

ASSESSING WOMEN ARABLE CROP FARMERS PARTICIPATION IN THE DEVELOPMENT OF RURAL COMMUNITIES OF RIVERS STATE, NIGERIA

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ABSTRACT

This study assessed rural women arable crop farmers' involvement in the development of rural communities of Rivers State, Nigeria. Specifically, it was designed to identify types of arable crops cultivated by rural women, examine the types of community development projects executed by the women and determine the level of participation of the women in community development activities. Structured questionnaire was used to elicit data from four hundred and seventy-five (475) respondents from the three Senatorial zones of the State namely, Rivers West, Rivers South and Rivers East zones. Data collected were analyzed using descriptive statistics such as frequency, percentage, mean score, four point Likert-type scale rating scale and the analysis of variance (ANOVA). The results showed that cassava was the dominant arable crop cultivated by the rural women in arable crop production from the three senatorial zones. Some of the community development projects executed by the rural women arable crop farmers included grading/construction of feeder roads (31.3%), market (21.8%) and water borehole (17.8%), among others of which grading/construction of feeder roads ranked first. The women in the study area participated in community development activities such as in selection of project to be constructed ($\bar{x} = 3.33$), Selection of project site ($\bar{x} = 3.32$), site preparation for construction of project ($\bar{x} = 3.01$) amongst others. The study recommends that government should keep up with their responsibilities of providing basic social amenities for the citizenry especially for those residing in the rural areas of the state. Women should be encouraged and supported by government, community members, politicians, non-governmental, etc., financially and otherwise whenever they execute community development projects.

Keywords: Rural women, Arable crop farmers, Involvement, Development, Rural Communities

Introduction

The rural areas of Nigeria, according to Kwami (2018), are inhabited by the bulk of the nation's population, who depend on arable crop production as their major source of livelihoods and serve as the country's principal market for domestic manufactures. Commonly, the rural areas participate in primary activities that form the foundation for any economic development. Despite the relevance attached to the rural areas, they are not attractive to live in. Moreover, Tamuno and Iroh (2012) observed that there was the issue of the absence of basic social amenities which is supposed to improve the quality of life of the people. For instance, there is lack of portable water, electricity and good road networks, among others. They also revealed that rural people have low purchasing power and standard of living and attempts at solving these rural problems have been the main objective of development planning in Nigeria since the inception of planning periods. Examples of such development plans are evidenced in the following

programmes, Operation Feed the Nation (OFN); the National Accelerated Food Production Programme (NAFPP) and the Directorate of Foods, Roads and Rural Infrastructure (DFRRI).

Additionally, Iheanyi and Eni (2012) opined that the aspiration of policy makers was that rural infrastructure be adequately provided, which will enhance the quality of rural life. But it is rather observed that the rural people have benefited very little from most rural development programmes. Therefore, sustainable rural development should be an important concern for the developing countries in order to attain economic development and welfare of the people and the process of rural development can only be more sustainable when all the members of the family are involved.

Farming is the pillar of rural societies and in many countries of the world; it is the main economic activity. Any abrupt or extreme change imposed on the farming sector could have calamitous consequences in terms of social and political stability in economically developing countries. Farming also plays an important

part in community development, especially due to land use, in countries where the sector is of less economic significance. The main potential contributions of farming to community development are in terms of supporting employment, ancillary businesses, and environmental services. In peripheral regions, farming may be necessary to support the economic and social infrastructure (European Commission, 2000).

One aspect of farming is crop production and crop production is that branch of farming that deals with the growing of crops for use as food and fiber. Examples include grains, cotton, tobacco, oil palm, rubber, fruits, vegetables, yams, cassava, cocoyam, potatoes, tomatoes, nuts and so on. Akinyosoye, (2005) in support opine that crops are also categorized into several groups depending on their characteristics or their utilization. For instance, there are biannual, annual, biennial and perennial crops which are grouped according to their duration from time of planting to time of harvest; we also have arable, food and cash crops which are grouped according to their uses (Ogwu, Osawuru and Chime, 2015). In general different crops grow best in different areas of the Country (study.com 2012-2019). In Nigeria, even though most of the crops can be grown in all the states, the northern states are best for growing grains, including wheat, millet, rice, groundnuts, sorghum and others. The middle belt is best for yams, sorghum, millet, cassava, cowpeas, corn, and rice. The southwest and some parts of the south-south are ideal for tree crops such as cocoa, rubber, cashew, kola nuts, mango, orange etc. In the south east and south-south, best grown crops include oil palm, rice, cassava, yams, cocoyam, maize, vegetables, among others (Ibidapo, Ogunsiye, Oso and Akintade, 2018). Crop producers usually work from sunrise to sunset during planting and harvesting seasons. They sell the crops they have produced, plan crops for the next season and repair machinery (SAI Platform, 2009).

Most rural women participate in and depend on crop production as their major source of livelihood. Consequently, women's role in crop production can never be over emphasized. According to Saif-Ur-Rehman and Qamar (2013), rural women both in farm and non-farm families are involved in various crop production activities either to help as family labour or to earn money to supplement their family income. Rural women work from dawn to dusk involving themselves in variety of tasks to support their families through their participation in crop production. As earlier mentioned, varieties of tasks are performed by these rural women (Rivers State women inclusive) while working on their various farms and these tasks include making land ready for ploughing, ridging, mound making, irrigation, sowing, weeding, and harvesting and others. Since most of the rural women are unable to work in

various other occupations due to their lack of education, they are therefore left with no other option than to mainly work on crop producing farms (Saif-Ur-Rehman et al, 2013). These farms often times may be family owned or taken on tenancy from a landlord. Rural women who are engaged in crop production and management are therefore duty-bound to be imparted with knowledge and skills to enhance their role in better crop production in terms of both quality and quantity of output. Women in the rural areas are involved in the production of major cash and food crops, particularly in cotton, rice, pulses and vegetables.

According to World Bank Statistics and estimates of the Food and Agriculture Organization (2006), two thirds of the female labour force in developing economies are engaged in agricultural activities especially crop production. Women perform two third of the entire world's work and produce more than half of the food in most of the developing countries and as much as 73% of women are involved in cash crops, arable and vegetable gardening (FAO, 2006). In explaining the rural women's importance and role in crop production, the World Conference of the United Nations' Decade of Women, which was entitled "Equality, Development and Peace" in 1980 held in New York, attested to the fact that two-thirds of the total work done by women in the world is being done by rural women (Khatami, 2004). In agreement with the above discourse, Afolabi (2008) expressed that in some states in Nigeria, rural women have virtually taken over the production and processing of arable crops being responsible for as much as 80% of the staple food items. Odebode (2012) revealed that outcomes of various researches conducted on the participation of women in agricultural development precisely crop production in the country suggests that women participation in farm work is as high as between 60% and 90% of the total farm task performed. According to them, the involvement of the women ranges from such tasks as land clearing, land tilling and planting, weeding, fertilizer/manure application to harvesting, food processing, threshing, winnowing, milling, transportation, storage and marketing as well as the management of livestock and the Nigerian woman are therefore saddled with most of these tasks in agricultural production 'supposedly' meant for the man but the benefits gained by them are not commensurate with the hours and energy they spend on these tasks.

However, women are still seen as weaker vessels and political rivals or threats that are not meant to be given opportunities, especially when it comes to leadership positions. They are not allowed to participate in stakeholders' meetings when decisions are taken

concerning their communities, they not allowed to assume leadership positions in the communities not to talk of the larger society to contribute their bit to national development. It is against this background that this study on assessing women arable crop farmers' participation in the development of rural communities of Rivers State, Nigeria was embarked on.

Objectives of the Study

The broad objective of the study is to assess rural women arable crop farmers' participation in the development of rural communities in Rivers State, Nigeria. The specific objectives include to:

- i identify the types of arable crops produced and the types of community development activities embarked upon by women in the study area;
- ii identify the types of arable crops produced and the types of community development activities embarked upon by women; and
- iii ascertain the level of participation of the rural women arable crop farmers in community development activities.

Methodology

The study area was Rivers State, it is one of the 36 states that make up Nigeria and its capital is Port Harcourt. The State is bounded on the South by the Atlantic Ocean, to the North by Imo, Abia and Anambra States, to the East by Akwa-Ibom State and to the West by Bayelsa and Delta states of Nigeria. Rivers state is home to many ethnic groups including Ikwerre, Ibani, Opobo, Okrika, Kalabari, Etche, Ogba, Ogoni, Engenni and others. The inland part of Rivers State consists of tropical rainforest, towards the coast the typical Niger Delta environment features many mangrove swamps. Rivers State was named as a result of the many rivers that border its territory. The State was formed in 1967 with the split of the Eastern Region of Nigeria and until 1996 the State contained the area which is now in the Bayelsa State. Rivers State is currently made up of 23 local government areas. These are Ogba/Egbema/Ndoni, Ikwerre, Etche, Andoni/Opobo, Bonny, Okrika, Iyigbo, Khana, Gokana Tai, Eleme, Obio/Akpor, Emohua, Degema, Asari-Toru, Akuku-Toru, Abua/Odial, Omuma, Opobo/Nkoro, Ogu/Bolo, Ahaoda West, Ahaoda East and Eleme. These LGAs are also politically divided into 3 senatorial districts accordingly namely: Rivers West, Rivers East and Rivers South senatorial districts. Survey research was adopted. The multi-stage sampling procedure was used for this study to select the female arable crop farmers. The State consists of twenty-three (23) Local Government Areas (LGAs)

divided into three (3) senatorial zones namely Rivers West (Ogba /Egbema/Ndoni, Ahaoda East, Ahaoda West, Abua/Odual, Degema, Akuku-Toru, Asari-Toru, and Bonny), Rivers East (Port Harcourt, Obio/Akpor, Emohua, Ikwerre, Etche, Omuma, Okrika and Ogu/Bolo) and Rivers South East (Opobo/Nkoro, Andoni, Oyigbo, Tai, Eleme, Gokhana and Khana). Four (4) Local Government Areas were randomly selected from each senatorial zone to make a total of twelve (12) Local Government Areas. Furthermore, a proportionate (equal) simple random sampling technique was used to select two (2) communities from each of the already selected four LGAs to have a total of twenty-four (24) communities in all. Purposive sampling technique was further used in selecting women arable crop farmers from each of the communities to have a total of four hundred and eighty (480) respondents which constituted the sample size of the study. However, out of the four hundred and eighty (480) copies of questionnaire distributed, only four hundred and seventy-five (475) copies were retrieved. Data were collected from primary source through structured questionnaire. The study adopted both the descriptive and inferential methods to analyze the data that were obtained from the field. The descriptive tools used included percentage, frequency and mean values while the inferential tools included binary logistic regression analysis and the analysis of variance (ANOVA) for the test of the hypotheses of the study.

Results and Discussion

Entries in Table 1 showed that Cassava is the dominant arable crop cultivated by all the rural women arable crop farmers studied in the three zones namely; Rivers West zone, Rivers South zone and Rivers East zone as it ranked first followed by Maize and Fluted Pumpkin that ranked second and third respectively. Findings indicate that the types of arable crops planted in the study area include cassava, maize, fluted pumpkin, plantain, okra, cocoyam, water leaf, yam, pepper, banana, garden eggs, cucumber, chill pepper, tomatoes and potatoes. However most of the respondents cultivate cassava. This must be indicative of the high demand of cassava which is used to prepare a variety of Africa's staple foods such as garri, fufu, tapioca, starch (edible and laundry) and recently ethanol for industrial uses locally and for export. In corroboration, FAO, (2020) states that Nigeria is the largest producer of cassava, accounts for production of up to 20 per cent of the world's and produces close to two-thirds (66 per cent) of total production is in the southern part of the country. It also agrees with the findings of Okolo (1986) in Okunge (2016) that cassava is woman's crop.

Table 1: Types of Arable Crops Produced in the Study Area according to Zones

Types of arable crops cultivated	R/West Zone (n=129) Freq.	%	R/East Zone (n=160) Freq.	%	R/South East Zone (n=186) Freq.	%	Pooled (n=475)	%	Ranking
Cassava	113	87.60	134	83.75	156	83.87	403	84.84	1 st
Cocoyam	69	53.49	87	54.38	77	41.40	233	49.05	5 th
Plantain	94	72.87	75	46.88	111	59.68	280	58.95	4 th
Yam	41	31.78	76	47.5	90	48.39	207	43.58	8 th
Fluted Pumpkin	76	58.91	100	62.5	150	80.65	326	68.63	3 rd
Water Leaf	52	40.31	74	46.25	92	49.46	218	45.89	7 th
Okra	63	48.84	89	55.63	85	45.70	237	49.89	6 th
Pepper	52	40.31	70	43.75	81	43.55	203	42.74	9 th
Tomatoes	4	3.10	19	11.88	21	11.29	44	9.26	14 th
Cucumber	3	2.33	36	22.5	47	25.27	86	18.11	12 th
Chili Pepper	9	6.98	10	6.25	44	23.66	63	13.26	13 th
Garden Egg	5	3.88	24	15	64	34.41	93	19.58	11 th
Banana	62	48.06	38	23.75	61	32.80	161	33.89	10 th
Maize	95	73.64	107	66.88	136	73.12	338	71.16	2 nd
Others(please specify) potatoes	2	1.55	0	0.0	2	1.08	4	0.84	15 th

Source: Field Survey, 2019**Multiple Responses**

Results in Table 2 showed that Grading/Construction of feeder roads were the main community development projects executed by the rural women arable crop farmers studied in the three zones namely; Rivers West zone, Rivers East zone and Rivers South East zone as it ranked first followed by Market and Water Borehole that ranked second and third place respectively. Results showed that majority of the respondents embarked on grading/construction of feeder roads as their

community development project which was followed by market projects, water borehole projects, health center/maternity projects, town hall projects, and community toilet projects. This is in agreement with the findings of Albert, Ladu and Isife (2017) that women who were involved in cassava processing projects contributed to various community development projects in Ikwerre Local Government of Rivers State.

Table 2: Types of community development projects executed by the rural women arable crops farmers in the study area according to zones.

Types of community development projects executed	R/West Zone (n=129) Freq.	%	R/East Zone (n=160) Freq.	%	R/South East Zone (n=186) Freq.	%	Pooled (n=475)	%	Ranking
Health Center/ Maternity	15	11.6	40	20	25	10.6	80	14.1	4 th
Water Borehole	15	11.6	60	30	25	10.6	100	17.4	3 rd
Market	14	10.9	40	20	69	29.2	123	20.0	2 nd
Grading/ Construction of Feeder Roads	70	54.3	40	20	67	28.4	177	34.2	1 st
Bridges/ Culverts	0	0	0	0	0	0	0	0.0	7 th
Town Hall	0	0	20	10	50	21.2	70	10.4	5 th
Others (Please Specify) (Toilet)	15	11.6	0	0	0	0	15	3.9	6 th

Source: Field survey, 2019**Multiple Responses**

The result in Table 3 shows that the women in the study area participated to a great extent in community development activities such as inselection of project to be constructed (\bar{x} =3.33),selection of project site (\bar{x} =3.32), contribution of funds for construction materials (\bar{x} = 3.30), and others. The grand mean was 2.73. The women in the study area participated actively in community development activities such as selection of project to be constructed, selection of project site, site preparation, carting away debris, fetching water, clearing of site after construction,provision of security after construction, constitution of project maintenance committee, landscaping/horticultural beautification of project site, contribution of funds for building materials and contribution for project maintenance as they all had a mean scores above 2.50. Similarly, the areaswhere the women did not participate actively were in purchase of selected project site, providing food for

workers on site, provision of store for building materials, provision for accommodation for workers on site, provision of furniture, provision of equipment and provision of security during construction as they all had a mean scores of less than 2.50. However, their general participation in all of the community developmentactivities reflects the relevance of these projects embarked on by theserural women arable crop farmers, their communities and the State at large. People are more likely to participate in activities that are designed to meet their needs and improve their living conditions. This finding supports Iheanyi and Eni (2012) that women embarked on a lot of community development projects like providing social services such as construction of waiting sheds at bus stops, building of classrooms, women centres, public toilets and bathrooms, filling potholes, etc.

Table 3:Level of Women Participation in Community Development Activities

Community Development Activities	Very Great Extent (4)	Great Extent (3)	Little Extent (2)	Very Little Extent (1)	Total Score	Mean (\bar{x})
Selection of project to be constructed	936	519	116	10	1581	3.33
Selection of project site	884	594	90	11	1579	3.32
Purchase of selected project site	288	300	242	182	1012	2.13
Site preparation for construction of project	700	534	150	47	1431	3.01
Carting away debris from the construction site	664	546	168	43	1421	2.99
Fetching water for mixing of mortar	692	378	176	88	1334	2.81
Providing food for workers on site	324	402	242	139	1107	2.33
Provision of store for building materials	208	261	314	179	962	2.03
Provision of accommodation for workers on site	216	219	264	216	915	1.93
Contribution of funds for construction materials	1120	321	78	49	1568	3.30
Provision of furniture	264	267	288	176	995	2.09
Provision of equipment	208	567	336	66	1177	2.48
Provision of security during construction	280	237	234	209	960	2.02
Provision of security after construction	884	492	126	27	1529	3.22
Clearing and cleaning of site after construction	924	519	84	29	1556	3.28
Landscaping/Horticultural beautification of project site	804	552	118	31	1505	3.17
Contribution for maintenance of project	336	543	204	108	1191	2.51
Constitution of Project Maintenance Committee	984	384	124	39	1531	3.22
TOTAL MEAN						49.17
GRAND MEAN						2.73

Source: Field survey, 2019

≥ 2.50 = Great Extent; < 2.50 = Very little Extent

The level to which the women participated in community development activities was further subjected to Chi-square and the results reveal that the degree of freedom = $(4 - 1)(3 - 1) = 6$. The theoretical value of the Chi Square is 16.81. Since the observed

value (1.38) is below the theoretical value, $p < 0.001$. This profile shows that participants from the 3 senatorial district did not differ on level of participation.

Table 4: Chi-Square Results for Level to Which the Women Participated In Community Development Activities

	RW	%	RE	%	RSE	%	Total
4	38	29.5	53	33.1	55	29.6	146 (30.7)
3	40	31	45	28.1	56	30.1	141 (29.7)
2	27	20.9	29	18.1	40	21.5	96 (20.2)
1	24	18.6	33	20.6	35	18.8	92 (19.3)
	129	100	160	99.9	186	100	475 (100)

Solution

Cell	f_o	f_e	$(f_o - f_e)^2 / f_e$
a	38	39.6	0.06
B	53	49.1	0.31
C	55	57.1	0.08
D	40	38.3	0.08
E	45	47.5	0.13
F	56	55.2	0.01
G	27	26.1	0.03
H	29	32.3	0.34
I	40	37.6	0.15
J	24	24.9	0.03
K	33	30.9	0.14
L	35	35.9	0.02
Total			1.38

The degree of freedom = $(4 - 1)(3 - 1) = 6$. The theoretical value of the Chi Square is 16.81.

H01: There is no significant difference in the types of community development activities embarked on among the three senatorial zones of Rivers State. The findings in Table 5 indicated that the variables were statistically significant as p-value is 0.000, so the null hypothesis is rejected. Therefore, we conclude that there is a significant difference in the types of community development activities embarked on among the three senatorial zones of Rivers State. The Table 5 above shows that the three senatorial zones of Rivers State had sum of squares of 3.793 between groups and 56.459 within groups summing up to 60.252. The

degree of freedom (df) was 2 and 472 between groups and within groups respectively, summing up to 474. The mean squares were 1.897 and 0.120, F is 17.144 and the probability value is 0.000 ($p = 0.05 > p$ -value). Since the p-value is less than 0.05 it indicates a positive effect at 95% confidence level. The principles states that p-values less than or equal to 0.05 should reject the null so in this case the null hypothesis (H02) was rejected and the alternative (HA2) accepted, indicating that there is a significant difference in the types of community development activities embarked on among the three senatorial zones of Rivers State.

Table 5: ANOVA Result showing Difference in the Types of Community Development Activities among the three Senatorial Zones in Rivers State

Source of variation	Sum of Squares	Df	Mean Square	F	Sig. (p-value)
Between Groups	3.793	2	1.897	17.144	0.000
Within Groups	56.459	472	0.120		
Total	60.252	474			

Source: Field Survey, 2019

$p \leq 0.05$

H02 There is no significant difference in the level of participation in community development activities among rural women in the three senatorial zones of Rivers State. The result in Table 6 shows that the three senatorial zones of Rivers State had sum of squares of 3.652 between groups and 277.114 within groups totaling up to 280.766. The df was 2 and 472 between groups and within groups respectively, summing up to 474. The mean squares were 5.717 and 0.943, F is

6.195 and the probability value is 0.151 ($p=0.05 > p$ -value). Since the p-value is more than 0.05 it indicates a negative effect at 95% confidence level. Therefore, according to the principles, the null hypothesis (H03) was accepted and the alternative (HA3) rejected, indicating that there is no significant difference in the level of participation in community development activities among rural women in the three senatorial zones of Rivers State.

Table 6: ANOVA Result Showing Difference in Level of Participation in Community Development Activities among the three Senatorial Zones of Rivers State.

Source of Variation	Sum of Squares	Df	Mean Square	F	Sig. (p-value)
Between Groups	3.652	2	5.717	6.195	0.151
Within Groups	277.114	472	0.943		
Total	280.766	474			

Source: Field Survey, 2019

$p \leq 0.05$

Conclusion and Recommendations

The study in line with its objectives was able to access, identify and confirm that the arable crops cultivated by these women arable crop farmers to raise funds for the development of their rural communities were basically cassava, maize, fluted pumpkin and so on. The types of community development projects embarked upon by the women in the study area include grading/construction of feeder roads, market, borehole and others. The community development activities performed by these women includes, selection of project to be constructed, selection of project site, provision of security during and after. It is therefore recommended that:

- Rural women should be encouraged and supported by government, community members, politicians, non-governmental organizations, corporate bodies, financial institutions, donor agencies and multinationals through funding, capacity building, technical support and provision of materials whenever such community development project are to be embarked on because of its enormous positive impact on the immediate beneficiaries and the society at large.
- Women should be considered and allowed to inherit land from their fathers and their

husbands as it will solve the problem of unavailability

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