PAT December, 2015; 11 (2): 10-19 ISSN: 0794-5213

Online copy available at

www.patnsukjournal.net/currentissue

Effect of Gender on Farmers' level of Involvement in Arable Crop Production Activities in Kwara State, Nigeria

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Abstract

The importance of studying the role of gender in relation to arable crop production activities in agrarian society is therefore quite consistent with the ongoing thinking regarding the issue of gender consideration in food security issues which led to this study .The research examined the effect of gender on farmers' level of involvement in arable crop production activities in Kwara State, Nigeria. A multi-stage sampling technique was employed in selecting 160 (80 male and 80 female) arable crop farmers drawn from the study area. Data collected were gender disaggregated using frequency counts, percentages and charts while correlation was used to make deduction from the study. The findings revealed that about (48.8% and 33.6%) of male and female fell between 46-65 age brackets. Activities such as land preparation, selection and planting of cultivars, were the common activities among male respondents while harvesting, processing and marketing were the activities common to female respondents with male involving more in all the activities. Insufficient fund (65% and 52%), pest and disease attack (63% and 65%), high cost of input (56% and 59%) were some of the highest constraints to arable crop production common to both male and female respondents. Results of correlation analysis revealed that there were significant relationship between male and female respondents and their level of involvement in arable crop production activities and age (r=0.545), education (r=0.432), farming experience (r=0.653) at P<0.05 level of significance. The study concluded that male were more involved in arable crop production activities than their female counterpart in the study area. The study therefore, recommend that female farmers should be more encouraged to involve themselves if not fully but moderately in all areas of arable crop production activities. The study therefore recommended that government should design gender policies that could strike the balance between male and female farmers with a view to encouraging more women to participate in arable crop production activities in the state.

Key words: Arable crop farmers, Production activities, Gender, Involvement

Introduction

Agriculture is central to ensuring food security; it provides jobs and livelihoods for large shares of the populations in developing and emerging economies like Nigeria and it offers a channel especially for arable crop farmers to escape poverty and increase incomes above subsistence-levels. Arable crop farmers constitute about 80% of the farming population in Nigeria (Awoke and Okorji, 2004). Collectively, farmers form an important foundation upon which the Nigerian agriculture relies (Amanze *et al*., 2010). According to FAO (2003), crop production alone contributes 85% to Nigeria's agricultural GDP. More than 90% of the agricultural output is

accounted for by arable crops with less than two hectares under cropping. It is estimated that about 75% (68 million hectares) of the total land area has potential for agricultural activities with about 33 million ha under cultivation.

Agricultural activities at the farm level often appear to be gender tasked. Analysis of gender in agricultural activities is essential for gender mainstreaming at all levels, from the formulation of national legislation and policy, to the planning and monitoring of specific interventions (Temba, 2004). Gender roles however, are the activities ascribed to men and women on the basis of perceived differences. These roles are highly influenced by expectations based on class, age, ethnicity and religion. For instance, an older man will be expected to play a different role in the society from that of a young man (Bravo-Baumann, 2000). "Division of labour" is a term used in gender literature to mean the roles and tasks assigned to men and women on the basis of perceived gender characteristics and attributes, instead of ability or skills (Beard, 2005).

In most societies men and women have distinct roles within the farming system. Gender differences in rural farming households vary widely across cultures but certain features are common. Women tend to concentrate their agricultural activities around the homestead primarily because of their domestic and reproductive roles. They play a critical role in food production, post harvest activities or livestock care. In some setting, the involvement and responsibilities of men and women were differentiated to a large extent in the society. Ekong (2003) concluded that no tasks were gender specific except child bearing. Also, there is a marked distinction in the role of gender in traditional agriculture especially in Sub-Saharan Africa. Cultivation of cash crops and other heavy work such as ploughing are carried out by men while food crops and lighten works such as weeding, harvesting and processing are often women's responsibility. However, the vital role for both women and men in cultivation of arable crops cannot be over-emphasized. Men clear the land at the onset of a cultivation cycle, but women frequently do the planting, weeding, harvesting and processing of food crops (Olawoye, 1993).
Therefore, the information generated at from gender assessment is useful in understanding different needs of men and women farmers, the constraints in their farming activities and their capacity to adopt new technologies (Lister Ruth, 2008). The importance of studying the role of gender in relation to arable crop production activities in agrarian state like Kwara is therefore quite consistent with the ongoing thinking regarding the issue of gender consideration in food security issues. Engendering arable crop production activities will provide the critical information required by extension agencies to revive productivity of other underutilized important food crop.

Most studies on gender involvement in agricultural activities have been carried out in other parts of Nigeria and little has been reported carried out in Kwara State. Based on the aforementioned scenario, involvement of men and women in arable crop production practices in Kwara State becomes very imperative with a

view to increasing food production in the study area. However, this study therefore provides answer to the following research questions. The study therefore, assessed the effect of gender on farmers' involvement in arable crop production activities in Kwara State, Nigeria. Specifically, it identified the common activities of arable crop production, sources of information available to arable crop farmers and the constraints to gender involvement in the arable crop production in the study area.

Methodology

This study was carried out in Kwara State. The State covers an area of approximately 32,000 square kilometers and it shares boundary with Niger, Oyo, Osun, Kogi and the Republic of Benin. It lies between longitude $4^0\ 55^1$ and $6^0\ 5^1$ E and latitude $8^0\ 5^1$ and $10^0\ 4^1$N. Population for the study comprised of men and women arable crop farmers in the state.

A multi- stage sampling procedure was used for sample selection. At the first stage, Kwara State was purposively selected for the study due to the predominance of arable crop farmers in the state. The second stage involved a random selection of one Local Government Area from each of the four administrative zones of Kwara Agricultural Development Project in the State. Third stage, involved random selection of two villages from each of the local government selected. At forth stage, 20 farmers (10 male and 10 female) were randomly selected in each one of the villages used for the study. A total of 160 respondents were used for the study. Data obtained were described with descriptive statistics such as frequencies, percentages and charts were used to explain the data while inferential statistics involving correlation was employed to test the hypothesis.

Results and Discussion

Socio-economic characteristics of the respondents

The results of the socioeconomic characteristics of respondents reveal that male (7.5%) and female (13.7%) of the respondents fell within 1-25 years, 31.2% of male and 27.5% of female are within 26-45 years while 48.8% and 33.8% of male and female fell within 46-65 and about (12.5%) male and (25.0%) female above 65 years of age (Table 1). Also, as revealed in Table 1, majority (90.0% and 81.3%) of male and female respondents were married. According to Odusina and George, (2008) stated that married household heads tended to be more involved in agriculture. Further results in Table 1 revealed that 7.5% and 5.0% of the male and female respondents were single while divorced and widowers constituted 2.5% and 13.7% male and female of respondents respectively.

Results in Table 1 reveal that about 25.0% and 41.3% of male and female respondents had no formal education, 20.0% of male and 7.5% of female had Arabic education. Also, 33.8% and 35.0% of male and female respondents had primary education, 15.0% and 12.5 % of male and female respondents had secondary education while lesser proportion of male (6.2%) and female (3.7%) of respondents

tasted tertiary education. This implies that male had higher educational qualification than their female counterparts in the study area.

Findings in Table 1 reveal that majority (70.0%) of male and (63.8%) of female practise Islam while a little less than the average (27.5%) of male and (36.2%) of female respondents practise Christianity and only (2.5%) of male respondents practise Traditional religion.

Table 1 revealed that male (10.0%) and female (17.5%) of the respondents had 1-5 years of farming experience, 33.8% and 47.5% of male and female respectively had 6-10 years of experience, 40.0% male and 27.5% female had 11-15 years of experience while the least number of respondents had > 15 years of experience. Since most of the respondent fall within 46 - 65 years of age (Table 1), therefore, they have so much of farming experience.

Table 1: Distribution of socio-economic characteristics of respondents

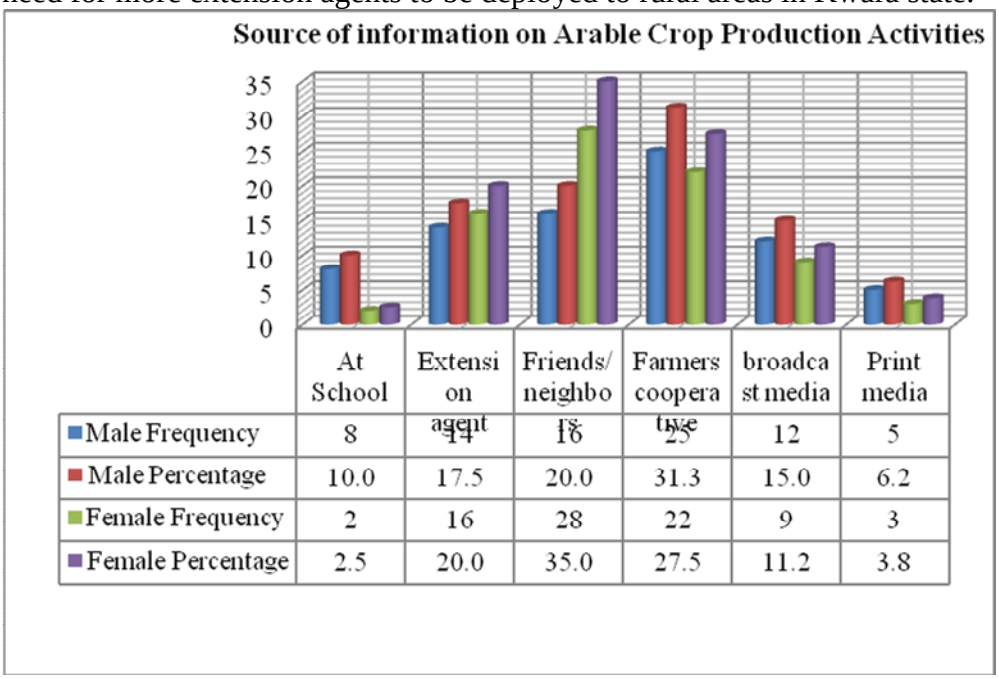
Variable	Male		Female	
	Frequency	Percentage	Frequency	Percentage
Age	(f)	(n=80)	(f)	(n=80)
≤ 25	6	7.5	11	13.7
26 – 45	25	31.2	22	27.5
46 – 65	39	48.8	27	33.8
≥ 65	10	12.5	20	25.0
Marital status				
Single	6	7.5	4	5.0
Married	72	90.0	65	81.3
Divorced	2	2.5	3	3.7
Widowed	0	0.0	8	10.0
Education				
Non-formal	20	25.0	33	41.3
Arabic	16	20.0	6	7.5
Primary	27	33.8	28	35.0
Secondary	12	15.0	10	12.5
Tertiary	5	6.2	3	3.7
Religion				
Christianity	22	27.5	29	36.2
Islam	56	70.0	51	63.8
Traditional	2	2.5	0	0
Farming experience				
≤ 5	8	10.0	14	17.5
6 -10	27	33.8	38	47.5
11 – 15	32	40.0	22	27.5
≥ 15 years	13	16.2	6	7.5

Source: Field survey, 2015 N=180

Sources of information on arable crop production activities

Figure 1 reveal that most (31.3% and 35.0%) male and female respondents sourced information on arable crop production activities through farmers cooperative union

and friends/neighbors; some male (17.5%) and female (20.0%) sourced information from extension agents, 10.0% of male and 2.5% of female got information on arable crop production activities during their schooling programme. This confirms that the level of education among the gender that male farmers enroll in school programme compare to their female counterpart. Also, some male (15.0%) and female (11.2%) sourced their information from broadcast media while (6.2% and 3.8%) male and female respectively sourced their information from print media. Therefore, there is need for more extension agents to be deployed to rural areas in Kwara state.



	At School	Extension agent	Friends/ neighbors	Farmers cooperative	broadcast media	Print media
Male Frequency	8	14	16	25	12	5
Male Percentage	10.0	17.5	20.0	31.3	15.0	6.2
Female Frequency	2	16	28	22	9	3
Female Percentage	2.5	20.0	35.0	27.5	11.2	3.8

Source: Field survey, 2015

Fig. 1: Distribution of respondents on the sources of information on arable crop production activities

Common activities of arable crop production in the study area

Table 2 reveals the various common activities arable crop farmers in the study area. The results reveal that about 82.5% and 55.0% of male and female respondents, respectively engaged in land clearing activity, 77.5% and 61.3% of male and female respondents, respectively engaged in selection of cultivars, 85.0% and 73.6% of male and female farmers, respectively engaged in planting/sowing of crop seeds. The disparity in activities of male and female respondents may be associated with the tedious activities of arable crop production especially in the developing world where agriculture is mostly done with primitive implements. Also, about 65.0% and 72.5% of male and female respondents engaged in weeding, respectively indicated that female are more involved in weeding than their male counterpart, 67.5% of

male and 70.0% of female engaged in tilling activities while 78.8% of male and 58.8% of female respondents engaged in fertilizer/manure application.

Results revealed that the majority (85.0% and 90.0%) of male and female respondents, respectively engaged in harvesting of arable crops, less than average (42.5%) of male and larger proportion of female (93.8) respondents engaging in processing activities, 68.8% of male and 91.3% of female engaged in storage activities while 62.5% of male and 95% of female respondents engaging in marketing of arable crop products. This implies that both male and female farmers are involved in one form of activities or the other in the production of arable crops.

Table 2: Distribution of respondents by common arable crop production activities in the study area

Arable farming activities	Male		Female	
	Frequency*	Percentage	Frequency*	Percentage
Land clearing	66	82.5	44	55.0
Land preparation	68	85.0	42	52.5
Selection of cultivars	62	77.5	49	61.3
Planting/sowing	68	85.0	61	76.3
Weeding	52	65.0	58	72.5
Tilling	54	67.5	56	70.0
Application of fertilizer	63	78.8	47	58.8
Harvesting	68	85.0	72	90.0
Processing	34	42.5	75	93.8
Storage	55	68.8	73	91.3
Marketing	50	62.5	76	95.0

Source: Field survey, 2015 *Multiple response

Level of involvement of respondents in arable crop production activities

Results in figure 2 revealed that 72.5% of male respondents were fully involved in arable crop production activities, while a very less proportion of female (13.7%) were fully involved in arable crop production activities. On the other hand, 13.7% and 30.0% of male and female were moderately involved in arable crop production activities, about 10% of male and larger proportion of female (50%) were less involved in arable crop production activities; while only 3.0% of male and 6.3% of female were never involved in arable crop production activities in the study areas. This reveals that both male and female were involved in arable crop production activities though their level of involvement were not the same with male respondents

having higher involvement rate than their female counterpart. The disparity could be attributed to the technical skills and tedious activities involved in some arable crop production activities like land preparation, selection good cultivars, tilling, traditional weather forecasting, harvesting and processing.

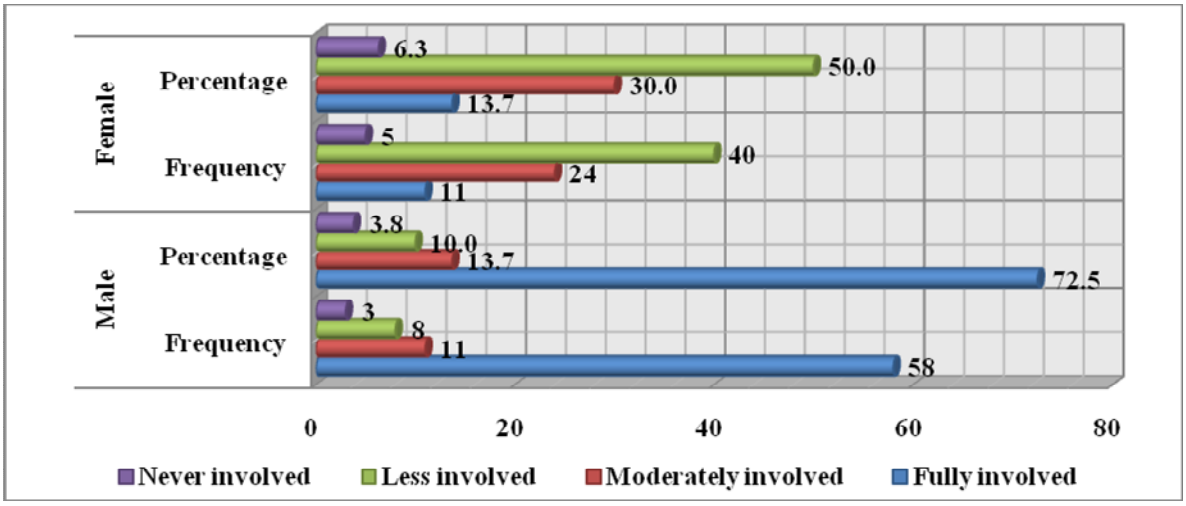


Fig. 2: Distribution of respondents based on their level of involvement in arable crop production activities in the study area
Source: Field survey, 2015

Constraints to arable crops production activities

As revealed in figure 3, majority (81.3% and 65.0%) of male and female were faced with insufficient fund to carry out their arable crop farming activities, 70.0% and 73.8% of male and female were faced with high cost input respectively. Other constraints faced the male and female respondents include pest & diseases (78.8% and 81.8%), farmer-herdsmen conflict (92.5% and 85.0%) and poor transportation (95.0% and 88.8%) respectively. While only majority of female respondents were faced with constraints of lack of storage (72.5%) and processing facilities (70.0%). This implies that female were more involved in storage and processing of arable crop products than their male counterpart.

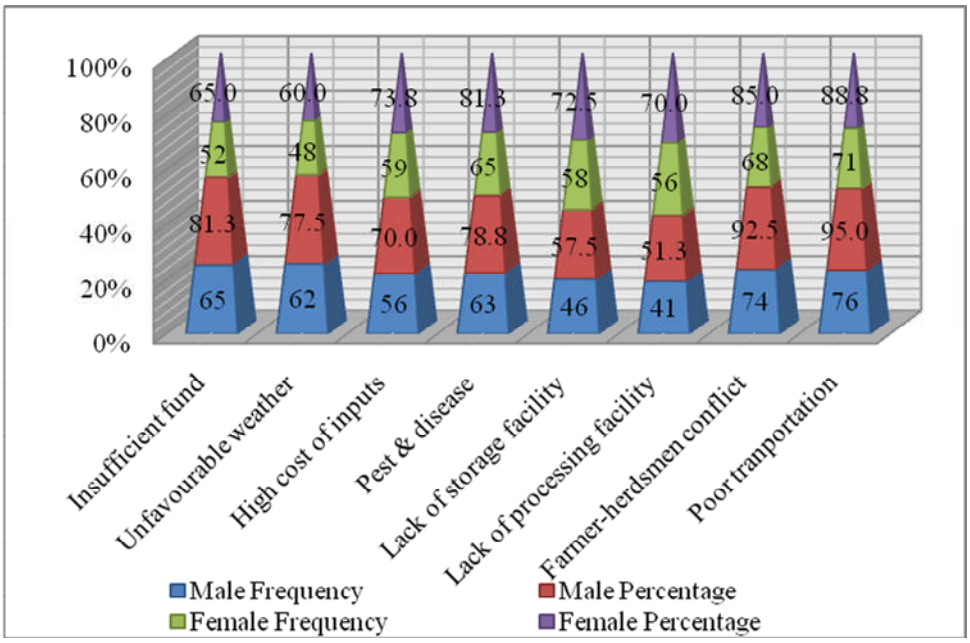


Fig. 3: Distribution of respondents by the constraints faced them during arable crop production activities
Source: Field survey, 2015

Table 3: Results of Correlation analysis showing the relationship between male and female farmers' level of involvement in arable crop production activities and some selected socio-economic characteristics

Variable	r-value	p-value	Decision
Age	0.545**	0.424	Significant
Education	0.432**	0.402	Significant
Marital status	0.726*	0.689	Significant
Farming experience	0.653**	0.622	Significant

Source: Field Survey (2015).
* Significant at 0.01 level of significance
** Significant at 0.05 level of significance

Table 3, reveal the results of correlation analysis between male and female farmers' level of involvement in arable crop production activities and their selected socio-economic characteristics like age (r=0.545), education (r=0.432), farming experience (r=0.653) were positive and significant at P<0.05 while marital status (0.726) were also positive and significant at P<0.01. The implication of this findings is that the socioecnomic variables used were significant at P<0.01 and P<0.05 level and this explain that both gender were involved in arable crop production activities and at

different degree of involvement. The findings reveal that age, education, marital status and years of farming experience had significant relationship with level of involvement in arable crop production practices. This corroborate the findings of Ohajinaya *et al.* (2007) who reported that age, level of education, farming experience, and marital status of farmers were the significant variables that influenced farmers level of involvement in agricultural production.

Conclusion and Recommendation

The study focused on the effect of gender on farmers' level of involvement in arable crop production practices in Kwara State. The findings reveal that both male and female were engaged in arable crop production activities though with varying degree of involvement. Male are more involved in arable crop production activities than their female counterpart except in activities such as application of fertilizer, storage, processing and marketing. Also, there was positive and significant relationship between the selected socioeconomic variables such as age, education, marital and years of farming experience and the farmers' level of involvement in arable crop production activities. The study therefore, recommend that female farmers should be more encouraged to involve themselves if not fully but moderately in all areas of arable crop production activities. Also, government agencies, non-governmental organization and other development partners should design gender policies that could strike the balance between male and female farmers with a view to encouraging more women to participate in arable crop production activities.

References

Amanze, B., Eze, C., Eze, V.M., Chiedozie, I.O., Blessing, R.E. 2010. Factors influencing the use of fertilizer in arable crop production among smallholder farmers in Owerri Agricultural Zone of Imo State. Academia Arena 2:90-9.

Awoke, M.U., Okorji, C. 2004. The determination and analysis of constraints in resource use efficiency in multiple cropping systems by small-holder farmers in Ebonyi State, Nigeria. Africa Development XXIX(3): 58-69.

Bravo-Baumann H. Capitalization of experiences on the contribution of livestock projects to gender issues. Working Document, Bern, Swiss Agency for Development and Cooperation; 2000.

Ekong, E.E. 2003: An Introduction to Rural Sociology (2nd edition). Dove Educational Publishers, Uyo, Nigeria p. 271.

FAO. 2003. Fishery intensification in small water bodies: a review of North America. FAO Fisheries Technical Paper No 33. Food and Agriculture Organization of the United Nations. Rome. Lister Ruth. Inclusive citizenship, gender and poverty: Some implications for education for citizenship. Citizenship Teaching and Learning. 2008;4(1):3-19.

Odusina O. and George O. 2008: Socio economic analysis of children involved in agricultural and non agricultural enterprises in urban western Nigeria: A case

study of Ijebu-Ode township. Middle East, journal of scientific research, 2: 57-61

Ohajianya, D.O., Enwerem, V.A., Echetama, J.A., Anaeto, F.C. 2007. Comparative analysis of organic and inorganic fertilizer use in cassava production in Imo State. International Journal of Agriculture and Rural Development 9: 30-34.

Olawoye, J.E.,1993. Gender analysis in agriculture. An invited discussion paper presented at the WORDOC workshop Institute of African Studies University of Ibadan on 17-18 February, pp: 4-10.

Temba E. Gender perspectives in development: Gender analysis in planning and women empowerment. Research and Publication Department, Mzumbe University; 2004.