



FUEL SUBSIDY REMOVAL AND RURAL LIVELIHOODS: AWARENESS, EFFECTS, AND COPING STRATEGIES OF FARMING HOUSEHOLDS IN ENUGU STATE, NIGERIA

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ABSTRACT

The study investigated the coping strategies of farming households in Enugu State, Nigeria in a post fuel subsidy era. The specific research questions of the study were to describe the socio-economic characteristics of the respondents, ascertain farming households' awareness of fuel subsidy removal, evaluate the effect of subsidy removal on the livelihoods of the farming households, and identify the coping strategies employed by farming households in the study over fuel subsidy removal. One hundred and twenty farming households were randomly selected from a population of 3,267,837 persons. Data for the study were collected using a questionnaire. The collected data were analysed using descriptive statistics such as percentage, mean and standard deviation. The result obtained showed that there were more male headed households in the study area with average age of 49.7 years and a mean household size of five persons. Most (95.8%) of the respondent reported being aware of the fuel subsidy removal. The effects of fuel subsidy removal on the livelihoods of the farming households in the study area among others include increase in the cost of living ($\bar{x}=3.73$, $SD=0.57$), increase in the cost of production ($\bar{x}=3.69$, $SD=0.69$), increase in the price of farm produce ($\bar{x}=3.69$, $SD=0.50$), and increase in the cost of transportation ($\bar{x}=3.63$, $SD=0.57$). Coping strategies adopted by the respondents include reducing leisure and spending habits ($\bar{x}=3.42$, $SD=0.88$), engaging in multiple jobs ($\bar{x}=3.35$, $SD=0.96$), reducing farm size and farm operations ($\bar{x}=3.23$, $SD=0.80$), collaborating in collective purchases and transportation ($\bar{x}=3.33$, $SD=0.86$) and switching to cheaper energy sources ($\bar{x}=3.03$, $SD=0.88$). It was recommended among others that targeted support programmes and policies such as youth and women empowerment be made to help households adjust to the increased fuel prices, formation and membership of cooperative societies should be encouraged and farming households should be enlightened about alternative energy sources.

Keywords: Effects, Coping strategies, Fuel subsidy, Farming households, Rural livelihoods

Introduction

Nigeria, like many other countries has faced significant economic challenges in recent years due to incessant recessions with resultant negative implications to human welfare and national economic recovery. The most recent is the sudden removal of fuel subsidy by the Federal Government on 29th May, 2023. The pronouncement led to an increase in the price of fuel by 386.5% (percentage increase) per liter. This also led to an increase in the price of domestic products and foreign exchange rates, thus pressuring the nation's economy (Ogboru & Oseyemi, 2024).



Fuel subsidy is financial assistance provided by the government to keep fuel prices artificially low, often to benefit the low-income house-holds, farmers and industries. Ogboru and Oseyemi (2024) defined fuel subsidy as an aid the government provides that makes the commodity available at a lesser cost to consumers. So many oil-producing nations such as Saudi Arabia, Egypt, and Venezuela are major consumers of fuel subsidy (Centre For Public Policy Alternatives (2017). It is hence a differential between the actual market price and the amount final consumers pay for the item. Fuel subsidy as an important policy instrument was initially implemented in the 1970s during the military era to alleviate the burden of the masses. However, overtime these subsidies became unsustainable, leading to issues like corruption, smuggling and fiscal constraints, thereby, causing the expectant benefits to elude the majority of Nigerians (Omoniji, 2012). These issues frustrated the efforts of the government leading to its removal.

According to Oladeji and Akinlaba (2022), fuel subsidy removal implies the deliberate action of the government to withdraw all forms of reductions and leverages on the price of crude oil or its products. In the words of Angbulu (2024), the vision statement of the Federal Government the removal of fuel subsidy would prevent the country from going bankrupt and pave the way for economic growth are yet to be realized by Nigerians. Instead, economic hardship has become increasingly prevalent in Nigeria, the so-called giant of Africa. Abdulyakeem and Mumuni (2024) examined the effects of fuel subsidy removal on the Nigerian economy, specifically in Gombe State. The result indicated a 50% increase in inflation, significant decline in the economic welfare of the Nigerian populace, higher transportation fares and reduced commercial opportunities for the Nigerian citizens. In the same vein, Sennuga (2024) examined the impacts of fuel subsidy removal on agricultural production among smallholder farmers in Niger State, Nigeria. Results gathered showed that the removal of fuel subsidy negatively impacted agricultural activities, resulting in increased transportation costs, a shortage of vehicles to transport produce to markets due to high fuel prices, reduced sales, and higher prices of agricultural commodities. Tughhembra and Akputu (2024) investigated the economic hardships resulting from the removal of fuel subsidies in Nigeria, the result indicated an increase in inflation and insecurity. Meludu et al (2023) further noted that fuel subsidy removal in Nigeria could cause inflation, reduce economic welfare, hurt economic growth, reduce household income and make firms less competitive. According to Raji, et al (2018), the demerits of fuel subsidy removal in Nigeria include drastic drop of the standard of living and struggling to make a living by low-income workers due to an atmosphere of inflation, pressure on the government by labour organizations to increase the minimum wage of workers and increase of unemployment as many businesses may stagnate or close down (Nuhu, 2023).

The removal of fuel subsidies will negatively affect the vocational sector, particularly agriculture, by increasing the costs of inputs, labour, production and transportation, ultimately raising food prices to the disadvantage of both producers and consumers (Okoroh, 2024). This is so as most agricultural machines and equipment are powered either by the use of automotive gas oil (diesel) or Premium Motor spirit (petrol). Buttressing on this, Twimukye & Metovu (2009) asserts that commercial agriculture relies on fossil fuel for several purposes. These include fertilizer, production, water and irrigation application, farm product processing, preservation, transportation and maintenance of farm machineries and equipment.

Farming households in Enugu State, Nigeria are not exempted from the above-mentioned challenges caused by the removal of fuel subsidy. This will likely make their agricultural



productivity and income level to decline resulting to a rise in the transportation cost of agricultural inputs and outputs, ultimately reducing profit margin. Additionally, fuel subsidy removal can widen the poverty level among farming households as they face difficulties in meeting their basic needs due to increase in the cost of fuel (Okoroh, 2024). This unfriendly scenario might push the farming household to employ various strategies in order to cope and survive the threat caused by fuel subsidy removal and still remain in agricultural production activities. This study is hinged on the Macroeconomic Theory of Rational Choice by Adam Smith in 1776 which states that individuals make rational decisions based on their self-interest, leading to outcomes that benefit the society as a whole. This economic idea has had a lasting impact on the society as it has influenced individuals in making choice by weighing the potential costs and benefits of an action or behaviour. In the context of this research, the theory provides insight into how farming households in the study area tend to act rationally and make choices that maximize their satisfaction, pleasure, utility, preferences, opportunity cost, and cost effectiveness, despite the increase in fuel price which affects the prices of all goods and commodities.

Folkman and Moskowitz (2004) showed that people due to emotional stress and stressful events developed strategies to manage specific taxing demands. Farmers in Enugu State, just as other states in the nation, might be facing significant challenges due to fuel subsidy removal which may lead to increased transportation costs, farm inputs, and the overall cost of living. To cope with these challenges, farmers may adopt various strategies such as reducing farm size, substituting manual labour for chemical use, cooperative purchase and transportation of farm inputs. These and many other strategies were employed by farming households in Bwari Area Council, Abuja, Nigeria to help them survive the challenges of subsidy removal and remain in agricultural production activities for the sustainability of their households (Idisi, et al. (2024). Although there is a quantum of literature on the effect of fuel subsidy removal on agricultural production, there is however a dearth of empirical evidence on the effects of subsidy removal and coping strategies employed by farming households to mitigate the effects, hence, the need for this study. This research is therefore designed to address these specific objectives.

- i. determine the socioeconomic characteristics of the respondents,
- ii. ascertain farming households' awareness of fuel subsidy removal,
- iii. ascertain the effect of fuel subsidy removal on the livelihoods of a farming household in the study area and
- iv. identify the coping strategies employed by farming households in the study area over fuel subsidy removal.

Methodology

Design for the Study

The study adopted a descriptive survey design. A descriptive survey design is useful in compiling variables, interpreting attitudes, opinions, perceptions, preferences, practices, process, existing relationships, and comparing variables by the use of questionnaire, interviews and observations (Anyakoha, 2009).



The study area

The research was conducted in Enugu State, South-east, Nigeria. The state has 17 Local Government Areas (LGAs) divided into 3 Agricultural Zones. They are Enugu, Nsukka and Awgu Zones. The inhabitants are predominantly Igbos and their main economic activity is trading and farming. The state is bordered by Kogi State and Benue State to the North, Ebonyi State to the East, Abia State to the South and Anambra State to the West.

Population for the Study:

The study population comprised all the farming households derived from the 3,257,288 persons in Enugu State (NPC, 2006).

Sampling technique and Sample Size Selection

Multiple sampling techniques were adopted in the conduct of the research. Using stratified random sampling technique, the three agricultural Zones (Enugu, Nsukka and Agwu) comprising the 17 local government areas of the State were selected. Four (4) agrarian LGAs were purposively selected from each of the agricultural zones, giving twelve LGAs. One (1) agrarian community was then purposively selected from each of the LGAs. Finally, 10 farming households were randomly selected from each of the earlier sampled communities, thus, giving 120 households used for the study.

Instrument for Data Collection

A questionnaire titled “coping strategies of farming households in a fuel subsidy removal era questionnaire (CSFHFSREQ)” was used to solicit primary information from the respondents. The instrument was into 4 sections, A, B, C and D. Section A consisted of items on the background information from the respondents. Section B comprised items eliciting information on the farming household’s awareness of fuel subsidy removal. Section C captured items used to evaluate the effect of fuel subsidy removal on the livelihoods of the farming households, while section D elicited information on the coping strategies employed by farming households over fuel subsidy removal. A 4-likert scale structure questionnaire consisting of response options of Very High Extent (VHE), High Extent (HE), Low Extent (LE), and Very Low Extent (VLE) were developed for eliciting relevant information from the respondents and was used for the study.

This implies that any response with a mean score of 2.5 and above was considered significant and hence accepted. But, anyone with a reverse, that is below 2.5 was rejected.

Validation and Reliability of the Instruments

The instrument was validated by three experts from the Department of Agricultural Education, Federal College of Education, Eha-Amufu, Enugu State. The Cronbach-Alpha reliability method was used to determine the internal consistency of the items. A reliability coefficient of 0.86 was obtained. This was considered high enough for the study.

Study Approval and Informed Consent

The authors got approval of the community head before the administration of the questionnaire. The respondents were fully informed about the purpose and benefits of the study.



They were also assured of the confidentiality and anonymity of their demographic information and their freedom of choice to participate in the study or not.

Method of Data Collection

One hundred and twenty copies of the questionnaire were administered to the respondents by the researchers with the aid of six research assistants, who are indigenes and mostly primary school teachers in the selected communities. Who were met either at home or in the school They helped in administering the questionnaires and interpreting the questionnaire items to the respondents in the local dialect either at home or in the farm. All 120 (100%) copies of the questionnaire were retrieved and used for data analysis.

Methods of Data Analysis

Descriptive statistical tools such as frequency distribution, percentages were used to analyze objectives i, and ii. Which was to determine the socioeconomic characteristics of the respondents and their awareness of fuel subsidy removal. Mean and standard deviation were employed in analyzing Objectives iii and iv which was to determine its effects on the livelihood of farming households and identify the coping strategies employed by farming households to cushion the effects of fuel subsidy. The scores for the response options were 4, 3, 2, and 1 respectively. The boundary limits for the response options were VHE (3.50 -4.00), HE (2.20 – 3.49), LE (1.50 -2.49) and VLE (0.50 -1.49). The cut-off point for the mean was calculated as $4+3+2+1=10 \div 4=2.5$

Presentation of Results

Socio-economic characteristics of the respondents

Table 1 presents the distribution of respondents according to their socio-economic characteristics. The table indicates that there were more male headed households in the study area as the sample presents 85% males and 15% females with average age of 49.7 years. Most of the respondents were married with a mean household size of five persons. Majority (56.7%) of them were full time farmers while 20.8% combines farming with one form of trading or the other. Greater proportion (31.7% and 43.3%) of the respondents had primary and secondary education respectively. Financially, the respondents had an estimated annual income of ₦420,500.00. Majority (71.7%) of the respondents were not members of any cooperative society. Majority (40.8%) Of the respondents had 6 – 10 years farming experience.

Table 1: Distribution of respondents according to their socioeconomic characteristics (N =120)

Variables	Frequency (120)	Percentage (%)
Household Head		
Yes	90	75
No	30	25
Sex		
Male	102	85



Female	18	15
Age		
20 – 39	24	20
40 – 59	62	51.7
60 & Above	34	28.3
Total	120	100
Household Size		
1 – 3	26	21.7
4 – 6	72	60
7 & Above	22	18.3
Mean	120	100
Occupation		
Farming only	68	56.7
Trading& Farming	25	20.8
Artisan& farming	12	10
Civil/Public Servant& farming	15	12.5
Annual Estimated Income (₦)		
Less than 150,000	8	6.7
150,000 – 300,000	22	18.3
301,000 – 450,000	26	21.7
451,000 – 600,000	54	45
601,000 & Above	10	8.3
Total	120	100
Marital Status		
Single	4	3.3
Married	89	74.2
Divorced	14	11.7
Widowed/Widower	13	10.8
Years of Experience		
1 – 5	36	30
6 – 10	49	40.8
11 & Above	35	29.2
Total	120	100
Academic Qualification		
No formal education	22	18.3
Primary education	38	31.7
Secondary education	52	43.3
Tertiary education	8	6.7
Cooperative Membership		
Yes	34	28.3
No	86	71.7

Source: Field survey, 2025

Awareness of fuel subsidy removal among farming households in the study area

The level of the awareness of fuel subsidy removal among farming households in the study area was presented in fig 1. The result shows that (95.8%) of farming households in the study area ascertained their awareness of fuel subsidy removal, while,4.2% claim not to be aware that fuel subsidy was removed.

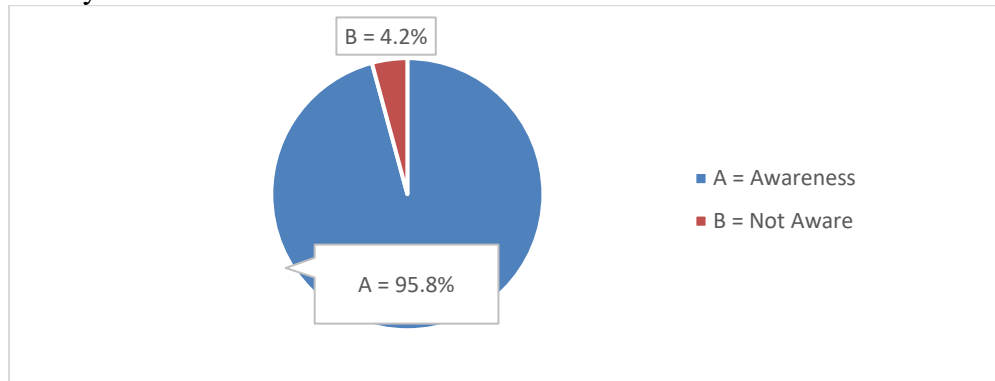


Fig 1: Awareness of fuel subsidy removal among farming households in the study area (source: field survey, 2025)

Effects of fuel subsidy removal on the livelihoods of the farming households in the study area

The effects of fuel subsidy removal are presented in table 2 by the use of a 4-point rating. The respondents all agreed that fuel subsidy removal had effect on the livelihood of the farming households in the study area. The effects identified had the following means and standard deviation respectively. These included, increased cost of living (3.73, 0.57), increased cost of production (3.69, 0.61), increased price of farm produce (3.69, 0.50), increased transportation cost for farm inputs/produce (3.63, 0.57), reduced manpower for agricultural activities (3.49, 0.67), reduced farm income and savings among farmers (3.48, 0.69) and limited access to farm machinery and equipment (3.40, 0.84). The standard deviation of the ten items ranged from 0.50 to 1.10. This is an indication that the respondents were in their responses close to each other.

Table 2: Effects of fuel subsidy removal on the livelihood of the farming households in the study area-

S/N	Effect	Mean	SD	Decision
1	Increased cost of fuel consumed for farming and household activities	2.6	1.10	Accepted
2	Increased transportation cost for farm inputs/products	3.63	0.57	Accepted
3	Increased price of farm produce	3.69	0.50	Accepted
4	Increased cost of production	3.69	0.61	Accepted
5	Reduced manpower for agricultural activities	3.49	0.67	Accepted
6	Reduced farm income and savings among farmers	3.48	0.69	Accepted
7	Limited access to farm machinery and equipment	3.40	0.84	Accepted
8	Increased cost of living	3.73	0.57	Accepted
9	Discourages further investment in agricultural enterprises	3.15	0.97	Accepted
10	Decreased agricultural productivity	3.35	0.77	Accepted

Source: field survey, 2025



Coping strategies adopted by farming households to cushion the effects of fuel subsidy removal

The findings in table 3 showed that farming households in the study area adopted various strategies with the aim of cushioning the effects of fuel subsidy removal. The mean ratings of the respondents ranged from 2.82 to 3.42 which are all greater than the cut-off point value of 2.50 on a 4-point rating scale. The mean and standard deviation of some of the strategies identified included reducing leisure and spending habits (3.42, 0.88), engaging in multiple jobs (3.35), collaborating with other farming household to share cost of transportation (3.33, 0.86), reducing farm size and farm operation (3.23, 0.80), and switching to cheaper energy sources (3.03, 0.88). The standard deviation of the 10 items ranged from 0.8 to 1.04, indicating that the respondents were near to each other in their responses.

Table 3: Coping strategies adopted by farming households to cushion the effects of fuel subsidy removal

S/N	Coping Strategies	Mean	SD	Decision
1	Reducing farm size and farming operation to reduce expenses on fuel	3.23	0.80	Accepted
2	Switching to cheaper energy sources e.g. firewood, charcoal and sawdust	3.03	0.88	Accepted
3	Collaborating with other farming household to share cost of transportation	3.33	0.86	Accepted
4	Engaging in multiple jobs	3.35	0.96	Accepted
5	Reducing leisure and spending habits	3.42	0.88	Accepted
6	Borrowing/buying foods on credit	3.00	1.04	Accepted
7	Skipping meals.	3.00	0.95	Accepted
8	Engaging in collective/bulk buying with others	2.99	0.93	Accepted
9	Explore the use of cooperative farming	2.82	1.03	Accepted
10	Trekking to reduce cost of transportation	2.88	0.93	Accepted

Source: field survey, 2025

Discussion of the Findings

The findings of this study on coping strategies of farming households in Enugu State in a fuel subsidy removal era showed that most of the respondents sampled were the household heads and there were more male headed households in the study area. This implies that in the study area, males are highly involved in farming. This is in consonance with Idisi, et al. (2024) who asserted that male household heads take on any livelihood occupation so as to cope up with the challenges that emanate as a result of fuel subsidy removal. The respondents are still in their productive years, which will enhance their economic activities and family food security. These findings agree with Ekwe (2019) who asserted most of the respondents were in their productive age of 48 years and are still able to provide family food security. Most of the respondents were married. This is in tandem with Ozor et al (2015) who opined that in the rural areas, marriage is vital as it deserves the occupational support of both the wives and the children to cope with diverse challenges. The respondents had a reasonable household size. This suggests a useful source of labour to cope with the diverse challenges. Educationally, most of the respondents had a maximum of secondary



education. This provides a good level of literacy that can help develop coping strategies over the removal of fuel subsidy. Financially, the income level of the respondents was low. This implies that it is needful for them to develop coping strategies to enable their families strive in the challenging times of fuel subsidy removal. Most of the respondents were not registered with any cooperative society. This is disadvantageous as it tallies with the assertion of Idisi, et al (2024) that unregistered members may not likely partake in the sharing of subsidized household needs usually purchased by cooperative societies to help cushion the effects of biting economy such as removal of fuel subsidy.

On the awareness of fuel subsidy removal, almost all the respondents were aware of the removal of fuel subsidy by the government. The awareness of fuel subsidy removal by the respondents which has resulted to increased cost of inputs, labour, production and transportation is advantageous because it will help them urgently develop coping strategies in order to survive the trying times of fuel subsidy removal. This agrees with Okoroh (2024) who opined that the awareness of fuel subsidy removal and its effect on agricultural activities is crucial for promoting sustainable and inclusive agricultural development.

On the effect encountered by the respondents due to fuel subsidy removal, the policy did not in any way benefit the respondents, farming households and the agricultural enterprise generally. This is evidenced by the respondents 'acceptance that all the items mentioned which includes increased cost of living, increased cost of production, increased price of farm produce, increased transportation cost for farm inputs/produce, reduced manpower for agricultural activities reduced farm income and savings among farmers and limited access to farm machinery and equipment adversely affect the livelihood of the farming household in the study area. This is in tandem with the findings of Akinyemi et al. (2017) that the removal of fuel subsidy led to increase in farmers costs of production, which ultimately affected their income level, overall welfare, agricultural productivity, marketing and profitability among farming households. Ultimately, both the consumers and producers are disadvantaged due to increase in the prices of both inputs and consumable products.

The coping strategies adopted by the farming households to cushion the effects of fuel subsidy removal include: reducing leisure and spending habits, engaging in multiple jobs, collaborating with other farming households to reduce transport cost, use of cheaper energy sources, reducing farm size and operation, borrowing and skipping meals among others. This agrees with Bello et al (2024), who, quoting the rational preference and utility maximization theory of consumer behaviour, accepted that the removal of fuel subsidy has necessitated a reduction in meal frequency and a downgrading in food quality among households. This agrees with the findings of Meludu (2023), that fuel subsidy removal can reduce economic welfare, and household income.

Conclusion

The study investigated the awareness, effects and coping strategies of farming households in Enugu State, Nigeria in a fuel subsidy removal era. The result indicated that the farming households, which were mostly male headed were aware of fuel subsidy removal. The effects encountered, among others, include increase in the cost of living, production, farm produce and transportation. In order to cushion the effects of the fuel surface removal, the farming household,



among others, adopted the following measures; reducing leisure and spending habits, engaging in multiple jobs, collaborating with others to share costs of transportation, use of cheaper energy sources, reducing size of farmland, buying on credit and skipping meals.

Recommendations

Based on the findings of this research, the following recommendations were made:

- i. Targeted support programmes and policies such as youth and women empowerment programmes, should be made to help households adjust to the increased fuel prices.
- ii. The government should put palliative measures in place before removing fuel subsidy totally.
- iii. The removed subsidy should be used by the government to develop other sectors of the economy, such as the agricultural, industrial, educational and health sectors. This will help to provide employment and help the citizens to be energetic and sound in health.
- iv. Extension agents should encourage the formation of cooperatives among farmers. This will help reduce cost and improve negotiating power.
- v. Workshops, trainings and enlightenment campaigns should be organized by relevant bodies to educate farming households about alternative energy sources and alternative agricultural practices to reduce overall dependency on fossil fuels.

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