

Assessment of Gender Issues In Forestry Practices And Forest Management In Nigeria

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Abstract

Gender in forestry development refers to male and female practicing forestry in a sustainable manner for their mutual benefits. This study therefore evaluates gender issues in the six geo-political zones of Nigeria. One State (Bauchi, Edo, Enugu, Katsina, Kogi, and Ondo State) from each of the zones was selected and two Local Government Areas randomly from each of the States, making twelve Local Government Areas within Nigeria. One-hundred and twenty (120) structured questionnaire were administered in each of the LGAs, making a total of one-thousand, four-hundred and forty (1,440). The data were analyzed using descriptive statistics that involved frequency tables to describe the socio-demographic characteristics of the respondents and Analysis of Variance that involved two-way Analysis of Variance; Correlation Analysis; and Chi-Square Test to analyze the comparative study of the gender issues in forestry practices within the Study Area. The result of the two-ways Analyses of Variance shows that F-calculated is 13.570 and F-critical is 2.096 with respect to male ($p = 3.44E - 10$) and F-calculated is 5.530 and F-critical is 2.422 with respect to female ($p = 0.00047$) meaning that there is a significant difference (P-value < 0.05 and F-calculated > F-critical) between male and female practicing forestry in the Study Area. The Correlation Analysis result showed that there is a positive relationship (0.59) and a significant correlation (Sig: 0.001) at 0.01 level between the male and female in forestry practices in the Study Area. The result of Chi-Square test showed that there is a statistically significant difference and very strong association between the proportion of males and females practicing forestry among the states in the Study Area (p -value=0.001). Significance of forests and forestry practices to the environment is increasingly understood. Their continuing existence is therefore the responsibility of both the males and females in all the regions of Nigeria.

Key Words: Forest, Forestry, Gender, Issues, and Practices.

Introduction

Forests are the home to the bulk of the world's biodiversity and living environment of indigenous people and constitute a resource from which people derive sustenance. FAO, (2010) defined forest as a land with tree crown cover (or equivalent stocking level) of more than 10% and area of more than 0.5 hectare. Forestry can be defined as the application of scientific knowledge to the management of forests 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. Large scale deforestation of natural forest for timber, fuel, poles, clearance for agriculture, urban and industrial expansion, has resulted in forest land degradation, soil erosion, erratic rainfall, reduction of the size, and quality of forest stands. The need to depend on forests for certain goods and services is very necessary since those services offered by forests cannot be provided by other means.

Gender refers to the social attributes and opportunities associated with being male and female and the relationships between women and men; girls and boys as well as the relations between women and women and those between men and men (Hannan 2001). Gender in forestry development refers to the ability and the degree in which male and female practice forestry in a sustainable manner for their mutual benefits. The nature of gender definitions (what it means to be male or female) and patterns of inequality vary among cultures and change over time (OECD-DAC, 1999). An issue is anything that has gone wrong. Looking at forestry sector as men dominated sector is an issue. Low participation of women in forestry development is a major constraint to sustainable forest management. Rahman (2009) noted that genuine and balanced development and growth could be achieved only when gender inequalities are redressed. Alao and Shuaibu (2011) reported in their findings that, the misconception of forestry as men – only dominated activities because of its hazardous and energy consuming operations has blocked women participation in forestry development. Some religious and cultural beliefs coupled with oppressive social norms do not make it possible for women to interact with men, these has made it very difficult for those group of women to acquire training from foresters and extension workers who are mostly men. Until explicit measures are taken to address the constraints women are facing in forestry practices, forestry sector cannot be Just and Equitable.

Educating the public about forestry practices and sensitizing the men to allow their wives to participate actively in forestry development will go a long way in improving environmental sustainability (Shuaibu and Alao, 2013). The sustainable use of forests is not possible if women, the children, and the very poor, the primary beneficiaries of NTFPs, are left out of Joint Forest Management



strategies. Active involvement of women in managing and conserving forests will result in the conservation of wildlife, soils, and environmental protection which makes them key actors in mitigation and adaptation efforts. According to Shuaibu and Alao (2013), women are the key to the management of environmental systems because their roles in meeting of day-to-day needs of their households have important influence on the forest resources. To alienate the underlying causes of the degradation of natural resources and to achieve equal and sustainable development worldwide, the participation of women and their knowledge as environmental managers is essential (UN-Habitat, 2003).

Women productivity in forestry is constrained by the lack of access to essential knowledge in forestry, especially their benefits in practicing forestry. According to Oyerinde (2003), activities and meaningful participation of women in forestry development can only be achieved by making women see the need of the importance of such development programs, especially as it stands to benefit them. Women are the chief economic providers for their families in rural households through the collection of firewood, fodder, fruits, seeds, leaves, nuts, and medicinal herbs from the forests for household use. Women and their children dominate the population of people that daily search for fuel wood and other biomass based fuel (UNDP, 2002).

Forests and the people living within and around the forested areas form an inter-locking natural resources/human ecosystem. Women and children in the communities around and within the forested areas depend heavily on the gathering and sales of the products derived from forest trees which include *Irvingia gabonensis* seeds, *Chrysophyllum albidum* fruits, *Parkia biglobosa* seeds, *Prosopis gabonensis* seeds, *Vitellaria paradoxa* seeds, *Vitex doniana* fruits, *Moringa oleifera* leaves, *Tamarindus indica* fruits, *Adansonia digitata* leaves and fruits, and firewood for their livelihood. Women and children collect fuel-wood, fodder, nuts and other edible forest products and medicinal herbs for household use (Kaur, 1991). Exploring the differences in men's and women's knowledge in forestry is very important in sustainable forest management. Huisinga *et al.* (1993) identified four areas of gender differences in knowledge systems in relation to forests:

1. Women and men have knowledge about different things
2. Men and women have different knowledge about the same things
3. Women and men may organize their knowledge in different ways
4. Men and women may receive and transmit their knowledge through different means.

The forest serves as an important source of livelihood to the rural women in developing countries, yet some religious beliefs and oppressive cultural and social norms discriminate against women in the practice of forestry. Despite all the models that have been put in place to stimulate the participation of women in the past to develop forestry, little has been accomplished due to some of the beliefs and selfish norms.

Women are important to sustainable forest management, and the awareness of gender issues in forestry development has steadily increased. Therefore, assessing the accomplishment of forestry sector in the issue of women in forestry practices within Nigeria to determine how 'Just and Equitable' the sector has become cannot be over emphasized. The aim of this study is to compare the gender issues in forestry practices within the Study Area. Therefore, addressing the constraints that are facing women in forestry practices and allowing the sector to be Just and Equitable cannot be over emphasized.

Methodology

The study Area

This study was carried out in Six (6) States of the federation namely Bauchi, Edo, Enugu, Katsina, Kogi, and Ondo State which represents the six geo-political zones namely North-East; South-South; South-East; North-West; North-Central; and South-West respectively in the country. Nigeria is a country in West Africa. It lies on latitude 8°N and longitude 10°E. It has a total area of 923,768km² with a population of 177,155,754 (Wikipedia) as shown in figure 1. Nigeria is bounded by Benin on the South-West region, Cameroun on the South-East region, Niger on the North-West region, Lake Chad on the North-East region, and Atlantic Ocean to the South-South region.

Data Collection

Data were collected from two LGAs which were randomly selected from each of the six states making twelve LGAs within the study area using structured questionnaire and oral interview of respondents. The LGAs are: Toro and Tafawa Balewa in Bauchi State; Etsako-east, and Esan North-east in Edo State; Nsuka, and Enugu-north in Enugu State; Dutsin-Ma, and Malumfashi LGA in Katsina State; Igalamela/odolu, and Ibaji LGA in Kogi State; and Idanre and Ondo-East LGA in Ondo State. Structured questionnaire were administered on one-hundred and twenty (120) randomly selected respondents from each of the LGAs making a total number of one-thousand, four-hundred and forty (1,440).



Data Analysis

The data were analyzed using descriptive statistic involving table to describe the socio-demographic characteristics of the respondents. Two-ways Analysis of Variance; Correlation Analysis; and Chi-Square Test Analysis was used for comparison of gender issues in forestry practices within the Study Area.

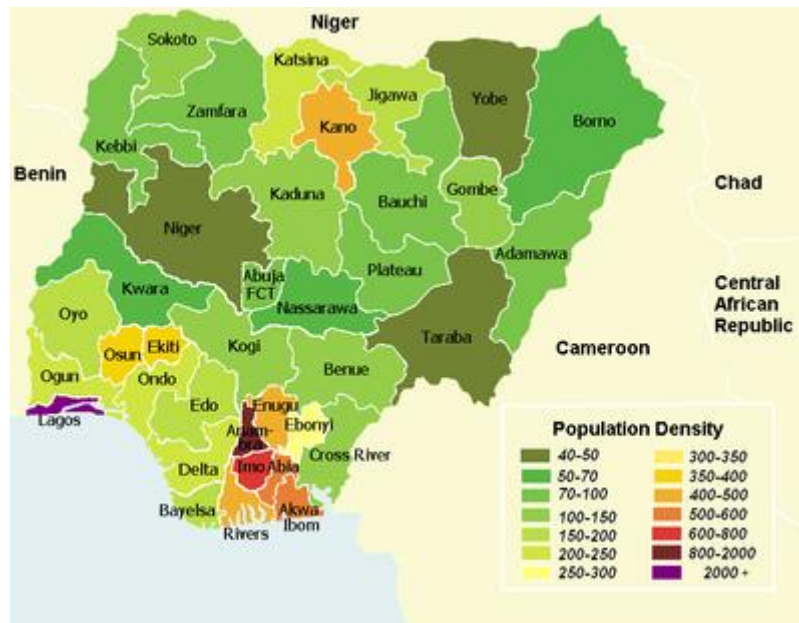


Fig. 1: Map of Nigeria (Source: Wikipedia)

Results and Discussion

Gender status in table 1 above showed that there were presence of more women respondents (117) in Edo State, Ondo State (113), Kogi State (108), and Enugu State (96) compared to women in Bauchi State (39) and Katsina State (11). Also there were presence of more men respondents in Katsina State (229) and Bauchi State (201). Educational level of the respondents showed that Ondo State is the highest, followed by Kogi State, Edo State, Bauchi State, Enugu State, and Katsina State. Marital status showed that there were more married respondents in Katsina State (211), followed by Bauchi State (206), Kogi State (183), Ondo State (129), Edo State (127), and Enugu State (126). Occupation showed that there were more farmers in Kogi State (101), followed by Bauchi State (99), Katsina State (84), Edo State (82) Ondo State (68), and Enugu State (36).

Table 2 above showed that gender issue in forestry practices is better in the North-Central; South-South; South-East; and South-West region than in the North-East and North-West region. The men in North-East and North-West made it difficult for the female folks to participate in men dominated work. These has resulted in the prevention of their women in schools from studying forestry and related courses. Ignoring gender differences in forest use and management can lead to less effective policies and overlooking gender differences can result in incorrect assessments of the tradeoffs and effects of policies on forest communities (Manfre and Rubin, 2012).

The forestry extension workers, who are mostly men, find it very difficult to relate with the women in order to educate them on the benefits deriveable from forestry practices due to religious beliefs, selfish and offensive cultural and social norms that never favours the women. Forestry practices in the North-East and North-West cannot be 'Just and Equitable' in the near future because the women in the regions are not helping matter since the majority of them are not bordered by the selfish attitudes of their men and the very few that cares about their freedom are not enjoying the cooperation of other women and are not willing to collaborate in sensitizing their men on their freedom to be allowed to undertake some of the activities reserved for men exclusively. Majority of the women in the regions were in Purda, not allowed to welcome visitors that is regarded as a threat to their ways of life. They hardly go out during the day. Their men do almost everything for them including going to the market. According to Agarwal (2001), the ability to participate and the terms of participation are shaped by a number of factors, including rules of entry, social norms, perceptions, and the assets and attributes of those affected



Table 1: Socio-Demographic Characteristics of Respondents in the Selected States

Variable	Bauchi	Edo	Enugu	Katsina	Kogi	Ondo
Gender status						
Male	201	123	144	229	132	127
Female	39	117	96	11	108	113
Total	240	240	240	240	240	240
Educational level						
Informal	70	54	67	95	38	20
Primary	90	97	107	103	101	91
Secondary	61	68	51	27	72	92
Tertiary	19	21	15	15	29	37
Total	240	240	240	240	240	240
Marital Status						
Single	12	44	79	7	38	51
Married	206	127	126	211	183	129
Divorce	7	34	4	6	8	32
Widow/er	15	35	31	16	11	28
Total	240	240	240	240	240	240
Occupation						
Farming	99	82	36	84	101	68
Trading	69	74	146	71	46	77
Civil Servant	53	51	29	37	54	58
Academician	6	8	7	3	11	22
Contractor	13	25	22	45	28	15
Total	240	240	240	240	240	240

Table 2: Respondents' Involvement in Various Forms of Forestry Practices in the Study Areas.

Respondents Practices	Bauchi State	Edo State	Enugu State	Katsina State	Kogi State	Ondo State
Women in Agroforestry	6	26	23	3	29	17
Men in Agroforestry	31	41	15	26	48	22
Women in Woodlots Mngt.	12	35	33	4	42	29
Men in Woodlots Mngt.	13	21	14	18	27	16
Women in Nursery Dev.	3	9	6	1	12	4
Men in Nursery Dev.	18	7	5	14	16	5
Women in Apiculture	2	3	2	1	4	2
Men in Apiculture	9	11	9	12	18	8
Women in Tree Planting	2	3	2	1	5	2
Men in Tree Planting	9	7	8	8	14	9
Total	105	163	117	88	215	114



Women and men in South-East, South-West, South-South, and North-Central are fully involved in various forms of forestry practices. Most of the women are involved in woodlots management through pruning, spraying against pest and insect; clearing the grasses around the trees to protect them from wildfire; and utilizing the products of the trees in a sustainable manner. Some of the women practices home gardening system of agroforestry while very few of the women produce seedlings for sales, and plant forest trees on their farm especially those into livestock production to produce shade and food for the animals. Gender issues in forestry practices in these regions is to some extent Just and Equitable.’ Effective strategies to preserve the environment depend on the active involvement of women in economic activities, thus women should be fully involved in decision making and in the implementation of sustainable development activities (Azeez et al., 2012). Women in schools are now specializing in forestry related courses at various level without discrimination of any sort in these geopolitical zones. As a result, they are getting involved in forestry practices which could enhanced sustainable forest management and most importantly reduces deforestation. The resultant effect of sustainable forest management is the reduction in the effects of climatic change and improved environmental sustainability.

Table 3: The Results of Two-way Analysis of Variance

SUMMARY	Count	Sum	Average	Variance
Women in Agroforestry	6	104	17.33333	115.4667
Men in Agroforestry	6	183	30.5	149.9
Women in Woodlots Management	6	155	25.83333	214.9667
Men in Woodlots Man	6	109	18.16667	26.96667
Women in Nursery Development	6	35	5.833333	16.56667
Men in Nursery Development	6	65	10.83333	34.16667
Women in Apiculture	6	14	2.333333	1.066667
Men in Apiculture	6	67	11.16667	13.36667
Women in Tree Planting	6	15	2.5	1.9
Men in Tree Planting	6	55	9.166667	6.166667
Bauchi State	10	105	10.5	78.94444
Edo State	10	163	16.3	187.1222
Enugu State	10	117	11.7	98.23333
Katsina State	10	88	8.8	73.06667
Kogi State	10	215	21.5	219.6111
Ondo State	10	114	11.4	84.93333

ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Rows	4879.267	9	542.1407	13.5691	3.44E-10	2.095755
Columns	1104.733	5	220.9467	5.530016	0.000472	2.422085
Error	1797.933	45	39.95407			
Total	7781.933	59				

The ANOVA result above shows that there is a significant difference (P-value < 0.05 and F-calculated > F-critical) between male and female practicing forestry in the Study Area. Meaning gender issues in the practice of forestry in Nigeria differs from region to region.

Table 4: Correlation Analysis Result

		Male	Female
Male	Pearson Correlation	1	.593**
	Sig. (2-tailed)		.001
	N	30	30
Female	Pearson Correlation	.593**	1
	Sig. (2-tailed)	.001	



N	30	30
**. <i>Correlation is significant at the 0.01 level (2-tailed).</i>		

The correlation result in table 4 showed that there is a positive relationship between the male respondents and female respondents in forestry practices in the Study Area. The Sig. (2-Tailed) value in the correlation analysis box is 0.001. Since this value is less than 0.01, it is then concluded that there is a statistically significant correlation between the male and the female in forestry practices in the Study Area. Which means, increases or decreases in female practicing forestry do significantly relate to increases or decreases in male in forestry practices.

Table 5: The Result of Chi-Square Analysis

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	327.917 ^a	255	.001
Likelihood Ratio	130.204	255	1.000
Linear-by-Linear Association	10.184	1	.001
N of Valid Cases	30		

a. 288 cells (100.0%) have expected count less than 5. The minimum expected count is .03.

The result of Chi-Square test in table 5 showed that there is a statistically significant difference between the proportion of males and females practicing forestry among the states in the Study Area (p-value=0.001). Also, from the value in Phi and Cramer's V box, the strength of association between the male and the female practicing forestry is very strong.

Conclusion

This study revealed that men and women in some of the regions (North-Central; South-South; South-East; and South-West regions) are actively involved in forestry practices through their involvement in agroforestry; woodlots management; nursery development; apiculture practices; and tree planting. The women in the North-East and North-West are not allowed to take part in forestry practices by their men. The results showed that gender issues in forestry practices in North-Central; South-South; South-East, and South-West region of Nigeria is to some extent 'Just and Equitable.' while the gender issues in forestry practices in North-West and North-East is not at all 'Just and Equitable.' The significance of forests and forestry practices to the environment is increasingly understood. Their continuing existence is therefore the responsibility of both the males and females in all the regions of the Nigeria.

Recommendation

Government at all the level should integrate women in forestry decision making and policy implementation. More female forestry extension workers should be employed and posted to the rural areas to educate the men, women and children about the effects of environmental degradation through unsustainable use of forest resources, and the benefits from wisely managed forests. They should also be encouraged by the extension workers to go into forestry practices by planting trees on their farm lands in order to sustain the forest ecosystem.

References

- Agarwal, B. (2001): Participatory Exclusions, Community Forestry, and Gender: an Analysis for South Asia and a conceptual framework. *World Development* 29(10): 1623–1648.
- Alao J. S. and Shuaibu R. B. (2011): Gender Issues in Forestry Development. Proceedings of the 34th Annual Conference of the Forestry Association of Nigeria held in Osogbo, Osun State Nigeria. L. popoola, K. Ogunsanwo, F. Idumah (Editors), 94-196
- Azeez F.A., Akankuku A.I., F. Awe, Jaiyesimi A.M.Obafunso O.E. (2012): Assessment of the Roles of Gender in Environmental Development in Ibadan Continental J. *Sustainable Development* 3 (2): 1 - 6
- FAO (2010): Global Forest Resources Assessment 2010 Main Report, FAO Forestry Paper 163. Pp378.
- Hannan (2001): Gender mainstreaming strategy for promoting Gender Equality Women Watch. Office of the special Adviser on Gender issues and Advancement of women Available at <http://www.un.org/womenwatch/osagi/pdf/factsheet>.
- Huisinga, N., Yoder, R. and Martin, Y. (1993): Indigenous agricultural knowledge and gender issues in third world agricultural development. In: Warren, D.M.; Slikkerveer, L.J. and Titilola, S.O. (eds). *Indigenous knowledge systems: implications for agricultural and international development*, 91–100. Study in Technologies and Social Change Series. NO. 11, Iowa State University, Ames, IA.



Kaur, R. (1991): *Women in Forestry in India*. Washington, D.C: World Bank.

Manfre, C. and Rubin, D. 2012 Integrating Gender into Forestry Research: A Guide for CIFOR Scientists and Programme Administrators. CIFOR, Bogor, Indonesia

OECD-DAC (1999): DAC-Guidelines for Gender Equality and Women's Empowerment in Development Co-operation, OECD, Paris.

Oyerinde, O. V. (2003): Enhancing the Role of Women in Community Forestry Development in Nigeria. In: (add conference theme). Proceedings of the 29th Annual Conference of Forestry Association of Nigeria (Eds: S. O. Akindele and L. Popoola). Pp 167-173.

Rahman, S. A. (2009): Gender Issues in Food Security. Invited paper for the First Biennial Conference on Human Security in Africa that held at Centre for Human Security, Olusegun Obasanjo Presidential Library, Abeokuta, Ogun State. 5th-6th March, 2009.

Shuaibu R.B. and J.S. Alao (2013): Centrality of Forestry Education in Environmental Sustainability. In: the Proceedings of the 36th Annual Conference of Forestry Association of Nigeria held in Uyo, Akwa Ibom State, Nigeria. From 4th – 9th Nov., 2013. Eds: L. Popoola, O. Y. Ogunsanwo, V. A. J. Adekunle, I. O. Azeez, and N. O. Adewole. Pp 262 – 267.

UNDP (2002): World Energy Assessment. United Nations Development Program (UNDP). United Nation Department of Economic and Social Affairs and World Energy Council (2002), New York UNDP.

UN-Habitat (2003): **A Conceptual Guide to "Gender"** <http://www.unhabitat.org/gov> access on 6th February, 2014.

