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Assessing the impacts of COVID-19 pandemic on the livelihoods of forest-dependent communities: case study of communities in Oluwa forest reserve, Nigeria

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Abstract

Though the COVID-19 pandemic is primarily a health crisis, it has a worldwide impact on the communities and economies. This impact has resulted in global socio-economic disruptions and diminished people's livelihoods. Meanwhile, forests provide economical and livelihood support for many people around the world. For example, one-fifth of the global population depend on forest products for livelihoods and forty per cent of the extreme poor in rural areas live in and on forests. However, restrictions on physical activities as a measure to combat the pandemic also impacted forestry activities, which has put forest-based livelihoods at risk. Quantifying the impacts of the COVID-19 pandemic on forest-based livelihoods could help to better support and economically empowered people whose lives depend on the forests. Therefore, six communities were randomly selected in and around Oluwa forest reserve, Nigeria and a structured questionnaire was used to collect primary data from respondents using purposive sampling. The data collected was analysed using descriptive and inferential statistics to understand the impacts of the COVID-19 pandemic on the livelihoods of forest-dependent communities in Oluwa forest reserve in Nigeria. The findings from this study could be a valuable resource to rebound from the impact of the crisis. Additionally, this study could potentially strengthen the response to the pandemic and improve the resilience of forest-dependent communities.

Keywords: COVID-19; communities; forest-dependents; forest reserve; Nigeria

Introduction, scope, and main objectives

Forests are vital for sustaining rural livelihoods, biodiversity conservation and facilitating rural economic growth (Adedayo and Akindele 2003). It plays a crucial role in promoting the economic, social advancement and welfare of the people and it is accepted as a veritable means of alleviating poverty among rural communities because of its role in livelihood sustenance, food, and environmental security (Adedayo et al. 2010). For centuries, forests have served as safety nets for the rural poor, for example, 40 per cent live in forest and savannah areas (FAO 2018). It is estimated that forest products provide food, income, and nutritional diversity for about 20 per cent of the global population, especially women, children, landless farmers, and other vulnerable segments of society (FAO 2018).

According to FAO (2018), around 2.4 billion people which is one-third of the world's population still rely on wood fuel to meet their basic energy needs. It is estimated that of the 850 million people who engage in fuelwood collection or charcoal production, the vast majority (83 per cent) are women (FAO 2018). Reliance on forest biomass energy will likely grow during the COVID 19 crisis, as supply chains of other energy sources get disrupted, and income-generating opportunities decrease drastically.

However, restrictions on physical activities had impacted forestry activities, especially on timber production and supply chain, which had put the livelihoods and forest-based industries at risk (FAO 2020). Additionally, COVID 19 pandemic has caused certain limitations to the benefits the forest provides for the forest dependent communities with increase in deforestation which has occurred due to clearance for agriculture, illegal logging, urbanization etc (Simon et al. 2020). Thus, the study aimed to investigate the impacts of COVID 19 pandemic on the livelihoods of forest dependent communities to get empirical evidence needed for policy and decision makers to make an informed decision that could help recover from the impacts of this pandemic.

Methodology/approach

Oluwa Forest Reserve lies between latitude 06.59718^0 N and longitude 004.49199^0E. It covers an area of 87, 816 ha (Adeduntan, 2009). Raining season starts from March and ends November with dry season starting from December and ends in February. The average rainfall of this reserve is 1700mm, Relative Humidity of 80%, an annual temperature of 26^0C with an average elevation of 100 m (Adekunle et al. 2011). The map of the study area is presented in figure 1.

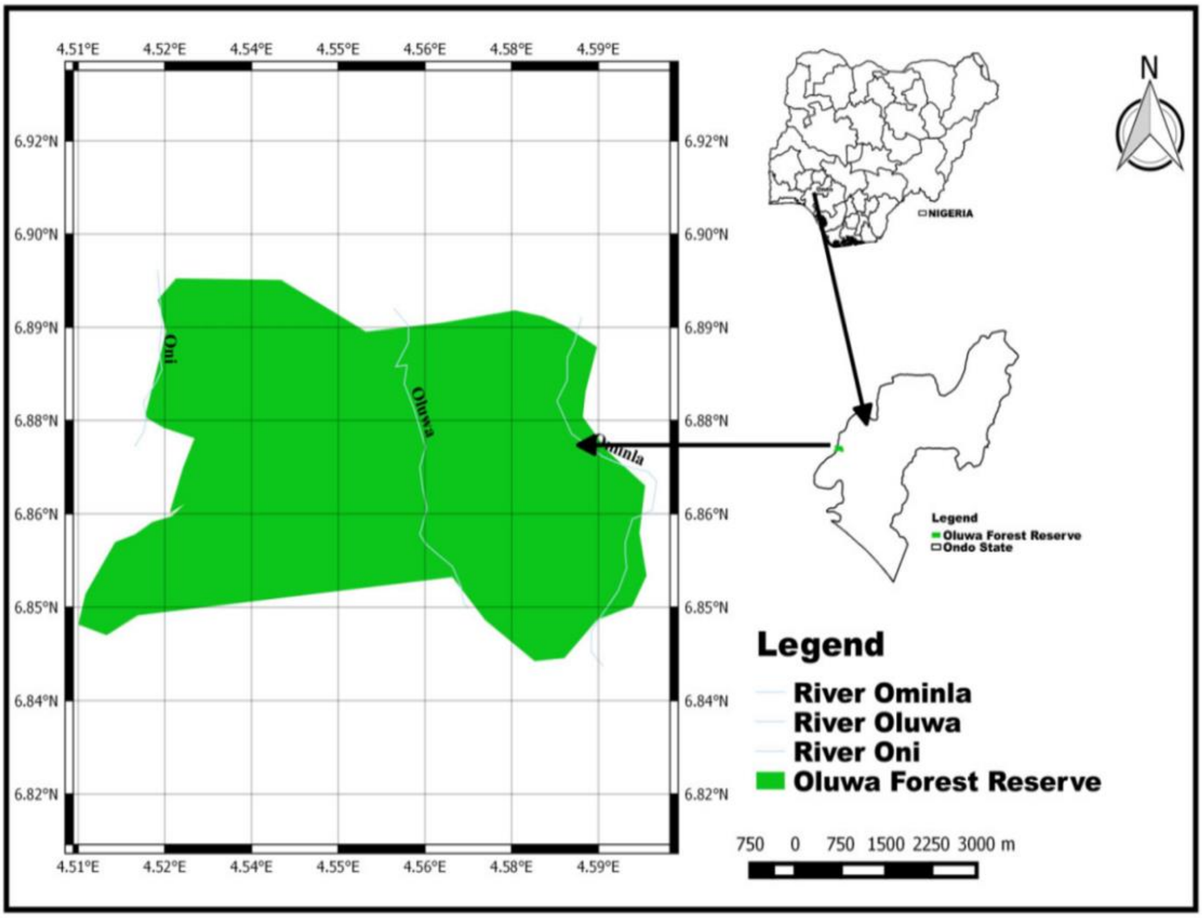

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Fig. 1: Map of Oluwa Forest Reserve

Data collection

A semi-structured questionnaire was used for data collection. Six (6) communities around the forest reserve were randomly selected. Twenty (20) respondents were selected using purposive and snowballing sampling method and a total of one hundred and twenty (120) questionnaires were retrieved from the study area.

Data analysis

Descriptive statistics was used in analyzing raw data collected from the field. Frequencies of selected variables for all respondents were computed with percentages.

Results

Most of the respondents (77%) were male and 23% were female. More than half of the respondents (56%) were within the age range of 40-59years. The educational level of the respondents showed that 63% had secondary education, 22% had primary education, 12% had no formal education and only 3% had tertiary education. The results revealed that highest percentage of the respondents (86%) are married. About half of the respondents were farmers and traders were also prominent (21%) in the reserve.

Table 1: Demographic status of the respondents

Demographic status		**Freq.**	**%**
Gender	Male	92	77
	Female	28	23
Age(years)	18-39	39	33
	40-59	67	56
	60 years and above	14	12
Educational level	No formal education	14	12
	Primary education	26	22
	Secondary education	76	63
	Tertiary education	4	3
Marital Status	Single	6	5
	Married	103	86
	Divorced	2	2
	Widowed	9	8
Household size	less than 3	9	8
	3	14	12
	4	23	19

	5	29	24
	6 and above	45	38
Occupation	Trading	25	21
	Civil Servant	7	6
	Crop farming	59	49
	Artisan	15	13
	Fishing	2	2
	Hunting	8	7
	Others	4	3

Table 4 shows the impacts of COVID-19 in the study area. It was reported that 53% of the respondents claimed that COVID-19 had no impact on the community's population ,33% claimed it has decreased their population while the lowest percentage of 15% said it increased their population. Highest percentage (78%) of the respondents revealed that COVID-19 had negative effect on the community, 18% claimed it had no effect on the community while the remaining 3% affirmed that it had positive impact on the community. Majority of them (78%) also ascertained that COVID-19 affected their livelihood negatively while 23% claimed the pandemic had no effect on their livelihood. It was also revealed that 67% of the respondents believed that COVID-19 is real. However, only 33% believed it is not real.

Table 2: Impacts of COVID-19 and perception of local people about COVID-19

Impacts	Categories	Freq	%
Impact of COVID-19 on Community's Population	Increase	18	15
	Decrease	39	33
	no change	63	53
COVID-19 has affected the Community	Yes	89	74
	No	31	26
Effects of COVID-19 on Community	Positively	4	3
	Negatively	94	78
	No effect	22	18
COVID-19 is real	Yes	80	67
	No	40	33
COVID-19 has affected your livelihood	Yes	93	78
	No	27	23
Effects of COVID-19 on livelihood	Positively	0	0
	Negatively	93	78
	No effect	27	23
Negative Impacts of COVID-19 on Livelihood	Reduction in sales	54	45
	Restriction of movement	23	19
	Increased cost of farm inputs	18	15
	Funding Challenges	25	21

Discussion

Majority of the respondents claimed that the pandemic affected their communities negatively. Also, from the result of this study, a higher percentage of the respondents ascertained that their livelihoods were being affected negatively by the COVID 19 outbreak, which has posed a major threat on their survival while very few mentioned that the pandemic had no effect on their livelihood. The negative effects of the pandemic on the livelihoods of respondents that were mentioned include reduction in sales of farm produce, funding challenges and increase in the cost of farm inputs. In the aspect of purchase of farm inputs, some of the respondents complained that the price of some farm inputs such as seedlings that are used for planting of food crops increased during the pandemic and it was difficult to purchase them. Majority of the respondents in the study area also admitted the fact that they could not receive some of the state governmental loans and incentives for their farming activities during the period of the pandemic, because some of those funds had been diverted to health sector due to the urgent need to curb the spread of the pandemic and this led to funding challenges for their farm work.

Recommendations

The following recommendations to ensure forest-dependent communities are protected from the impacts of COVID-19 as suggested in FAO (2020) are highlighted below:

1. *"Support governments to connect forest beneficiaries with compensation measures adopted for other sectors, in particular through the use of producer associations as delivery partners.*
2. *Design programmes combining poverty alleviation and environmental protection such as employment in forest restoration and monitoring, expand cash transfer programmes through a combination of payments for ecosystem services, and facilitate improved access and use of wild/indigenous/local foods that are readily available.*
3. *Partner with the International Labour Organization, the World Bank and other relevant agencies to create targeted instruments to allow producer associations to increase the provision of micro-credit and social protection services, fostering the adoption of resilient, integrated and sustainable production practices for agricultural and forest products.*
4. *Maintain a focus on legal and sustainable production for national industry incentive packages and ensure that sustainable production is economically viable (i.e., requirements are not so costly that MSMEs are forced into illegal practices)."*

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