JHER Vol. 25, No. 2, December, 2018, pp. 154 - 165

Secondary School Female Teachers and Participation in Agricultural Production Enterprises

Ezemma, J.C.; Anorue, H. C. & Nwandu, L. O.
Department of Business Education
Faculty of Vocational and Technical Education
University of Nigeria, Nsukka

Abstract

The major purpose of the study focused on issues relating to female teachers' participation in agricultural entrepreneurship activities. Specifically the study determined information needs of female teachers for participation in agricultural entrepreneurship opportunities; challenges female teachers could encounter in participating in agricultural production enterprises and ways female teachers could be encouraged to participate in agricultural production enterprises. Design of the study was descriptive survey. Population of the study was 120 secondary school female teachers in Nsukka. In each 2 secondary school there was purposive sampling of only female teachers. Instrument for data collection was questionnaire. One hundred and two copies of questionnaire were administered to respondents by hand and 120 copies were retrieved. Data were analyzed using mean and standard deviation. The study found that enough startup capital is needed, adequate preparation; method of harvesting each crop varies were some information female teachers needed for agricultural entrepreneurship opportunities. The study found that lack of loan facilities for startup capital, limited knowledge on method for crop storage were some challenges female teachers encounter. The study also found that educating female teachers through extension workers on new varieties of seeds, making market information available to female teachers for easy sales of crop were some ways of encouraging female teachers' participation in agricultural production enterprises.

Key Words: Secondary School, Female Teachers, Agricultural Production, Enterprise

Introduction

For any nation to strive and achieve its economic goals, it has to recognize and encourage its citizens to acquire right information for agricultural production and skills needed if they must contribute meaningfully to the economic development of their country. Oyinbo and Rekwot (2014) posit that agricultural production has contributed immensely to the economic development of the nation in terms of food production, employment creation, poverty reduction and environmental

sustainability. Agricultural production according Alonge (2016) is a series of activities and production process that result in a product that will ultimately be sold at wholesale or retail outlets to create wealth. Participation in agricultural production is now seen as an alternative means of income to ensure food security and meet up with ones' responsibilities. To support the above assertion, a study conducted by Olawepo and Bola (2012) posit it that many people including teachers participate in agricultural production as a means of alternative income to curb poverty, service debt and provide food for household. To provide for the needs of the family and contribute to the economic development of the nation, many secondary school teachers are eager to participate in agricultural production enterprises.

Secondary school is an educational level between primary education and tertiary education for young individuals between the ages of 11-16 to enable them acquire necessary skills to make a realistic career choice (Ogbonaya, 2005). Secondary education is divided into the junior and senior secondary education with different caliber of teachers to meet their educational needs. Secondary school teachers possess National Certificate in Education or degree certificates in education. A teacher is an experience person who is saddled with the responsibility of imparting skills, knowledge, attitudes, values and competences to another person who is less knowledgeable (Chukwurah, 2013). Chukwurah further stated that despite the commitments of teachers, they are poorly remunerated. With the meager salaries teachers receive, they find it difficult to meet their needs and as well contribute to economic development of the nation, especially teachers with families. Salami (2013) is of the opinion that poor state of economy in the country turns out to be a driving force to many female teachers that provoked them to engage in business enterprises. Enterprise is a business and describes the actions of someone who shows some initiative by taking a risk by setting up, investing in and running a business. It implies not only running of a business, but also shouldering the loss, if any. The person who undertakes all this work is called an entrepreneur. Entrepreneurs participate in activities that create incremental wealth through micro food processing, textile and clothing, agricultural production among others (Okoro and Ofishe, 2011).

Agricultural entrepreneur is one who cultivates the land to produce crops for the market with a profit target. For a farmer-entrepreneur to be able to compete favourably in the changing environment and to take advantage of new market demand he must be able to identify agricultural opportunities available in his environment. Agullar (2009) identified such agricultural entrepreneurship opportunities in crop production as: cereals, root crops, legumes, fruits, vegetables and tree crops. Mojisola (2016) and Bikisu (2011) stated that these agricultural entrepreneurship opportunities are also called agribusiness. Agribusiness

includes all activities involving but not limited to production, processing and distribution of agricultural goods and services to meet the needs of the society (Olokundun, Falola and Ibidunni, 2014). In area of cereals, Fabiyi and Akande (2015) believed that women can embark on maize, rice or corn production, processing and marketing them; in root crops they can engage in cassava and potato production; legumes they can engage in soya beans and groundnuts production or processing; fruits women can embark on mango, banana, oranges, guava, pawpaw and pineapple production or marketing them; vegetables they can engage in cabbage, green pepper, carrots, onions and melons production or marketing them while in tree crops women can engage in oil palm, coconut and cashew nut production, processing and marketing them. To be able to identify these opportunities Ansari and Sunetha (2014) and Adams (2017) posits it that it will require the ability to have access to reliable and current information on the latest agricultural practices such as: times and seasons, land preparation method, seed varieties, method of sowing/planting, implements to used, right spacing, and time for harvesting among others. Information on various entrepreneurial skills that would be helpful was also needed.

However, no matter how entrepreneurial skillful one may be, challenges are abound for female teachers and women generally who wish to participate in agricultural production enterprises. Some according to Sobechi and Thomas-Odia (2018) include lack of access to loan and after planting and harvesting, selling become a problem especially when the produce is in season and excess. To corroborate the above assertion, Kantor (2001) identified limited access to market information, limited access to credit facilities, psychological barriers, initial capital, fear of taking risks and inadequate infrastructure as constraints to female teachers' participation in agricultural production enterprises. In support of the above, other researches has identified several factors as constraints to women participation in agricultural production which include: land tenure problem, inadequate access to extension services, inadequate finances, poor access to information and training, inadequate inputs, poor market access, lack of government support among others (Oladejo, Olawuyi and Anjorin, 2011; Nuhu, Donye and Bawa, 2014; Yemisi, and Idisi, 2014; Gideon and Yager, 2016; Adams, 2017)

Therefore, encouraging female teachers to engage in agricultural production entails empowering them with information and removing any barrier affecting their active participation in agricultural production. To validate the above statement, Adams (2017) posit that easy access to credit, easy access to land, and awareness creation through extension agents on best agricultural practices among others are ways of encouraging female participation in agricultural production. Whitmell (2012) asserts that improved

careers education, awareness campaign and initiatives among others are strategies for encouraging female teachers' participation in agricultural production enterprises. While Stevenson and Stone (2006) is of the opinion that women must be taught how to be adequately prepared before engaging in the agricultural production enterprises.

Purpose of the Study

This study focused on issues relating to female teachers' participation in agricultural entrepreneurship activities. Specifically the study determined:

1. Information needs of female teachers for participation in agricultural entrepreneurship opportunities for female teachers in Nsukka L.G.A.
2. Challenges female teachers could encounter in participating in agricultural production enterprises.
3. Ways female teachers could be encouraged to participate in agricultural production enterprises.

Research Questions

The following research questions guided the study:

1. What are the information needs of female teachers for participation in agricultural entrepreneurship opportunities in Nsukka L.G.A?
2. What are the challenges that female teachers could encounter in participating in agricultural production enterprises in Nsukka L.G.A?
3. What are the ways that could encourage female teachers' participation in crop production enterprises in Nsukka L.G.A?

Methodology

Design of the study: The study adopted descriptive survey design. A descriptive survey research design is one in which a group of people or items is studied by collecting and analyzing data from only a few people or items considered to be representative of the entire group. Descriptive survey design is appropriate for this study data was collected from a group as a representative of a larger group.

Area of the Study: Area of the study was Nsukka and St. Cyprian's Girls' Secondary School, Nsukka and St. Cyprian's Special Science School, Nsukka were used. The two schools are jointly owned by Enugu State Government and Nsukka Diocese (Anglican Communion)(Post Primary School management Board, PPSMB, Nsukka.)

Population of the Study: The population for the study comprised 120 secondary school female teachers in the secondary schools in Nsukka. Thirty state teachers and 40 Diocesan Education Board (DEB) teachers were from St. Cyprian's Girls' Secondary School and 20 state teachers and 30 DEB teachers were from St. Cyprian's Special Science School. Diocesean Education Board (DEB) teachers are teachers employed by the Nsukka Diocese (Anglican Communion) while state teachers are teachers employed by Enugu State Government.

Sample for the Study: In each of the two secondary schools, there was purposive sampling of only female teachers.

Instrument for Data Collection: The instrument used for data collection was structured questionnaire. It was developed based on the research questions and literature review. The instrument was sub-divided into two parts. Part I is on general information about the respondents. Part II was further divided into sections A, B, C. Section A has 7-item statements that sought data on information needs of female teachers on the agricultural entrepreneurship opportunities. Section B has 12-item statements that sought information on the challenges to female teachers' participation in crop production enterprises while Section C has 11-item statements that sought information on the ways of encouraging female teachers' participation in crop production enterprises.. The response categories for the sections was a 4-point rating scale which ranges from 4 – 1 (Strongly Agree = 4; Agree = 3; Disagree = 2; Strongly Disagree = 1).The questionnaire was validated by three lecturers from Faculty of Vocational and Technical Education, University of Nigeria, Nsukka. Reliability of the instrument was ascertained through Cronbach Alpha method which yielded 0.82% reliability co-efficient.

Method of Data Collection: One hundred and twenty copies of questionnaire were administered to respondents by hand and 120 copies were retrieved showing 100% return rate.

Method of Data Analysis: The research questions were answered using means and standard deviation. Mean scores of 2.50 and above were regarded as "agreed" while mean scores below 2.50 were regarded as not "disagreed".

Findings of the Study

Table 1: Mean responses on the Information Needs of Agricultural Entrepreneurship Opportunities for Female Teachers in Nsukka L.G.A.

S/N	Information needs for entrepreneurial opportunities	$\bar{X}$se	SDse	$\bar{X}$de	SDde	$\bar{X}$g	SDg	Remark
1.	Enough startup capital is needed	3.4	.54	3.5	.52	3.5	.53	Agree
2.	Some crops to be sown/plant include (cereals, legumes, fruits, vegetables or tree crops)	2.2	.86	2.4	.80	2.3	.83	Disagree
3.	Enough Land space is required	2.7	.72	2.9	.68	2.8	.70	Agree
4.	Crops Varieties: HYV	3.5	.52	3.3	.54	3.4	.53	Agree
5.	Adequate preparation for one to engage in such crop production.	2.9	.68	3.5	.52	3.2	.60	Agree
6.	Farm implements or equipment used for the crops vary	2.1	.88	2.0	.89	2.1	.89	Disagree
7.	Sowing or planting the crops must be timely	3.2	.55	3.7	.50	3.5	.53	Agree
8.	Sowing methods required are based on the type of crop	3.6	.51	3.9	.50	3.8	.51	Agree
9.	There must be right spacing for each crop	2.8	.70	3.5	.52	3.2	.61	Agree
10.	Weed control/management is based on the type of crop	3.7	.50	3.4	.54	3.6	.52	Agree
11.	Watering requirement for each crop varies	3.2	.52	3.6	.51	3.4	.52	Agree
12.	Fertilizer requirement & application for each crop varies	2.9	.68	3.1	.59	3.0	.64	Agree
13.	Disease control/management depend on the type of crop	3.6	.51	3.5	.52	3.6	.52	Agree
14.	Harvesting time depends on the type of crop	3.2	.55	3.7	.50	3.5	.53	Agree
15.	Method of harvesting each crop varies	2.8	.70	3.0	.62	2.9	.67	Agree
16.	Processing Techniques required for each crop varies	3.5	.52	3.2	.55	3.4	.54	Agree
17	Storage pattern needed for each crop varies	3.3	.54	3.6	.51	3.5	.53	Agree
	Grand mean/stand deviation					**3.2**	**.60**	**Agree**

No of State employees = 50; No of Diocesan Education employees = 70; Xse = Means of state employees; Xde = Means of Diocesan employees; Xg = Grand mean

Table 1 shows grand mean of 3.2. This implied that the respondents agreed that the item statements were information female teachers needed for agricultural entrepreneurship opportunities. The grand standard deviation of item 1 – 17 in table 1 was .60. This implies that the opinions of the respondents were close to each other.

Table 2: Mean Responses on Challenges Female Teachers could Encounter in Participating in Crop Production Enterprises

S/N	Challenges female teachers encounter	Xse	SDse	Dde	SDde	Xg	SDg	Rmk
1.	Lack of loan facilities for startup capital	3.6	.51	3.7	.50	3.7	.74	Agree
2.	Inadequate infrastructure	2.5	.78	2.8	.70	3.7	.74	Agree
3.	Lack of access to crop varieties	3.7	.50	3.3	.54	3.5	.52	Agree
4.	Fear of taking risks	2.2	.86	2.0	.89	2.1	.88	Disagree
5.	Psychological barriers	3.0	.62	3.1	.59	3.1	.61	Agree
6.	Limited knowledge on spacing requirement for each crop	3.4	.54	3.2	.55	3.3	.55	Agree
7.	Limited access to market information	3.5	.52	3.1	.59	3.3	.56	Agree
8.	Lack of market for harvested produce	3.3	.54	3.5	.52	3.4	.53	Agree
9.	Limited knowledge of method for harvesting	2.5	.78	2.8	.70	2.6	.74	Agree
10.	Limited access to market information	3.4	.54	3.7	.50	3.6	.52	Agree
11.	Lack of knowledge on appropriate processing techniques for each crop	3.2	.55	3.6	.51	3.4	.53	Agree
12.	Limited knowledge on method for crop storage	3.1	.59	3.5	.52	3.3	.56	Agree
	Grand mean/standard deviation					**3.2**	**.62**	Agree

No. of State employees = 50; No of Diocesan Education Board employees = 70
Xse = Means of state employees; Xde = Means of Diocesan Board employees; Xg = Grand mean.

Table 2 shows grand mean of 3.2 and this implies that item statements were the challenges that female teachers could encounter when they participate in agricultural production enterprises. The grand standard deviation of all item

statements was .62. This implied that the range in the responses of respondents was not far from the mean.

Table 3: Mean Responses on ways of encouraging Female Teachers' Participation in Crop Production Enterprises.

S/N	Ways to encourage Female teachers	Xse	SDse	XdeSDde		Xg	SDg	Remark
		X	SD	X	SD	X	SD	
1.	Providing information on available sources of startup capital	3.3	.54	3.5		3.4	.53	Agree
2	Enlightening women on alternative use of available land for crop production	2.7	.72	3.1	.59	2.9	.66	Agree
3	Educating women through extension workers on the new varieties of seeds	3.2	.55	3.6	.51	3.4	.53	Agree
4	Exposing women to farm implements used for different crop production	2.4	.80	2.0	.89	2.2	.85	Disagree
5	Educating women through extension workers on the right sowing/planting methods and spacing for different crops	2.6	.75	2.9	.68	2.8	.72	Agree
6	Exposing women to weed control techniques	3.0	.62	3.4	.53	3.2	.58	Agree
7	Enlightening women on the right manure required for different crops	2.8	.70	3.1	.59	2.9	.65	Agree
8	Teaching women on the right time and way of harvesting crops	2.6	.75	2.8	.70	2.7	.73	Agree
9	Making market information available to women for easy sales of crops	3.5	52	3.7	.50	3.6	.51	Agree
10	Educating women on how to process some crops for better profit margin	3.7	.50	3.4	.54	3.6	.52	Agree
11	Teaching women how to store crops	3.2	.55	3.5	.53	3.4	.54	Agree
	Grand mean/standard deviation					**3.1**	**.62**	**Agree**

No of State employees = 50. No of Diocesan Education Board Employees = 70
Xse = Means of State employees; Xde = Means of Diocesan Education Board employees; Xg = Grand mean.

Table 3 reveals that grand mean for items 1- 11 was 3.1 which was within boundary limit of 2.50 – 4.00. This implied that item statements were the ways female teachers could be encouraged to participate in agricultural

production enterprises. The grand standard deviation of items 1 – 11 in Table 3 was .62. This implied that the opinions of the respondents were close to each other.

Discussion of Findings

The study revealed that enough startup, enough land space, variety of crops, plant or sow at right time or season, knowledge of control/management of weed for crops, know the best time for harvesting for each crop type, method of harvesting each crop, processing techniques required for each crop and storage pattern needed for each crop were information needed by female teachers for agricultural entrepreneurship opportunities. This study is in line with the findings of Agullar (2009) who listed variety of crops needed in any agricultural production enterprise. The findings also agreed with the statement of Ansari and Sunetha (2014) that women need information on agricultural practices in crop production especially modern farming practices. This therefore implies that for women to be able to choose agriculture as an alternative source of income, they need to be informed on different agricultural practices needed for efficient farming.

The study revealed that lack of market for harvested produce, limited access to market information and inadequate infrastructure were the challenges female teachers could encounter in participating in agricultural production enterprises. This is line with the view of Sobechi and Thomas-Odia (2018) that after planting and harvesting, sales become a problem especially when the produce is in season and excess. The study revealed too that lack of knowledge on sowing/planting methods of crops, limited knowledge on spacing requirement for each crop, limited access to weed control/management techniques for each crop, lack of knowledge in choosing the right manure to apply on crop, limited knowledge of method for harvesting, limited access to market information, lack of knowledge for appropriate processing techniques for each crop and limited knowledge on method for crop storage were challenges that female teachers could encounter in participating in crop production enterprises. The finding is in agreement with the view of Mojisola (2016) that farmers are restricted to farm inputs within their reach which has affected their level of production. The finding is also confirmed by Fabiyi and Akande (2015) that rural farmers are faced with numerous challenges in their farm operations. Bikisu (2011) also identified lack of access to capital, fertilizer, improved seedling, and extension services as among the challenges being faced by women farmers.

The study also revealed that enlightening women on alternative use of available land for crop production, Educating women through extension workers on the new varieties of seeds, women through extension workers on the right sowing methods and spacing for different crops, exposing women to weed control techniques, enlightening

women on the right manure required for different crops, teaching women on the right time and way of harvesting crops, making market information available to women for easy sales of crops, educate women on how to process some crops for better profit margin instead of selling at raw stage and teaching women on how to store crops were the ways that should encourage female teachers to participate in crop production enterprises. The findings are in line with the views of Steven and Stone (2006) and Whitmell (2012) that women be exposed for career education on agricultural production. The findings also agreed with Adams (2017) who saw easy access to credit, easy access to land, creation of awareness to rural women on agricultural practices as ways of encouraging rural women to participate in agricultural production or agricultural activities.

Conclusion

The paper sought to investigate secondary school teachers and participation in agricultural production enterprises. The study revealed that enough startup capital, enough land space, time for harvesting different crops varies, sowing method is based on the type of crop and awareness of some crops to be sown were information female teachers needed for agricultural entrepreneurship opportunities.

The study revealed that lack of market for harvested produce, limited access to market information, fear of taking risks, inadequate infrastructure, lack of capital and lack of access to crop varieties were challenges that female teachers could encounter when they participate in agricultural production enterprises.

The study also revealed providing information on available sources startup capital, educating women through extension workers on the new varieties of seeds, making market information available to them for easy sales of crops and exposing on various initiatives on how to process and store crops were the ways female teachers could be encouraged to participate in agricultural production enterprises.

Recommendation

Based on the findings and conclusion of this study, the following recommendations were made:

- Agricultural extension workers should help in exposing women in career education in agricultural production.
- Awareness should be created to enable female teachers to be aware of agricultural entrepreneurship opportunities and adequately prepare for them before embarking on agricultural production enterprises.
- Government should create good condition for easy access to loan and market for women

References

Adams O. K. (2017). Nigeria Women in Agriculture: Challenges and Way Foreword. *Journal of Humanities and Social Science*. *22(1), 102-106*

Alonge, A.F. (2016). Food Processing Preservation and Storage for Economic Development in Nigeria, University of Uyo.

Ansari, M. A. & Sunetha, S. (2014) Agriculture information needs of farm women: A study in State of North India .*African Journal of Agricultural Research* 9 (19), 1454-1460

Agullar, L. (2009). Training Manual on Gender and Climate Change: Global Gender and Climate Alliance (online) available at **Error! Hyperlink reference not valid.** %20and%20climate %20 change.Pdf.

Bilkisu A M. (2011).Women Participation in Agriculture: The Role and Impact of Agricultural Development Project (ADP) in Kogi State. An Unpublished Thesis Submitted to the Postgraduate School, Ahmadu Bello University, Zaria

Chukwurah, C. C. (2013). Trends in Business Teacher Education in Nigeria. *Scholarly Journal of Education*. 2(5), 58-62

Fabiyi, E.F and Akande, K. (2015). Economic Empowerment for Rural Women in Nigeria: Poverty Alleviation through Agriculture. *Journal of Agricultural Science.* 7(9),1916-1960

Gideon, P. K. and Yager, G. O., (2016). Role of women farmers in agricultural development in Jalingo Local Government Area, of Taraba State, Nigeria, *Nigerian Journal of Agriculture, Food and Environment* 12(1),75-79.

Kahan, D (2013) Entrepreneurship in Farming. Farm Management Extension Guide, Food and Agriculture Organization of the United Nations.

Kantor, P. (2001). *Promoting Women Entrepreneurship Development based on good practice Programmes*: some experiences from the North to South Africa, SEED Working Paper No. 9.

Mojisola, F.O.(2016). Contribution of Indigenous Vegetable Production to the Income Generation of Rural Vegetable Farmers in Egbeda Local Government Area in Oyo State. *Journal of Home Economics Research,* 23(2), 175-182

Nuhu, H.S., Donye, A.O. and Bawa, D.B(2014). Barriers to women participation in agricultural development in Bauchi Local Government Area of Bauchi State, Nigeria, *Agriculture and Biology Journal of North America* 5(4),166-174

Ogbonnaya, N.O. (2005). *Foundations of education finance*. Enugu: Hallman Publishers.

Olawepo. R. A. and Bola F. (2012). Rural Women Farmers and Food Productivity in Nigeria: An Example from Ekiti, Kwara, Nigeria, *Asian Journal of Social Science* 8(10), 108-117.

Oladejo, J. A., Olawuyi, S.O., and Anjorin, T.D. (2011). Analysis of women participation in agricultural production in Egbedore Local Government Area of Osun State, Nigeria, *International Journal of Agricultural Economics and rural Development* 4(1),1-11.

Olokundun A.M., Falola B. H and Ibidunni A. S., (2014). Agro business as a remedy for youth unemployment towards the achievement of sustainable development in Nigeria: Comparative perspectives from the Kwara State Agro Business economy. *Journal of Economics and Sustainable Development* 5(3),46-57.

Okoro, F.N. and Ofishe, W.O. (2011). *Practical entrepreneurship*. Benin: Mindex Publishing company Limited.

Oyinbo O. and Rekwot G. Z. (2014). Agricultural production and economic growth in Nigeria: Implication for rural poverty alleviation, *Quarterly Journal of International Agriculture* 53(3), 207-223

Salami, C.G.E. (2013) Youth unemployment in Nigeria: A Time for Creative Intervention *International Journal of*

Business and Marketing manangement,1(2), 18-26.

Sobechi, L. and Thomas-Odia, I. (2018). Women Farmers Identified Challenges. Retrieved from https://www.agriculture journals.02/2018/10/24.

Span, T. (2018). Junior Secondary School Certificate. Retrieved from https//www.spantran.com/2018/10/24 /secondary school.

Stevenson L. and Stone, A. (2006). *Support for Growth-oriented Women Entrepreneurship in Uganda*. Rome: ILO.

Whitmell, C. (2012). How to Make Farming an Appealing Career Choice for New Generation. Retrieved from https//www.iheguardian.com/2018/10 /25/ sustainable-business/blog/make-farming-appeal.

Yemisi, G. M. and Idisi, P.D, (2014). Gender inequality and women participation in agricultural development in Nigeria, *Merit Research Journal of Education and Review* 2(11), 296-301.