



RESEARCH ARTICLE

ASSESSMENT OF THE IMPACTS OF FUEL SUBSIDY REMOVAL ON POVERTY, HUNGER, AND STARVATION IN SELECTED STATES OF NORTHWESTERN NIGERIA

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ABSTRACT

Over the years, the Nigerian economy has been supported in various ways including, through subsidies on fuel, education, electricity, and forex. The removal of subsidy on fuel in Nigeria has raised concerns about its impact on vulnerable populations. This study examines the effects of subsidy removal on poverty, hunger, and livelihoods, focusing on rising food prices, household budgets, and socioeconomic well-being. Using a mixed-method approach, the study integrates quantitative and qualitative data to assess the implications of subsidy removal. Data were collected from 784 respondents through a multistage sampling technique, and the Chi-square test was used to analyze significant relationships between key variables. Findings reveal that over 70% of the population faces severe poverty, hunger, and starvation due to the sharp rise in food and fuel prices. Households struggle to afford basic needs, access healthcare, and provide education for their children. The removal of fuel subsidies has led to worsening economic conditions, making daily survival increasingly difficult. While government intervention programs exist, their effectiveness is hindered by lack of transparency and limited reach. This study highlights the urgent need for policy reforms to ensure social safety nets are effective in mitigating the economic strain on low-income households. Without strategic interventions, the removal of subsidies will further entrench poverty and economic instability in Nigeria.

Keywords: Subsidy removal, fuel, poverty, hunger, starvation.

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INTRODUCTION

Nigeria being the largest country in Africa and also the sixth largest oil producing country in the world derived its economic strength largely from oil and gas wealth, which contribute 99 per-cent of government revenues and 38.8 per of GDP (National Budget, 2010). Despite these positive developments, successive Nigerian governments have been unable to use the oil wealth to significantly reduce poverty, provide basic social and economic services her citizens need (Tayo *et al.*, 2014).

Over the years, the Nigerian economy has been supported in various ways including, through subsidies on fuel, education, electricity, and forex. Fuel subsidies have been a part of Nigeria's economic framework since the 1970s, were formalized in 1977 with the Price Control Act. Despite the potential benefits of subsidies, Nigeria has faced challenges due to allegations of corruption and mismanagement in their implementation (Yunusa *et al.*, 2023). Nigeria, with a population of over 200 million people, has grappled with the issue of fuel subsidies as part of its energy strategy (Akintunde *et al.*, 2020; Ogunmodimu & Okoroigwe, 2019). While fuel subsidies have historically aimed to ease financial burdens on citizens and stabilize domestic fuel prices, debates persist regarding their sustainability, equity, and impact on the national economy (Olufemi *et al.*, 2020). Garba (2023) also reported that the removal of fuel subsidies has been a recurring topic in Nigerian policy discussions, with various attempts and reversals over the years.

The current administration under President Bola Ahmed Tinubu made a significant policy shift by openly announcing the removal of fuel subsidies, citing the need to address the increasing costs and the diminishing resource (Garba, 2023). He further asserts that this decision had profound effects on the public and various economic sectors. Subsidies, in essence, involve the government assisting citizens by offering essential products at prices lower than the market rate. The removal of fuel subsidies is seen by the government as a means to redirect funds towards infrastructure development in critical sectors like healthcare, education, and transport (Yunusa *et al.*, 2023). Additionally, deregulation of the oil sector is expected to attract private investments, create job opportunities, and stabilize the foreign exchange market (Yunusa *et al.*, 2023). He also states that by eliminating fuel subsidies, Nigeria aims to prevent revenue losses associated with fluctuating crude oil prices and curb illicit activities like smuggling.

According to Raji (2018), the negative implication of the removal of fuel subsidy is that it will increase Poverty in the short term; it will lead to immediate pain and hunger for families. At the individual level, the removal of fuel subsidy and without any palliatives, could lead to fewer disposable incomes, fewer foods in the land, and fewer medicine for sick people, and inability to afford basic education in several parts of the country especially in the Northern region of Nigeria (Ozili & Obiora 2023). Ozili & Obiora (2023) further asserts that more families will go hungry, more children will cry in hunger and more parents will cry at their

children's despair. They further stated that; the fuel subsidy removal could affect poor vulnerable groups disproportionately if there are no economic safety nets or social assistance programs that can alleviate the economic hardship caused by the fuel subsidy removal.

The study therefore, assesses the impact of fuel subsidy removal on poverty, hunger and starvation in the northwestern region by assess the immediate and long-term impacts of subsidy removal on food prices, effects of increased in food prices on household budgets and poverty levels and evaluate the implications of the removal of fuel subsidy on livelihood. In view of this, the study addressed the following research questions: what are the specific impacts of fuel subsidy removal on food prices, how an increase in fuel price impact household budgets and poverty levels does and what are the consequences of the removal of fuel subsidy on their livelihood?

According to NBS, (2024) in its third quarters report, which established that about 133 million Nigerians live below extreme poverty lines, and about 32 million Nigerians have been exposed to acute hunger and starvation. The study was necessitated due to the increase in household hardship and increase in the inflation rate in Nigeria. The region was chosen because of its highest population in the country, high rate of poverty level and hunger as stated by the world food Programme (2021).

STUDY AREA

The study area covers the North West zone which is the largest in the country with seven states namely: Kaduna, Kano, Katsina, Kebbi, Jigawa, Sokoto and Zamfara states respectively. The zone occupies a land mass of about 214,395 km², lies between longitude 12° 10' North and latitude 6° 15' East (Figure 1).

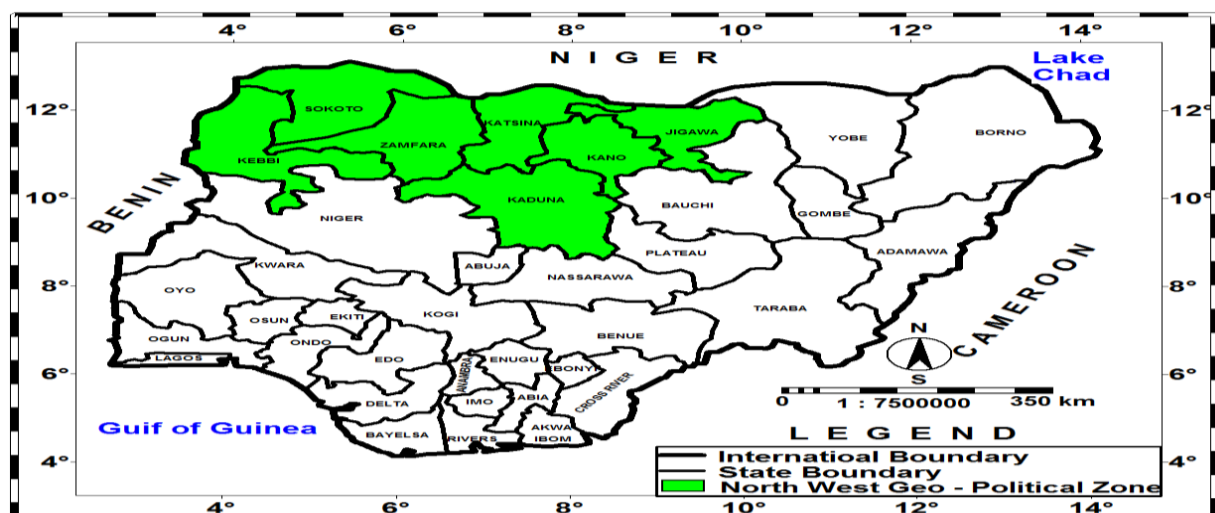


Figure 1: Map of the Study Area

Source: Adopted and Modified from Nigeria Administrative Map (2024).



The climate of the study area is the tropical wet and dry Aw by Koppen's classification (Nabegu, 2019). The region is characterized with two climatic seasons; the wet season which lasts from April to October and the dry season which lasts from November till March. The dry season commences with harmattan, a dry chilly spell that lasts till February and is associated with lower temperatures. February to March is the hottest period of the year and temperature ranges from 33 to 41 °C.

In line with rainfall distribution, the drier North-West zone has the Sahel savanna vegetation (Salihu *et al.*, 2018). The study area is among the fastest growing region in Nigeria, with a population was estimated to be about 50 million (Nabegu, 2019); (Babajo *et al.*, 2023). By implication, the study area is expected to be impacted by the fuel subsidy removal.

METHODOLOGY

The study area comprises of seven (7) State which form the sample frame for this study. These State as listed under the scope of the study are Jigawa, Kaduna, Kano, Katsina, Kebbi, Sokoto and Zamfara. Due to deficiency of population 2006 census in providing population data for localities (Villages), the 1991 census data, which provides population figures for the localities, to determine the sample size and number of the respondents used for each ward. According to NPC (1991), the study area (North-western Nigeria) has a total population of 22,913,412 with annual growth rate of 3.0% (World Population Reviewed, 2019). The 1991 population was projected to 2024, using Newman's (2001) method of population projection given as:

The projected population was calculated using the following formula.

Formula used for population projection:

$$P_n = P_o + \left(1 + \frac{R}{100}\right)^n \times P_o$$

Where: P_n = Future population (2024); P_o = Base year population (1991);

R = Annual growth rate (2.60%); n = Interval between future population and base years population (2024-1991) 33 years

Therefore, the projected population of North-western Nigeria at 2023 was 50,134,546. Sample was based on Krejcie and Morgan's (1970) technique which stated that where a population falls between 10, 000, 000 to 100, 000, 000, the sample size to use is 784 at 95% confidence and 3.5 Margin of Error. Therefore, since the total population of the study area (50,134,546) falls within this range, the sample size of 784 was adequate for this study.

Multistage sampling technique was used for this study. Multistage sampling is a complex form cluster sampling which involve dividing the population into groups (clusters). Then one or more clusters are chosen at random and everyone within the chosen cluster can be



sampled. Multistage sampling could also be a process of taking samples in stages using smaller and large sampling units at each stage (Sedwick, 2015).

For the purpose of questionnaire administration, Kano and Zamfara States were purposively selected from the study area, one with the highest and the other with lowest population density. In the study area questionnaire were administered to total 784 adult household heads using a systematic approach.

In order to determine the exact proportion of questionnaire to be administered in each of the selected sample area based on the sample size of 784.

The number of respondents from each state/ area is determined with the formula below:

$\frac{n}{N} \times Q$ Where; n = Population of the State; N = Total population of the study area; Q = Total number of questionnaire. The approaches provide the bases for Table 1 where the sample size is clearly presented.

Table 1: Sample Size by State

S/N	State	Population (Census 1991)	Projected Pop	
1	Kano	5,810,470	13,480,290	580
2	Zamfara	2,051,591	4,759,691	204
	Total	8,242,760	18,239,981	784

Source: Author's Computation (2024).

Instrument of Data Collection

The main instrument used for data collection is structured questionnaire designed which to address specific objectives of the study. Pre-test of the questionnaire was conducted prior to the survey. The pre-test was done in the settlement with similar conditions to the study area. The purpose of pre-testing is to check the validity of the instrument. Based on the results of the pre-testing, the questionnaire was adjusted accordingly. Open and close-ended questions also included in the questionnaire.

Data Analysis

The SPSS (Version 26) that is able to handle large amount of data and given its wide spectrum of statistical utility for social sciences (Acuna-Cuenca and Ngunyana, 2016) was used. The data collected were presented using tables, charts and graphs. Under each table the implication of the finding is discussed and similar result elsewhere is quoted to justify the finding. Chi square statistics test was also use to test the significant impact of fuel subsidy removal on the livelihood of people.

**PRESENTATIONS OF FINDINGS**

The study assesses the Impacts of Fuel Subsidy Removal on Poverty, Hunger, and Starvation among the North western part of Nigeria. Out of 784 respondents initially sampled for the survey 639 copies of questionnaire were properly filled and returned accounting for 82 percent of the sampled population and was used for the analysis of this study. On the basis of demographic characteristics of respondents, the results presented in Table 2a and Table 2b reveal disparities based on the parameters.

Table 2a: Demographic and Socioeconomic Characteristics of Respondents

Parameter	Frequency	Percentage (%)
Gender		
Male	377	59
Female	262	41
Age		
Below 19 years	29	4.5
19 - 29 years	139	21.8
30 – 39 years	144	22.5
40 – 49 years	216	33.8
50 - 59 years	66	10.3
60 years and above	45	7.0
Marital Status		
Never Married	149	23.3
Married	374	58.5
Divorced	37	5.8
Separated	5	0.8
Widowed	74	11.6
Level of Education		
No formal education	54	8.5
Quranic education	76	11.9
Primary Education	25	3.9
Secondary Education	97	15.2
Tertiary	373	58.4
Others	14	2.2
Household Size		
1 – 5 Persons	181	28.3
6 – 8 persons	219	34.3
9 – 11 persons	125	19.6
12 – 14 persons	96	15.0
> 14 persons	18	2.8
Sources of Income		
Salary & Wage	195	30.5
Trader/ Business	57	8.9
Casual Laborer	49	7.7
Others	62	9.7

Source: Authors' Analysis (2024).



From Table 2a, the demographic and socio-economic information of the respondents comprise gender, age, marital status, level of education, source of income and estimated monthly income. The result revealed that, male gender account for 59.0 percent percentage of the sampled respondents, while 41.0 percent by the female respondents. This is a typical of the northern region as a whole where female gender are not allowed to talk to their opposite sex as such only listen and responds to their fellow female gender resulting to the high percentage of the male respondents. Additionally, most of the households' heads are of male gender while those that are of the female are represented by their eldest Male child.

This is in line with the study of Akilu *et al.* (2021), as they stated in their study that the large proportion of male respondents cannot be unrelated with the fact that cultural and religious values in this part of the country limits most women from engaging in discussion with the opposite gender if not their family or other relatives. In another study, Liman *et al.* (2023), Nabegu, (2019) observed that in Kano men are culturally given right to decision power on matters affecting household and decision making in the metropolis without necessarily consulting their wives. This is because most of the women are prohibited from going out of the house (*Matan kulle*).

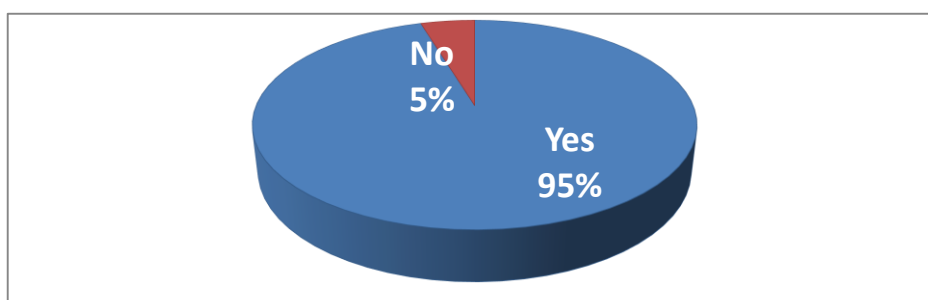
Age of the respondents is very significant because of its influence on decision making. Furthermore, the table showed the age of the sampled respondents, of which majority falls within the age group 40-49(33.8 percent), this is followed by the age group 30-39(22.5 percent) and 19-29(21.8 percent). This indicates that majority of the respondents fall within the economically active population that is industrious and productive, where most of them are households' heads, this can be attested by the respondents marital status where 58.5 percent are married as such likely to be impacted by fuel subsidy removal. thus, in view of this, Ozili and Obiora (2023) & Raji (2018) agrees that fuel subsidy removal will affects households heads as it leads to inflation, increasing poverty and immediate pain and hunger for families. The results also shows that majority of the respondents (34.3%) and (28.3%) have a family size of 6-8 persons and 1-5 person respectively.

In context of Table 2b, the evaluations of the estimated household monthly income of across the year sequence (from 2012 to 2024) on a four strata clearly show some elements of similarities and differences. In comparison to their household income per month, majority of the respondents have monthly income less than or equal to #30,000 Nigeria Naira from 2012-2024, as such, the removal of fuel subsidy as reported by Raji (2018) & Akintayo (2023) will leads to increase in their household poverty level due to inflation, and increase in food prices will leads to hunger and starvation when compared to their family sizes and monthly earnings. Additionally, in comparison with their source of income majority have their source of income from either salary/ wages or from trading/ businesses. In terms of the year under consideration, those within the range of attracted a generalized dominance, closely followed by those within the income of 31,000 - 50,000, then followed by those with more than 110,000 naira, while those with income range 71,000 - 90,000 attracted lowest respondents.

**Table 2b: Estimated Household Monthly Income**

Year	Estimated Income (#)	Frequency	Percentage (%)
2012 – 2014	Less than equal to 30,000	287	44.9
	31,000 - 50,000	140	21.9
	51,000 – 70,000	77	12.1
	71,000 - 90,000	8	1.3
	91,000 – 100, 000	35	5.5
	More than 110,000	77	14.4
2015-2017	Less than equal to 30,000	266	41.6
	31,000 - 50,000	145	22.7
	51,000 – 70,000	58	9.1
	71,000 - 90,000	6	0.9
	91,000 – 100, 000	58	9.1
	More than 110,000	106	16.6
2018 – 2020	Less than equal to 30,000	240	37.6
	31,000 - 50,000	143	22.4
	51,000 – 70,000	67	10.5
	71,000 - 90,000	21	3.3
	91,000 – 100, 000	40	6.3
	More than 110,000	128	20
2021 – 2023	Less than equal to 30,000	248	38.8
	31,000 - 50,000	127	19.9
	51,000 – 70,000	83	13.0
	71,000 - 90,000	29	4.5
	91,000 – 100, 000	18	2.8
	More than 110,000	134	2.1
2024	Less than equal to 30,000	248	38.8
	31,000 - 50,000	105	16.4
	51,000 – 70,000	82	12.8
	71,000 - 90,000	30	4.7
	91,000 – 100, 000	33	5.2
	More than 110,000	141	22.1

Source: Authors' Field Survey (2024).

**Figure 2: Level of Awareness on Fuel Subsidy Removal by the Respondents.**

Source: Field survey, 2024

Figure 2 above shows the respondents Level of awareness on the policy of fuel subsidy removal. The result show that majority of the respondents (95.3 percent) are aware of the removal of fuel subsidy removal in the country but 4.7 percent of theses respondent claims they were not aware of the new policy of fuel subsidy removal. According to Liman et al. (2023), lack of awareness is one of the challenges to any development Programme and could be effective only when people are aware about it and the benefits that will accrue to them as a result of proper implementation. This agrees with the report of the Nigerian economic summit group on Citizen Education and Engagement Strategy Report(2023), which shows that for an effective policy implementation, the government should actively engage in transparent communication, providing clear and accessible information about the reasons behind subsidy removal, the expected impact, and the strategies in place to mitigate adverse effects.

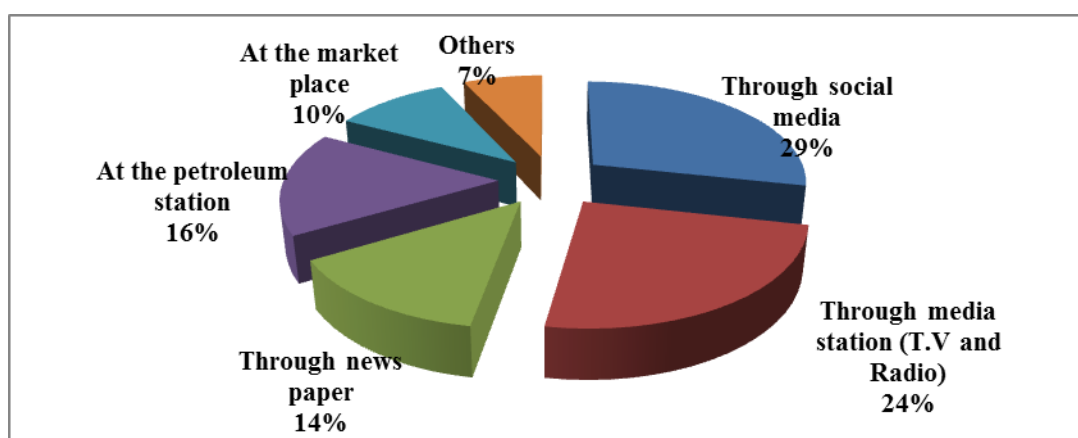


Figure 3: Respondents Means of Awareness (*No response= 30).

Source: Authors' Field Survey (2024).

From the Figure 3 above, the result indicates how the respondents got their information about the removal of fuel subsidy. 29.1 percent of the respondents were aware through social media, while 24.1 percent said through media stations (TV and Radio) while 14 percent said through newspapers again 16 percent of the respondents said is at the petroleum stations, 10 percent of the respondents said from the market places as against 7 percent of the respondents who reported to have get their information through other sources like friends, relatives etc. This shows that the main sources of the respondent's awareness for the fuel subsidy removal are social media applications and media stations like radio and Televisions.

As every action has propelling forces behind, so there are reasons behind every proactive government policy. Figure 4 shows the perception of the respondents on the reason behind government policy to remove fuel subsidy in Nigeria. Majority (29.7%) and (18.3%) respectively are of the opinion that the government want to save cost of paying subsidy to petroleum marketers and to reduce the corruption level of the subsidy payment process. With the removal of fuel subsidy, the government can free up resources that would have been spent on the subsidy to invest in other critical sectors such as education, healthcare, security and

infrastructure (Yunusa *et al.*, 2023). This will not only improve the standard of living for citizens but also enhance economic growth. In addition, 16.1% of the respondents agree that stopping the marketers from smuggling the petroleum products to neighboring countries is another major reason behind government policy to remove fuel subsidy in Nigeria

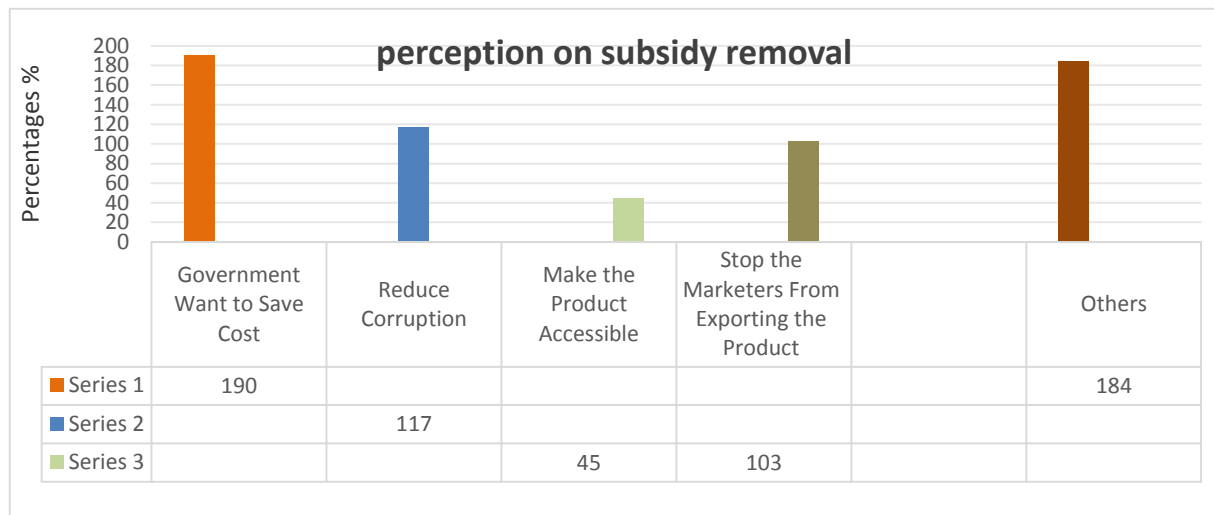


Figure 4: Respondents Perception on Fuel Subsidy Removal in Nigeria

Source: Authors' Field Survey (2024).

. Thus, according to Price water house coopers (2023), subsidy has created a huge incentive for smuggling of fuel to neighboring countries where they can be sold at higher prices. Additionally, Yunusa *et al.* (2023) said that this resulted in security risks, as smuggling has also led to illegal refining, pipeline vandalism, and other criminal activities. Hence, by removing the subsidy, the incentive for smuggling will be reduced or eliminated, which will lead to a reduction in security risks associated with fuel smuggling. Yunusa *et al.* (2023) also agrees with the 7.0% of the respondents' perception that making the products accessible and available in the country is another reason behind subsidy removal, they states that “subsidy will incentivize private sector investment in the downstream sector, leading to increased local refining capacity and improved product availability”.

Table 3: Respondents Perception on the Long Term Effects of Fuel Subsidy Removal

Perception	Frequency	Percentage
High Cost of Living	455	71.2
Insecurity	90	14.1
Inflation	78	12.2
Others	16	2.5
Total	639	100

Source: Authors' Analysis (2024).



As opined by Price water house Coopers International Limited (PwCIL), (2023), the price of petrol in Nigeria is considered as a major driver of the cost of living, as it is used by all including small businesses and many households. Therefore, any increase in fuel price could directly and immediately impact the prices of goods and services across the country. However, Table 3 agrees to this assertion as majority of the respondents (71.2 percent) asserts high cost of living as a long term effects of fuel subsidy removal. Furthermore, 14.1 percent of the respondents assert that removal of fuel subsidy has increase the already existing insecurity in the region.

This was agreed by Shagali & Yusuf, (2022); Ozili & Obiora, (2023) as a negative microeconomic implication, removal of fuel subsidy is potential to crime increase and this crime will worsen as Nigerians struggles to make ends meet. Inflation (12.2 percent) is another effect of subsidy removal on the respondent's. this is certain with the increase in prices of goods and services in the region. Mohammed, Ahmed and Adedeji, (2020) also ascertain in that a major implication of fuel subsidy removal is increasing inflation rate. Ozili & Obiora, (2023) also suggest that the prices of the majority of consumer and industrial products, which rely on petrol for production or transportation, will experience a notable increase.

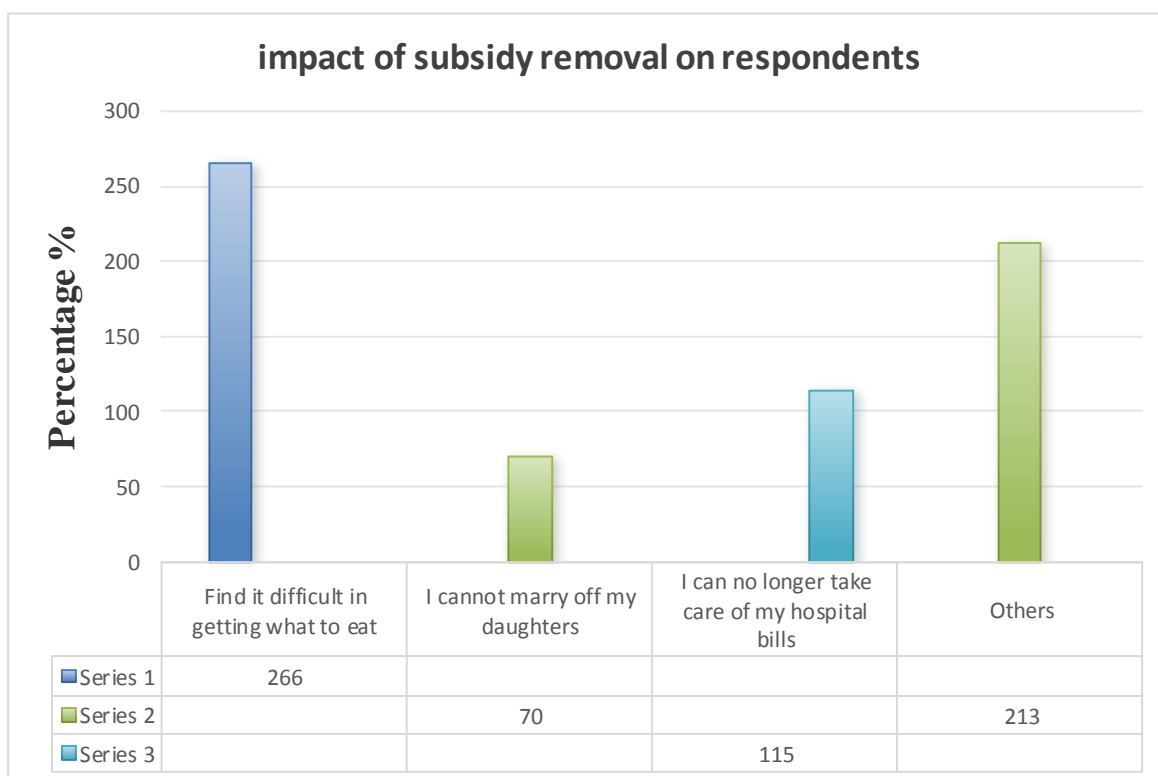


Figure 5: Immediate Effects of Fuel Subsidy Removal on Respondents

Source: Authors' Field Survey (2024).

*No response= 15



Figure 5 above, revealed that there is no doubt that the effects of subsidy removal impacting the immediate needs of the respondents is directly indicating that the communities are facing the challenges of hunger and starvation, as it can be seen that majority 35.4 percent reported difficulty in getting what to eat. Thus, the study of Ozili and Obiora, (2023) backed this up as they attest that “at the individual level, the removal of fuel subsidy, could lead to fewer disposable income, fewer food in the land, and fewer medicine for sick people, and inability to afford basic education in several parts of the country especially in the Northern region of Nigeria”. They also added that “More families may go hungry, more children will cry in hunger and more parents will cry at their children’s despair”. Impacts of subsidy removal on food prices, house hold budget and poverty level of the respondent’s households were measured using Likert scale. A total of twelve (5) statements were constructed to show the frequency of the Impacts of subsidy removal on food prices, house hold budget and poverty level of the respondents households.

Table 4: Impacts of Subsidy Removal on Food Prices, House Hold Budget and Poverty

Item	SA	A	U	D	SD	Mean	Rank
Removal of subsidy has brought much shortage to household income	513	92	0	8	25	4.660	2 nd
With the fuel subsidy removal most of the households have to limit their spending on food stuffs	400	200	17	6	14	4.518	5 th
Fuel subsidy removal affected the standard of living of my household	497	93	35	14	0	4.679	1 st
With the removal of fuel subsidy people can no longer eat three square meal	442	121	62	14	0	4.55	3 rd
Subsidy removal affected the availability and affordability of food items in my locality	420	168	24	23	8	4.529	4 th
						4.587	

Cumulative Mean

Decision Mean = 3.000: SA= Strongly A greed A= Agreed, UD=Undecided, D= Disagreed, SD= Strongly Disagreed

Source: Authors’ Field Survey (2024).

With the overall cumulative mean response of 4.587 which is higher than the 3.000 decision mean reveals that there is serious impact of subsidy removal on food prices increase as well as house hold budget and level poverty in the study area. Table 4 presents that, majority of the respondents asserted that fuel subsidy removal has affected the standard of living of their household. This view attracted the highest mean of 4.679 with details showing that while a combined 590 representing 85.1 percent were in agreement with this view, only 35 were undecided and the rest 14 disagreed.



In the same vein, most asserted that Removal of fuel subsidy has bring so much shortages in their household income, as this view attracted the second highest mean agreement level of 4.600 as a combined total of 606 representing 87.4 percent agreed as against only 25 representing 4.7 percent that disagreed. This is in line with the view of George *et al.* (2014) which state that removing subsidy from a product like fuel will thereby force people to rethink on their life style and mode of transportation as a strategy for surviving the hard times. In another study by Ering and Akpan, (2012) observed that most parents were left with no choice than to withdraw their children and wards from schools. Also, Obidah *et al.* (2024) reported that, following of removal fuel subsidy revealed that there are notable changes in many businesses has been observed.

In summary, the impact of subsidy removal on food prices increase as well as house hold budget and level poverty, is very significant, especially as most opined that Fuel subsidy removal affected the standard of living of their household and Removal of fuel subsidy has brought so much shortages in their household income. House rents across the country increased dramatically and the argument is that fuel price increase had affected the prices of haulage of basic building materials such as iron rods, roofing sheets, flouring materials and others, as reported by Iroegbu-Chikezie (2012), fuel subsidy removal affected the cost of haulage of basic building materials because the dealers were made to pay double the cost of transporting.

Table 5: Impacts of Government Policies on the Effect of Fuel Subsidy Removal on Food Security, Hunger, and Malnutrition.

Item	SA	A	U	D	SD	Mean
There are severe cases of hunger and starvation in my community since the removal of fuel subsidy.	433	121	17	50	18	4.410
Subsidy removal affected the health status of vulnerable populations most especially children and the elderly within my community.	439	140	32	2	26	4.509
Government has implemented effective measures to address the impact of subsidy removal on poverty and hunger.	99	81	88	75	296	2.393
Most of the policies and programs put would not alleviate the challenges faced by the population due to the subsidy removal.	354	198	92	11	4	4.357
Cumulative Mean						3.915

Decision Mean = 3.000: SA= Strongly A greed A= Agreed, UD=Undecided, D= Disagreed, SD= Strongly Disagreed

Source: Authors' Field Survey (2024).



The result on Table 5 shows that, the removal subsidy has seriously affected the prices of food items as well as house hold budget and increases the poverty level; with the overall cumulative mean response of 3.915 is greater than the 3.000 decision/standard mean. Specifically most of them opined that Subsidy removal affected the health status of vulnerable populations most especially children and the elderly within my community as this attracted the highest mean agreement level of 4.509 as a combined total of 579 were in agreement as against 32 representing 5.0 percent were undecided as against the rest 28 representing 4.4 percent were in disagreement. In the same vein most are of the opinion that 557 or 86.7 were in agreement as against 17 representing 2.7 percent were undecided and the rest 68 representing 10.6 percent were in disagreement.

With regards to policies and programs put in place by the Government in alleviating the challenges faced by the population due to the subsidy removal, majority of the respondents believe that, the policies and programs put in place will help in alleviating the challenges faced by the population as a result of the subsidy removal. On the issue of implementation, the study again reveals that Government has not effectively implemented the measures to address the impact of subsidy removal on poverty and hunger as reported by 371 respondents. The high perception on corruption, with lots of reform opponents such as labor unions and civil right groups highlighting the inability of government to protect the poor (Soile and Mu, 2015; Bashir, 2013; Nwachukwu, *et al.*, 2013).

In summary, There are serious effects of subsidy removal on food prices increase as well as house hold budget and level poverty, especially as Subsidy removal affected the health status of vulnerable populations most especially children and the elderly within my community and There are severe cases of hunger and starvation in my communities since the removal of fuel subsidy.

Testing of Hypotheses

Hypothesis One: There is no significant impact of fuel subsidy removal on the livelihood of people in the study area.

Table 6: Chi Square Statistics on Impact of Fuel Subsidy Removal on the Livelihood of People in the Study Area

Variable	SA	A	U	D	SD	df	X ² computed	X ² critical	P
Impact of fuel subsidy removal on livelihood	513 399.9	93 132.8	0 40.9	8 22.5	25 43.0	32	2514.445	43.773	0.000

X² computed = 2514.44 > X² critical of 43.773 at df 32. P = 0.000 < 0.05

Source: Authors' Field Survey (2024).



The chi square statistics results on Table 6 showed that, the removal of fuel subsidy has significant impact on the livelihood of people in the study area. Reasons being that the computed chi square (X^2 computed) value of 2514.44 is greater than the X^2 critical value of 43.77 at df 32, and the calculated p value of 0.000 is lower than the 0.05 alpha level of significance. Their highest observed counts on the level of agreement were 513, 93, 0, 8 and 25 for strongly agree, agree, undecided, disagree and strongly disagree respectively. This shows the agreement of the respondents that fuel subsidy removal have tremendous impact on their livelihood.

However, this is attested in Tables 3, 4 and Figure 4; where in Table 3 indicates that the removal of fuel subsidy have spiked the already existing economic hardship resulting in high cost of living and increase in the insecurity due to loss of job and unemployment. This is agreed by the study of Majekodunmi, (2013) as he affirms that removal of fuel subsidy has brought about more economic hardship to Nigerians resulting to hikes in transport fares, prices of food and services, closure of local industries leading to job losses and unemployment, deepening poverty level and poor standard of living.

Additionally, due to the hike in food prices, Table 4 reaffirms that majority of the respondents are finding it difficult in getting what to eat resulting in increase in hunger and starvation among the population this is also in agreement with Akintayo, (2023) as he states that “fuel subsidy removal caused enormous suffering and difficulty, coupled with the fact that people can no longer eat to their satisfaction”. Therefore this shows that the null hypothesis which states that “there is no significant impact of fuel subsidy removal on the livelihood of people in the study area” is hereby rejected.

CONCLUSION

In conclusion, the implementations of the policy on fuel subsidy removal have a significant impact on exacerbating poverty hunger and starvation among the population in the northwestern region of Nigeria. In the report, the World Bank reports said Nigeria spent 0.6% of its GDP in social safety program which contracts with the objectives of the economic recovery and growth plan. This calls for the need to review the alleviation programs put in place by the government to reduce the effect of this policy on the citizens. The politics of fuel subsidy removal has showed that Nigeria is a country of paradox.

How can citizens of an oil producing country like Nigeria pay more for fuel which is found in abundance in the country? The study has also shown that successive Nigerian governments collaborate with natural resource extraction companies to exploit their own people. This explains why despite the contribution of oil to the Nigeria's economy, over 60% of citizenry live in abject poverty, hunger and starvation occasioned by high unemployment rates, poor infrastructural facilities and widespread insecurity. The evident causes of protest and strike actions are usually due to fuel subsidy removal in Nigeria.



RECOMMENDATIONS

The family unit is directly impacted by government actions and policies, whether positive or negative. Therefore, measures should be taken to alleviate the hardships they experience. The study reveals that the removal of fuel subsidies has negatively affected citizens' livelihoods, necessitating urgent intervention.

To address this issue, the government should actively engage the public in decision-making processes, particularly regarding policies that significantly impact their lives. This engagement can be facilitated through town hall meetings, consultations with grassroots organizations, and collaboration with NGOs and National Orientation Agencies.

One critical area of focus should be improving the efficiency of local refineries, as none are currently operating at full capacity. Encouraging private sector investment in refinery operations can enhance technological advancements and better management. Additionally, the government should create policies that promote the development and adoption of renewable energy sources.

Sustained and effective public awareness campaign should be launched to educate citizens on the benefits and necessity of subsidy removal. This should be accompanied by a transparent policy detailing how the funds saved from subsidy removal will be allocated to infrastructure development, education, healthcare, job creation, and electricity provision. A gradual phasing out of subsidies, rather than an abrupt removal, would be more effective. Furthermore, an independent consultant should be engaged to audit and publicly report on fuel pricing and the utilization of subsidy savings.

Finally, the government must ensure the availability of essential social services, including stable power supply, potable water, good roads, healthcare, and food security. Addressing security challenges is also crucial, as peace and development are dependent on the effective functioning of these social services.

Competing Interest

The authors have declared that no conflicting interest exist in this manuscript.

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