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Role of Women in Agricultural Development and Their Constraints: A Case Study of Biliri Local Government Area, Gombe State, Nigeria

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Abstract: The study focused on role of women in agricultural development and their constraints in Biliri Local Government Area of Gombe State. Simple random sampling technique was used to select six villages from the LGA and 60 women farmers. Interview scheduled was used to obtain information from the women, on their socio-economic characteristics, farm activities, farm production and their constraints. Descriptive statistics was used to analyzed the data collected. The result revealed that 88% of the respondents age were within 20-49 years, 12% were 50-70 years of age; 80% were married including widows and divorces, 20% single; 75% had formal education, 25% had no formal education; 35% had 1-10 years farming experience, while 65% had 11-40 years. Majority (72%) of the respondents were small-scale farmers having 0.1-3.0 hectares of farmland for cultivation of food crops. Majority of the women acquired land for farming from their husbands and relations (freehold), while others hired land for farming. The respondents sources of income for farming were through cooperative society (33%) and previous farm out put (23%) only few (13%) were able to secure Bank loan, while others borrowed money from friends. The result also showed that women were involved in all farm activities from land clearing to harvesting, processing and marketing of produce. They plant different crops, rear animals and keep poultry. The women farmers' constraints include mainly lack of land for farming, credit facilities, costly and late input delivery. Women farmers have contributed immensely, to food production, processing and preservation of foods. Serious attention should be paid to their constraints because women are the backbone of agricultural development and food security in Nigeria.

Key words: Role, women farmers, agriculture, production, constraints

Introduction

Agricultural development is a complex process and a challenging one as well. Rural women farmers play a vital role in food production and food security. They account for 70% of agricultural workers, 80% of food producers, 100% of those who process basic foodstuffs and they undertake from 60% to 90% of the marketing (Fresco, 1998). Four of ten agricultural workers in the world are women (U.N., 1986). Women take part actively in farming activities and in processing farm products, in addition to their domestic and reproductive responsibilities.

It is often stated that women are responsible for more than half the world's food production overall and produce up to 60 to 80% of basic foodstuff in Africa (Fresco, 1998). The role women play in agriculture and the rural society is fundamental to agricultural and rural development in sub-Saharan Africa. The Technical Centre for Agriculture and rural cooperation (CTA, 1993) reported that women in Africa make up more than one-third of the work force.

In Nigeria women produce 60-80% of the agricultural food in the country (Ogunbameru and Pandey, 1992; Buckland and Haleegoah, 1996). According to Ironkwe and Ekwe (1998) more than 60% of the agricultural production is carried out by women in the Nigerian

traditional setting. The agricultural activities of women go beyond crop production to other agricultural aspects like fisheries, rabbitry, poultry and as well as sheep and goat rearing.

Mijindadi (1993) estimated that women are responsible for 70% of actual farm work and constitute up to 60% of the farming population in Nigeria. Very recently, Yahaya (2002) recorded that 76% of women from Oyo and Bauchi State are actively involved in farming activities or are engaged in their husband's farms. In Nigeria women supply most of the needed labour in agricultural activities and this is the most important factor of production to farmers, as it is needed at the stages of agricultural production. Even women in seclusion (Purdah) generate substantial income through food crop processing (Yahaya, 2002). Benjamin (1998) stated that Nigeria women generally achieved farming objectives through collective work. The spirit of cooperatives in Africa has been cultivated and expressed among its members in different ways.

It has been reported by different authors that inadequate information about the improved technologies was one of the constraints in agricultural production. Women do not have adequate access to agricultural information and innovations (Saito and Surling, 1993). Folasade (1991) emphasized that lack of separate land for women and

Table 1: Socio-economic characteristics of the respondents

Variables	Frequency	Percentage(%)	Mean
Age (years)			
20-49	53	88.3	35.40
50-70	7	11.6	
Marital Status			
Single	12	20.0	
Married	30	50.0	
Widow	10	16.6	
Divorced	8	13.3	
Educational Status			
Never been to formal school	15	25.0	
Primary education	24	40.0	
Secondary education	14	23.3	
Tertiary	7	11.6	
Farming experiences (years)			
1-10	21	35.0	16.80
11-40	39	65.0	
Farm size (ha)			
0.1-1.5	25	41.6	2.08
1.6-3.0	18	30.0	
3.1-4.5	10	16.6	
4.6-60	7	11.6	
n = 60			

inadequate contact with extension agents are serious constraints faced by women farmers. Women very rarely own land in Nigeria, despite their heavy involvement in agriculture. Because women generally do not own land or other assets it has traditionally been difficult for women to obtain Bank loans or other forms of credit through the banking system. Land tenure system is largely by inheritance. This lack of title to land, according to (Famoriyo, 1979) prevents women from exercising or improving their expertise in crop production and animal husbandry because of security of tenure. Majority of them use low yielding and unimproved planting materials, primitive and labour intensive farm implements, traditional farming practices, which have adversely affected agricultural production. Therefore, the study was carried out to assess the role, contribution of women farmers to agricultural development and their constraints in Biliri LGA, Gombe State.

Materials and Methods

The study was carried out in Biliri Local Government Area (LGA) of Gombe State, Nigeria. Biliri LGA is situated between Longitude 12⁰ 29¹ East and Latitude 14⁰ 2¹ North. It is located in the eastern part of Gombe State. The climate of the area is variably hot, having November-April as dry season, March-April as hottest months, while May-October is the rainy season with August recording the highest amount of rainfall.

Simple random sampling technique was used to select six villages from the seven major villages and 60 women farmers from the six villages (Biliri, Kalmia, Banganjec, Tanglang, Tal and Tadi). Interview schedule was employed to collect relevant data on socio-economic characteristics, farming activities, farm production, farming experiences and farming constraints from the

women farmers selected. Data collected were analyzed using descriptive statistics, involving frequency, percentage and mean.

Results

Socio-economic characteristics of respondents in the study area: Majority of the women farmers in this area were young women. Table 1 shows that 88% of the respondents were within 20-49 years of age, 12% were 50-70 years of age. Many of the respondents were married (80%) among these were widows (17%) and those who were divorced (13%), while 20% were single. Majority of the respondents had formal education (75%), mostly primary and secondary education, while only 25% had no formal education. Sixty five percent (65%) of the respondents had 11-40 years of farming experience, 35% had 1-10 years. Women's access to land is limited, most of the respondents had small land for their personal farm, 42% had 0.1-1.5 hectares (ha) of land, 30% had 1.6-3 ha, while 28% had 3.1-6 ha for farming.

Role of women in agricultural production: Table 2 shows percentage distributions of farm operations in which women were involved in the study area; in land clearing 58%, in planting 72%, in weeding 80%, transporting of products 82%, in harvesting 93%, in processing 93%, in marketing 88%. Women who had their personal farms, plant mainly groundnut (62%) soyabean (57%), rice (40%), cowpea (28%) maize (25%) and vegetables (10%). They also keep livestock such as pigs (48%), goats (23%), sheep (17%) and poultry 3% (Table 3).

Table 4 depicts percentage distribution of women's methods of acquiring land for farming. None of them had land by inheritance, 50% had by husband and relatives (freehold), 32% by hiring, while others paid for land for farming. Table 5 shows sources of income for farming for women, only 13% were able to obtain Bank loan, 21% used their salaries, 23% farm output, 33% obtain financial help from their cooperative societies, while others borrowed money either from friends or relatives. Lack of credit facilities ranked first (88%), land problem (83%) second, late farm input delivery ranked third (50%) while other constraints were less than 50%. These and many other constraints limit the performance of women in food production.

Discussion

Socio-economic characteristics of respondents in the study area: Normally, farming work seems to be a hard job. Most young men do not want to take to farming. In the area of study majority of the respondents were young women (88%), few were above 50 years (12%) (Table 1). Apart from women contribution to home activities, they were more involved in farm activities than men. It has been reported that 80% of the work done on the farm in

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Table 2: Distribution of respondents according to farm operations engaged by women

Operations	Frequency	Percentage (%)
Land clearing	35	58.30
Sowing	43	71.76
Weeding	48	80.00
Harvesting	56	93.30
Transporting of products	49	82.00
Processing	56	93.30
Marketing	53	88.30
Others	10	16.70

n = 60

Table 3: Distribution of respondents according to farm productions

	Frequency	Percentage (%)
Crop		
Groundnut	37	62
Soyabean	34	57
Rice	24	40
Cowpea	17	28
Maize	15	25
Sorghum	12	20
Vegetables	6	10
Livestock		
Pigs	29	48.3
Goats	14	23.3
Sheep	10	16.7
Poultry	2	3.3
Others	5	8.3

n = 60

Nigeria, especially in food production, harvesting and processing are carried out mainly by women (Olawoye, 1989).

In this study the educational level of the respondents seemed to be low. Most of them had only primary and secondary education (63%), only few had tertiary education 12%, while 25% had no formal education. According to Adams (1982) formal education has the potentials for making up some of the deficiency in man; it enhances understanding and communication in agriculture. The range of the sizes of farms of the respondents in the study area indicated the dominance of small-scale farming, the mean being 2.08 hectares (Table 1) Land is the most important aspect in agriculture; without adequate land for food production, this may result to hunger, malnutrition, poverty and death. Land tenure system should be reviewed in Nigeria. Women also should be made to enjoy land inheritance like men. Since majority of women in rural areas are farmers, land availability for women will bring about increase in food production, self-reliance agricultural development and food security. In the past, family size, or marital status contributes greatly to agricultural activities, but things have changed. Women work alone on their farms or hire labour to assist them.

Role of women in agricultural development: In most of the developing countries, agriculture is an important sector and a significant of the proportion of the

agricultural activities takes place in rural areas. It is now widely demonstrated that rural women, as well as men, throughout the world are engaged in a range of productive activities essential to household welfare, agricultural productivity and economic growth. Yet women's substantial contribution continues to be under valued in conventional agricultural and economic analyses and policies, while men's contribution remains the central, often sole focus of attention (Jiggins *et al.*, 1998).

In the study area women participate in almost all agricultural activities except felling of trees and spraying of chemicals. They participate mainly in land clearing, planting, weeding, harvesting, transporting of produce, processing and marketing (Table 2). These findings are similar to that of Boserup (1970) who states that nearly all the tasks connected with food production are performed by Africa rural women with the exception of tree felling and other heavy duties. Similar investigation conducted in India showed that more than 60% of agricultural operations are performed by women farmers (Shiva, 1991).

The responsibility for getting food for the families lies on the women (Onwubike, 1990). They are heavily involved in food crop production. In the area of study, more than 50% of the respondents planted groundnut and soyabean, about 40% planted rice, 28% cowpea 25% maize, 20% sorghum and 10% planted vegetables (Table 3). This indicates that women tend to produce crops for family consumption as well as crops that generate income within their locality so as to enable them take care of themselves. The activities of these women go beyond crop production to other agricultural aspects like livestock and poultry production. More than 70% were involved in rearing of pigs and goats, about 20% produce sheep and poultry. In this study not many women were in poultry keeping, this could be attributed to the fact that poultry production is both labour and money intensive since most rural women farmers are of low income and low level education they seemed to fear going into poultry production. Most of the respondents depend on farming as the only source of income and livelihood.

Women constraints in farming: The low economic status of women limits their opportunities for broader participation in society. This is compounded by the trouble women experienced in child-bearing and rearing. African culture discriminate a lot against women and girls, especially in the area of inheritance (land). Culture is not static and in modern-day Nigeria, it is subject to pressure and influences. Modern education and the development of technology and information have introduced Nigerians to new cultural concepts and norms. Since culture is not static, the forces of social change may be expected to lowering the barriers against

Table 4: Distribution of respondents according to method of land acquisition

Method of Acquisition	Frequency	Percentage (%)
Inheritance	-	-
Freehold	30	50.0
Hired	19	31.7
Communal	6	10.0
Purchase	5	8.3

n = 60

Table 5: Distribution of respondents according to sources of income

Sources of income	Frequency	Percentage (%)
Cooperative Society	20	33.3
Farm output	14	23.3
Salaries	13	21.7
Bank loan	8	13.3
Borrowed	5	8.3

n = 60

women's economic opportunities. Many women took to prostitution due to poverty and inadequate information and education. Access to education, extension services, information, land, credit facilities and other relevant agricultural innovations will entice many women to agricultural productions and will reduce poverty among women farmers.

Women have little access to capital and other assets that make agricultural production easy and profitable. In the study area, majority of the women farmers have financial problem and lack financial assistance (88%), similarly women have to beg (83%) for farmlands from husbands and relations (Table 4). In Nigeria culture controls many aspects of the life of women. Famoriyo (1979) stated that land is the vital possession of the people, without land, farming cannot take place. Searching for the way out of poverty, majority of women take to farming, but the constraints limit their performance.

They also complained about inadequate extension contact, high cost of farm input and late delivery of farm input especially fertilizer. Women farmers here also have little access to capital or credit facilities. They do not have collateral this is probably why it has traditionally been difficult for them to obtain Bank loan or other forms of credit, only 13% were able to obtain bank loan and as high as 33% got loan from their cooperative societies, 23% got money from their former farm out put, while others got money from other available sources (Table 5).

Conclusion: Women in this area are more involved in farm activities apart from their legitimate roles as wives and mothers. Men alone cannot achieve success in farming without women. Therefore, there is the need to encourage female farmers, by making available all that is necessary for successful farming. The contribution of women to agricultural and rural development should be maximized by implementing solutions to the specific problems they encounter as economic and social stakeholders.

Land tenure system should be reviewed and changed since the world is also changing. Credit facilities and input should be made available through farmers' cooperative societies and families. The existing women's group in the village should be organized and strengthened to increase women's access to extension services, credit facilities, agricultural inputs and even marketing services.

More female extension workers should be trained and sent to help female farmers. It is necessary to particularly identify women as an integral part of the agricultural extension policy and develop gender-specific operational guidelines which will direct the extension activities of women farmers. Input should be sold to farmers at subsidized rate and on time to avoid late supply.

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