Assessment of Constraints to Participation of Rural Women in Technology Dissemination of Women in Agriculture Program in Imo State, Nigeria

Abstract

The survey was conducted to identify constraints to participation of rural women in technology dissemination of Women in Agriculture Program (WIA) in Imo State, Nigeria. Questionnaire was used to collect data from a sample of 60 respondents. Data were analyzed using descriptive statistics such as frequency, percentage and mean score. Results showed that 33.0% of the respondents were aged between 41 and 50 years, majority (75.0%) were married, 88.0% had formal education and 55.3% engaged in farming and trading, while 56.6% had a household size of 6-10 persons. The respondents participated in the activities like processing and utilization of food crops (16.7%), harvesting and storage of food crops (16.7%), dry season vegetable production (13.3%), processing and utilization of livestock products (10.0%), processing and utilization of soya bean into soya milk and soya meal (6.7%). The study recommended that rural women should be encouraged to join co-operative societies in order to pull their resources together. It also highlighted the need for promotion of rural women's activities through adequate provision of credit facilities by government at all levels for optimum productivity.

Keywords: Technology dissemination, Women participation, Rural women

Introduction

Agriculture has proven to be an important engine for growth and poverty reduction in many countries of the world [1]. Women who operate at the subsistence level constitute the major food producers in many of these countries. Rural women participate more than men [21]; take the lead in agricultural activities, consisting about 60-80 percent of the labor force [2, 19].

Women make essential contributions to agricultural and rural economies in all the developing countries [3]. They often manage complex households and pursue multiple livelihood strategies [20]. Roles performed by rural women vary considerably between and within regions and are changing rapidly in many parts of the world, where economic and social forces are transforming the agricultural sector. Women form the backbone of agriculture in Nigeria, comprising the majority of agricultural laborers.

According to [4], women in Nigeria produce, process and market about 80% of food and manage 70% of all small-scale enterprise. They play a vital role in food production and food security in rural communities, accounting for 70% of agricultural workers, 80% of food producers and 100% of those who process basic food stuff and undertaking 60% - 90% of the marketing [5].

Women in rural areas are involved in rural development ranging from agriculture to community development program. They perform farm operations thereby contributing a lot to improving the economic and social status of their families and accelerating the pace of rural development [6]. About 60% of agricultural operations like sowing seeds, transportation of farm produce, winnowing, storage of grains, etc. are handled exclusively by women [7]. Women are exceptionally responsible for sowing, weeding, transplanting, harvesting, processing, utilization and storage of agricultural produce [8].

Rural women still lag behind in terms of extension contact, accessibility to training and other indices of development education for agriculture [9]. It was in response to this situation that the Women in Agriculture (WIA) program were introduced. Considering the important economic roles played by women farmers, the Women in Agriculture (WIA) program was introduced as a component of Agricultural Development Program (ADP) to empower women farmers in acquiring knowledge and technical skills in the areas of planting materials, fertilizers, chemicals, technical advice and credit facilities to enhance their profitability and increase income so as to tackle food insecurity in Nigeria [10].

Access to improved production practices by women farmers leads to improved yields of crops. Studies have shown positive correlation between use of extension recommendations by farmers and crop yields which translates into increased income and improved quality of life of

farmers [11]. Technologies that can help enhance food production are meant to improve the efficiency of women in agricultural production and enhance their productivity and expand the areas they use for production. It gives them the opportunity to participate in their own income generating activities and reduce drudgery usually associated with activities performed by them.

The improved technologies available to rural women through the WIA program included milling machine, dried millers, frying machine, solar driers, poultry dispensers, palm oil pressing machine, melon shelling machine, among others. Women farmers' competence to use of these technologies could be enhanced through persuasion to adopt agricultural innovations by transferring technology and knowledge from scientists to farmers which triggers development [12].

Adoption of these innovations are often influenced by some factors such as age, level of education, years of farming experience, cost of innovation, belief, values, culture, fear and anxiety, poor access to formal credit facilities, poor access to market, among others. According to [13], education is very essential in the development process. They reiterated that women's access to education and training influences their production while lack of education and training in basic skills contributes to the vicious circle of underdevelopment, negative adoption, low productivity and poor conditions of health and welfare of women.

It therefore becomes pertinent to carry out this study to assess constraints to participation of rural women in technology dissemination of Women in Agriculture Program (WIA) in Imo State, Nigeria. The following research questions were pertinent for this study. What are the socio-economic characteristics of women farmers? What are technologies disseminated by WIA program for rural women? And what are constraints to participation of rural women in WIA technologies.

Purpose of the Study

The broad objective of the study was to identify constraints to participation of rural women in technology dissemination of Women in Agriculture (WIA) Program in Imo state, Nigeria

The specific objectives were to:

i. describe the socio-economic characteristics of the respondents;
ii. ascertain technologies disseminated by WIA program for rural women; and
iii. identify constraints to participation of rural women in WIA technologies.

Methodology

The study was conducted in Imo State, Southeast Nigeria. Mbaitoli Local Government Area of the state was selected purposively for the study. It shares common boundaries with Orlu, Njaba and Isu Local Government Areas in the North while its southern boundaries are shared with Owerri North and Owerri West Local Government Areas. In the west and eastern boundaries are Isiala-Mbano and Ikeduru Local Government Areas. The administrative headquarters of Mbaitoli Local Government Area is Mbieri. It covers an area of 23km square with a population of 237, 655 people [14]. Major occupation of the people in the area is farming. Food crops such as yam, cassava and maize are produced in large quantities.

The population of the study comprised all registered women farmers in Mbaitoli Local Government Area of the state. Multistage and random sampling methods were used to select respondents for the study. Stage one involved the purposive selection of the local government area because of proximity. Stage two involved the selection of six communities from the local government area using a simple random sampling technique. The final stage was the random selection of 10 women farmers from each of the six communities which gave a sample size of 60 respondents used for the study. Data for the study were obtained from primary source through

the use of structured questionnaire. Frequency, percentage and mean score were used for data analysis.

Results and Discussion

Table 1 showed that 33.3% of the respondents were aged 41-50 years, about 28% were aged between 51 and 60 years, among others. This implied that the respondents were middle aged and in their productive years hence greater participation in activities of WIA program. This will enable them to obtain additional income to be economically strong to take care of their family responsibilities.

Majority (75.0%) of the respondents were married while about 18% were widowed, among others (Table 1). This implied that the respondents had family members who are dependents and required additional source of income in order to meet up with their household needs.

A greater percentage (88.3%) of the respondents had formal education in school while 11.7% did not have formal education (Table 1). This showed that majority of the respondents were literate which will enable them to accept the use of technologies disseminated by WIA program. This is in line with the findings of [15] which stated that women's access to education and training influences their production while lack of education and training in basic skills contributes to the vicious circle of underdevelopment, negative adoption, low productivity and poor conditions of health.

Results in Table 1 showed that 56.6% of the respondents had a household size of 6-10 persons while 21.7% had 11-15 persons, among others. This implied that the respondents had fairly large household size which could be a source of labor used in the activities of WIA program.

Entries in Table 1 showed that 56.6% of the respondents had a farming experience of 11-20 years, 31.6% had between 1 and 10 years while 11.8% had above 20 years. This implied that the respondents have been farming for a long period of time which could enable them to acquire experiences that will help to boost their productivity in WIA program.

Table 1 show that 73.3% of the respondents had a farm size of <1 hectare while 26.7% had between 1 and 3 hectares. This implied that the respondents had small portions of farm land and practice at a subsistence level.

About 55% of the respondents had farming and trading as their primary occupation, 26.2% were engaged in farming, 11.8% were petty traders while 6.7% were civil servants (Table 1). This implied that the respondents were involved in farm and non-farm occupations. This is to enable them to be economically empowered to meet up with their family needs.

Table 1: Distribution of respondents according to socio-economic characteristics (n=60)

Socio-economic characteristics	Frequency	Percentage
Age (years)		
21 – 30	2	3.3
31 – 40	18	30.0
41 – 50	20	33.3
51 – 60	17	28.4
Above 60	3	5.0
Marital status		
Single	2	3.3
Married	45	75.0
Widowed	11	18.4
Divorced	2	3.3
Level of education (years)		
Non-formal education	7	11.7
Primary education	35	58.3
Secondary education	14	23.3
Tertiary education	4	6.7
Household size (numbers)		
1 – 5	12	20.0
6 – 10	34	56.6
11 – 15	13	21.7
Above 15	1	1.7
Farming experience (years)		
1- 10	19	31.6
11 – 20	34	56.6
Above 20	7	11.8
Farm size (hectares)		
< 1	44	73.3
1-3	16	26.7
Primary occupation		
Farming	16	26.2
Petty trading	7	11.8
Civil service	4	6.7
Farming and trading	32	55.3

Technologies Disseminated through WIA Program for Rural Women

The respondents indicated the use of the following technologies disseminated by WIA which include processing and utilization of food crops (16.7%), value addition of crops (8.3%), processing and storage of food crops and livestock (6.7%), dry season vegetable production (13.3%), harvesting and storage of food crops (16.7%), processing and utilization of livestock (10.0%), processing and utilization of soya bean into soya milk and soya meal (6.7%), making of soap, pomade and detergent (5.0%) (Table 2). This showed that the respondents were involved in the activities which can generate income for economic empowerment. The finding agreed with a study carried out by [16] which reported that farmers participated in WIA program because it helped them to acquire more skills on agriculture in addition to providing support services.

Table 2: Distribution of respondents according to technologies disseminated by WIA Program for Rural Women (n= 60)

Technologies	Frequency	Percentage
Processing and utilization of food crops	10	16.7
Processing and utilization of livestock products	6	10.0
Processing and storage of food crops and livestock products	4	6.7
Dry season vegetable production	8	13.3
Harvesting and storage of food crops	10	16.7
Food and nutrition training	3	5.0
Making of soap, pomade and detergent	6	10.0
Value addition of crops	5	8.3
Processing and storage of fresh tomatoes into paste	2	3.3
Processing and utilization of soya bean into soya milk and soya meal	4	6.7

Constraints to Participation of Rural Women in WIA Technologies

Results in Table 3 showed constraints to participation of rural women in WIA technologies which included high cost of farm inputs (M= 3.17), lack of funds (M= 3.10), poor communication between women farmers and WIA officials (M= 3.02), poor access to land (M= 3.00), inadequate processing and storage facilities (M= 3.00), weak extension service delivery (M= 2.80), increase in family responsibilities and pressure on women (M= 2.78), , poor training activities of WIA program (M= 2.63), illiteracy (M= 2.60) and poor road network (M= 2.52). The finding is in line with [17] who noted that lack of funds and high cost of agricultural inputs, among others limit the effectiveness of Women in Agriculture (WIA) program in Enugu State. Lack of commitment by WIA officials, lack of encouragement, lack of storage facilities and high cost of labor hinder effective participation of rural women in WIA program [18].

Table 3: Constraints to participation of rural women in WIA technologies

Constraints	Mean Score
Lack of funds	3.10
High cost of farm inputs	3.17
Poor access to land	3.00
Inadequate processing and storage facilities	3.00
Weak extension service delivery	2.80
Illiteracy	2.60
Poor road network	2.52
Increase in family responsibilities and pressure on women	2.78
Poor communication between women farmers and WIA officials	3.02
Poor training activities of WIA program	2.63

Conclusion and Recommendations

The study indicated that the respondents were middle aged, married, literate and in their productive years. The respondents were engaged on the use of technologies disseminated by WIA program which enabled them to obtain additional income for economic empowerment. They were highly constrained by high cost of farm inputs, lack of funds, poor communication between women farmers and WIA officials, poor access to land, inadequate processing and storage facilities and weak extension service delivery.

The study recommended that rural women should be encouraged to join co-operative societies in order to pull their resources together. There arose the need for promotion of rural women's activities through adequate provision of credit facilities by government at all levels to enhance increase in production.

ETHICAL ISSUES

Authors have declared that no ethical issues exist.

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