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ANALYSIS OF LIVELIHOOD BENEFITS DERIVED FROM FOREST RESOURCES UTILIZATION AMONG FARMING POPULACE IN KOGI AND NIGER STATES, NIGERIA

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ABSTRACT
The study analysed of livelihood benefits derived from forest resources utilization among farming populace in Kogi and Niger States, Nigeria. A multi-stage sampling technique was used to select 326 of rural populace. Data were collected using structured questionnaire and interview scheduled and analyzed using descriptive statistics (percentage, frequency and mean). The result revealed 87.1% of the rural farmers had increment in the procurement of the food items while 77.3% improvement in expenditure on cultural ceremonies. Moreover, truck ₦47, 852 and car ₦56, 763 were the most working and household assets acquired by rural populace in the last season. It was recommended that farming populace should engage in the use of forest resources in order to enhance their livelihood. Also, farming populace should utilize forest resources in order to acquire more household assets

Keywords: Benefits Derived, Forest, Livelihood, Resources, Utilization.

INTRODUCTION
Forest resources are essential natural resources for rural farm households, provide them with both subsistence and market oriented livelihood strategies (Oludotun, 2015). Globally, many wood forest products like fuel wood, construction materials and non-wood forest products. Forest products are known to be essential sources of income generation for rural livelihood, expansion of farms and diversify commercial activities (Campbell *et al*., 2015). Income generated from farming activities is not enough to carter for household needs such as payment of children school fees, payments of hospital bills, purchase of households' items, buying of agricultural inputs, as well as cultural activities such as marriage, naming and burial ceremonies (Amulya, 2015). The aforementioned could force the rural farmers to engage in exploitation and utilisation of forest products to augment income from the farming activities in order to enhance livelihood. However, this study tend to achieve the following objectives; to examine the livelihood benefits derived from forest resources utilization in the study area identify household and working assets acquired by farming populace in the study area.

MATERIALS AND METHODS
The Study Area
Kogi State lies to the South of the Federal Capital Territory, Abuja, and shares boundaries with nine other States in the country. Nasarawa by the North East, Benue State to the East, Enugu State to the South East, Anambra State to the South, Edo State to the South West, Ondo State to the West, Ekiti State to the West, Kwara State to the North West, Niger State to the North (Kogi State Ministry of Agriculture and Rural Development, 2016). The wet season begins in March and ends in October and the dry season spans between November and early March. The annual rainfall is between 1016mm and 1524mm, while the mean daily

temperature ranges between 24°c and 27°c. It is located within Longitude 5° 22^1 and 7° 49^1 East and Latitude 6° 31^1 and 8° 44^1 North. Kogi State has a wide stretch of forest and arable land for farming, good grazing Land for livestock and large bodies of water for fishing and irrigation farming.

Niger State is locatedin the Guinea Savannah ecological zone of Nigeria. In terms of land mass, it is the largest State in Nigeria. It covers a total land area of 74,224km^2 accounting for about eight percent of Nigeria's land area. About 85% of its land area is good for arable crops production (Niger State Geographical Information System, 2015). It is located within Latitudes 8– 10^{o}N and Longitudes 3 – 8^{o}E with a population of about 3,950,249 (NPC [National Population Commission], 2006) and with a growth rate of 3.2%, the State has an estimated population of 5,586,000 in 2017 (Niger State Geographical Information System, 2015).

Sampling Procedure and Sample Size

Multi-stage sampling technique was used for the study in both States. The first stage involvedselection of all the Agricultural zones in both States. At the second stage, one (1) Local Government Area from each agricultural zone was randomly selected. The third stage involved random selection of four communities from the LGAs of the study. At the fourth stage, 10% of the farmers were randomly selected from the sampling frame of each community. In all, a total of 326 respondents were selected from both States as the sample size for the study.

Data collection and Analysis

Primary data was used for the study, the data were collected by researchers and trained enumerators using structured questionnaire complimented with interview schedule.

Data obtained were analyzed using descriptive statistics such as frequency distribution, percentage and mean.

RESULTS AND DISCUSSION

Livelihood Derived from Forest Resources Utilization

Table 1 show that 92.2% and 82.7% of the rural farmers in Niger and Kogi States respectively derived improvement in procurement of food items, following the utilization of forest resources. The pooled result of Table 1 also indicates 87.1% of the rural farmers had increment in the procurement of the food items.

Similarly, 86.3% and 69.4% of the rural farmers in both Niger and Kogi States had improvement in the expenditure on cultural ceremonies, which was made possible through the utilization of forest resources. The pooled result validates improvement in expenditure on cultural ceremonies with 77.3% response rate.

Furthermore, Table 1 revealed that there was improved expenditure on non-food items in Niger and Kogi States as well as in the study area 82.4% and 57.2%, respectively. These results show that the rural farmers in the study area benefited from the utilization of forest resources in social and economic aspects which will go a long way in increasing their income and improving their livelihood status. In a related study, Rhett (2015) stressed that the well-being of rural farmers will improve if there is full access to utilization of forest resources.

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Table 1: Livelihood Derived from Forest Resources Utilization

Livelihood	Kogi State (n = 173) Frequency*	Niger State (n = 153) Frequency*	Pooled (n = 326) Frequency *
Increased procurement of food items	143(82.7)	141(92.2)	284(87.1)
Improved expenditure for non-food item	99(57.2)	126(82.4)	225(69.0)
Increased household assets	90(52.0)	115(75.2)	205(62.9)
Improved procurement of farm inputs	108(62.4)	96(62.7)	204(62.6)
Increased livestock assets	101(58.4)	102(66.7)	203(63.3)
Improved livelihood expenditure	90(52.0)	123(80.4)	213(65.3)
Improved expenditure on cultural/ceremonies	120(69.4)	132(86.3)	252(77.3)
Improved settlement on hospital bills	119(68.8)	126(82.4)	245(75.2)
Ease of sponsoring ward to school	114(65.9)	135(88.2)	249(76.4)

Note: Figures in parenthesis are percentages; *Multiple responses existed.
Sources: Field survey, 2018

Working Assets Acquired in the Last Season by Rural Farmers

Table 2 shows that truck was the most working asset acquired by rural farmers in Niger State during the last one year with mean value of ₦62, 091, while in Kogi truck has a mean value of ₦35, 672. These results reveal that the mean value of truck acquired in Niger State is greater than that of Kogi State. This might be due to the fact that more trucks were bought in Niger State than Kogi State. The pooled results shows truck has a mean value of ₦47,852. Also, chainsaw has a mean value of ₦29,41.2 in Niger and ₦11,403 in Kogi State while the pooled results showed chainsaw to have mean value ₦73,61.9. More so, the mean value of fuel in Kogi State was ₦3,672 while that of Niger and pooled were ₦2,823 and ₦3,251, respectively. These findings revealed that reasonable numbers of working assets used by rural farmers were acquired during the last one year through forest resources utilization.

Table 2: Respondent's Forest Working Materials Acquired in the Last Farming Season

Variables	Kogi State (n = 173)				Niger State (n = 153)				Pooled (n = 326)			
	Mean (₦)	Min.	Std. Dev.	Max.	Mean (₦)	Min.	Std. Dev.	Max.	Mean (₦)	Min.	Std. Dev.	Max.
Chainsaw	11403	0.0	54398.5	400000	2941.2	0.0	300000	27044	7361.9	0.0	43.681	400000
Truck	35672	0.0	205403	1800000	62091	0.0	62091	3500000	47852	0.0	3107.9	3500000
Axe	112.8	0.0	322.8	1500	33.98	0.0	170.20	1000	75.15	0.0	263.86	1500
Cutlass	98.25	0.0	373.9	3000	937.2	0.0	592.8	2000	491.4	0.0	644.87	3000
Fuel/diesel	3672	0.0	16610	120000	2823	0.0	12696.9	100000	3251	0.0	14830	120000
File	35.1	0.0	149.3	1000	25.49	0.0	104.84	600	30.36	0.0	129.7	1000
Gun	1333.3	0.0	4972.8	25000	177.63	0.0	1553.0	15000	784	0.0	3799	25000

Sources: Field survey, 2018

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Household Assets Acquired in the Last One Year

Table 3 indicates car with a mean value of ₦79,766 as the most assets acquired by rural farmers in Kogi State in the last season while the mean value of car in Niger State was ₦31,79.7. This finding reveals that more cars were bought in Kogi State in the last season than Niger. The pooled result reveals a mean value of ₦56,763. Also, generator has a mean value of ₦17,602 in Kogi while that of Niger was ₦1,440.80 and pooled ₦9,935. This finding revealed that a generator was the second households' assets acquired by respondents in the study area. Moreover, the mean value of motorcycle acquired by respondents in Niger State was ₦23,790 while that of Kogi and pooled were ₦101,116 and ₦164,072, respectively. These results reveals that lot of household assets were acquired in the last one year with income from forest resources.

Table 3: Distribution of Respondents according to Household Assets Acquired in the Last Farming Season

Variables	Kogi State (n = 173)				Niger State (n = 153)				Pooled (n = 326)			
	Mean (₦)	Min.	Std. Dev.	Max.	Mean (₦)	Min.	Std. Dev.	Max.	Mean (₦)	Min.	Std. Dev.	Max.
Television	2514	0.0	10701	70000	1633.9	0.0	8937.5	80000	2085.9	0.0	9873.3	25000
Radio	1140	0.0	6135.1	50000	375.2	0.0	1755.3	14000	774.2	0.0	4612.8	80000
Generator	17602	0.0	41749	150000	1440.8	0.0	7166.6	55000	9935	0.0	31685.6	50000
Car	79766	0.0	217076	1200000	31797	0.0	156220	1200000	56763	0.0	191452	1200000
Fan	444.4	0.0	2459.3	18000	1153.6	0.0	9891.1	120000	774.5	0.0	7003	120000
Landed properties	3157.9	0.0	21705	200000	588.2	0.0	5159.9	50000	1932.5	0.0	16141.9	200000
Other electrical appliance	818.7	0.0	5647.2	70000	287.6	0.0	1463.6	10000	564.4	0.0	4213	70000
Motorcycle	10116	0.0	43372	270000	23790	0.0	204932	250000	164072	0.0	14378	250000

Sources: Field survey, 2018

CONCLUSION AND RECOMMENDATIONS

The study concluded increased procurement of food items and improves expenditure on cultural/ceremonies. Truck and Chainsaw were the most working assets acquired by rural farmers in the last season while Car and Generator were the most household assets acquired by rural populace in the last season. The following recommendations were made:

1. Rural farming populace should engage in the use of forest resources in order to enhance their livelihood.
2. Farming populace should utilize forest resources in order to acquire more household assets.
3. Capital should be made available to rural populace for efficient utilization of forest resources.

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