

## ENVIRONMENTAL IMPACT OF CAMEROONIAN REFUGEES ACTIVITIES IN OGOJA LOCAL GOVERNMENT AREA, CROSS RIVER STATE NIGERIA

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### Abstract

*The influx of people into any community will definitely have impact on the community. The world has never had more refugees than today but yet we have less information about the impact of their activities on environment. This study investigate the impact of Cameroonian refugees activities on the host communities in Ogoja L.G.A. Cross River State, Nigeria. The study specifically analyze the refugees activities and how it has impacted on the host communities' environment. The target population for this study was basically drawn from the three refugee settlements in the study area. Structured questionnaire, in-depth interviews, focus group discussion and direct observations were used to collect data for this study. Mixed method approach which addresses the need for qualitative and quantitative data was adopted and Statistical package for social sciences (SPSS) version 26 software was used to analyze the data collected. One hypothesis was also formulated and linear regression analysis was used to test the hypothesis. Findings revealed that refugees activities have significantly impacted on the natural environment. It is therefore, recommended that the United Nation High Commission for Refugees (UNHCR) should organize vocational training in various fields and skills as well as empower refugees to build safe reliance and reduce dependence on the environment. Environmental awareness campaign should be undertaken in the settlements to sensitize the refugees on the need to carry out environmentally friendly activities.*

**Keywords:** Refugees, Environment, Activities, Host communities, Impact



### Introduction

There are currently about 100 million forcibly displaced people in the world and this accounts for an increase of 10.7 million people displaced from the previous year propelled by the war in Ukraine, environmental disaster in Turkey and other deadly conflicts. The Syrian civil war

stands today as the single largest generator of forcibly displaced individuals producing 6.7 million refugees, overtaking Afghanistan at 2.8 million refugees, which had occupied the first position for more than three decades. As a result of the civil unrest in Syria, Turkey became the largest refugee hosting country worldwide with 3million refugees, (UNHCR statistics 2022). However, Refugees movements are usually sudden and unplanned. Therefore, it comes with pressure on the natural environment since they don't come with belongings. This is facilitated by refugee desire for livelihood in settlements and places of asylum. Such a tragic situation has ramifications not only for the refugees, but also on those who receive and subsequently host them. Though despite the increasing clear and significant consequences of refugee influx on the host population, they have been treated as incidental by aid agencies and policymaker

According to the United Nation High Commission for Refugees in their (UNHCR) 2023 planning figure, 44 million people in sub-Saharan Africa are displaced. This has soared over the years, partly due to the ongoing crises in central African, Nigerian, South Sudan and Burundi. More so, five out of the world's top ten refugees hosting countries are located in African. They are Ethiopia, Kenya, Uganda, Democratic Republic of Congo (DRC), and Chad (UNHCR, 2021). Due to the conflict in South Sudan, Ethiopia has overtaken Kenya to become the largest refugee hosting country in Africa, sheltering 884. 216 refugees as of the end of 31st May 2021, Kenya in comparison is host to 575.334 registered refugees and asylum seekers as indicated by the UNHCR 2021 statistics. Uganda, DRC and Chad hold third, fourth, and fifth positions respectively. This is a clear indication that the burden of refugees and internally displaced people falls more on the poorest countries, which are assumed to host about 86 percent of the world's refugee population (UNHCR, 2015). For this reason, the host country is compelled to put

Nigeria as at December 2022 hosts 76,577 registered Cameroonian refugee's men, women, and children across four states, Cross River 43,581 Taraba 19,111 Benue 11,919 and Akwa Ibom State 1,617 which are currently finding refuge in Ikyogen settlement Benue State, Adagom1, Ukende and Adagom3 settlements in Ogoja, Cross River State, Kurmi, Sardauna, Takum and Ussa LGAs Taraba state and Itu LGA in Akwa Ibom State (UNHCR Overview 2022). Perhaps, Cross River state hosts the highest number of Cameroonians refugees with UNHCR registering 12,655 in Adagom1, 4084 in Ukende and 2,960 in Adagom3 respectively.

However, study survey shows that, the remaining 23,882 Cameroonian refugees are spread across border local governments such as Obanliku, Boki, Ikom, Etung, Bakasi, Akamkpa and Calabar Municipal Local Government Areas. The United Nations office for the Coordination of Humanitarian Affairs (OCHA 2019) posits that political struggle between the Cameroonian government and armed specialist from 2016 triggered by dispute over the educational system and judiciary have led to the displacement of over 437,500 Cameroonians in the North-West and South west regions of the Nation. This mass influx of refugees into the state continues to present enormous challenges to the environment as well as refugee families who are currently dealing with loss and struggle for survival in a new land. There are so many refugees in Cross River State; however, the researcher is only interested in the Cameroonian refugees who because of the Anglophone crisis fled to the state for safety and are currently finding refuge in Adagom1, Ukende and Adagom3 settlements in Ogoja Local Government Area. The main aim is to assess the impact created by their presence and activities on the host communities' natural environment.

However, refugees presence and activities are said to have some impact on the natural environment because of their dependents on natural resources for survival. This is evidence in the agricultural activities and fuel wood harvesting embarked on by refugee in the study area.

The desire and ability for refugees to access livelihood support, self-employment, and source of income for the fulfillment of their basic needs such as food, clothing, and shelter in settlements have been met with challenges which have over time contributed to their dependence

on natural resources for survival. These situations leave them with no option than to embark on some livelihood activities such as farming, hunting, indiscriminate harvesting of forest resources. These activities have negatively impacted on the soil, air, water, vegetation, and wildlife. Refugee activities exacerbate environmental problems such as use of water, depletion of natural resources, illegal land use and fuel wood harvesting (Berry 2008, Martin 2017).

The influx of Cameroonian refugees into Nigeria and Cross River State in particular is becoming alarming as the state remains the highest host of Cameroonian refugees in Nigeria with three UNHCR recognized settlement located in Adagom1, Ukende and Adagom3 communities in Ogoja Local Government Area. On the other hand, governments find it very difficult to provide necessary assistance to the refugee or even host them because the economic contribution of refugees to host economies is said to have some controversies. (Nyamazana, Funjika, & Chibwili, 2017). Some scholars see refugee settlements and camps as housing people who are helpless and dependent on humanitarian assistance. Others disagree and argue that refugee populations when actively engaged can contribute positively to host-country economies (Jacobsen, 2006). Mostly, humanitarian budgets to protracted refugee areas are politicized due to selfish interest in traditional donors and politicians. The truth remains that the protracted situation of the refugees population in Nigeria presents the need not to view refugees as passive victims, who only wait for relief handouts and are comfortable in their settlements, but to go deep to know their state of being, state of the mind (mental thought or emotional feelings), state of behavior (past and present behavior), state of intention (planned future behaviors), as well as put in place proper integration process.

As refugees wait for a durable solution, the need to survive from hunger and hardship arises, and their choices are very limited. The refugees neither find it easy seeking local integration within the settlement nor guaranteed food security from the monthly rations. Hence, they tend to fall back to subsistence agriculture, which has over time provided serious competition with the host communities for scarce resources such as land, water, health care services and forest resources. However, this study strongly suggests that the majority of the refugees in the study area are fully involved in farming activities which has often time resulted in unprecedented pressure on natural resources and exacerbating some environmental problems such as, land degradation, loss of biodiversity and environmental pollution.

Perhaps many scholars have carried out research on the subject, Nkiru and Emerole (2009) carried out a study on enhancing sustainable participation in local livelihood activities by the refugees in Ijebu north Local Government area of Ogun State, Nigeria. Omang, Ojong-Ejoh, Mary, Bisong & Egom (2020) in their study examine the impact of Cameroonian refugees influx and its impact on food security in Etung Local Government Area, Cross River State, Nigeria. Edem, Agba and Iji (2020) studied the impact of Cameroon Refugees' Settlement in Ogoja, Nigeria: Implication on Labor Market and the Environment. (Richmond, 2019) studied the impact of refugees and asylum seekers in contributing to the local and national development nexus in Dzaleka Camp. Malawi. Nakachwa, Caroline (2016) studied the determinant of refugees livelihood strategies in Rwamwanja refugee settlement, Kamwenge districts. However, much attention has not been given to the environmental consequences of refugee settlement, especially in the study area. Therefore, this study intends to fill in that gap by providing an insight on the refugees activities and the impact on the natural environment in Ogoja.

### **Research Question**

What impact do the Cameroonian refugees activities have on the natural environment in Ogoja Local Government Area, Cross River State?

### **Aim of the Study**

The aim of the study is to investigate the impact of Cameroonian refugees activities on the natural environment in Ogoja Local Government Area, Cross River State.

## Research Hypothesis

H<sub>0</sub>: The Cameroonian refugees activities do not have significant impact on the natural environment in Ogoja Local Government Area, Cross River State

## Literature review

### Refugee activities and impact on natural environment

Ahmed *et al* (2020) postulate that the Rohingya refugees influx has caused a major impact on local forests and amplified human-wildlife conflict in southeast Bangladesh, as stairs and terraces were cut into the hillsides to make space for temporary Rohingya dwellings. Environmental impacts are rather severe and unavoidable in both the short and long term, especially when accounting for land shortage, land use issues, impact on surrounding areas in the receiving state, the detrimental effect of a massive influx of people to a small enclosed area, and the capacity of the receiving state to even deliver essential services to the refugee population, such as education, social services, food, water, sanitation (McCue 1993 in Hammer 2020).

Jacobson (2002) postulated that refugees destroy vegetation when they clear forests for farming, obtain woods for construction and make charcoal. They may overgraze rangelands when they have their livestock. Refugees may pollute water and compete for water. Refugees may bring about loss of watercourses and may be engaged in uncontrollable fishing for livelihoods. However, the impact of refugees on the environment of host communities can be categorized as forest depletion, land degradation, water pollution, and spread of diseases and exhaustion of water ground resources (Martin 2005 & UNHCR Report 1996).

### Deforestation

Forest has a great influence on rain fall patterns, water, and Soil quality and flood prevention. Trees also absorb and store carbon dioxide, as many people depend on forest for a living. When these forests are cleared, or even disturbed, they release carbon dioxide and other greenhouse gases into the atmosphere, affecting the protective blanket and depleting the ozone layer. There's absolutely no way we can fight the climate crisis if we don't stop deforestation, as forest loss and damage constitute around 10% of global warming (Rey-millet, 2020). However, the arrival of Cameroonian refugees in Ogoja has contributed to clearing down forest for either farming activities or building of tents and houses for the refugees. These refugees depends on forest resources such fuel wood, non-timber product for their livelihood, which has made bare large areas around the settlements and contributed to air and land pollution.

Maystadt (2020) documented that concerns over the environment in part may be rooted from the messaging of previous reports and academic studies. Refugees have been purported to leave their ecological footprint through the permanent clearance of land and extraction of resources for cooking, heating, and building their homes. Scholars have since challenged the thesis of refugees acting as exceptional resource degraders such as uncontrolled fuel wood collection, poaching, and over-use of limited water supplies, add pressure to ecosystems in many regions, including some unique areas set aside by local governments as parks, reserves, or even World Heritage Sites. In the worst case, these activities, if allowed to continue, could result in irreversible losses of productivity, the extinction of plant or animal species, the destruction of unique ecosystems, the depletion or long-term pollution of groundwater supplies, or a variety of other destructive outcomes. (UNHCR, 1996: 5 in Ahmed *et al* 2020).

Fangama (2014) in his study, assessment of the impact of refugees on natural forest in the area where their activities are concentrated. Different methods were used, such as the point-centered quartered method (PCQ) was used for measuring the density of trees per hectare in the demarcated area. Furthermore, satellite imagery covering the area of 30 October 1987 was used and carefully studied. The image was introduced to computer for processing, enhancing, analysis and classification. The results give good comparison between the changes of natural forest that has been placed over the years in forms of percentage and area in ha. The results strongly

suggest that the rate of change in degradation of natural forests is very clear after the settlement of refugees at Um Rakuba. The results indicate that the density of trees is 46 trees/ha. This means that the number of trees in the total area demarcated for research is equal to  $46 \times 4041 \text{ha} = 185886$  trees. If this number of trees divided by 720 trees/ha (Tom, 2004) gives the equivalent of 258.2ha of the total area occupied by trees, which is equal to 6.4% of the total area in 2006. In 1987, the area occupied by trees, was 577.8 ha, which is equal to 14.3% of the total area. The results explained that, there is grading deterioration in the natural forest around Um Rakuba camp.

### **Hunting**

The persistence chase of wild animals for economic, personal gains and consumption by the refugees in Ogoja has greatly impacted on the environment. Many species of animals such as antelopes, rabbits, potamochoerus (Bush pig) and some assorted monkeys that were commonly seen within are nowhere to be found with some gone extinct. This is because most of them depend on wildlife for many needs, and the act of killing, capturing or hunting down more animals affects their population and leads to over exploitation of the species, to the point of extinction. The worst of it all is the act of burning bushes to hunt animals, which is also one of the activities of both the locals and refugees in Ogoja. Bush burning has caused a decreased in size of some perennial grasses and changes species of plant and animals that live in the ecosystem. The resultant impact of bush burning in Adagom and Ukende settlements from the field observation are soil compaction, soil erosion, reduced soil fertility and destruction of soil- based organisms such as worms and crickets. These activities have contributed to the loss of biodiversity and pollution of the environment.

### **Fuel wood harvesting**

Timber harvesting and fuel wood collection for cooking energy and commercial purposes have drastically reduced the total amount of forest land around the three refugee settlements in Ogoja because of the high demand for fuel wood by refugees. Fuel wood is harvested daily, mostly for cooking energy. This activity has soon become a culture, where people go to the farm and come back with a bunch of fuel wood. Most refugees now depend on fire wood as a source of livelihood, as some refugee women were as seen selling firewood at the mini market at Adagom 1 settlement.

However, Whitaker (2002) postulated that refugee presence in Tanzania negatively affected local access to environmental resources. Although deforestation was a problem even before the refugees, its rate accelerated after their arrival. According to household surveys conducted by CARE International, refugees used 65 percent more wood on average than local Tanzanians. Refugees rarely put out fires between meals due to the shortage of matches, and dried food rations took longer to cook. In an area where trees are the primary source of fuel, deforestation poses a concern to both hosts and refugees. Compared to other contexts (Hyndman 2000), however, there were few reports of physical conflicts between the groups over access to firewood. Water resources were also depleted during the refugee presence, and several rivers were diverted from host villages to refugee camps. Land usage rights were contested for farming and grazing livestock. Environmental degradation was worst in areas closest to the camps, but its ripple effects were felt throughout western Tanzania. It is important to critically look at some empirical findings of some scholars across the world.

Ahimbisibwe (2014) studied Self Reliance Strategy and Refugee Livelihoods: Evidence from Oruchinga Refugee Settlement, South Western Uganda. The study was interested in finding out what livelihood strategies the refugees were involved in. It was found out that the majority of refugees were involved in agriculture that involved crop growing, livestock activities, aquaculture and non-agricultural activities. Since most of the refugees are rural based, it was expected that the majority depend on agriculture as a livelihood strategy.

Maystadt and Verwimp (2014) took a descriptive approach in studying the consequence of refugees on labor market of Western Tanzania, using a measure of the presence of refugee based on their proximity and the number in the refugee camp. Results revealed that local agricultural workers found competition in getting employment due to the presence of refugees. The study also notes that self-employed agricultural producers benefited from cheap labor, while skilled workers also found jobs as a result of the presence of international organization and aids agencies. But self-employed businesses suffered as a result of outside entrepreneurs.

Nakachwa (2016) Studied the Determinants of Refugee Livelihood Strategies in Rwamwanja Refugee Settlement, Kamwenge District, with the aim to determine, access and establish the different social, economic and institutional factors that affect refugee livelihoods in Rwamwanja refugee settlement. 382 respondents were interviewed, and they were selected through systematic random sampling. The research unearthed several livelihoods ventures that had been taken by the refugees settled in Rwamwanja, and they included, among others, crop production, receiving assistance from NGOs, working for wages or salaries, setting up retail shop business, tailoring, animal and bird production. However, crop production was the commonest and most popular livelihood venture taken on by the majority of refugees in Rwamwanja settlement. Social factors that were found to greatly influence refugee livelihoods included one's membership in a social group, which acted as a social net in cases of eventualities and mishaps. Refugee livelihoods were also found to be greatly influenced by economic factors, especially the unavailability of physical assets such as land, access to roads and transportation means, among others. Processes, institutions, and organizations also played a key role in the self-reliance status of refugees in the settlement.

Gumisiriza (2018) in his study on the Challenges and Emerging Issues Affecting the Management of Refugees in Uganda. The study uses secondary and primary data gathered from refugees, refugees' host communities, the government, development partners, UN refugee agencies and NGOs to examine these challenges. Key among them are logistical difficulties; high costs of access to services by refugees in the face of limited resources; syndicated corruption within core refugee management institutions; emerging conflicts between host communities and refugees over access to scarce resources, especially firewood, water, land for cultivation, health services and schools; bureaucratic challenges that stifle reunification of refugees who came later with their families; security threats to refugees, especially illegal kidnaps and repatriation but also terrorists and spies disguising as refugees. Refugee activities exacerbate environmental problems such as use of water, depletion of natural resources, illegal land use and fuel wood harvesting (Berry 2008, martin 2017)

### **Material and method**

The study adopted a mixed method approach in collecting both quantitative and qualitative data to explore the impact of Cameroonian refugees activities on the natural environment. This research design availed the researcher the opportunity to collect relevant information regarding the impact of Cameroonian refugees on natural environment. The mixed method approach is a research inquiry that employs both qualitative and quantitative approaches for purposes of breadth and depth of understanding and partnership. However, the indispensable premise of mixed method design is that it uses both qualitative and quantitative in reports, provides a more in-depth understanding of the research problems than the use of either one method alone in a study (Creswell, & Creswell, 2017 & McKim 2017).

### **Population of the study**

The population of registered Cameroonian refugees both male and female in Ogoja settlements as at December 2022 was 19,699. Adagom, 12,655, ukende 4080 and Adagom 3 2, 960.

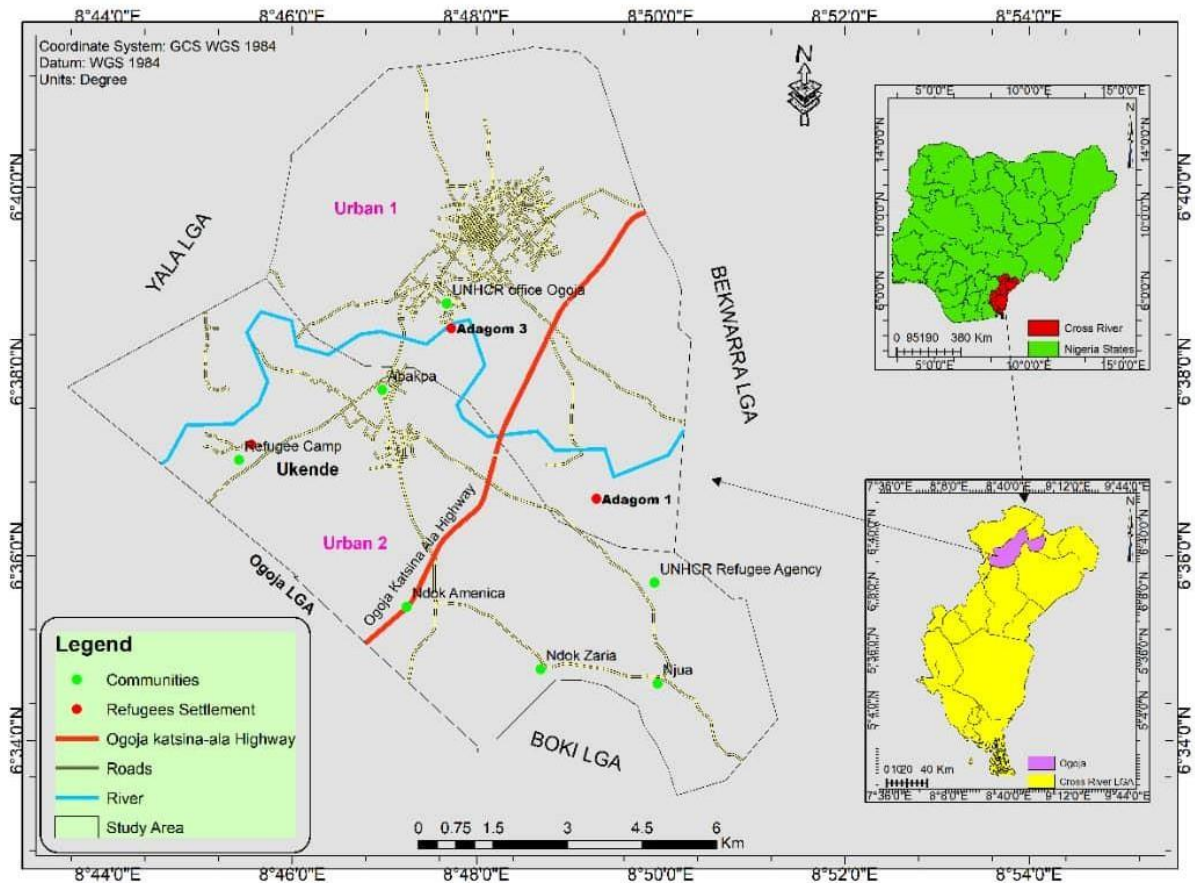


Fig.1: Map of Ogoja LGA showing the three host communities (study area).

### Sampling techniques

Purposive sampling technique which allow a researcher to use refugees that have the required information regarding the objective of the study was used for this study.

### Method of data collection

The instrument used for collection of data was questionnaire, in-depth interview and focus group discussion (FGD). These was taken from the three communities (Adagom 1, Ukende and Adagom 3). There were selected because it where the refugee settlements are situated. Three in- depth interviews and FGD were conducted with the indigenes, refugee stakeholders and SEMA staff, one at each settlement. A total of 400 questionnaires were administered in the three settlements, Adagom1, 257 Ukende, 83 and adagom3, 60 respectively. During interviews and discussions, permission to record the entire interview was taken and in all cases our respondents were made comfortable. Starting with a structured questionnaire to the in-depth interview and FGD.

### Method of data analysis

The data collected were analyzed qualitatively and quantitatively using statistical package for social scientist (SPSS) version 26. For the quantitative presentation, analytical techniques such as frequency tables, pie charts and graphs were used. Qualitative data obtained through the in- depth interviews and focus group discussions were used. Simple lineal regression was used to analyze the data at 95% level of significance.

### Data analysis

Cameroonian refugee activities does not have significant impact on the natural environment. The independent variable for this study is refugees activities (such as farming, hunting, illegal harvesting of forest resources and fuel wood harvesting). The dependent variable is the impact on the environment and possible environmental problems. Simple linear regression was used to analyze the data at 95%.

Formulae given as  $Y = a+Bx$

Where;

Y = Impact on the environment and possible environmental problems

X = Refugee environmental activities.

a = Regression constant

b = is the slope of the line

Table 1 presents the results of a simple linear regression model. The table provides information about the coefficients of the model, their statistical significance, and measures of collinearity. Output from the regression analysis states that if the significant level is  $< 0.05$  for 95% the null hypothesis is rejected. If the significant is  $> 0.05$  then the null hypothesis is retained. Therefore, the result in table 1 revealed that the T-value 2.612 is greater than 0.05 level of significant at (95% confident interval). It therefore concludes that Cameroonian refugee activities have significantly impacted on the environment in Ogoja. L.G.A, Cross River State, Nigeria.

**Table 1:** Simple Linear Regression Model

Model	Coefficients <sup>a</sup>								
	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Tolerance	VIF
1 (Constant)	-184.407	40.445		-4.559	.137	-698.303	329.490		
Refugee Activities	11.509	1.461	1.573	7.880	.080	-7.049	30.068	.383	2.612
Environmental impact	-1.069	.149	-1.429	-7.161	.088	-2.966	.828	.383	2.612

. Environmental problems



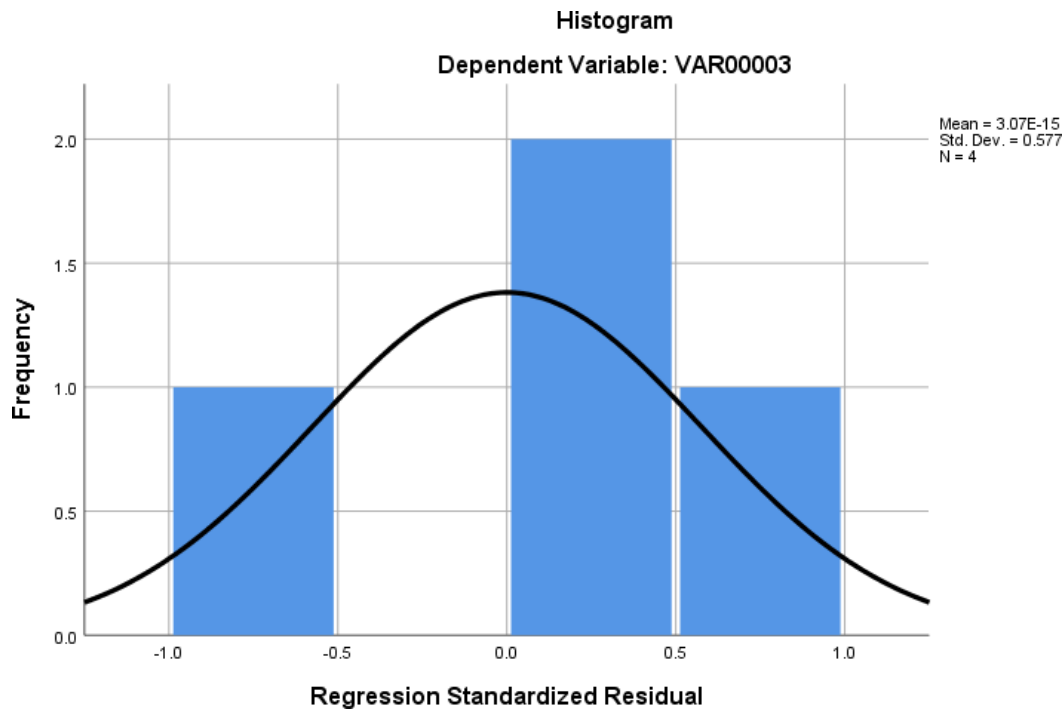


Figure 3: regression standardized residual chart for refugee activities.

The result of the analysis in table 1 revealed that Cameroonian refugee livelihood sources have significantly impacted on the natural environment, leading to some environmental problems such as land degradation, pollution, and loss of diversity in the study area. However, this result aligns with the findings of Mwangu (2020) who contends that the establishment and dense occupancy of Nakivale refugee camp in Uganda have exerted pressure on the environment as the refugees' endeavors to revitalize their livelihood. Again, the result agrees with Msowoya (2019) findings, which revealed that the arrival of individuals of concern (refugees) had promoted climate change due to environmental degradation at Dzaleka refugee camp and the surrounding environment in Malawi. Msowoya further stated that Dzaleka had thick forest before the arrival of refugees, but the increased numbers as well competition to use fire wood with the locals for cooking energy led to quick deterioration of the environment around the camp. Maystadt (2020) who opined that concerns over the environment in part may be rooted from the messaging of previous reports and academic studies. Refugees have been purported to leave their ecological footprint through the permanent clearance of land and extraction of resources for cooking, heating, and building their homes. Ahmed *et al* (2020) opined that the Rohingya refugee influx has caused a major impact on local forests and amplified human-wildlife conflict in southeast Bangladesh, as stairs and terraces were cut into the hillsides to make space for temporary Rohingya makeshift dwellings.

### Conclusion and recommendation

The study is aim at investigating the impact of refugee activities on the host communities' environment in Ogoja Local Government Area, Cross River State, Nigeria. The study identified refugee activities as farming, hunting, fuel wood harvesting and illegal harvesting of forest resources. Result of the data analysis indicates that refugee activities have significantly impacted on the natural environment. The study therefore recommend that:

- i Environmental awareness campaign should be undertaken in the settlements to sensitize the refugees on the need to carry out environmentally friendly activities. This will enable

them to know the effect of farming, deforestation and indiscriminate harvesting of forest resources on the environment.

- ii Government and other agencies involved in controlling and managing Cameroonian refugees should organize vocational training in various fields and skills as well as empower refugee to build safe reliance and reduce dependence on the natural environment.

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