
An Analysis of the Contributions of Women to Household Farming Decisions Among Rural Dwellers in Enugu State, Nigeria.

Chinedu Lilian Mba

Abstract

The study examined the contributions of women to household farming decisions among rural dwellers in Enugu State Nigeria. The study used purposive and random sampling techniques for the selection of 80 farm households that constituted the respondents for the study. The analytical techniques involved descriptive statistics and exploratory factor analysis. The result showed that in respect of the food crop production activities, the contribution of women to decision making were very high with mean values of between 2.48 - 3.19 on a 4-point Likert scale, while that of the men were comparatively low with mean values ranging from 1.85 - 2.66. The identified constraints militating against women farmers were classified into three major factors using principal component factor analysis with varimax rotated and factor loading of 0.30. These constraints range from techno-institutional factors (lack of extension programmes directed to women, lack of access to NGOs programmes and low technical know-how), socio-personal factors and economic/financial factors. The study, therefore recommends inter alia, socio-economic empowerment of women farmers, adequate extension services and training to meet technological improvement needs of the women and formation of gender sensitive policies in favour of women in agricultural sector.

Keywords: Women Farmers, Household farming decisions, Rural dwellers, Enugu state

Introduction

Women constitute over half of the economically active population of the rural Africa (Amusa, 2010). Together with this, they share the responsibility of sustaining their families through participation in all aspects of rural labour, be it agricultural or non-agricultural. Women involvement in agriculture is not a new phenomenon. Cross-cultural accounts of women and their work show that women have been important providers of food for much of human history (Blumberg, 1978; O' Kelly, 1980; Kinnear, 2011). In hunting and gathering societies, women provide about 60 to 80 percent of the food mostly through their gathering activities (Arnoff and Gano, 1975; DeParle, 2011). Many social scientists speculate that it was the women and not men that discovered how to cultivate plants through the knowledge they gained while gathering (Blumberg, 1978; Tubezza, 2012). In horticultural societies, women were often the primary farmers (Rozenfield, 1985; King, 2010). Although there are variations in the work input by women, research has shown that African women carry significant proportions of the work-load in food crop production, animal husbandry, food processing and distribution, in addition to the procreation and home management roles (Pala, 1978; Hong, 2012).

The degree of women participation in agriculture varies from country to country. In Nigeria for instance, women have traditionally participated actively in farming and processing of farm produce and other related rural development activities, even though their contributions have remained largely unmeasured and underrated. Women represent a strong productive force in subsistence agriculture. They are involved in almost all phases of food production from land preparation to harvesting. They execute certain farm operations that are thought to belong to men (Okorji, 1985; UN, 2010). The role and participation of women in agricultural development obviously differ from one locality or region to another depending on religious, economic and other socio-cultural factors.

The role of women in house hold farming decision among rural dwellers particularly in Enugu State is a manifestation of the socio-economic and cultural changes that have placed women as self-reliant instead of being dependent on their husbands. Decisions have to be made when persons having limited resources have alternative courses of action and therefore must make some choice (Oji, 2002). Farmers make daily decisions about input use, seasonal decisions about farmland rental which according to William (2003) affect agricultural production prices and costs. Farming decisions are made to maximize farm objectives subject to available material and human resources. Women farmers form the bulk of these local resources contributing about 75% of total food production in developing countries (Walk, et al, 1985; Moskin, 2012).

Nweke (2004) reported areas of significant contributions of women to farming household to include labour supply and production responsibilities. Production responsibilities of women cut across all farming activities from pre- to post-harvest stages including decision making at all the stages. Considering women as major actors in agriculture, there is therefore the need for adequate understanding of the nature and trend of their contribution to farming decisions especially among household of rural dwellers in Enugu State, Nigeria.

Statement of the Problem

The key role played by the women in Nigerian agricultural development is vast and can only be revealed through research efforts that are poised towards determining their contributions to major farming activities. Several efforts have been made over the years towards developing the agricultural sector of the economy through policy institutions and research development without commensurate efforts towards formulating policies that empower women farmers as major actors in agriculture.

Current research emphasis on women contributions to agriculture have been on their labour supply to food-crop production. However, in actual crop production, the role of women in farming decisions has not been well recognized and therefore has not been widely explored in research. In Enugu State, Nigeria for instance, farm women are involved in actual crop production in the farm, processing and marketing activities. Farming decisions are equally involved at these stages, but despite the significant level of instances of the women's contributions, there is lack of information on the factors that are important for their success in farm decision making, extent of their leadership roles and the problems they face in contributing to household farming decisions.

A good number of studies have been carried out on the contribution of women to household farming and agriculture, especially in terms of labour supply. These studies include: FAO, 1998, Sachs, 2001, Rahman and Alamu, 2003, Albright, 2006, among

others. None of these studies looked into the role of women in household farming decisions. The only attempt was made by Damisa and Yohanna (2007) on the role of women in farm management decisions making process in Zaria area of Kaduna State. The major set back of their study relative to this therefore is that theirs was not specific to rural dwellers in Enugu State. Also they have not made any effort to investigate problems that could militate against women in contributing to farm decision making. Therefore the aim of this study is to analyze spatially the role of women in household decision making among rural dwellers in Enugu State. This can be achieved through the following objectives: (1) to identify the socio-economic characteristics of farm women in household farming (2) to identify the major constraints militating against women in contributing to farming decision and (3) make recommendations based on research findings to enhance the participation of women in farm decision making.

Study Area

The study area is Enugu State, Nigeria. It falls within the environment described by Ofomata (1985) as lying on the North-South Nsukka-Okigwe cuesta with a `back` deep slope that forms the Nsukka-Awgu plateau. It lies between longitude $7^{\circ}08^1E$ and $7^{\circ}48^1E$ and latitude $5^{\circ}58^1N$ and $7^{\circ}08^1N$ (Fig 1). The area is predominantly made up of sedimentary formations which fall into two main groups; the Ajali sand stone and Nsukka formation (Reyment, 1965). The general relief of the study area is rugged, which is part of the Udi-Nsukka plateau of the Nsukka-Okigwe cuesta, where remnants of the "African" planation surface are represented by summits of the residual hills (Ofomata, 1985). It has a tropical wet and dry (Aw type) climate according to Anyadike (2002). Approximately 89 per cent of the annual rainfall of (1, 750mm) falls in the months of April to October. The rains come in form of torrential down pours, which not only aid the incidence of soil erosion but also negatively affect crop yield. Temperatures are uniformly high with a mean annual temperature of about $26^{\circ}C$. The soils in the study area fall within the broad category of ferrallitic soils described as oxisols. The soil on the hilltops is characterized by a high content of pisolitic iron stone gravel with an average diameter of 1.25 cm to 2.5cm, while finer material is scarce (Igwe, 1984). The main occupation of the inhabitants of the study area is agriculture which is characterized by bush burning.

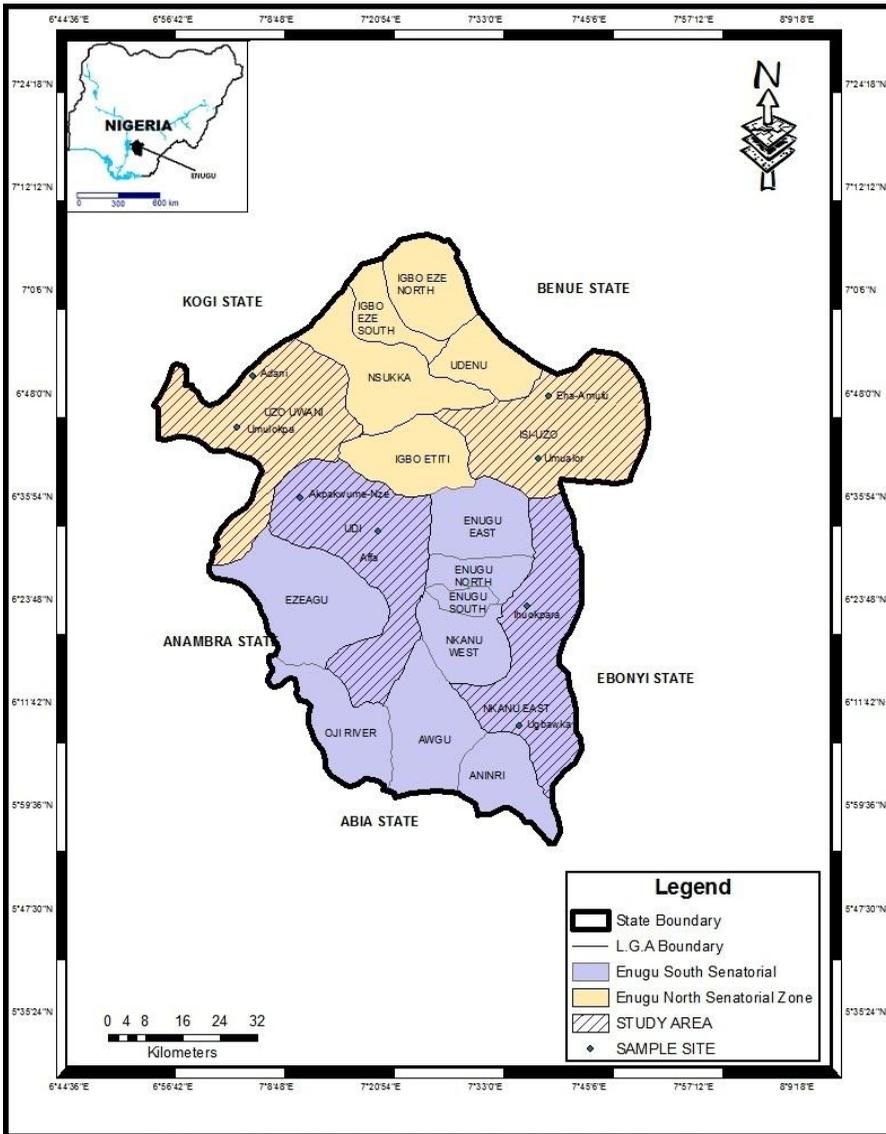


FIGURE 1: MAP OF ENUGU STATE SHOWING THE FOUR SELECTED LGAs AND THE SAMPLED COMMUNITIES
SOURCE: ENUGU STATE MINISTRY OF TOWN PLANNING

Materials and Methods

The study employed multi-stage and random sampling methods for selecting the respondents. Two agricultural zones in Enugu state were studied. Two local government areas were randomly selected from each of the two agricultural zones and from the

selected LGAs, two towns were randomly selected making four (4) LGAs and eight (8) towns for the study (See Fig 1). Random sampling procedure was also used to select ten (10) farm households in each of the eight (8) selected communities to give a total of eighty (80) farm households.

Table 1: Selected household farm in the study area

Agricultural Zone	LGAs	Towns/Villages	Farm Unit
Nsukka	Uzo-Uwani	Adani	10
		Umulokpa	10
	Isi-Uzo	Eha-Amufu	10
		Umualor	10
Enugu	Udi	Akpakume-Nze	10
		Affa	10
	Nkanu East	Ihuokpara	10
		Ugbawka	10
Total 2	4	8	80

Data Collection

Data for this study were primary data obtained from the respondents. The data were gathered by the researcher and two well trained research assistants using copies of questionnaire. The data focused on such information as socio-economic characteristics of the farm women and their farm households in the area. Data on level of contributions of farm women and their male counterparts to decision making on food crop production activities as well as on constraints militating against farm women in contributing to farm decision were collected.

Data Analysis

The data for the study were analyzed using descriptive statistics. Objective (1) was realised using descriptive statistics (averages, frequencies and percentages). Objective (2) was achieved using 4-point Likert rating scale with descriptive statistics (mean and standard deviation). Objective (3) was realized using exploratory (principal component) factor analysis procedures.

Results

The socio-economic characteristics of the farm women discussed include age, marital status, level of education and years of farming experience. The result shows that the farm women in the area are within the economically active age of about 46 years. None of the sampled farm women for the study was single which agrees with part of the findings of Fakoya et al (2006) which could be as a result of early marriage and polygamous nature of family setting among rural dwellers in the study area. The average years of schooling by the farm women as estimated by this study is 4 years. This implies that majority of them only attempted primary schools or other equivalents. This agrees with the findings of Fabiyi, et al (2007) that a greater percentage of women farmers in Gombe state only had primary education. This suggests that the farm women in the study area could be

regarded as illiterates that further corroborated the experience of the researcher on the field where majority of the women in the area cannot read and write.

The age of a farmer may not necessarily be a strong factor in her years of farming experience. This is because some farmers who are from farming households start participating in farming very early in their lives as children while some join farming business at middle age or even after retirement from public service. The average years of farming experience of the women is about 28 years. This finding shows that majority of the women have acquired higher number of years of farming experience.

The farming activities start from selection of farm site, land preparation to harvesting and finally marketing of farm produce. All these involve decision making before any wise action can be taken by the farmers.

Table 2 below shows that the contribution of women to food crop production decisions in farming at pre-harvest stage were very high regarding sourcing for farm inputs, raising nursery, planting/transplanting, weeding and management activities of the crops with means (\bar{x}) ranging from 2.57 - 2.94, while in land/bed preparation and fertilizer application/manuring, their contributions were high. On the other hand, the contributions of the male farmers to decision making in their farming activities at pre-harvest stage were only very high for sourcing for farm inputs, land/bed preparation and weeding with mean values (\bar{x}) ranging between 2.62 - 2.67. Their contributions to decision making were high in fertilizer application, management activities of the crops but very low in nursery raising and planting / transplanting operations.

In general, the result of this study shows that the contributions of women and men to decision making towards the expansion of their food crops farms were both high. However, women had a slightly higher mean (\bar{x}) of 2.54 than their male counterparts (\bar{x} = 2.48). This may be because, the bulk of production activities for these crops are in the hands of the women (Fakoya, et al, 2006), hence their higher contributions. This agrees with the report of FAO (1995) which stated that available data clearly demonstrates the significant role played by farm women in household food production.

Table 2: Mean and standard deviation distribution comparing the contributions of women and their male counterparts to food crop production activities decision making in their households

S/N	Farming activities	Women mean (\bar{x})	Men mean (\bar{x})
1	Sourcing for farm inputs	2.79***(0.83)	2.61***(0.97)
2	Land/bed preparation	2.49**(0.96)	2.65***(0.92)
3	Nursery raising (eg vegetables)	2.94***(0.82)	2.17* (0.89)
4	Planting/transplanting	2.78***(0.85)	2.27*(0.90)
5	Application of fertilizers/manuring	2.48** (0.74)	2.53** (0.76)
6	Weeding the surrounding of the food crops	2.57*** (0.88)	2.63*** (0.86)
7	Management activities of the crops till harvest eg insects/pest control/ watering etc.	2.79*** (0.99)	2.51** (0.83)
8	Harvesting of the food crops	3.06*** (0.76)	2.39* (0.88)
9	Processing of the harvested crops	3.19*** (0.64)	1.94* (0.81)

10	Marketing of food crops (fresh & processed)	3.18*** (0.68)	1.85* (0.83)
11	Storage of fresh or processed food crops	3.68*** (0.92)	2.24* (0.96)
12	Expansion of the food crop farming	2.33** (0.96)	2.49 (0.94)

- () Figures in parentheses represent the standard deviation
 * stands for low contribution to farm decision making
 ** stands for high contribution to farm decision making
 *** stands for very high contribution to farm decision making

Source: Computed from field data, 2012.

The major factors constraining farm women from making contributions to household farming decision in their farming activities include: Techno-institutional factors, socio-personal factors and economic/financial factors. The implication of this result is that the constraining variables based on the factor loadings are capable of reducing and limiting women contributions to farming decision among rural dwellers in the study area. These factors negatively affect their social, institutional and economic needs for optimal contribution in farming.

Conclusion

The study examined the role of women in household farming decision among rural dwellers in Enugu State, Nigeria. It was revealed that women had relatively higher contributions to decision making in food crop production activities than men. Also the socio-economic characteristics of farm women in the study were examined where the average age of the farm women in the study area is 46 years and mostly illiterates. The study also x-rayed constraints militating against women in making contributions to farming decisions. These constraints range from techno-institutional, socio-personal to economic/financial problems. It is then evident from these findings that Nigerian women farmers are still grossly under estimated in terms of socio-economic, institutional, developmental programmes for self improvement and acquisition of required competencies for success in farming. The needs of Nigerian women farmers must be well attended to through necessary empowerment programmes in form of improved access to farm technology, access to farm information, economic capacity building and elimination of social barriers. To achieve these, relevant government agencies/NGOs should be charged with these responsibilities so that women can become more and well equipped with needed skills, competencies, and financial capacity to be more relevant in farm resource allocation and decision making in their farming households for improved productivity.

Recommendations

The following policy implications are therefore presented:

1. Women farmers should be more economically empowered by relevant government agencies and NGOs for enhanced contributions to agricultural productions.

2. To achieve improved farm technology competence of the women, the agricultural extension services need to be re-energized with increased attention given to issues concerning rural women in agricultural sector.
3. Women farmers need to be made more visible in economic analysis by institutionalizing gender awareness into government agencies.
4. Ministries of Agriculture and Women Affairs should be more committed to formulating gender sensitive policies that will help to strengthen women farmers and reverse their present institutional neglect.

References

- Albright, C.C. (2006): Who's Running the farm? Challenges and Characteristics of Arkansas Women in Agriculture. *American Journal of Agricultural Economics* 88 (5):13 Pp15 – 22
- Anyadike, R.N.C. (2002): Climate and Vegetation, In Ofomata, G.E.K. (ed). Survey of the Igbo Nation. Africana Publishers Limited, Onitsha. Pp 62-77
- Arusa T.A. (2010): Contributions of women to cocoa-based agro forestry households in Ekiti State, Nigeria. Unpublished M.Sc thesis, University of Nigeria, Nsukka.
- Aronoff J. and Crano, WD. (1975): A Re-examination of the cross-cultural principles of task segregation and sex role differentiation in the family. *American Sociological Review* 40:12-20.
- Blumberg, R.L. (1978): Stratification: Socio-economic and Sexual Inequality. Dubque: William Brown.
- Damisa, M.A and Yohanna, M. (2007): Role of Rural women in farm management Decision making process ordered probit analysis. *World Journal of Agric Sc.* 3 (4): 543-546.
- Fabiyi E.F., Danladi B.B., Akande, K.E., and Mahmood, Y. (2007). Role of women in Agricultural Development and their constraints: A case study of Biliri LGA of Gombe state, Nigeria. *Pakistan Journal of Nutrition* 6 (6): 676-680.
- Fakoya, E.O., Apantaku S.O. and Adereti F.O. (2006): Gender involvement in Arable crop cultivation and its contributions to Household Food Security in Ogun State, Nigeria. *Research Journal of Social Sciences* 1 (1): pp 1-4.
- FAO (1995): Women, Agriculture and Rural Development in the Near East: Findings of an FAO Study, Rome: Food and Agricultural Organization
- FAO (1998): Improving information on women contribution to Agricultural production for gender sensitive planning. Rome: Food and Agricultural Organization.
- Hong Li, J. (2012) Gender Differences in class Mobility: A Comparative Study of the United States, Sweden and Western Germany. *Acta Sociologica*, Vol 41, Pp 315-333.
- Igwe, C.A. (1984): Identification of the catenary association of Uvuru, Nsukka and Nkpologwu soil series in selected litho sequences, and their differentiating criteria. Unpublished M.Sc Thesis, University of Nigeria, Nsukka.
- King, R. (2010) People on the move: An atlas of migration. University of California Press. Pp 78-79.
- Kinnear, K. L. (2011) Women in Developing Countries. A Reference Handbook. ABC-CLIO. Pp 222.

- Moskin, J. (2012) Women find their place in the field. New York Times. Retrieved June 3, 2012, from <http://www.nytimes.com/2012/06/01/>
- Ofomata, G.E.K. (1985): Soil Erosion in Nigeria: The views of a Geomorphologist. University of Nigeria Press, Nsukka.
- O'Kelly C. (1980): Women and Men in Society. New York: Van Nortrand.
- Oji K.O. (2002): Basic Principles of Economics for Agricultural Projects and Policy Analysis. Nsukka: Prize Publishers.
- Okorji E.C. (1985): The Role of Women in Arable Cropping Enterprises in Farming Communities of South Eastern Nigeria: A Case study. *Development and Peace* 6 (2): 165-173.
- Pala A. (1979): African Women in Rural Development: Research Trends and Priorities. *Overseas Liaison Committee Paper No. 12* pp 12, 13.
- Rahman S.A and Alamu J.F. (2003): Estimating the level of women interest in agriculture: The implication of Logit Repression Model. *Nigerian Journal of Science Research: 4*:45-49.
- Reyment, R. (1965): Aspects of the Geology of Nigeria. Ibadan University Press, Nigeria.
- Rozenfeld R.A (1985): Farming women; and family in the United States. Chapet Hill and London; The University of Carolina Press.
- Sachs C, Nonoyema A, Tranger A, Swaminathan A, Bharadivaj L. (2001): Gender and Technologies on the farm. Retrieved November 6, 2011 from <http://www.agwomen.aers.psu.edu>.
- Tubeza, P. C. (2012) Overseas Deployment of Filipino domestic workers continue to rise. Philippine Daily Inquirer (Inquirer Global Nation). Retrieved May 12, 2012.
- Walker A.A (1985): Survey of Compound farms in Southeastern Nigeria. An Unpublished Monograph University of Ibadan, Nigeria.
- William D.M. (2003): Production costs critical to farming Decisions. Retrieved November 6, 2011 from <http://www/ers.esda.gov/Amberwaves/>