowledge, good weather, security and peace in the environment while the Identified challenges reported were inadequate capital, lack of new knowledge and skills, digital marketing problem, illness and health issues, and lack of social amenities in the communities. Based on the findings, rural women need capacity building, new seed varieties, modern processing and packaging methods, credit facilities as well as functional and active cooperative group. As such, there's need for their training on social media marketing, cooperative leadership, financial literacy and networking with government and non-governmental organisations within and outside local government area.

Key Words: Sustainability, Economy, Household, Agricultural activities, Income generation.

Introduction

Agriculture plays a dominant role in the Nigerian economy and accounted for more than half of the Gross Domestic Product (GDP). Hamidou and Moussa (2024) reported that, the substantial contributions of rural women directly

affect the (GDP) of the national food security. Rural women contributed significantly to the national economy, by their activities in agricultural production, processing, marketing, home craft and domestic work. The rural women are also

actively involved in activities such as threshing, clearing, grinding, processing of grains, smoking and drying of fish, those increasing the level of income generated. The impact of income generating activities for sustainable rural livelihood of women. Jalulah, (2020) have indicated a positive impact both on household outcomes such as income, wealth and asset accumulation and on individual outcomes like employment, health and nutrition. Abiola, Matt and Ayideji (2021) found that, in domestic economy women featured prominently in several socio-economic activities such as trading, farming, processing and caring for children among other activities. All these activities in which women are involved, provide skills for women so that they could perform their traditional tasks efficiently through income generating activities to improve livelihood.

In Africa, women are responsible for up to 70% or more of food production and marketing. About 60% - 80% of labour input in agriculture is reportedly provided by women. Also, rural - urban migration has mostly affected the men, which left the rural women on the farm to provide food for the family. The burden of work is more complicated by the category of domestic work like provision of water, fire wood, food processing, craft, petty trading and storage that are rarely given economic value. Julalah (2020) revealed that, rural women in northern Nigeria participate in all aspects of cultivation including planting, weeding, thinning, applying fertilizer, harvesting and sales of farm produce

The involvement of women in agriculture in Nigeria has attracted greater attention in recent years. United Nations (2017) asserts that women contribute 43% to the agricultural labor force in developing countries, ranging from about 20% in Latin America to

almost 50% in East and South-east Asia and Sub-Saharan Africa. Some sources according to Ugwukah and Audu (2021) said that in many African countries up to 80 % of farm labor is done by women. Khoja (2021) observed that rural women often have limited access to modern agricultural technologies, machinery, and equipment which hinders their productivity and ability to adopt sustainable agricultural practices. The implication is that majority are still operating on a subsistence level either to supplement incomes or to support their husbands. The result also showed that about 54.5% of the women farmers provides food for their household; topmost in their farm productions are in the area of vegetables, fruits livestock and fishery. However, income earnings from farm are generally low due to the subsistent nature of their production. UN Women, (2018) found that an increase in women's income generation can increase women's bargaining power within their household, increase their participation in economic activities and improve their livelihood. In the past, women contribution to economic development especially in developing Countries was not recognized and seriously underestimated. Emphasis has been placed mainly on reproductive roles than the productive role

Fabiyl and Akande (2015) further reported that rural women constitute 70% of the agricultural workers, 60-70% of the labor, 80% of food storage and transportation from farm to village and 60% of the harvesting and marketing. Majority of these rural women are also involved in agricultural activities such as production of vegetables under the home-based and backyard gardening. Also, they are involved in the keeping and rearing of rabbits, goats, and poultry birds (chicken, duck, guinea fowl), pigs and fish are being raised and managed at home by

women. These agricultural activities are carried out by women in order to raise the nutritional status of their households for family food security and also income generation for family sustainability. (Fabiya, 2015). More so, Hamidou et al., (2024) indicated that the primary concern of women is usually the welfare of their families, spending money generated on personal items only after the family needs are met. Aliyu, Shehu & Bala (2024) added that women are responsible for about 50 per cent of the world's food production and in some countries of sub-Saharan Africa including Nigeria, women provide between 60 and 80 per cent of the world's staple foods: such as maize, wheat and rice to mention but a few for household consumption.

Ndaghu, Pogu and Yohanna (2018) found that majority of women in Hawul local government area of Borno state, Nigeria were involved in fishing (99.5%) in wet season. Crop production (85.7%) in wet season, cotton weaving (81%) in dry season, shelling of groundnut accounting for 71.0% in dry season, sale of farm left over (residue) in dry season about 95.0%, calabash decoration and designing (64.3%) in dry season, collection and sale of Non-timber Forest Product (NTFP) which accounted for 61% usually during the dry season. The study conducted among rural women in Enugu state, Nigeria by Onyebu, (2016) also stated that women are responsible for up to 70% or more of food production and marketing while about 60% - 80% in labor input in agriculture. The result also revealed the majority of women (100%) engaged in farming, Trading (97.2%), processing of agro products (96.1%), hair dressing (87.2%), tailoring (86.1%), food vending (79.4%), weaving of clothes (35%), mat making (51.6%) and black soap making (30.5%). This implies that women sampled engaged in different activities diversifying their means of income so as

to ensure household food security, supporting themselves and their families, achieving a work-life balance, personal satisfaction among others

Limited access to land, capital, information, and skills as their major challenges for better performance and productivity. This stressed that women farmers must be given training on the latest technological skills that maximizes production. Despite these challenges and problems rural women are still very resourceful and contribute to the sustainability of the family and society through their involvement in different income generating activities.

Participation of the women in income generating activities could be an effective tool to reduce poverty, hunger, improve child nutrition and ensure access to better health for rural households. Unfortunately, there is gap in information on current women engagement in agricultural activities in the study area and intervention is difficult in absence of database findings. This informed the decision to carryout current study on rural women engagement in Agricultural activities for income generation in Borgu Local Government Area Niger State, Nigeria.

Objectives of Study

The study is guided by the following objectives to:

1. ascertain the rural women engagement in agricultural activities for income generation
2. identify the enabling factors to success
3. ascertain the benefits derived and challenges.

Methodology

Research Design

The study adopted a survey research design. This design is adopted for social science research where data is collected

from a target group seeking for their opinion, attitudes and perceptions about certain phenomenon. The result of such research is generalized to a larger population group for inference.

Area of the Study

The study was carried out in Borgu Local Government council of Niger state. It is one of the twenty-five (25) local government areas that make up Niger State in North Central Geo-political Zone of Nigeria. The Local Government has an area of land of about 16,200sqkm and shares boundaries with Benin Republic to the West, Agwara Local Government to the South, River Niger or Lake Kainji to the East

Population for the Study

The population of study comprises of all the women in rural communities in Borgu local government area, Niger state.

Sample for the Study

Six rural communities around New bussa, the only urban in Borgu local government area were selected using systematic random sampling. From the selected rural communities, 30 respondents were selected in each community giving a total of 180 respondents.

Instrument for Data Collection

A structured questionnaire was used for data collection titled Internally Generated Revenue Questionnaire (IGRQ). The responses to the items in objective 1a were based on 3points scale (Always,

sometimes, No) and 1b based on two (Yes/No). Objective 2 and 3 were 5point scale of strongly agree (SA), Agree (A), Undecided (U), Disagree (D) and strongly disagree (SD). The instrument was subjected to face validated by 3 experts in the field.

Data Collection an Analysis Techniques

One hundred and eighty (180) questionnaires were administered to the respondents through personal contact by the researcher and two research assistants to ensure a high return rate of the questionnaires. The instrument was filled and collected on the spot. There was 100 percent return rate. The data collected were analyzed using descriptive analysis, frequency, percentage and mean. A mean rating of 2.0 and above was criteria for acceptance while any mean less than 2.0 was rejected for 3 - point rating scale. For the 5-point rating scale, a mean of 3.0 and above was the criteria for acceptance while any mean less than 3.0 was rejected.

Results

Table 1 showed that under production activities, majority ($x = > 2.00$) of the respondents generate their income through crop planting, harvesting and *roro*. while in processing activities majority engage in processing of shear butter, fish, rice, groundnut oil and *kulikuli*, making of soya cheese, Soya milk, snacks, frying of *akara* and *masa*. For marketing activities, majority ($x = > 2.00$) of the respondents generate their income through fetching and selling of firewood, cooking and selling of food, selling of grains and vegetables.

Table 1: Mean Responses on Rural Women Engagement in Agricultural Activities for Income Generation in Borgu Local government, Niger state

Variables	Weighted Sum	Weighted mean
Production Activities		
Livestock rearing	232	1.29
Crop planting	383	2.13
Crop harvesting	439	2.44
Crop <i>ror/emangi</i>	391	2.17
Fishing	210	1.17
Table size fish farming	215	1.19
Fingerling breeding	180	1.00
Processing Activities		
Processing sheer butter	377	2.09
Grinding and milling	279	1.55
Fish processing	293	1.63
Groundnut oil & <i>Kulilkuli</i>	389	2.16
Rice	356	1.98
Soyamilk, Zobo and <i>Kunu</i>	389	2.16
Snacks and chin – chin, Buns	383	2.13
Making <i>wara</i> (Soya cheese)	387	2.15
Frying <i>akara</i>	382	2.12
Frying <i>masa</i>	391	2.17
Marketing Activities		
Cooking and selling food	360	2.00
Selling of calabash	214	1.19
Fetching and selling firewood	389	2.16
Grains and vegetables	366	2.03
Aquaculture inputs	245	1.36
Fish marketing	305	1.69
Livestock and inputs	267	1.48

Table 2 displays the weekly income among the women farmers in the study area, which ranged from below #5,000 to above #20,000. Most common weekly income was | 11,000

- | 14, 000, indicated by 32.78% of the respondents. The result showed that majority of the respondent realized | 11000 -| 14,000. Per week.

Table 2: Percentage distribution of Estimated Income Generated from Agricultural Activities per Week

Income	Frequency	% Distribution
Below #5,000	19	10.56
#5,001 - #8000	31	17.22
#8,001 - #11,000	27	15.00
#11,001 - #14,000	59	32.78
#14,001 - #17,000	23	12.78
#17,000 - #20,000	13	7.22
Above #20,000	8	4.44

Table 3 indicates that communication and marketing with mobile phone, electricity supply, access and availability of the

input, personal experience/knowledge, good weather, security and peace in the environment were the major ($x = > 2.00$) contributing factors for their success

Table 3: Enabling Factors in Agricultural Activities

Enabling factors to success	Weight sum	Weight mean	Remarks
Access to loan and credit	263	1.46	Reject
Electricity supply	390	2.16	Accept
Trainings	272	1.51	Reject
Communication with mobile phones	410	2.27	Accept
Marketing with mobile phones	396	2.20	Accept
Government support	264	1.47	Reject
Access and availability of inputs	369	2.05	Accept
Personal experience & local knowledge	370	2.06	Accept
Networking with women	332	1.84	Reject
Security and peace in the environment	377	2.09	Accept
Good weather	400	2.22	Accept

Table 4 stated that income rural women generate through Agricultural activities empowers majority of the rural women financially, makes them to contribute to family wellbeing, acquire assets and attracts more respect to women with their respective $x > 3.00$. However, inadequate

capital, lack of new knowledge and skills, marketing problem, illness and health issues, lack of social amenities were major challenges reported by the rural women in engaging in agricultural activities in the study area.

Table 4: Mean Responses on the Benefits derived and challenges in Engaging in Agricultural Activities.

Benefits from Agric. Activities Income	Weighted sum	Weighted Mean	Agreement to benefit
Financial empower	632	3.51	High
Contribute to family well being	652	3.62	High
Attract more respect for the woman	674	3.74	High
Acquire assets	663	3.68	High
Attitudinal Statement to Challenges			
Inadequate capital for activity	677	3.76	High
Lack of new knowledge and skills	650	3.61	High
Marketing problem	689	3.82	High
Husband interference	423	2.35	Low
Issue of time management	566	3.14	High
Large family size	417	2.31	Low
Illness and health issues	665	3.69	High
Lack of mobile phone for communication	652	3.62	High
Lack of social amenities	675	3.75	High
Insecurity	428	2.38	Low

Discussion

Table 1 showed that rural women engage and make more income from processing activities than production, and marketing activities. Under production activities, respondents engaged more on crop

planting, harvesting and grain picking (*roro*). While in processing activities women engage more in Shea butter, fish, rice, groundnut oil and *kulikuli*, soya cheese, soya milk, snacks, frying of *akara*

and *masa*. For marketing activities, majority of the respondents engaged in fetching and selling of firewood, cooking and selling food, fish, grains and vegetables. which is confirmation with the finding of Ndaghu et al. (2018) who found that majority of the rural women (60.9%) at Borno state generate their income by collection and sale of firewood, Food and water sale (66.7%), frying and sales of beans cake and yam (50.5%) to mention but a few. Various income generating activities performed by the women in supporting their household food security indicated majority of the women engaged in farming 100%, processing of agro products 96.1%, food vending 79.4%, (Jalulah, 2020). This implies that women sampled engaged in different activities so as to ensure household food security. Food and Agricultural Organization of United Nation also reported that significant roles played by women in addition to unpaid labour are aimed at maintaining the household welfare.

The result in table 2 showed that majority of the respondents realized | 11000 - | 14,000. Per week.to support their household. Similarly, Babatunde et al (2019) found that the rural women were engaged in farming for income generation of | 8, 000 – | 10, 000 for weeks to support their household. Thus, the income generated per month by rural farmer's households is below minimum wage which is not sustainable with the present economic situation in Nigeria

The result on success enabling factors in agricultural activities in Table 3 shows that majority of the respondents agreed that communication and marketing with mobile phone, electricity supply, access and availability of the input, personal experience and local knowledge, good weather, security and peace in the environment were the major contributing factors for their success. This implies that adequate electrify supply, good weather,

personal experiences contribute to their success in generating income from agricultural activities for family sustainability

Table 4 reveals the benefit and challenges in generating income from Agricultural activities. On the benefits derived from generating income on agricultural activities the finding indicated that it empowers majority of the women financially, makes them to contribute to family wellbeing, acquire assets and attracts more respect to women. The implication is that women engaged in income generation will able to support their husbands economically thereby improving the family livelihood and food security. The study in table 3 also reported that inadequate capital, lack of new knowledge and skills, marketing problem, illness and health issues, lack of social amenities were major challenges in engaging in the activities in the study area. This is in agreement with the study of Jalulah (2020) who found out that almost all of the respondents reported that they had no access to any government or to some extent private sectors where they could get agricultural extension services, such as loan, new technologies, training to mention but a few.

Conclusion and Recommendations

The study determined rural women engagement in agricultural activities for income generation in Borgu Local Government Area, Niger state, Nigeria and the result found that majority of women in the study area engage and make more income from crop planting, harvesting and grain picking (*roro*) under production while in processing activities majority of the women were engaged in Shea butter, fish, rice, groundnut oil and *kulikuli*, soya cheese, soya milk, snacks, frying of *akara* and *masa*. For marketing activities majority engaged in fetching and selling of firewood, cooking and

selling of food, fish, grains and vegetables. The result also revealed that the high enabling factors for success found are communication and market with mobile phone, electricity supply, input access and availability, personal experience, local knowledge, good weather, security and peace in the environment. While benefits derived were financial empowerment, contributing to family wellbeing, acquire assets, respect for women and the identified challenges reported were inadequate capital, lack of new knowledge and skills, digital marketing problem, illness and health issues, and lack of social amenities in the communities.

Based on the findings the following recommendations were made:

1. Agricultural and home economics extension agents, NGOS, local government should organise training for rural women on the use of new seed varieties and modern processing and packaging methods.
2. Rural women also need credit facilities as well as functional and active cooperative group. As such, there's need for training on social media marketing, cooperative leadership, financial literacy and networking with government and non-governmental organisations within and outside local government area.

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