

Full Length Research Paper

Constraints Militating Women Farmers Involvement in Agroforestry Practice as a Recommended Production Practice in Mbaitoli Local Government Area of Imo State Nigeria

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ABSTRACT: The study analyzed constraints militating against women farmers' involvement in agroforestry practice as a recommended production practice in Mbaitoli local government area in Imo state Nigeria. The specific objective of the study was to: determine reasons for practicing agroforestry as perceived by women farmers; identify constraints militating women farmers' involvement in agroforestry practices in the study area as perceived by women farmers. Data was collected through structured questionnaire administered to 270 rural women farmers. Four communities were purposively sampled based on their rurality and intensity in agroforestry practices. From a list of 2700 rural women farmers obtained from Imo State Agricultural Development Programme (IADP), about 10 percent of women farmers involved in agroforestry were randomly selected from the selected village used for the study to give 270 women farmers been the sample size for the study. The analytical tools employed were percentages, mean and standard deviations. Results showed that Land Security and High incidence of bush fire, Low awareness of agroforestry practice were the major constraints militating against women farmers' involvement in agroforestry. Findings of the study reveal that women practiced agroforestry because it provides food, income, raw materials, women had control of what they eat. Based on the findings of this study, it is recommended that women should be more vigilant in securing and protecting their agroforestry farms, land boundaries by mobilizing youths to keep watch along boundary lines so as to prevent encroachment. Furthermore, policy measures that would guarantee awareness-raising campaign to sensitize woman farmers on agroforestry as a profitable venture and this can be achieved through workshops, radio programmes and community awareness campaign, as this will invariably improve women farmers' knowledge and rural livelihood of the nation.

Keywords: Women, farmers, agroforestry

INTRODUCTION

Agroforestry plays an important role in revenue generation, provision of food as well as in the provision of raw materials for industrial development. The acceptance of agroforestry as a system of land management is

attributed to increasing spread of tropical deforestation and ecological degradation, shortages of fertilizers and re-awakening of scientific interest in the farming systems since it increases species diversity within farming

systems, providing for human needs while supporting wildlife, soil microorganisms, rural communities, economic interests, watersheds, clear air, biodiversity and more (Elevitch and Wilkinson, 2003). Hence, with rapid increase in production growth, the gap between food demand and supply continue to widen in Nigeria (Ijere, 1992; Ugwoke *et al.*, 2005). Agroforestry remains a family enterprise in Nigeria, as women, youth and men of all ages are involved one way or the other in the agroforestry production process.

The implication raised by this is that, concerted effort by everybody capable of potential contributions(s) to the agroforestry development is required, if Nigeria is to make a realistic and positive step in harnessing enormous potential on agroforestry in meeting human needs and demands. According to Lulandala (2004), agroforestry remains the only land management system that effectively integrates the main dynamic sectors of agriculture, forestry and animal husbandry for ensured better use of limited land, labor and time resources. Agroforestry holds great promise for contributing to sustainable land-use systems which can overcome the problem of land degradation and food crisis which is a pressing problem in Nigeria (Kang and Akinnifesi, 2000). The women on the other hand, constitute an important sector in any society, as they play active role towards agroforestry sustainability. At the center of this type of farming system are women farmers who are frequently responsible for managing trees and other agricultural enterprises, they provide labor especially during the initial stages of forestry establishment i.e. planting, weeding and watering. (Kiptot and Franzel 2011).

Women are involved in the management of agroforestry, as most literatures confirms that women do most of the work, especially at the initial stage of tree establishment. In a study conducted by Epaphra (2001) and well as Gerhardt and Namarundwe (2006) it was noted that over 60% - 80% of women farmers in Nigeria, are responsible for managing trees species planted on agricultural farms and are also responsible for watering young seedlings. Women are veritable assets in the farms and farm families. Their involvement in the various sectors and activities of farming are tremendous and the integration of women in agroforestry remains essential for the achievement of some goals such as increased food production, food self-sufficiency and sustained reduction of poverty and malnutrition.

The foregoing therefore, makes it imperative to carry out a study on constraints that militate women farmers involvement in agroforestry practice as a recommended production practice in the study area. The broad objective of this study was to assess the constraints militating women farmers involvement in agroforestry practice as a recommended production practice in Mbaitoli Local Government area of Imo state Nigeria.

The specific objectives are to; determine reasons for practicing agroforestry as perceived by women farmers; identify constraints militating women farmers' involvement in agroforestry practices in the study area as perceived by women farmers.

METHODOLOGY

The study was conducted in four communities in Mbaitoli Local Government Area of Imo State. Mbaitoli is one of the 27 Local Government Area of Imo State. and is in Owerri Agricultural Zone in Imo state Agricultural Development Project (ADP). Mbaitoli was chosen for this study because it is an agricultural area with high number of women in agricultural and rural development activities. The history of Mbaitoli dates back to 1955 when it started as a Rural District Council with Nwaorieubi as headquarters. Nwaorieubi has remained the administrative headquarters of Mbaitoli people till date. The Local Government Area has a landmass of 238 square kilometres. It shares boundaries with six other LGAs as follows: Oru-East, Njaba and Isu on the North; Owerri-West and Owerri-North on the South; Oguta on the West and Ikeduru on the East. It is the most populous LGA in Imo State with a population of 221,514 people, by 2005 estimates (IMSG, 2006). Mbaitoli LGA has a total of 31 autonomous communities and 17 electoral wards which is about the highest in Imo State. There are markets, schools, churches, town halls/village square and other rural information institutions in each of these communities (and electoral wards) in Mbaitoli LGA. The Local Government Area (LGA) has two dominant seasons – rainy and dry seasons. Rain falls between April and October while the dry season starts from November to early March. The Igbo forms the major ethnic group. Christianity and Traditional African Religions are beliefs professed by the people. Agriculture is the mainstay of the economy of the Local Government basically due to the rich arable land suitable for the growth of a wider range of tropical crops. Agriculture is the mainstay of the economy of the Local Government basically due to the rich arable land suitable for the growth of a wider range of tropical crops. A list of 2700 rural women were obtained from from Imo State Agricultural Development Programme (IADP) and ten percent of the total number of women was randomly selected giving a total sample size of 270 women. Four communities were randomly selected from the study area. The communities were Ogwa, Ogbaku, Mbieri and Ifekala. The reasons for the selection were based on observed degree of rurality and the presence of many women farmers, who are engaged in agroforestry activities in the area. The study made use of both primary and secondary data.

Table 1: Distribution of rural women farmers based on reasons why rural women engage in agroforestry practices.

Reasons	Mean	SD
Provision of food	3.1*	0.3
Act as source of income	3.4*	0.4
Source of raw materials	3.3*	0.4
Provision of shelter/shade for man and Livestock	3.2*	0.5
Helps improve soil quality	3.1*	0.5
Source of home nutrition	2.9*	0.5
Acts as wind breaker	3.2*	0.3
Source of fertilizer for agricultural Operation	3.1*	0.3
It enhances sustained economic growth	3.0*	0.4
It is significant to human health	3.0*	0.4
Rural to urban migration is reduced	2.7*	0.4
Everybody has enough to eat	2.0	0.5
Enough food is locally produced	2.2	0.3
There is control over what people eat and people are no more at mercy of Others	2.0	0.3

Source: Field survey data, 2019

The primary data was collected by administering questionnaires to the selected rural women. Secondary data sources were also utilized to provide background information and other necessary information to achieve some aspect of the study. Such secondary data sources include Journals, proceedings, textbooks, annual reports of FAO. Descriptive statistics such as tables, percentages, frequency distribution were used to achieve the objectives. A four point likert type scale was used to achieve objective 1, assigned 4 to 1 respectively was used to achieve the objective, which is mathematically represented as:

$$\frac{4+3+2+1}{4} = \frac{10}{4} = 3.0$$

Therefore, a mean of 3.0 was adjudged as reason why rural women engage in agroforestry practices and any value below 3.0 was not considered as reason why women practice agroforestry.

RESULTS AND DISCUSSION

Table 1 showed that agroforestry served as a source of income ($\bar{X}=3.1$), source of income ($\bar{X}=3.4$), source of raw material ($\bar{X}=3.4$), shelter for man and livestock ($\bar{X}=3.2$), wind break ($\bar{X}=3.2$), improves soil quality ($\bar{X}=3.1$), sustenance of economic growth ($\bar{X}=3.0$), significant to

human health ($\bar{X}=3.0$). This result reinforces the widely documented importance of agroforestry products particularly in production of finished goods in terms of raw materials, Ariwaodo and Duru (2009) in their work on the conservation and resource utilization of agroforestry products, forestry products are used in seasoning, flavouring of food, production of beverages, medicine, carminatives, stimulants, perfumery, soap, toothpaste, incense, dyes. He further added that if not for limited information on the chemical composition of some agroforestry products which calls for the promotion of better preparation, packaging, storage, and marketing of there would have been greater exploitation of agroforestry resourced.

The implication of this result is that agroforestry practices in the study area have the potentials to provide food, income, shelter, improve soil fertility, home nutrition, wind breaker, fertilizer for agricultural operations, and sustained economic growth for rural women farmers. The role of women in household farming and marketing is usually at the basic level (primary production) and strongly related to the aforementioned (Ani, 2004).

Table 2 showed that all the items investigated were indicated by farmers as constraints to agroforestry practice in the study area. The constraints were further ranked in order of decreasing severity. The ranking revealed that land security was the major constraint to agroforestry practice in the area (1st) with a mean score of 3.2, this was followed by lack of processing machineries (2nd). While lack of control over land was rated third. High cost of farm inputs, lack of production materials, unfavorable agriculture policies lack of

Table 2: Identify constraints militating women farmers' involvement in agroforestry practices in the study area as perceived by women farmers.

Perceived Constraints	Strongly Agree		Disagree		Strongly Mean	SD
	Agree	Disagree	Strongly Agree	Strongly Disagree		
Land Security	82	129	41	7	3.2*	0.2
Lack of control over land	78	134	37	10	3.0*	0.6
Long gestation period to reap the benefits of Agroforestry	50	51	48	9	2.4	0.7
High cost of Farm inputs	80	133	37	9	2.9*	0.5
Lack of production materials	67	100	81	9	2.7*	0.6
Unfavorable agricultural policies	84	119	44	11	2.9*	0.7
Lack of incentives	86	116	44	13	2.9*	0.6
Poor and inadequate extension service	53	103	88	13	2.6*	0.7
Lack of interest by farmers	64	93	82	19	2.7*	0.5
Incidence of pest attacks	80	118	49	12	2.9*	0.8
Theft	63	96	82	16	2.7*	0.8
Poor marketing information and system	71	97	81	8	2.8*	1.3
Lack of processing machineries	109	103	39	8	3.1*	1.4
Low awareness of agroforestry practice	58	100	77	24	2.6*	0.3
High mortality of tree seedling	55	95	83	26	2.6*	0.4
High cost of establishment	73	121	54	12	2.9*	0.5
Lack of labour	55	95	84	25	2.6*	0.6
High incidence of bush fire	73	121	54	12	2.9*	0.2
Poor financial base	72	99	58	31	2.7*	0.7
Poor government policy support	65	127	49	15	2.7*	0.9

Source: Field survey data, 2019

incentives, high cost of establishment of agroforestry and high incidence of bush fire were ranked fourth. Poor marketing information and systems occupied the 11th position while theft, poor financial base, poor government policy support and incidence of pest attacks ranked 12th. Others include lack of labor, high mortality of tree seedling and inadequate extension service which ranked 16th, while the least rated constraint was long gestation period to reap benefits of agroforestry.

This results strongly confirms the earlier findings of Ukpe *et al.* (2009) which noted that land security constitutes a major challenge to agroforestry. He noted that the rapid degradation of the rural environment has led to dwindling supplies of agroforestry resources ultimately leading to dwindling income. Where land is not cyclic, unemployment and secured agroforestry resources become vulnerable to unlawful activities like setting of fire in forest, land encroachment, human population poaching, climate changes, among others (Ukpe *et al.*, 2009).

Conclusion and Recommendation

Women farmers remain active players in meeting family food demand, as women farmers were inspired to practice agroforestry because agroforestry holds greater potentials in meeting family food gap and requirements. Agroforestry remains a viable source of income, source of home nutrition, source of raw material, shelter for man

and livestock, and source of food for family consumption among farming families. Based on 3.0 discriminating index established using likert type scale, which shows that women were inspired to practice agroforestry for the following reasons; agroforestry served as source of income (3.1), source of income (3.4), source of raw materials (3.4), shelter for man and livestock (3.2), significant to human health (3.2), wind break (3.2), improves soil quality (3.1), sustenance of economic growth (3.0), Objective two identified constraints militating women farmers' involvement in agroforestry as a recommended practice in the study. The result showed that the major constraints among women to agroforestry practice in the area was lack of land security, and lack of control over land lack of processing machineries. Hence it is recommended that Women should be more vigilant in securing / protecting their land boundaries by mobilizing youths to keep constant watch along the boundary lines so as to prevent encroachment and Agricultural policies and laws geared towards promoting and protecting agroforestry farm lands remains critical in ensuring safety of agroforestry farms. Also advocacies by intervention agencies towards designing machines that are compactible for women which they could use for processing agroforestry products.

REFERENCES

- Ani, A. O. (2004). Women in agriculture and rural development, Priscaquilla (Ed.) Essential Issues Rural Development CREMD, Owerri.

- Ariwaodo, J.O. and Duru, H.I. (2009). Conservation and resource utilization of selected indigenous tree species used as spices in Southern Nigeria.
- Elevitch, C. and Wilkinson, K. (2003). Agroforestry: A way of farming that can work for everyone. Journal of Agroforestry Site visited on 16/01/2007.
- Epaphra, E. (2001). Assessment of the role of women in agroforestry systems: a case study of Marangu and Mamba in Kilimanjaro region, Tanzania. World Agroforestry Centre, Nairobi, Kenya. European Development Days, 26-27 November.
- Epaphra, E. (2001). Assessment of the role of women in agroforestry systems: a case study of Marangu and Mamba in Kilimanjaro region, Tanzania. World Agroforestry Centre, Nairobi, Kenya. European Development Days, 26-27 November.
- Gerhardt, K., and Nemarundwe, N. (2001). Participatory planting and management of indigenous trees: lessons from Chivi district, Zimbabwe. Agriculture and Human Values 23 (2) :231-243. ISSN: 0889-048X.
- Ijere, M. O. (1992). Leading Issues in Nigeria Rural Development, Centre for Research and Development. (C.R.D.) University of Nigeria, Nsukka.
- IMSG (2006) Exam Ethics Commission. Ministry of Education, Owerri. Imo State Government.
- Kang, B.T. and Akinnifesi, F.K. (2000). Agroforestry as alternative land-use production systems for the tropic. Natural Resources Forum, 24, 137- 151.
- Kiptot, E. and Franzel, S. (2011). Gender and agroforestry in Africa: are women participating? Occasional Paper 13, World Agroforestry Centre.
- Lulandala, L. L. L. (2004). Agroforestry Concepts, Systems, Practices, Potentials, Constraints, Research and Training needs, MSc. MNRSA Lecture Notes, SUAMorogoro, pp 1 – 19.
- Nemarundwe T. (2006). Temperate agroforestry: an overview. In: A.M. Gordon and S.M. Newman (Eds.), Temperate Agroforestry System, CAB International, 1 -18.
- Ugwoke, F. O., Adesope, O. M. and Ibe, F. C. (2005). Youth Participation in Farming Activities in Rural Areas of Imo State, Nigeria: Implications for Extension. In Journal of Agricultural Extension Vol. 8. pp 136-142.
- Ukpe, I.E., Ukpe, N.E. and Akinyemi, G.O. (2009). Revitalization of wildlife production: A strategy for protein deficiency in Nigeria. In; Olojede, A.O., Okoye, B.C., Ekwe, K.C., Chukwu, G.O., Nwachukwu, I.N. and Alawode, O. (eds.) Global food crisis and Nigerian Agriculture *Proceedings of the 43rd Annual Conference of Agricultural Society of Nigeria, Abuja.*