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Constraints and Extent of Access to Productive Resources and Agricultural Services among Women Farmers in Awka and Aguata Agricultural Zones of Anambra State, Nigeria

Ani, A.O[1], Chikaire, J.U[1], Ogueri, E.I[1] and Orusha, J.O[2]

[1]Department of Agricultural Extension, Federal University of Technology, Owerri, Imo State, Nigeria.

[2]Department of Agricultural Science Education, Alvan Ikoku Federal College of Education, Owerri, Imo State, Nigeria.

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ABSTRACT

The study investigated constraints and extent of access to productive resources and agricultural services among women farmers in Anambra State, Nigeria. Specifically, it identified income generating activities of women farmers in the state, identified the productive resources and agricultural services available to them and determined the extent of availability of the resources and services and constraints to accessing the resources. Purposive random sampling technique was used to select a total of 120 women farmers. Data were collected with aid of a structured questionnaire. Data were analyzed using mean, percentages and frequencies. Results showed that majority (60%) of the respondents are married and a majority (50%) has formal education. It was further revealed that the respondents had diversified income generating activities with a majority engaging in processing of agricultural products (98.3%) and farming (95.8%). The results also showed that majority of the respondents indicated labour as the most available productive resource in the area. On the extent of access to productive resources, the result revealed that labour (x=3.0) and processing facilities (x = 2.50) are the accessible productive resources. Finally, the result revealed sharing of knowledge (x = 2.56) and marketing facilities (x = 2.98) as the only agricultural services accessible to the farmers. Constraints encountered lack of capital, poor electricity connection, lack of access roads, poor radio signals, illiteracy among others. It was recommended that the existing land ownership policies in the country should be reviewed to promote ownership by women farmers and extension education/visit be improved as well.

Introduction

Resources are the key considerations for rural livelihoods. Rural households negotiate their livelihood by obtaining access to land, labour, capital, knowledge and market which leads to enhanced family well-being and sustainable use of resources (Valdivia and Gilles, 2001). In most developing countries, there is a patriarchal system of social setting. In this tradition, men hold the sovereign power to control households and society as a whole while women are ascribed to a lower hierarchy compared to men (Balk, 1997). The historical deprivation of women socially, legally, politically and technologically aggravates their positions and they are subordinated as a production unit for bearing and rearing children (Ahmad, 2001). Women's access to productive resources (e.g. land) tends to be related with men, either by kinship or through marriage. Furthermore, economic, extension and other public institutions are gender-based and often ignore the needs of women. Baden (1997) identified some gender-based differentiations within the household including access to productive resources, control over family labour, rigidities in division of labour, inequality in consumption and responsibility for domestic expenditure. Tamale (2004) argues that the non-recognition of women's labour for domestic chores is reinforced by the unequal allocation of resources. Thus, the lack of access to and control over productive resources is the main factor limiting women's equal participation in economic activities thereby hampering the human development process (Achary, 2003).

Women play a significant role in agriculture the world over. About 70% of the agricultural workers, 80% of food producers and 10% of those who process basic foodstuffs are women and they also undertake 60 to 90% of the rural marketing, thus making up more than two-third of the workforce in agricultural production (FAO, 1985). Generally, development assistance has failed to reach women in the rural areas, both in absolute and relative terms compared to men, for two reasons. First, agricultural development programmes were traditionally focused on men as producers and secondly, a lack of knowledge or a false assumption about the role of women in agriculture (BOSADP, 2002). The new farming methods and machinery made available to men caused a shift in the cropping pattern with potential adverse impacts on food diversity and nutrition of the family.

Nigerian women perform multiple roles for the survival of their homes and the nation. They constitute a substantial proportion of the nation's farmers and provide about 60 to 80% of the rural labour input (Adekanye, 1988a). Despite the important roles that women play in farm and household production, they have not been given due recognition in the agricultural sector, there has been a great disparity between women and men in the size of landholdings as well as over

Tele:
E-mail addresses: bankausta@yahoo.com

trends of increasing landlessness (Quisumbling, 1994). There are also constraints on women labour time as they cannot call on the labour of other households members in the way men can (Malena, 1994). Women interest and involvement in farm decision on production are limited.

The limitation has a lot of implication for women access to and control over resources of their own (Rahmann and Alamu, 2003). The 4th World congress of Rural Women held in South Africa in 2007 reiterated the need to provide full and equal access for rural women to productive resources, including the right to inheritance and ownership of land and other properties, credit/capital, appropriate technologies, markets and information. Considering this complex situation, researchers have attempted to examine some of the productive resources accessible to rural women and explore enabling and limiting factors with the intention of making them powerful agents for change overtime.

Women are the most disempowered, experiencing inadequate right to land and decision making about its productive use, to decision about water resources to control over the resources they require and there are inequalities in the distribution of foods, healthcare, access to employment opportunities which lead to women's unequal and declining access to land (Adekanye, 1988a; Jazury, 1992). Poorer women have temporary and uncertain access to land, labour, capital and even decision making while better off women and men are more likely to have long term control. Today women have additional work and less assistance and are therefore under greater pressure. It is of special concern that many projects ignore or do not understand this chain of events. The consequence of this is that women are passed in the right or opportunity to use, manage or control a particular resource (Nichols et al, 1999). Resources may be economic (e.g. land and credit) political (e.g. participation on local government and community decision making) and social (e.g. education and training). In general, women require different levels of access to resources based on their productive, reproductive and community managing roles (Moser, 1993). When disadvantaged women have the ability to control their own environment by gaining greater access to material and intellectual resources, Musokotwane et al, (2001) have called the process empowerment.

Many studies have already found that access to productive resources for women enhances knowledge on farm management and income generation, develops bargaining and decision making power, improves children's schooling and health, increases self-confidence and social networks and provides security in old age (IFPRI, 2000). Poverty alleviation in rural areas is significantly related to women's increased access to productive resources (Adereti, 2005). Thus, efforts to build social capital among rural women are necessary for sustainable production and household food security through provision of facilitating resources (Meludu et al, 1999, Flora, 2001).

In many rural settings, access to adequate knowledge, improved technology, financial services and other relevant social services (e.g. drinking water, education and health services) remain a critical issue. There are still significant challenges in providing Extension and Advisory Services (EAS) in these areas. These range from insufficient fund to supporting public extension, poor resourcing, disorganized structures resulting in poor infrastructure for attracting businesses, limited involvement of rural farmers and populations in extension processes to the lack of appropriate strategies for effective research and adequate extension methods. Limited coverage of extension services across rural regions and challenges in adapting technology packages to community-specific contexts have also been highlighted as critical issues in the delivery of EAS (IFPRI-World Bank, 2010).

In addition to the above mentioned challenges, it has been documented that delivery of EAS has not equally benefited women farmers in rural areas. A recent study in India, Ghana and Ethiopia revealed important gender gaps in access to agricultural extension in these regions due mainly to the limited participation of female farmers in extension-related meetings and the lack of incentives in reaching these female farmers (IFPRI-World Bank, 2010). Other studies have also stressed that EAS provision in the agricultural sector has been more often biased against rural women formers as they often lack access and control over productive resources and technologies that are affordable and appropriate to their needs (Quisumbing and Pandolfelli, 2009).

Access to resources is one of the elements of women empowerment and a base for the attainment of Millennium Development Goals (MDGs). Due to lack of land ownership, women are getting inadequate attention by many development agencies. Women access to productive resources (e.g. land) tends to be related with men weather by kinship or through marriage. Furthermore, economic, extension and other public institutions are gender-biased and often ignore the needs of women. Gender biased differentiation within the household including access to productive resources, control over family labour, rigidities in division of labour, inequality in consumption and responsibility for domestic chores are reinforced by the unequal allocation of resources. Thus the lack of access to and control over productive resources is the main factor limiting women equal participants in economic activities thereby hampering the human development process (Acharya, 2003).

Therefore, not much has been done in the study area concerning the topic, giving rise to a knowledge gap which this work will close. The specific objectives of the study are to:

a) describe the socio-economic characteristic of respondents
b) identity income generating activities of women farmers in study areas.
c) identify the productive resources and agricultural services available to the respondents.
d) determine extent of access to productive resources and agricultural services.(e) determine constraints to accessing productive resources and agricultural services in the area.

Methodology

The study was carried out in Anambra State, Nigeria. Anambra is a state in south-eastern Nigeria. Anambra State covers an area of 4,816.2 square kilometers, has tropical rain forest vegetation, humid climate with a temperature of about 87^0F and a rainfall of between 152cm – 203cm. It is situated on rolling flat land on the eastern plains of the Rivers Niger, and lies at latitude 6^020^1 north and longitude 7^000^1 east. It has a population of 4,177,828 in 2014 projected from 2006 national census figure (NPC, 2006). The state is made up of four agricultural zones, namely: Aguata, Anambra, Awka and Onitsha. Two zones namely; Awka and Aguata were selected from the four agricultural zones using a purposive random sampling technique. Aguata zone is made up of six extension blocks, which consist of forty-five circles, while Awka zone has five blocks made up of thirty-five circles. Two blocks and six circles were selected respectively from the zones and circles using a purposive random sampling technique. In each of the circles selected, ten women farmers were selected randomly for the study. In general, the study comprised four (4) blocks and twelve (12) circles, giving a total of one hundred and twenty

(120) women farmers. Data were collected by the researcher himself with the assistance of two enumerators who were properly trained on the objectives of the study. The data for the study were collected with the aid of a questionnaire based on the objectives of the study. Data obtained in this study area were analyzed using descriptive statistical tools like frequency distribution tables, percentages and means to analyze all the objectives of the study. Objectives 4 and 5 were achieved using a 4 point likert scale of frequently, occasionally, rarely and not at all assigned scores of 4, 3, 2, and 1 respectively to determine extent of access to resources and services. While very serious, serious, less serious and not serious assigned weights as above were used to determine constraints to access to resources and services. The cut-off mark was a mean of 2.50 therefore any response below 2.50 is adjudged to be on the negative to the respondents.

Results and Discussions

Socioeconomic Characteristics of Respondents

Table 1 shows that a greater percentage (45.8%) are within the age range of 51 – 60 years, followed by 29.2%, 16.7% and 8.3% are between 41 – 50 years, 30 - 40 years and above 60 years respectively. The mean age was found to be 46.7years. This implies that the farmers are still within their economically active ages. As relatively young people, the farmers can engage actively in productive activities as well as faster adoption of innovations. The table shows that majority (60%) of the women are married, while 33.3% and 6.7% are widows and divorced individuals respectively. Marriage could encourage the engagement in agricultural production especially in rural areas where agriculture seems to be the dominant occupation in rural areas. Marriage increases household size thus increasing the need to engage in agriculture as a major occupation or supplement income from other sources. Marriage could as well provide farm labour for the farm family which will encourage the use of productive resources and demand for extension service. Table 1 below further reveals that majority (50%) of the women received secondary school education while the remaining 21.7% and 16.67% had tertiary and primary school education respectively. The result however showed that 12.50% of the women had no formal education. Thus these implies that majority of the women are educated to an extent as they cannot be termed illiterates. The acquisition of formal education will encourage the adoption of improved agricultural technologies and increased demand for agricultural services. Again, (50%) of the women have a household size of 3- 8 persons, 41.7% and 8.3% have household sizes of more than 8 persons and 1-3 persons respectively. The mean household size is 9 persons which implies that the household are fairly large. Larger households would encourage agricultural production especially in rural areas where it is the dominant occupation. This will encourage the demand for agricultural services. On farm experience, greater percentage (41.7%) have a farming experience of 11 – 15years, 27.5% have farmed for more than 15 years, 25% and 5.8% have a farming experience of 6 – 10 years and 1 – 5 years respectively. The mean farming experience was 13.2 years. This means that the farmers cannot be termed new comers in farm business. Majority (79.2%) of the women are members of social organizations while the remaining 20.8% are not. Membership of social organization would enable farmers to access agricultural services. Farmers in rural areas may choose to belong to social organizations in order to collectively do together what could not be done individually. Finally, 73.3% of the respondents have a farm size of less than 1ha, (0.5-1), 16.7% of the respondents have a farm size of 1.5 – 2ha, while 12 or 10.00% of have farm size of 2.5ha and above. It revealed that status of the majority poor who have no secure access to land.

Income Generating Activities of Respondents

Table 2 shows that majority (98.3%) of the women are engaged in the processing of agricultural products, followed by (95.8%) whose farming is their occupation, and petty trading (70.83%). Farming has remained the dominant occupation in rural areas and it is done more by women. The results further reveals that the women are engaged in a variety of activities which buttress the fact that rural people has diverse sources of income. The Nigerian woman has proved to be more than a mere "bench-warming" spectator, even in the midst of the male-dominated professional congregation. If given the opportunity, women can effectively participate in policy-making and governance. They can hold their own in very difficult and stressful circumstances and can do as well, if not better, than men(Ogunlela and Mukhtar, 2009). The steady advancement of women in contributing to the nation's economic development and their progressive prominence in the national scheme of affairs have, to a large extent, impacted on the Federal government and government has responded positively in diverse ways. On the basis of available evidence and statistics, the role of women in agricultural production in Nigeria cannot be trivialized. They perform crucial roles in the domestic and economic life of the society. Rural and national development can hardly be achieved with the neglect of this important and substantial segment of the society (Kishor et al., 1999). In recognition of the importance of women in national building, the Nigerian government, more than ever before, is keen on rural poverty alleviation as a way of improving the economy.

Ironically, women are known to be more involved in agricultural activities than men in sub-Saharan African (SSA) countries, Nigeria inclusive. As much as 73 % were involved in cash crops, arable and vegetable gardening, while postharvest activities had 16 % and agroforestry, 15 percent (Abdullahi, 2000). Their involvement in agriculture in Nigeria has attracted greater attention in recent years. Reasons for their involvement are as many as are diverse. In some states rural women have virtually taken over the production and processing of arable crops (Afolabi, 2008), being responsible for as much as 80 % of the staple food items. Estimates of women's contribution to the production of food crops range from 30% in the Sudan to 80% in the Congo, contributing substantially to national agricultural production and food security, while being primarily responsible for the food crops (FAO, 1995).

Availability of Productive Resources and Agricultural Services

Table 3 shows that majority (83.3%) of the women indicated that they have access to labour and capital (58.3%). The table also shows that the women have low availability of land (25%), improved seedlings (20.3%) and hybrid animals (4.2%). Since majority of the women were married, the likelihood of them having access to family labour is high. They are likely to have their family members provide them with labour. However, limited availability of essential resources like land, farm inputs, fertilizers and improved crop varieties and livestock breeds will likely hamper the productivity of the women. It was observed that the denial of access to productive resources such as land to women could be as a result of cultural biases common in developing countries. The table also shows that 77.5% of the respondents indicated having regular access to information on agriculture.

Table 1. Socio – Economic Characteristics of the Respondents

CHARACTERISTICS	FREQUENCY	PERCENTAGE
Age		
30-40	20	16.6
41-50	35	29.2
51-60	55	45.8
61 and above	10	8.3
Marital Status		
Married	72	60
Divorced	8	6.7
Widow	40	33.3
Household size		
1-4	10	8.3
4-8	60	50
9 and above	50	41.7
Educational Level		
No formal Education	15	12.5
Primary	20	16.7
Secondary	60	50
Tertiary	25	21.7
Farm size		
0.5-1	88	73.3
1.5-2	20	16.7
2.5 & above	12	10
Farming Experience		
1-5 years	7	5.8
6-10 years	30	25
11-15years	50	41.7
16 and above	33	27.5
Membership of Organization		
Yes	**95**	**79.2**
No	25	20.8

Table 2. Income generating activities

Activity	*Frequency	Percentage (%)
Farming	115	95.8
Petty trading	85	70.8
Clothes making	15	12.5
Brewing	2	1.7
Processing of agric products	118	98.3
Catering services	12	10
Construction work	5	4.2

*Multiple responses

Table 3. Available Productive resources and Agricultural Services

Productive Resources	*Frequency	Percentage (%)
Land	30	25.00
Labour	100	83.33
Capital	70	58.33
Credit	40	33.33
Farm inputs	40	33.33
Fertilizers	30	25.00
Improved seedlings	25	20.83
Agricultural Services Information provision	93	77.50
Knowledge sharing	78	65.00
Farmer education	59	49.17
Market facilities	110	91.67
Advisory services to farmers	81	67.50

*Multiple responses

Table 4. Extent of Access to Resources and Services

Resources	Mean $\bar{x}$
Land provision	2.13
Labour	3.0
Credit	2.1
Fertilizer	2.00
Processing facility	2.50
Agro-chemicals	2.10
Use of improved seeds/seedlings	2.03
Hybrid animals/plants	1.90
Agricultural Services	
Extension visit	1.98
Information provision	2.10
Knowledge sharing	2.56
Farmer education	2.05
Advisory service to farmers	2.31

Cut off mean is 2.5

Table 5. Constraints of Access to Resources and Services

Constraints	Mean $\bar{x}$
Inability to read and write	2.53
Poor radio and television signals	3.02
Lack of adequate fund	3.05
Low level of awareness	2.55
Low supply problem	2.62
Age related problems	2.67
Lack of time	2.52
Irregularity of meetings	3.05
Long distance to meeting venue	2.54
Technologies difficult to understand	2.81
Favouritism in input distribution	3.41
Lack of commitment by agents	2.56
Poor public relation of agents	2.65
Farm information aired at odd hours	2.51
Lack of steady/regular power supply	3.14
Lack of decision making power	3.60
Lack of access road for extension visit	3.45
Farm information not aired in my area	2.76

Cut off mean is 2.5

It also indicates that 65% of the respondents have access to knowledge sharing, this knowledge sharing according to findings were between farmers groups or co-operatives in a bid to solve common problems encountered daily in their farms. Again, (49.2%) indicates they have access to farmer education. A majority (91.7%) of the respondents indicates there is access to market facilities in the study area while 67.5% of the respondents agreed to the availability of advisory services from extension agents.

Extent of Access to Resource and Services by Respondents

Table 4 below shows that labour (x=3.0), processing facilities (x = 2.50) are the major resources accessible to the respondents. A cursory look at table 4 reveals that women in the study area lack access to essential productive resources by the respondents. Accessibility of essential productive resources such as land would encourage their use and thus increase the productivity of the women. Increased productivity would as a consequence improve the living standard of the respondents. Lack of productive resources has been pointed out as among the major barriers limiting women's participation in economic activities in most developing countries (Wanyek, 2003).

The table further reveals that knowledge sharing (x = 2.56) is the agricultural services the respondents have access to since they can benefit from friends. Studies have shown that women in developing countries lack access to vital services such as extension service, land, technology, inputs and credits (Saito and Weidemam, 1990). This however will reduce their contribution to agricultural productivity as they have been observed as contributing enormously to agricultural production. Landlessness is a global phenomenon that disproportionately affects women. The rights of women to own, use, access, control, transfer, inherit and otherwise take decisions about land are recognized within a wide body of national, regional and international legal frameworks. These frameworks also encompass women's rights to secure land tenure and to meaningfully participate in all stages of the development of land law, policy and programmes, including assessment and analysis, programme planning and design, budgeting and financing, implementation and monitoring and evaluation.

Not only do women have less access to land than men, but they are also often restricted to so-called secondary land rights, meaning that they hold these rights through male family members, and thus risk losing these entitlements in case of divorce, widowhood or the migration of the male relative. Frequently, women have only user rights, mediated by men, and those rights remain highly precarious. (CSW, 2014)

Constraints of Access to Resources and Services by Respondents

From this study, myriads of constraints are always encountered by women farmers in the two zones in their quest to access resources and services. Such constraints include poor radio and television signals with a high mean of 3.02, lack of

adequate fund to make purchases (3.05), irregular meetings (3.05),lack of access roads (3.45), lack of power supply (3.14), lack of decision making power (3.60), favouritism in input distribution (3.41),low level of awareness (2.55), inability to read and write (2.53), lack of commitment by agents (2,56),poor public relation of extension agents (2.65), farm information aired at odd times (2.51), farm information not aired in the area of respondents dwelling (2.51) are major concerns against access to services. In a study on organizational barrier to women participation in extension programmes, agent-related variables that affect participation in extension programs include such factors as quality if training received, teaching behavior or ability to communicate, attitude to extension work and field responsibilities and satisfaction with the job, client or farmer-related factors refer generally to economic, psychological and socio-cultural patterns of behavior of the rural people (Uwakah, 1983).

Previous studies have identified constraints affecting rural women's access to extension services as women's legal status (Olawoye, 1989), property rights and inheritance laws (Jiggins, 1989), ecological factors (Horenstan, 1989), and extension staffing and management (FAO, 1993; Saito and Weidemann, 1990). Others are lack of land, lack of capital and credit facilities and ineffective extension services (Okwum, 2008); lack of encouragement, lack of commitment by WIA officials (Nwaoha, 2008); and high cost of labor, lack of credit and storage facilities (Nwogu, 2008).

Conclusion

Women are known to make significant contributions to agricultural production in developing countries producing the bulk of the staple food and engaging in other economic activities such as food processing and marketing, cash cropping. They also play significant roles in the supply of labour. Despite the growing awareness of the importance of women in agricultural production, they still do not have access to basic agricultural services that will enhance their agricultural productivity. Good access roads be constructed to ease transportation, electricity be provided, radio broadcast and other innovations be targeted to address need of rural end-users.

References

Abdullahi, M.R. (2000) Women in agriculture: The role of African women in agriculture. National Agricultural Extension and Research Liaison Service, Ahmadu Bello University, Zaria, Nigeria.

Acharya, M. (2003). Efforts at Promotion of Women in Nepal. Kathmandu: *Tanka Prasad Acharya Foundation*.

Adekanye, T.O. (1988a). Women and Rural Poverty: Some Considerations from Nigeria. *African Notes. Special Issue*.

Adereti, F.O. (2005). Rural Women's Access to and Control Over productive Resources: Implications for Poverty Alleviation Among Osun-state Rural Women, Nigeria. *Journal of Human Ecology*, 18(3):225 – 230.

Afolabi, M.M.(2008). Women as pillars of national economy in Nigeria: A study of economic activities of rural women in six local government areas of Ondo State. IAFFE Summer Conference, International Association for Feminist Economics, Torino, Italy, 19 June- 21 July 2

Ahmad, F. (2001). Gender Division of Labour: *Bangladesh Context. Steps Towards Development.*

Baden, S. (1997). Gender Inequality and Poverty: Trends, Linkages, Analysis and Policy Implications. BRIDGE (Development-gender), *Institute of Development Studies, University of Sussex, UK.*

Balk, D. (1997). Change comes slowly for Women in Rural Bangladesh. *Asia-pacific Population and Policy*.

BOSADP, (2002). The Women in Agriculture Programme.

CSW (2014). Emerging Issues, Trends and New approaches to Issues affecting the Situation of Women or Equality between Women and Men.

F.A.O. (1995). A synthesis report of the African Region: Women, Agriculture and rural development. Report prepared under the auspices of FAO's Programme of Assistance in Support of Rural Women in Preparation for the Fourth World Conference o Women; Food and Agriculture Organization of the United Nations, Rome, Italy.

FAO, (1985). Women in Developing Agriculture, *Human Resources Institution and Agrarian Reform Division, Rome*.

Flora, C.B. (2001). Access and Control of Resources: Lessons from the SANREM-CRSP. *Agriculture and Human Value*, 18(1):41 – 48.

Horenstein, N.R. (1989). Women and Food Security in Kenya-Washington DC. World Bank.

IFPRI (2000). Resource Allocation and Empowerment of Women in Rural Bangladesh. *International Food Policy Research Institute, Washington , DC.*

IFPRI-World Bank, (2010). Gender and Governance in Rural Service: Insights from India, Ghana and Ethiopia, Agriculture and Rural Development. *Washington D.C. USA: The World Bank*.

Jazury, I.M. and Pannucio, T. (1992). The State of the World Rural Poverty. An Inquiry into its Cause and Consequences. *Intermediate Technology Publications London*.

Jiggins, J. (1989). How Poor Women earn Income in Sub-Saharan Africa and What woks against, then. World Development. 17(7): 953-953.

Kishor, R., B. Gupta, S.R. Yadav and T.R. Singh, (1999). Role of rural women in decision-making process in agriculture in district Sitapur (Uttar Pradesh). Indian Journal of Agricultural Economics 54: 282-286.

Malena, C. (1994). Gender Issues in Integrated Pest Management in Africa Agriculture, NRI Socio-Economic Series, *National Resources Institute Chatham.*

Meludu, N.T., Ific, P.A., Akinbile, L.A. and Adekoya, E.A. (1999). The Role of Women in Sustainable Food Security on Nigeria: A case of Udu Local Government Area of Delta State. *Journal of Sustainable Agriculture*. 15(1): 87 – 97.

Moser, C. (1993). Gender Planning and Development Theory, practice and Training. *New York: Routledge*.

Musokotwane, R., R.M. Siwahe, and B. Nkhata (2001). Gender Awareness and Sensitization in Basic Education Paris*: Peoples Action Forum UNESCO Rasoc Education Division.*

Nichols, S. Crowley, E. and Konmjathy, K. (1999). Women's Access to Land: Surveyors can make a Difference. *Survey Quarterly*, 20:16-19.

Nwaoha, C. (2008). Evaluation of Women-in-Agriculture Programme of Imo State Agricultural Development Programme. Case Study of Owerri Agricultural Zone of Imo State, B. Agric. Degree Project Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria.

Nwogu, C.N. (2008). Assessing the Impact of Women-in-Agriculture Component of ADP on Female Farmers in Umuahia Agricultural Zone of Abia State, Nigeria. B.Agric Degree project Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria.

Okwum, C. (2008). The Impact of Women-in-Agriculture Extension Programme. B.Agric. Degree Project, Michael Okpara University of Agriculture, Umudike, Abia State, Nigeria.

Olawoye, J. (1989). Difficult for Rural Women in Securing Resources for Agric Production: Two Case Studies for Oyo State, Nigeria. Rural Development in Nigeria. 3(2) 77-81.

Quisumbing, A. (1994). Gender Differences in Agriculture productivity: A Survey of Empirical Evidence. Discussion paper, Series no. 36. *Washington DC: Education and Social Policy Department World Bank, Washington DC.*

Quisumbing, A.R. and Pandolfelli, L. (2010). Promising Approaches to Address the Needs of Poor Female Farmers: *Resources, Constraints and Interventions, World Development*.

Rahmann, S.M. and Alamu, J.F. (2003). Estimating the Level of Women Interest on Agriculture: An Application of Logit Regression Model. *The Nigerian Journal of Scientific Research*.

Saito, K.A. and Weideman, C.S. (1990). Agricultural Extension for Women Farmers in Africa, World Bank Discussion Papers 103. *World Bank Washington, DC.*

Tamale, S. (2004). Gender Trauma in Africa. Enhancing Women's Link to Resources. Journal of Africa Law.

Valdivia C. and Gilles J. (2001). Gender and Resource Management: Households and Groups, Strategies and Transitions. *Agriculture and Human Value.*

Wanyeki, L.M. (2003). Women and Land in Africa Culture, Religion and Realizing Women's Rights, London: 200 books.

Uwakah, C.T. (1983). The Role of Agricultural Extension in the Social and Economic Development of Nigeria. Proceedings of the Training Workshop on Rural Agricultural Extension, April 26-28, 1983, NRCRI Umudike.