

*Full Length Research Paper*

# Women Access to Forest Extension Services and Compliance to Forest Laws in Lere Local Government Area of Kaduna State

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The study examined Women access to forest extension services and compliance to forest laws in Lere Local Government Area of Kaduna State. Purposive and simple random sampling techniques were used to collect primary data with the aid of structured questionnaire from 100 respondents across five (5) districts. Collected data was analyzed using descriptive statistics such as frequency distribution, percentages, scores and ranks. The result of socio-economic characteristics shows that largest age group was those 31-50 years (53%), married (86%) and those with informal education (53%). Result of respondent's access to forest extension services reveal that the respondent had no access to forest extension services (0%) however; the women were generally involved in informal environmental conservation practices except in the area of replacing cut down trees (28%) which had low participation. Result of the respondent's compliance to the forest laws revealed the overall score of 0.9 in favour of those never complying across all listed items. The result of the respondent's knowledge of existing forestry laws shows that they had poor knowledge about the laws with none of the respondent ever having knowledge of endangered species. The result of identified constraints militating against the respondent's compliance to forest laws revealed that Poor Access to forest extension services ranked 1<sup>st</sup> while None Provision of Seedlings for Forest Regeneration rank least 6<sup>th</sup>. It is therefore recommended that environmentalist ensure alternative cooking energy sources are given to rural women and forest extension services be focused in the rural area particularly targeting women folks to bridge the identified knowledge gaps.

**Keywords:** Women, Forest, Extension, Compliance, Laws and Services.

## INTRODUCTION

Forest is a significant part of human existence providing food, shelter, medicine, stabilizing atmospheric gas, provides means of livelihood for the rural populace and serves as conservers of soil-water. It is also a habitat for wildlife and provides recreational and aesthetic values to the environment. The world forest resources over the years are reported to be disappearing at an alarming rate (Balogun, *et al.* 2011). This is reported to have resulted in increased Carbon dioxide (CO<sub>2</sub>) within the atmosphere, extreme weather conditions, extinction of wildlife including several plant

species and exposing many rural families to hunger (Ogunwande, *et al.* 2011). This is not excluding other effects such as exposures of land to soil erosion, sedimentation of rivers leading to increased flooding (Owonubi and Otegbeye, 2004).

In Nigeria, majority of rural women rely on the forest to earn a living, for cooking fuel, food and shelter. This dependence has being accompanied by uncontrolled exploitation of the forest resources leading to deforestation and the attendant effects on the immediate and larger environment. According to

Balogun, *et al.* (2011), the forest losses about 7% of its resources to man's activities annually through farmers poor agronomic practices like bush burning and deforestation which exposes the environment to desertification, land degradation, emission of green house gases, effects of climate change and loss of biodiversity. However, there have being increased global awareness on environmental conservation particularly forest resources as several efforts have made to regenerate and protect the world remaining forest from over exploitation (Akinyemi, *et al.*, 2004).

Forest extension focuses on the provision of information about best practices, conservation and regeneration techniques to those who live and rely on forest for livelihood. The provision of forest extension service especially to women farmers has being seen as key in helping to protect the remaining forest resources and regenerate new ones because of their direct role in exploitation and utilization of forest resources (Hemmati and Rohr, 2009). Forest extension generally seek to informally educate the populace on the importance of preserving the forest resources, advocate controlled exploitation, explain the consequences of over exploitation, teach some conservation techniques, promote forest regeneration, enlighten about the laws guiding forest resource usage and the penalty of violating them. The government department of forestry has the responsibility to carry out the task of forest extension and bring about this awareness. Over the years, attentions have been focused on environmental awareness and the need for governments to allocate more resources to expand afforestation programs and complement aides from Non Governmental Organizations (NGOs) and international bodies. Despite these funding the result of the efforts have not been felt as more and more forest continue to disappear even within location where several forest guards are stationed thereby raising the concern of the effectiveness of the approaches in use. This forms the basis of this research hence the following research questions become germane: What is the extent of women folk access to forest extension services? What is their knowledge of forest laws? What is their level of compliance to these laws? What are the constraints militating against their compliance to forest laws?

## Methodology

This study was carried out in Lere Local Government Area of Kaduna State, Nigeria. The Area is located between 6° E and 9° E of prime meridian. It has an annual rainfall of about 1000 – 1500mm which last 4-5months and a distinct dry season. The inhabitants are predominantly farmers, fire wood merchants and timbers traders.

Data for this work was collected through from primary sources. Purposive and simple random sampling techniques were used to collect data for this work. First, five (5) district namely; Gure/Kahugu, Garu Kurama, Unguwan Bawa, Ramin Kura, and Krosha were purposely selected out of the eleven (11) districts of Lere Local Government Area of Kaduna State due to the large forest presence in them. Second, twenty (20) questionnaires was randomly administered to women farmers in the five (5) districts giving a total of One hundred (100) respondents. Data collected was analyzed using descriptive statistics such as frequency distribution, percentages, scores and ranks.

## RESULT AND DISCUSSION

Result of socio-economic characteristics in table 1 show that the dominant age group was 31-50 years with 53% which is the aged bracket that is actively involved in agricultural activities according to Tsue *et al* (2016). Majority of the respondents were also married (86%) followed by the widows (11%) indicating that they are persons in need of livelihood to support their household. Also, result of educational level of the respondents reveal that majority had no formal education (53%) followed by those with primary education (30%) which is a typical characteristic of rural Nigeria agreeing with the findings of Lamino *et al* (2016). Lastly, majority of the respondents engage in farming (89%) as their major occupation for their livelihood hence their close links with forest activities. The implication of this result is that the respondents are knowledgeable in the research and their input would be valuable in shaping option about the female gender involvement in forest protection hence the need for their involvement in forest extension activities.

Result of respondent's access to forest extension services in table 2 shows that women in the study area had no access to forest extension services thereby depriving them the opportunity to be equipped, informed and actively play a role in the conservation of the forest resources. However, the women's informal involvement in environmental conservation was generally high except in the area of forest regeneration which had low participation. This result implies that if these women had good forest extension access and properly equipped they would make good impact in forest conservation. This position is conforms to the assertion of Agarwal (2009) that women participation in community forest management brought about better impact in Nepal- India.

Result from table 3 on women compliance to forestry laws shows that the general adherence to the forest laws was low in the study area hence their high scores (0.9) for "Never" carrying out the selected items. The result of their knowledge of the existing forest laws was also low explaining reasons for their none

**Table 1:** Socio-economic Characteristics of Respondents

<b>Variables</b>	<b>Frequency (Percentages)</b>
<b>Age</b>	
Below 30	17 (17%)
31-50	53 (53%)
Above 50	20 (20%)
<b>Marital Status</b>	
Single	3 (3%)
Married	86 (86%)
Divorced	0
Widow	11 (11%)
<b>Educational Level</b>	
Non formal	53 (53%)
Primary	30 (30%)
Secondary	17 (17%)
Tertiary	0
<b>Major Occupation</b>	
Farming	89 (89%)
Other activities	11 (11%)

**Source:** Field work, 2017.

**Table 2:** Respondent's Access to Forest Extension Services

<b>Variables</b>	<b>Frequency (Percentages)</b>
<b>Access to Formal Forest Extension Services</b>	
Yes	0
No	100 (100%)
<b>Informal Involvement in Environmental Conservation</b>	
Need to protect vulnerable living things	100 (100%)
Tending and providing for trees	100 (100%)
Instincts to protect endangered wildlife	100 (100%)
Need to replace cut down trees	28 (28%)

**Source:** Field survey, 2017.

**Table 3:** Compliance to Forest laws and knowledge of existing forest laws

<b>Compliance to forest laws Items</b>			
	Often (2)	Sometimes (1)	Never (0)
Informing forest guard before cutting tree	0	0	100
Packing grasses instead of burning	0	12	88
Sparing life of young wildlife during hunting	0	10	90
Preserving Endangered tree species	0	0	100
Planting trees to replace cut one	0	0	100
<b>NB= High (1.0-0.8), Average (0.7-0.5), Low (0.4-0.0).</b>	0.0	0.0	0.9
<b>Knowledge of existing forest law</b>	<b>Frequency (Percentages)</b>		
	<b>Yes</b>	<b>No</b>	
Knowledge of levies when cutting trees	16 (16%)	84 (84%)	
Knowledge of government control over forest resources	24 (24%)	76 (76%)	
Knowledge of forest guard existence	16 (16%)	84 (84%)	
Knowledge of listed endangered forest species	0	100 (100%)	
Knowledge of reserved forest areas	40 (40%)	60 (60%)	

**Source:** Field survey, 2017

compliance which goes to suggest an existing relationship between compliance and knowledge of the law.

The result of table 4 showing constraints militating against respondent's compliance to forest laws reveals that Poor Access to forest extension services was a major constraint ranking 1<sup>st</sup> followed by Poor knowledge of forest law and enforcement which ranked 2<sup>nd</sup> while None Provision of seedlings for forest

regeneration was the least among identified constraints ranking 6<sup>th</sup>. This result suggest that access to forest extension services will increase women knowledge about global concern about depleting forest, consequences, conservation practices, existing forest laws and elicit their full participation to help solve existing challenges thereby bringing about better forest practices among the rural folks.

**Table 4:** Constraints Militating against Respondent's Compliance to Forest Laws

Variables	Frequency (Percentage)	Ranks
Poor Access to Forest Extension Services	86 (86%)	3rd
Poor Access to forest extension services	90 (90%)	1 <sup>st</sup>
None Provision of alternative cooking energy sources	80 (80%)	4 <sup>th</sup>
None Provision of seedlings for forest regeneration	40 (40%)	6th
Poor knowledge of forest law and enforcement	89 (89%)	2 <sup>nd</sup>
Poor interest in environmental conservation	75 (75%)	5th

**Source:** Field survey, 2018

## CONCLUSION

The study has established that rural women have low access to forest extension services hence limiting their compliance to the forest laws among rural people with reference to Lere Local Government of Kaduna State. However, their informal environmental conservation practices suggest their genuine concern for the forest and willingness to comply to the laws if formal trainings are provided.

## RECOMMENDATION

From the findings, it is therefore suggested that;

1. Forest extension services should be increased in rural areas and equally target women farmers so as to bring about access, awareness and participation among those who depend on forest for their livelihood.
2. More education should be given about the existing forest laws and enforcement be carried out to bring about better compliance.
3. Alternative cooking energy sources should be provided to rural women so as to help them reduce stop the continuous exploitation of trees as cooking fuel.

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