Science Arena Publications
Specialty Journal of Agricultural Sciences
Available online at www.sciarena.com
ISSN: 2412-737X
2019, Vol 5(4): 1-9

Agricultural Extension Service Needs of Women Homestead Farmers in Etche Local Government Area of Rivers State, Nigeria

Nwaogwugwu, O.N.*, Akem, P.A.

Department of Agricultural Economics and Extension, Faculty of Agriculture, University of Port Harcourt, Nigeria.

***Corresponding Author**

Abstract: *This study assessed agricultural extension service needs of women homestead farmers in Etche Local Government Area of Rivers State, Nigeria. In specific terms, the study described the socio-demographic characteristics of women homestead farmers, identified the activities of women in homestead farming, ascertained the farming systems adopted by women homestead farmers, identified the extension service needs of women homestead farmers and ascertained the challenges to access extension services by women homestead farmers in the study area. A Simple random sampling technique was used to select 20 respondents from 4 out of the 5 clans in the study area to give a sample size of 80. Data were collected using a structured and validated questionnaire. Data were analyzed using mean, frequencies and percentages. The result showed that majority of the women homestead farmers are young adults, married and with some form of formal education. Also, farming activities carried out by women in the homestead farms includes harvesting (mean = 3.81), (mean = 3.79), planting (mean = 3.78), marketing of farm produce (mean = 3.71), weeding (mean = 3.65), processing of farm produce (mean = 3.56) amongst other activities. The result further showed that crop rotation (mean=3.09), mixed cropping (mean=2.81) and mono cropping (mean=2.58) are commonly practiced in the homestead farms. It was found that access to credits (mean = 3.45), improved seeds (mean = 3.43), farm inputs (mean = 3.40), loans (mean = 3.34), improved storage facilities (mean = 3.31), farming implements (mean = 3.20), fertilizers (mean = 3.19), learning of new skills (mean = 3.18) are among the agricultural extension service needs of women homestead farmers in the study area. While challenges encountered by women homestead farmers in accessing extension services includes poor extension service delivery (mean = 3.68), inadequate number of extension agents (mean = 3.64) among others. It is therefore recommended that agricultural extension agencies should reach the women homestead farmers with improved agricultural innovations for an increased productivity through an effective and need-based agricultural extension services.*

Keywords: *Agricultural extension Service Needs, Homestead Farmers*

INTRODUCTION

The home is the centre of family living and the source of the nation's strength, owing to the fact that it reflects the social and economic standards of the society. The role of women in sustaining the home or household cut across areas such as homemaking, child care, family nutrition and other domestic

chores. In the course of the above mentioned activities, it is basically true that women are saddled with ensuring food sustainability in the household or farm family, thus their involvement in agricultural production (Kizilastan, 2007). One of the aims of sustainable agriculture is to conserve or preserve the natural resources, protect the environment and enhance household production through availability of food. However, women farmers in developing countries such as Nigeria, especially in rural areas are involved in small scale crop production for household consumption (Smith, 2010). Therefore, in an attempt to ensure food security and still carry out their domestic functions, these women indulge in homestead farming to ensure proximity to the home.

Homestead farming is regarded as a complete farming system, which Food and Agriculture Organization (FAO, 2006), identified as the most direct means of supplying the farm family with most of its staple food all year round. As a farming system carried out around the homesteads, homestead farming involves husbandry of crops and in most cases alongside livestock. Crops commonly grown in homestead farms include all arable crops, tree crops, ornamentals, etc. In addition, various species of livestock such as poultry, ruminants and non-ruminants are tended in homestead farms on semi-intensive and free range basis. It can also be called backyard gardening, homestead gardening or compound farming depending on the combination of crops, animals and farming systems. Well-developed homestead farming contributes significantly to daily food needs of the farm-family while excess harvests are sold to generate needed income for the family to meet other financial obligations, thus contributing to food basket of immediate locality. Homestead farming requires little capital, low risk, utilization of household wastes as a source of farm manure and it is easy to manage. The farmers adopt approaches such as the use of household refuse, animal manure, mulching and crop residue management, appropriate tillage and trash burning techniques. These approaches enhance efficiency and income. According to Hawkes et al, (2012), the production of food by smallholder farmers has the potential to influence the nutrition of members of their households, either through direct consumption or indirectly by generating income which allows them to purchase other items for the home. To achieve the foregoing benefits, there is need to reach the women farmers with improved agricultural innovations for an increased productivity through effective and need-based agricultural extension services.

Agricultural extension provides the vehicle for increasing agricultural productivity because it links the farmers with proven agricultural innovations by exposing rural farmers to ideas, information, improved farming methods and technology to enhance their productivity. It also provides linkages to veritable source of farm credits, markets as well as relevant training for value-addition, processing, utilization of agricultural products, cooperative engagement and group participation among farmers. In spite of the above and other numerous benefits provided through agricultural extension services, women farmers in rural communities in Nigeria hardly receive adequate attention in agricultural extension coverage. According to FAO (2011), if women had same access to productive resources as men, they could increase yield on their farms by 20-30% thus raising agricultural output in developing countries. Improving the status of women farmers is often seen as a crucial element to enhancing the well-being of women, their families, and their communities. However, Ragasa (2014) noted that access to extension services is significantly lower for women compared to men.

Women play dominant and prominent roles in agricultural production and development, yet women in comparison to men and are usually not reached by extension agents. Women constitute majority of people providing most of the labour in various farming activities on a daily basis. In spite of their central role in agricultural production, they face numerous constraints and challenges in accessing agricultural extension services. Agricultural Extension plays an important role in disseminating agricultural information on new technologies and research aimed at improving agricultural productivity. Increased productivity is important in promoting household food sufficiency, improving income and reducing rural poverty (International Food Policy Research Institute (IFPRI), 2010).

However, women face numerous challenges in their quest to access agricultural extension services. These range from poor extension service delivery to marginalization of women farmers, insufficient funds, and limited involvement of women farmers in extension processes. Limited coverage of extension services across rural areas, land tenure system, lack of government intervention amongst others. They require extension services on such areas as improved seeds, access to credits and loans, education and training on improved processing methods and utilization of farm products and by-product, technical advice on agricultural innovations and so on. Meeting these needs would improve productivity of the homestead farms. Thus, this study seeks to specifically describe the socio-demographic characteristics of women homestead farmers in the study area, identify the activities of women in homestead farming in the study area, ascertain the farming systems adopted by women homestead farmers, identify the extension service needs of women homestead farmers and examine the constraints access of women homestead farmers to extension services in the study area.

Methodology

The study was conducted in Etche Local Government Area of Rivers state, Nigeria. Etche people inhabit two local government areas of Rivers State namely: Etche Local Government Area and Omuma Local Government Area. Etche consists of five (5) clans and lies between latitude 40^0 99'N and 70^0 5'E and occupies a total land area of 811,524km². According to the National Population Commission (NPC) (2006), it has an estimated population of 249,939 people. They are mostly engaged in farming as their main occupation. The Population of the study comprised of women homestead farmers in Etche Local Government Area. Simple random sampling technique was used to select 20 respondents from 4 different communities in the study area to give a sample size of 80. Data were collected using a structured questionnaire. There are five (5) sections; section A sought to describe the socio-demographic characteristics of the respondents. Section B contained 26 items to identify the activities of women homestead farmers. Section C and D sought to ascertain the farming systems adopted and identity extension needs of the respondents. While, Section E examined factors that limit access to extension services in the study area. A 4-point likert scale was adopted for sections B to E. Where SA (strongly agree)=4, A (agree)=3, D (disagree)=2 and SD (strongly disagree)=1. A midpoint of 2.50, with mean values ≥ 2.50 implied agreement while values < 2.50 implied disagreement. The data for this study was analyzed using descriptive statistical tools such as frequency, percentage and mean.

Results and Discussion

Socio-demographic Characteristics of Women Homestead Farmers in Etche Local Government Area

From Table 1, the results indicate that the majority (61.3 %) of the respondents are between the ages of 30-39 years. This age bracket is associated with young, active and productive individuals who are actively engaged in productive activities as noted by Rebecca, (2012). The result further shows that majority (66.3%) of the respondents are married, 47.5% of the them have relatively a large household size of 6-10 persons. The finding is indicative that the respondents have responsibilities of ensuring the upkeep and food security of their family members and so have increased need for higher productivity in the farmstead through better information and innovations. Majority of the respondents in the study indicated was that agriculture is the major occupation (68.8%). This is because agriculture is the main occupation and source of income for most rural women in developing countries. Agricultural extension services therefore is critical for increased productivity. Also the respondents have gained one form of formal education or the other, which predisposes them to accessing agricultural extension service and better agricultural production technology.

Table 1: Socio-demographic Characteristics of Women Homestead Farmers

Variables	Frequency	Percentage
Age(years)		
20-29	10	12.4
30-39	49	61.3
40-59	12	15.0
60 and above	9	11.3
Marital Status		
Single	21	26.2
Married	53	66.3
Widowed	6	7.5
Level of Education		
No formal education	20	24.9
Primary	41	51.3
Secondary	16	20.0
Tertiary	3	3.8
Household size		
1-5	27	33.7
6-10	38	47.5
11-15	15	18.8
Main occupation		
Trading	18	22.4
Civil service	7	8.8
Agriculture	55	68.8
Farm size(plots)		
1-2	3	3.8
3-4	50	62.5
5-6	27	33.7
Farming Experience (years)		
1-5	6	7.5
6-10	13	16.3
11-15	21	26.2
16-20	14	17.5
21-25	11	13.8
26-30	6	7.5
31 and above	9	11.2
Extension Contact		
Regularly	—	—
Often	5	6.3

Occasionally	20	24.9
Rarely	55	68.8

Source: Field Survey, 2018

Farming Activities carried out by Women in Homestead Farms in the study area

Respondents rating of the farming activities carried out by women in the homestead farms (Table 2) indicated that harvesting (mean = 3.81), (mean = 3.79), planting (mean = 3.78), marketing of farm produce (mean = 3.71), weeding (mean = 3.65), processing of farm produce (mean = 3.56) amongst other activities. Activities such as fertilizer application, pruning and ploughing were the least activities engaged in. The findings corroborates previous assertions that women contribution to the family and national food basket is immense due to their involvement in all aspects of agricultural production, from pre-planting to post-planting operations (Fabiyi et al., 2007; Ahmed, et. al, 2010; Nwaogwugwu and Emodi, 2012). This is indicative of the need for agricultural extension advice and services in the relevant areas of engagement for improved productivity and farm yield.

Table 2: Respondents Rating of Farming Activities carried out by Women in Homestead Farms in the study area.

Activities	Mean	Remarks
Harvesting of crops	3.81	Agreed
Planting	3.78	Agreed
Marketing of farm produce	3.71	Agreed
Weeding	3.65	Agreed
Processing of farm produce	3.56	Agreed
Staking	3.49	Agreed
Mulching	3.41	Agreed
Seed selection	3.40	Agreed
Supplying	3.31	Agreed
Winnowing	3.28	Agreed
Threshing	3.26	Agreed
Pest control	2.96	Agreed
Thinning	2.80	Agreed
Seed bed preparation	2.78	Agreed
Disease control	2.68	Agreed
Shading	2.55	Agreed
Watering of crops	2.55	Agreed
Land clearing	2.46	Disagreed
Nursery	2.40	Disagreed
Transplanting	2.31	Disagreed
Pruning	2.26	Disagreed
Stumping	2.24	Disagreed
Ridging	2.14	Disagreed
Fertilizer application	1.84	Disagreed

Ploughing	1.43	Disagreed
Harrowing	1.39	Disagreed

Source: Field Survey, 2018

N:B: Items with mean value < 2.50 implies acceptance while items with mean value ≥ 2.50 implies rejection.

Farming Systems Practiced by Women Homestead Farmers in the Study Area

Table 3 shows the result of farming systems adopted by women homestead farmers in the study area. It was found that crop rotation (mean=3.09), mixed cropping (mean=2.81) and mono cropping (mean=2.58) are commonly practiced in the homestead farms. It is however observed that the emphasis on crop farming among homestead farmers arise because these food crops constitute the major staples in the area.

Table 3: Farming Systems Practiced By Women Homestead Farmers

Farming systems	Mean	Remarks
Crop rotation	3.09	Agreed
Mixed cropping	2.81	Agreed
Mono-cropping	2.58	Agreed
Mixed farming	1.46	Disagreed
Shift cultivation	1.74	Disagreed
Taungya system	1.39	Disagreed
Pastoral farming	1.23	Disagreed
Nomadic farming	1.40	Disagreed
Bush fallowing	1.88	Disagreed
Ranching	1.34	Disagreed
Integrated farming	1.50	Disagreed
Irrigated farming	1.50	Disagreed
Inter-cropping	2.11	Disagreed
Relay cropping	1.53	Disagreed
Livestock farming	1.31	Disagreed
Silviculture	1.25	Disagreed
Trans-humance	1.21	Disagreed

Source: Field Survey, 2018

N:B: Items with mean value <2.50 implies disagreement while items with mean value ≥ 2.50 implies agreement.

Extension Service Needs of Women Homestead Farmers in the study Area

Results on Table 4 are the respondents' ratings on the extension service needs of homestead farmers in the study area. It was found that access to credits (mean = 3.45), improved seeds (mean = 3.43), farm inputs (mean = 3.40), loans (mean = 3.34), improved storage facilities (mean = 3.31), farming implements (mean = 3.20), fertilizers (mean = 3.19), learning of new skills (mean = 3.18), training on innovative farming practices (mean = 3.13) and technical advice (mean = 3.11) were among the areas of agricultural extension service needs among women homestead farmers in the study area. This result shows that women homestead farmers have a lot of extension service needs that should be met.

Table 4: Extension Service Needs of Women Homestead Farmers

Items	Mean	Remarks
Access to credits	3.45	Agreed
Access to improved seeds	3.43	Agreed
Access to farm inputs	3.40	Agreed
Access to loans	3.34	Agreed
Improved storage facilities	3.31	Agreed
Access to farming implements	3.20	Agreed
Access to fertilizers	3.19	Agreed
Learning of new skills	3.18	Agreed
Training on best farming practices	3.13	Agreed
Technical advice	3.11	Agreed
Pest and disease management	3.00	Agreed
Support in farm management decision making	2.89	Agreed
Good friendship amongst farmers to allow for team work	2.89	Agreed
Educational needs	2.86	Agreed
Motivation	2.86	Agreed
Means of communication	2.53	Agreed
Structural change	2.44	Disagreed

Source: Field Survey, 2018

N.B: Items with mean value <2.50 implies disagreement while items with mean value ≥ 2.50 implies agreement.

Challenges Encountered by Women Homestead Farmers in Accessing Extension Services in the Study Area

Table 5 shows result on the respondents' rating of the challenges encountered by women homestead farmers in accessing extension services. Poor extension service delivery (mean = 3.68) and inadequate number of extension agents (mean = 3.64) are among challenges. It is obvious that each the two challenges may lead to the other especially in Nigeria where the agricultural extension agent – farmer ratio do not conform to the acceptable standard ratio, service delivery become compromised. Other challenges as indicated on Table 5 are: illiteracy (3.34), lack of government intervention (mean =3.21), marginalization (mean=3.09), land tenure system (3.31). The findings corroborate with previous studies which found the above challenges as limiting extension services significantly for women as compared to men (Ragasa, 2014).

Table 5: Challenges of Women Homestead Farmers in Accessing Extension Services

Items	**Mean**	**Remarks**
Poor extension service delivery	3.68	Agreed
Inadequate number of extension agents	3.64	Agreed
Illiteracy	3.34	Agreed
Land tenure system	3.31	Agreed
Inadequate government intervention	3.26	Agreed
Language barrier	3.24	Agreed

Marginalization of women farmers	3.09	Agreed
Inadequate funds	3.06	Agreed
Inaccessible roads	3.03	Agreed
Political factors	3.01	Agreed
Social crisis	2.98	Agreed
Unregistered cooperatives	2.88	Agreed
Insecurity	2.84	Agreed
Lack of mobility of women	2.26	Disagreed
Centralized system of operation	2.09	Disagreed
Expensive private extension	1.76	Disagreed

Source: Field survey, 2018

Note: Items with mean value <2.50 implies disagreement while items with mean value ≥ 2.50 implies agreement.

Conclusion

Based on the findings of the study, it is concluded that there are several agricultural extension service needs of women homestead farmers which cover the various farming activities in which women farmers are engaged.

Recommendations

Based on the findings of this study, it is recommended that:

- Agricultural extension agencies should reach the women farmers with improved agricultural innovations for an increased productivity through an effective and need-based agricultural extension services.
- Government should recruit adequate and well trained agricultural extension agents to improve the poor farmer-extension agents' ratio in rural extension practice.
- Government should through its relevant agencies provide such incentives as credits without collateral, improved seeds and other farm inputs at subsidized rates to improve agricultural production and food security at the household level.
- Adequate training on improved land use and farming practices should be mounted by for women farmers by the field agricultural extension agents.

References

1. Ahmed, N., Diamond, N., Clarke, M. & Adams, N. (2010). Gender and Environment. The World Bank Environment strategy Analytical Backgrounsd Papers. Washinghton D.C. http:/www.worldbank.org/wbi/publications.html.
2. Fabiyi, E. F., Danladi, B. B., Akande, K. E., & Mahmood, Y. (2007). Role of women in agricultural development and their constraints: a case study of Biliri Local Government Area, Gombe State, Nigeria. *Pakistan journal of Nutrition*, *6*(6), 676-680.
3. Food and Agriculture Organization (FAO). (2006). Crop prospects and food situation, No. 3, October, Rome
4. Food and Agriculture Organization (FAO). (2011). Improving Extension work with Rural Women. Food and Agricultural Organization the United Nations Rome, Italy.
5. Hawkes, C., Turner, R. & Waage, J. (2012). Current and planned research on agriculture for improved nutrition: a mapping and a gap analysis. A report for DFID: London.

6. IFPRI (International Food Policy Research Institute). (2011). Women: The Key to Food Security: Looking into the Household. Washington, DC: IFPRI. Institute).
7. Kizilastan, C. (2007). Rural women in Agricultural extension training. *Research Journal of Social Science. 2* (1),23-27.
8. Nwaogwugwu, O.N. & Emodi, A.I. (2012). Home Management in Nigeria: Challenges and Implication on Agricultural Production. In Ijeomah, H.M. & Aiyelojah, A.A. (eds.). Challenges to Sustainable Production in Agriculture and Environment: Nigeria in Perspective. Top base Nigeria Limited, Lagos, Nigeria. 611-622.
9. Ragasa, C. (2014). Improving gender responsiveness of agricultural extension. In *Gender in Agriculture* (pp. 411-430). Springer, Dordrecht.
10. Smith, A. & Haddad, L. (2010). *Explaining child malnutrition in developing countries. A cross-country analysis*. Research report No. 111, Washington, D.C. International Food and Policy and Research Institute (IFPRI).