



Participation of women in forestry activities for sustainable livelihood in area J4 forest reserve, Ijebu East Local Government, Ogun state, Nigeria

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Abstract

Forestry participation is the active engagement of local residents in planning, implementing, and sustaining initiatives that aim to conserve and manage forest resources. The study examined the level of participation of women in forestry activities in Area J4 Forest Reserve, Ijebu East, Ogun State, Nigeria. Participation has been identified as a substance of social change. In Nigeria today, however, women are shut out from certain occupational categories due to formal barriers as well as informal barriers to entry. A total of one hundred and thirty (130) respondents were randomly selected for the study and interviewed through structured interview schedule. Descriptive statistics such as frequency distribution tables, mean and percentages were used in analysing the data while chi-square statistical tool was used in testing the hypotheses. Majority 34.6% of the respondents were between 30 and 39 years age bracket. 87.7% were married while 37.7% of the respondents had secondary education. Results revealed that majority 78.5% of the forests were established more than 40 years ago while 10.0% were established about 50 years ago. The result showed that there was significant relationship between the respondent's age, religion, education, income and their level of participation in forest activities. Similarly, there was significant relationship between constraints and level of participation of women in forest activities. The study recommended that training should be provided for women, women should be involved in planning and policy making of forestry management while gender and social norms must be addressed.

Keywords: Participation, J4 Forest Reserved

Introduction

Forestry is defined as the application of scientific knowledge to the management of forests and forest trees that exists either in its wild state or planted by individuals, group of people, or by the government for the continuous production of goods and services. Forest is described as powerful (dominant) area of land of more or natural look that is very important to the existence of man which has played a vital role in both traditional, cultural, natural ventilation, job creation and lots more.

Participation has been identified as a substance of social change and as a process for inclusion of historically marginalized groups such as women and ethnic minorities (Kusumanto, 2007). Development agencies such as the Food and Agriculture Organization point out that participatory method can be effective mechanisms to manage conflicts, to minimize risk of conflict in the future and to strengthen the impact of national forest programs (FAO, 2014). However, in order to strengthen the participation of women in

forestry management, gender and social norms must be addressed (FAO, 2014). Fasoranti (2008) observed that women's participation in timber extraction in the Peruvian and Brazilian Amazon is limited to parallel activities. For instance, in a husband- wife household, the woman is in charge of finding workers to help her husband in the forest, cooking for her better half and workers, and occasionally marketing wood. These arrangements proved to be relatively inflexible since women that stand as head of family providing food, clothing, shelter still cook and do all chores accorded to women

Attention to improving the participation of women in decision making about forest resources has recently gained prominence (Glover, 2014; Mai, Mwangi, and Wan, 2012), as organizations, researchers and policy makers look to integrate gender strategies and priorities into their research, planning and policy (Manfre & Rubin, 2012). However, improving indigenous women's participation at the local level has proven to be a complicated matter. In developing countries, rural women are primarily responsible for household and farming activities as well as the management of local resources.

Forestry and forestry-related products are primarily used for fuel, fodder, food, medicine and purposes such as conservation and income generation. Evidence has shown that women have traditionally combined all the above uses, thus accumulating knowledge and values, as well as behaviour patterns that form an integrated approach in their relationship with the environment.

The involvement of rural women in forestry activities has been ignored by planners and policy makers not only in Nigeria but also all over Africa (Adedayo

and Oyun, 2010). Throughout Africa, efforts are needed to train more women in forestry and activities in order to enhance their participation at all levels from grassroots to international policies.

Rural women make livelihood from the collection and sales of forest products such as vegetables, fruits, soup condiments, staking materials, fodder, fuel wood, medicinal herbs and other products for sponge, basket weaving, brooms, and rattans. Therefore, they have greater stake in forest rehabilitation and management (Agbogidi and Okonta, 2003). The most direct way in which forests and trees contribute to food security is through contributions to diets and nutrition. Fruits, seeds, roots of trees, mushrooms, wild animals and insects found in forests provide important nutrient and vitamin-rich supplements for rural households. They do this by adding variety to diets, improving taste and palatability of staples and by providing essential vitamins, protein and calories for the growing population (Agbogidi and Okonta, 2003).

It has shown that in Nigeria, Africa and most part of the world, that man has taken the most active part of forest activities or forestry and the fact remains that women suffered neglect by policy makers as well as by the international community. These as resulted for high rate of poverty level in the country as involvement of women in the concern areas are being ignored. The Commodities and Development Report 2015 take stock of the current state of smallholders agriculture, (farmers including women) strategies the steps needed to be strengthened and right policy to be made in order to ensure greater results in reducing food and nutrition insecurity, and minimize the level of poverty, and thereby increasing the general standard of the

economy and that of the smallholders. Smallholders especially women continue to face the challenges of integration and restrictions to some extent and more.

In Nigeria today, however, women are shut out from certain occupational categories due to formal barriers as well as informal barriers to entry.

According to Amaechina (2002), the early studies legitimized the idea of women as productive partners in agriculture, discovering and documenting the various roles played by women as farmers, farm wives, and agricultural professionals and recounting the stories of successful women in these roles. Nigerian women are saddled with most of the tasks in agricultural production 'supposedly' meant for the man but the benefits gained by them are not proportionate to the man-hours they spend in carrying out the task.

This research does not presuppose that women are the only or most important consideration for sustainable forest management. Nor does it suggest that all forestry issues are segregated by gender. But suggest that the gap between interests and outcomes may arise because the forestry sector is subject to a "gender order" that privileges men's contributions to forestry, constrains women's active participation in forest management, and ultimately reduces the capacity of the forestry sector to achieve inclusive forest management as a key component of social sustainability. The objectives of the study were to described the socio-economic characteristics of respondents; ascertained the attitude of women towards participation in forestry activities and also to ascertained constraints limiting the participation of women in forestry activities.

The following hypotheses of were

tested.

Ho1: There is no significant relationship between socio-economic characteristics of the respondents and level of participation of women in forest activities

Methodology

This research was conducted in Ijebu East Local Government area, Ogun State Forestry Plantations within the Area J4 of Omo Forest Reserve. Omo Forest Reserve is situated between longitude 4019⁰E to 4040⁰E and 6035⁰N to 7005⁰N. It is gazetted and has a total land area of 139,100ha. The indigenous forest tree species commonly found in the study area are: *Vitex doniana*, *Irvingia species* (Bush mango trees), *Adansonia digitata* (Baoba trees), *Parkia biglobosa* (Locust bean trees), *Prosopis gabonensis*, *Tamarindus indica*, *Afzelia Africana*, , *Cocos nucifera* (coconut trees), *Raphia hookeri* (palm wine tree), *Milicia excelsa* (Iroko trees), *Khaya senegalensis* (mahogany trees), *Kigelia Africana*, *Trecullia Africana* (bread fruit) and *Daniela oliveri*.

The population of this study comprised of women involved in forest activities in the Area J4 forest reserve of Ijebu East Local Government Forest Reserve, Ogun State.

A multistage sampling technique was used to select respondents for the study. Area J4 forest reserve of Ijebu East LGA comprised of 99 villages. The first stages involved selection of 10% from the 99 villages while second stage involved selection of women forester from the villages selected and third stages involved selection of 10% of women beneficiaries in the selected villages, giving a total of 130 respondents that was interviewed for the study.

Table 1: Sampling Procedure and Sampling Size

Study Area	No of villages in J4	Names of selected villages (10%)	No of women beneficiaries in selected village	10% of selected women forester
J4 Forest Reserve	100	Orita J4	125	13
		Aberu	50	5
		Osoko	170	17
		Fowowa	65	7
		Mofowoke	185	19
		Olooji	87	9
		Mile 1	190	19
		Idi-Egun	88	8
		Ago-oloja	173	17
		Temidire	169	16
Total	100	10	1300	130

The study made use of primary and secondary data. The primary source of data was through the use of structure interview schedule, which was well structured and designed to solicit information's from the respondent on the objectives of the study, and was personally administered to respondent in the study area and secondary source of data collection was related textbooks, journals and internet source.

Results and Discussion

Socio-economic characteristics of the respondents

Respondents were female with majority (34.6%) between 30 and 39 years age bracket. This implies that respondents are still very strong and energetic to be able to engage in productive activities that will enhance household income and welfare. The results further revealed that majority (87.7%) of the respondents were married. Married people tend to have more mouths to feed as a result will want to invest in enterprises that enhance

household food security and income. This result confirms the findings of Oladoja *et al.* (2008) who asserted that marriage confers some level of responsibilities and commitment on individuals who are involved. Also, 38.5% of the respondents had secondary education. This is a welcome development, as it will enhance the adoption of improved agricultural technologies among the respondents in the study area.

Level of participation in forest activities

The result from the table below showed the level of participation in the forest activities as follows: saw milling ($\bar{x} = 2.84$), palm tree extraction ($\bar{x} = 2.81$), receptionist ($\bar{x} = 2.79$), non-timber extraction ($\bar{x} = 2.75$), driving ($\bar{x} = 2.67$), loading ($\bar{x} = 2.65$), operator ($\bar{x} = 2.64$) hunting ($\bar{x} = 2.58$), agric officers ($\bar{x} = 2.47$), forest guard ($\bar{x} = 2.36$), and cooking ($\bar{x} = 2.30$)

Table 2: Distribution of Respondent Socio-Economic Characteristics

Socio-economic Age	Frequency	Percentage	x
< 30 years			
30 - 39 years	16	12.3	
40 - 49 years	45	34.6	
50 - 59 years	37	28.5	41.9
> 60 years	23	17.7	
Marital Status	9	6.9	
Single			
Married	16	12.3	
Educational level	114	87.7	
No formal education			
Primary education	8	6.2	
Secondary education	72	55.4	
Tertiary education	50	38.5	
Other occupation			
Farming			
Civil service	35	26.9	
Artisanhip	86	66.2	
Unemployed	8	6.2	
Others	1	0.8	
Year of establishment	7	5.4	
20 years			
30 years	46	35.4	
40 years	49	37.7	
50 years	28	21.5	
Others	55	42.3	
	18	13.8	

Source: Field survey, 2022

Table 3: Level of Participation In Forest Activities

Activities involved	HP		LP		NP		Mean
	Freq	%	Freq	%	Freq	%	$\bar{x}$
Agric officers	23	17.7	23	17.7	84	64.6	2.47
Farmers	67	51.5	33	25.4	30	23.1	1.72
Forest guard	36	27.7	11	8.5	83	63.8	2.36
Timber contractor	46	35.4	14	10.8	70	53.8	2.09
Forest staff	37	28.5	28	21.5	65	50.0	2.18
Fuel wood extractors	14	10.8	27	20.8	89	68.5	2.22
Hunters	9	6.9	40	30.8	80	61.5	2.58
Palm tree extractors	15	11.5	21	16.2	94	72.3	2.81
Saw miller	30	23.1	31	23.8	69	53.1	2.84
Cook	9	6.9	9	6.9	112	86.2	2.30
Receptionist	15	11.5	13	10.0	102	78.5	2.79
Driver	12	9.2	22	16.9	96	73.8	2.67
Loader	17	13.1	13	10.0	100	76.9	2.65
Operator	23	17.7	16	12.3	91	70.0	2.64
Non-timber extractor	73	56.2	33	25.4	24	18.5	2.75
Grand mean							2.30

Source: Field survey, 2022

Table 4: Distribution of respondents by level of participation

Level of participation	Frequency	Percentage
High level	80	66.7
Low level	40	33.3
Total	120	100.0

Source: Field survey, 2022

Attitude of women towards forest activities

The result from the table below showed the attitude of women towards forest activities as: helping the forest and environment ($\bar{x} = 2.87$), informing others about forest practices ($\bar{x} = 2.85$),

employment opportunity to reduce migration ($\bar{x} = 2.80$), extinction in forest and wildlife species ($\bar{x} = 2.45$), forest resources depletion ($\bar{x} = 2.36$) and reduction deforestation ($\bar{x} = 2.32$).

Table 5: Attitude of women towards forest activities in the study area.

Attitude/ reaction	Strongly agree		Agree		Undecided		Disagree		Strongly disagree		Mean $\bar{x}$
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	
Opportunities to meet and know other people	46	35.4	71	54.6	8	6.2	4	3.1	1	0.8	1.79
Increase in household income	39	30.0	72	55.4	13	10.0	4	3.1	2	1.5	1.91
reduce hunger amongst the foresters families	28	21.5	74	56.9	19	14.6	6	4.6	3	2.3	2.09
Employment opportunity to reduce migration	9	6.9	46	35.4	41	31.5	30	23.1	4	3.1	2.80
Helping the forest and environment	10	7.7	38	29.2	49	37.7	25	19.2	8	6.2	2.87
Informing others about forest practices	9	6.9	34	26.2	61	46.9	19	14.6	7	5.4	2.85
Extinction in forest and wildlife specie	24	18.5	38	29.2	56	43.1	10	7.7	2	1.5	2.45
Forest resources depletion	25	19.2	50	38.5	39	30.0	15	11.5	1	0.8	2.36
Reduce deforestation	9	7.0	15	11.5	53	40.8	31	23.8	22	16.9	3.32
Grand mean											2.49

Source: Field survey, 2022

Constraints to participation in forest activities

The result from the table below showed the constraints to participation in the forest activities. The constraints are: lack of time due to other occupation ($\bar{x} = 2.42$), lack of

time due to household chores ($\bar{x} = 2.34$), laws favouring one side gender ($\bar{x} = 2.19$), inadequate local people's involvement in conservation decision ($\bar{x} = 2.17$), unlawful grazing of animals ($\bar{x} = 2.14$), and restriction from hunting in the forest area ($\bar{x} = 2.07$).

Table 6: Constraints to participation in the forest activities in the study area

Constraints	Major constraint		Minor constraint		Not constraint		a	Mean
	Freq	%	Freq	%	Freq	%		$\bar{x}$
Illiteracy of the farm women	73	56.2	45	34.6	12	9.2		1.53
Lack of time due to household chores	10	7.7	66	50.8	54	41.5		2.34
Inadequate local peoples involvement in conservation decision	29	22.3	50	38.5	51	39.2		2.17
Scarcity due to irrational exploitation of resources	61	46.9	49	37.7	20	15.4		1.68
Lack of time due to other occupation	13	10.0	50	38.5	67	51.5		2.42
High rate of pest and disease infestation	52	40.0	53	40.8	25	19.2		1.79
Instability in government policy	92	70.8	22	16.9	16	12.3		1.42
Imposition of fine/ sanction on exploiters	67	51.5	47	36.2	16	12.3		1.61
Unlawful grazing of animals	32	24.6	48	36.9	50	38.5		2.14
Laws favouring one side gender	32	24.6	41	31.5	57	43.8		2.19

Source: Field survey, 2022

Hypotheses testing

The result of the analysis showed that there was significant relationship between

the respondent's age, religion, education, income and their level of participation in forest activities.

Table 7: Showing significant relationship between the selected socio –economic characteristics of the respondents and level of participation of women in forest activities.

Variables	Chi-Square	d.f	p-value	Decision
Age	35.029 ^a	2	0.000	S
Religion	10.371 ^b	1	0.001	S
Household size	0.010 ^b	1	0.922	NS
Education	48.667	4	0.000	S
Income	164.829 ^d	3	0.000	S

Source: Field survey, 2022

H02: There is no significant relationship between constraints and level of participation of women in forest activities.

The result showed that there was significant relationship between the constraints and level of participation of women in forest activities.

Table 8: Chi-Square Test analysis of relationship between constraint and level of participation of women in forest activities

Variables	Chi-Square	d.f	p-value	Decision
Constraints vs participation	32.210 ^a	6	0.000	S

Source: Field survey, 2022

Conclusion and Recommendations

From the findings of the study, it can be concluded that there was high level of participation in forest activities such as: agric officer, forest guard, timber contractor, farmer, operator, saw miller, cooks, and so on among the respondents in the study area. Also there is a relationship between the respondent's socioeconomics characteristics and level of participation in forest activities. (respondent's age, religion, education, income and their level of participation in forest activities.) majority of the respondents are saw millers, palm trees extractors, loaders and extractors that works in the forestry.

Similarly, there is a relationship between constraints and level of participation of women in forest activities; the result however showed that there are certain constraints limiting the full participation of the respondents in forest activities in the study area. Based on the findings of the study, it was therefore recommended that;

- i. Training should be provided for women farmers in forest management and conservation techniques; and
- ii. Gender and social norms must be addressed for effective involvement of women in forestry activities.
- iii. Women should be involved in planning and policy making of forestry management since they are key players in the activities.

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