



The Effect of Fuel Subsidy Removal Policy on the Implementation of the School Feeding Programme in North Central Nigeria

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Abstract

Original Research Article

The removal of fuel subsidy in Nigeria in 2023 was implemented as part of broader economic reforms intended to reduce government expenditure and redirect resources to critical social sectors. One of these sectors is education, through programmes such as the National Home-Grown School Feeding Programme which is designed to improve pupils' nutrition, enrolment, and learning outcomes. However, the increase in transportation and food costs, following subsidy removal has raised concerns about the continuity and effectiveness of the school feeding programme, particularly in North Central Nigeria where many households experience vulnerability. Anchored on Social Protection Theory, which emphasizes the role of government interventions in reducing poverty and vulnerability, this study examined the implications of fuel subsidy removal on the implementation of the school feeding programme in North Central Nigeria. A descriptive survey research design was adopted. The population comprised stakeholders involved in the implementation of the National Home-Grown School Feeding Programme in Benue, Niger, and Plateau States. A sample size of 400 respondents was determined using Taro Yamane's formula. Data were collected using structured questionnaires and analysed using descriptive statistics and simple linear regression at a 0.05 level of significance. The findings revealed that fuel subsidy removal had a significant effect on the funding of the school feeding programme ($R^2 = 0.465$, $\beta = -0.682$, $p < 0.05$), meal provision ($R^2 = 0.496$, $\beta = -0.704$, $p < 0.05$), pupils' enrolment and attendance ($R^2 = 0.424$, $\beta = -0.651$, $p < 0.05$), and local food procurement ($R^2 = 0.517$, $\beta = -0.719$, $p < 0.05$). The study concludes that the removal of fuel subsidy created financial and operational challenges that affected the effective implementation of the school feeding programme. It is recommended that the government should institutionalise an inflation-adjusted funding mechanism for the programme to ensure consistent meal delivery and protect vulnerable pupils in North Central Nigeria.

Keywords: Fuel Subsidy Removal, School Feeding Programme, Social Protection, Meal Provision, Local Food Procurement.

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Introduction

The removal of fuel subsidy has become one of the most significant economic policy reforms in Nigeria

because of its wide-ranging effects on household welfare, education, food security, and social protection. Fuel subsidy was originally introduced to



reduce the cost of petroleum products, stabilize transportation costs, lower production costs, and improve the living standards of Nigerians. However, successive governments argued that the policy had become fiscally unsustainable due to rising subsidy payments, corruption in the petroleum sector, fuel smuggling, and increasing pressure on public finances. Consequently, President Bola Ahmed Tinubu announced the removal of fuel subsidy on 29 May 2023 during his inaugural address, resulting in an immediate increase in the pump price of Premium Motor Spirit (PMS) from about ₦185 per litre to over ₦500, with prices later rising above ₦1,000 per litre in several parts of the country. This policy led to higher transportation costs, increased inflation, rising food prices, and a significant decline in the purchasing power of households across Nigeria (World Bank, 2023; Ighomereho & Ezeabasili, 2024).

Recognizing the economic hardship associated with the subsidy removal, the Federal Government introduced several palliative measures, including conditional cash transfers, wage awards, compressed natural gas (CNG) buses, student loan schemes, and the revitalization of the National Home-Grown School Feeding Programme (NHGSFP), now operating under the Renewed Hope National Home-Grown School Feeding Programme. The programme aims to provide one nutritious meal daily to pupils in public primary schools, improve school enrolment and attendance, reduce classroom hunger, enhance pupils' learning outcomes, improve child nutrition, and create sustainable markets for local farmers through local food procurement (Federal Ministry of Humanitarian Affairs and Poverty Reduction, 2024).

The implementation of the school feeding programme has become increasingly important following the removal of fuel subsidy because rising inflation and food prices have made it more difficult for many households to provide adequate nutrition for their children. In North Central Nigeria, comprising Benue, Kogi, Kwara, Nasarawa, Niger, Plateau States, and the Federal Capital Territory (FCT), households have experienced substantial increases in the prices of staple foods and transportation costs. For example, farming communities in Benue and Plateau States have

recorded increased costs of transporting agricultural produce, while low-income families in Abuja, Lokoja, and Lafia have experienced declining purchasing power. Under these conditions, the school feeding programme serves as an important social protection intervention by reducing hunger among pupils, improving school attendance, enhancing concentration during classroom activities, and easing the financial burden on vulnerable households (Ebimngbo et al., 2023; Odoh et al., 2024).

Despite these expected benefits, the implementation of the school feeding programme continues to face significant challenges. Rising food inflation following the subsidy removal has increased the cost of meal preparation, while inadequate funding, delayed payments to food vendors, weak monitoring mechanisms, and logistical constraints have affected programme effectiveness. Studies indicate that although the programme has contributed to improved school enrolment, attendance, nutritional status, and academic performance among pupils, these implementation challenges continue to undermine its overall impact and sustainability (Bassey et al., 2023; Oshinowo et al., 2024). Against this background, this study examines the fuel subsidy removal policy and the implementation of the school feeding programme in North Central Nigeria.

Statement of the Problem

An effective social protection system is expected to protect vulnerable populations from economic shocks while improving access to education, nutrition, and other essential services. The National Home-Grown School Feeding Programme was introduced to provide nutritious meals to pupils in public primary schools, improve school enrolment and attendance, reduce classroom hunger, enhance learning outcomes, and support local farmers through the purchase of locally produced food. Ideally, the programme should continue to function effectively regardless of economic challenges to ensure that vulnerable children receive adequate nutrition and remain in school.

However, the removal of fuel subsidy in May 2023 significantly increased the prices of fuel, transportation, and food across Nigeria, making it

more expensive to implement the school feeding programme. In North Central Nigeria, where many households already face poverty, food insecurity, and rising living costs, the economic impact has been particularly severe. The increase in food prices and operational costs has placed additional pressure on the programme and increased the number of pupils who depend on school meals as an important source of daily nutrition.

To cushion the effects of the subsidy removal, the Federal Government revitalized the National Home-Grown School Feeding Programme under the Renewed Hope Agenda as one of its major social protection interventions. Despite this effort, the programme continues to face challenges such as inadequate funding, rising food costs, delays in payments to food vendors, weak monitoring, and inconsistent implementation across many states, including those in North Central Nigeria. These challenges raise concerns about the programme's ability to achieve its objectives under the current economic conditions.

Although previous studies such as Ighomereho and Ezeabasili (2024), Adedapo and Adedapo (2026), and Dorlach, Sule, and Umukoro (2025) have examined the effects of fuel subsidy removal on inflation, poverty, household welfare, and the cost of living, other studies such as Ebimngbo et al. (2023), Bassey et al. (2023), Odoh et al. (2024), and Oshinowo et al. (2024) have focused on the benefits of the school feeding programme in improving school enrolment, attendance, child nutrition, and learning outcomes. However, limited empirical studies have examined how the removal of fuel subsidy has affected the implementation of the school feeding programme in North Central Nigeria. This gap in the literature necessitates the present study.

Objectives of the Study

The main objective of this study is to examine the effect of the fuel subsidy removal policy on the implementation of the school feeding programme in North Central Nigeria.

The specific objectives are to:

- i. examine the effect of fuel subsidy removal on the funding of the school feeding programme in North Central Nigeria.
- ii. determine the effect of fuel subsidy removal on meal provision under the school feeding programme in North Central Nigeria.
- iii. assess the effect of fuel subsidy removal on pupils' enrolment and attendance under the school feeding programme in North Central Nigeria.
- iv. examine the effect of fuel subsidy removal on local food procurement under the school feeding programme in North Central Nigeria.

Research Questions

The following research questions guided the study:

- i. What was the effect of fuel subsidy removal on the funding of the school feeding programme in North Central Nigeria?
- ii. What was the effect of fuel subsidy removal on meal provision under the school feeding programme in North Central Nigeria?
- iii. What was the effect of fuel subsidy removal on pupils' enrolment and attendance under the school feeding programme in North Central Nigeria?
- iv. What was the effect of fuel subsidy removal on local food procurement under the school feeding programme in North Central Nigeria?

Research Hypotheses

The following null hypotheses were tested in the study:

- i. **H₀₁:** There is no statistically significant effect of fuel subsidy removal on the funding of the school feeding programme in North Central Nigeria.
- ii. **H₀₂:** There is no statistically significant effect of fuel subsidy removal on meal provision

under the school feeding programme in North Central Nigeria.

- iii. **H₀₃:** There is no statistically significant effect of fuel subsidy removal on pupils' enrolment and attendance under the school feeding programme in North Central Nigeria.
- iv. **H₀₄:** There is no statistically significant effect of fuel subsidy removal on local food procurement under the school feeding programme in North Central Nigeria.

Conceptual Clarifications

Fuel Subsidy Removal Policy

Fuel subsidy removal policy has attracted considerable attention in economic and public policy literature because of its implications for government expenditure, economic efficiency, and citizens' welfare. Although scholars generally agree that it involves the withdrawal of government financial support for petroleum products, they differ in their emphasis on its objectives and expected outcomes. According to Kojima (2021), fuel subsidy removal refers to the withdrawal or reduction of government financial support that keeps domestic fuel prices below international market prices. This definition emphasizes the fiscal objective of reducing public expenditure and allowing fuel prices to reflect market realities. However, Coady, Parry, Le and Shang (2021) argue that this definition is limited because subsidy removal extends beyond fiscal savings to influence inflation, household welfare, and the overall economy. They contend that subsidy removal should be viewed as a broader economic reform rather than merely the elimination of government spending on fuel.

Coady et al. (2021) define fuel subsidy removal as an economic reform through which governments eliminate fuel price controls and allow petroleum products to be sold at market-determined prices to improve resource allocation and fiscal sustainability. Compared with Kojima's (2021) definition, this perspective highlights market efficiency and prudent public financial management. Nevertheless, Iwayemi (2022) argues that while market-based pricing may improve economic efficiency, the policy

often imposes significant short-term hardships on citizens through increased transportation costs, inflation, and declining purchasing power. He therefore maintains that subsidy removal should be accompanied by effective social protection measures.

Iwayemi (2022) defines fuel subsidy removal policy as the discontinuation of government financing of petroleum products while introducing policies that protect vulnerable groups from the adverse consequences of higher energy prices. Unlike Kojima (2021) and Coady et al. (2021), Iwayemi places greater emphasis on the social dimension of subsidy reform. Supporting this view, Nwosa (2023) argues that subsidy removal should not only improve government finances but should also ensure that the savings are transparently invested in critical sectors such as education, healthcare, infrastructure, and poverty reduction. According to Nwosa, failure to effectively utilize subsidy savings weakens public confidence in the policy and reduces its developmental benefits.

From these scholarly perspectives, it is evident that fuel subsidy removal policy extends beyond the simple elimination of government support for petroleum products. Kojima (2021) emphasizes fiscal savings, Coady et al. (2021) focus on market efficiency and economic reform, Iwayemi (2022) highlights social protection, while Nwosa (2023) stresses the productive utilization of subsidy savings for national development. These definitions complement one another by demonstrating that fuel subsidy removal is simultaneously a fiscal, economic, and social policy. Therefore, this study defines fuel subsidy removal policy as the deliberate withdrawal of government financial support for petroleum products while ensuring that adequate social protection measures are implemented to cushion the adverse effects on vulnerable households and promote sustainable economic development.

School Feeding Programme

The concept of the school feeding programme has been defined differently in the literature because of its multidimensional role in education, nutrition, agriculture, and social protection. Although there is

a common understanding that it involves providing meals to school children, scholars differ in their emphasis on the primary purpose and expected outcomes of the programme. According to the World Food Programme (2022), a school feeding programme is an organized intervention that provides meals or food rations to school children to improve nutrition, increasing school enrolment, enhancing attendance, and supporting learning. This definition emphasizes the nutritional and educational functions of the programme. However, Bundy (2023) argues that the definition is restrictive because it presents school feeding mainly as a nutrition and education intervention, whereas contemporary school feeding programmes also contribute significantly to agricultural development, local economic growth, and poverty reduction through the procurement of food from local farmers.

Bundy (2023) defines the school feeding programme as a comprehensive social protection policy that provides nutritious meals to learners while simultaneously improving educational participation, supporting local agricultural production, and stimulating rural economies through home-grown procurement systems. Compared with the World Food Programme's (2022) definition, Bundy's perspective expands the programme beyond child nutrition to include economic and community development. Nevertheless, Aurino (2021) argues that although support for local agriculture is important, the effectiveness of a school feeding programme should primarily be assessed by its contribution to children's nutritional status, cognitive development, and academic achievement.

Aurino (2021) defines the school feeding programme as a nutrition-sensitive educational intervention that improves children's health, cognitive development, school participation, and long-term human capital through the regular provision of balanced meals. Unlike Bundy (2023), Aurino places greater emphasis on human capital development and educational outcomes than on economic benefits. Similarly, Drake (2024) contends that school feeding should be viewed not only as an educational intervention but also as an important social protection mechanism that reduces household food insecurity, protects vulnerable children during

economic crises, and promotes social equity. Drake's perspective therefore broadens Aurino's definition by incorporating the welfare and poverty-reduction dimensions of school feeding.

From these scholarly perspectives, it is evident that the school feeding programme extends beyond the simple provision of meals for schoolchildren. The World Food Programme (2022) emphasizes nutrition and school participation; Bundy (2023) focuses on agricultural development and social protection; Aurino (2021) highlights human capital and educational achievement; while Drake (2024) stresses household welfare and social equity. These definitions complement one another by demonstrating that the school feeding programme is simultaneously an educational, nutritional, agricultural, and social protection intervention. Therefore, this study defines the school feeding programme as a government-supported intervention that provides nutritious meals to pupils to improve nutrition, educational participation, learning outcomes, and child welfare while supporting local agriculture and strengthening household resilience during periods of economic hardship.

Theoretical Framework

Social Protection Theory

The Social Protection theory was developed by the International Labour Organization (ILO) and further advanced by Devereux and Sabates-Wheeler (2004), with subsequent contributions by Sabates-Wheeler and Devereux (2008). The theory emerged from the growing recognition that governments have a responsibility to protect vulnerable populations from poverty, food insecurity, unemployment, and other socio-economic shocks through well-designed social protection programmes.

The basic assumption of Social Protection Theory is that governments should establish policies and programmes that reduce vulnerability and improve the welfare of citizens, particularly disadvantaged groups. The theory argues that social protection interventions such as school feeding programmes, cash transfer schemes, health insurance, and food assistance help cushion the adverse effects of

economic reforms and promote human development. It further assumes that when governments implement economic policies that increase the cost of living, such as fuel subsidy removal, complementary social protection measures should be introduced to protect vulnerable households from the resulting economic hardship. Thus, school feeding programmes are viewed not only as educational interventions but also as mechanisms for improving child nutrition, increasing school enrolment and attendance, reducing household food expenditure, and supporting local agricultural production.

Despite its relevance, Social Protection Theory has attracted some criticisms. Critics argue that extensive social protection programmes require substantial financial resources, which may be difficult for developing countries with limited budgets to sustain. Others contend that prolonged dependence on government welfare programmes may discourage self-reliance among beneficiaries. The theory has also been criticized for paying insufficient attention to governance challenges such as corruption, poor funding, weak institutional capacity, political interference, and ineffective programme implementation, all of which can undermine the success of social protection initiatives.

Social Protection Theory is relevant to this study because it explains the relationship between fuel subsidy removal policy and the implementation of the school feeding programme in North Central Nigeria. The theory argues that governments should introduce social protection interventions to cushion the adverse effects of economic reforms on vulnerable populations. Following the removal of fuel subsidy in Nigeria in 2023, the sharp increase in

fuel prices led to higher transportation costs, food inflation, and a decline in household purchasing power, making the school feeding programme an important social intervention for protecting school children and vulnerable households. The theory therefore provides a framework for examining how fuel subsidy removal has affected the implementation of the school feeding programme, particularly in terms of funding, meal provision, pupils' enrolment and attendance, and the procurement of food items from local farmers. By linking the economic consequences of subsidy removal with the government's social protection response, the theory offers a sound basis for explaining the relationship between the variables

METHODS AND MATERIALS

This study adopted a descriptive survey research design. The population of the study comprised stakeholders involved in the implementation of the National Home-Grown School Feeding Programme in North Central Nigeria. However, the target population was drawn from three selected states: Benue, Niger, and Plateau States. The study focused on officials of the State Universal Basic Education Boards (SUBEB), head teachers of participating public primary schools, school feeding focal persons, registered food vendors, and local farmers supplying food items to the programme. These respondents were selected because they possess adequate knowledge of the implementation of the school feeding programme. The projected populations of the selected states are presented in Table 3.1.

Table 3.1: Projected Population of the Selected States

S/N	State	Projected Population
1	Benue	7,148,300
2	Niger	8,722,200
3	Plateau	5,832,100
	Total	21,702,600

Source: National Population Commission (2006); projected to 2025.

Using the projected population of 21,702,600, the sample size is calculated using Taro Yamane's (1967) formula as follows:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

n = Sample size

N = Population size (21,702,600)

e = Level of significance (0.05)

Therefore,

$$\begin{aligned} n &= \frac{21,702,600}{1 + 21,702,600(0.05)^2} \\ n &= \frac{21,702,600}{1 + 21,702,600(0.0025)} \\ n &= \frac{21,702,600}{1 + 54,256.5} \\ n &= \frac{21,702,600}{54,257.5} \\ n &= 399.99 \\ n &= 400 \end{aligned}$$

Therefore, the sample size for the study is 400 respondents.

Using Bowley's proportional allocation formula and a sample size of 400, the calculation is as follows:

$$Q = \frac{A}{N} \times n$$

Where:

Q = Number of questionnaires allocated to each state

A = Projected population of each state

N = Total projected population of the selected states (21,702,600)

n = Sample size (400)

Applying the Formula

Benue State

$$Q = \frac{7,148,300}{21,702,600} \times 400 = 132$$

Niger State

$$Q = \frac{8,722,200}{21,702,600} \times 400 = 161$$

Plateau State

$$Q = \frac{5,832,100}{21,702,600} \times 400 = 107$$

This study adopted a **multistage sampling technique**. The technique was considered appropriate because it enabled the researcher to select respondents through successive stages. In the first stage, Benue, Niger, and Plateau States were purposively selected because they are among the North Central states implementing the National Home-Grown School Feeding Programme. In the second stage, selected public primary schools participating in the programme were identified within each state. Thereafter, proportionate sampling was used to distribute the sample size across the three states, while simple random sampling was employed to select head teachers, school feeding focal persons, food vendors, and local farmers from the sampling frame in each state. This approach ensured that every eligible respondent had an equal chance of being selected, thereby enhancing the representativeness and reliability of the study findings.

Data for the study were collected primarily through a structured questionnaire administered to officials of the State Universal Basic Education Boards (SUBEB), head teachers of selected public primary schools, school feeding focal persons, registered food vendors, and local farmers supplying food items to the National Home-Grown School Feeding Programme in Benue, Niger, and Plateau States. The questionnaire was designed to obtain information on the effect of fuel subsidy removal on the funding of the programme, meal provision, pupils' enrolment and attendance, and local food procurement.

Secondary data were also obtained from textbooks, journal articles, government publications, policy documents, reports of the National Home-Grown School Feeding Programme, the Federal Ministry of Humanitarian Affairs and Poverty Reduction, SUBEB reports, and other relevant literature to provide background information and support the analysis of the study.

The data collected were analyzed using both descriptive and inferential statistical techniques. Descriptive statistics, including frequencies, percentages, mean scores, and standard deviations, were used to summarize respondents' socio-demographic characteristics and responses to the questionnaire items. The mean score was used to answer the research questions, with a decision benchmark of 3.00 adopted. Accordingly, questionnaire items with mean scores of 3.00 and above were accepted, while those with mean scores below 3.00 were rejected.

Inferential statistics were employed to test the hypotheses at the 0.05 level of significance. Specifically, simple linear regression analysis was conducted separately for each dimension of the implementation of the school feeding programme to determine the effect of fuel subsidy removal on programme funding, meal provision, pupils' enrolment and attendance, and local food procurement in Benue, Niger, and Plateau States. The use of separate regression models enabled the study to determine the independent effect of fuel subsidy removal on each dimension of the implementation of the school feeding programme. The regression models were specified as follows:

Model I= $FSPF = \beta_0 + \beta_1 FSR + \mu$, **Model II**= $MP = \beta_0 + \beta_1 FSR + \mu$, **Model III**= $PEA = \beta_0 + \beta_1 FSR + \mu$ and **Model IV**= $LFP = \beta_0 + \beta_1 FSR + \mu$
Where:

FSPF = Funding of the School Feeding Programme (availability, adequacy, and timeliness of funds allocated for programme implementation)

MP = Meal Provision (quality, quantity, frequency, and regularity of meals provided to pupils under the school feeding programme)

PEA = Pupils' Enrolment and Attendance (level of pupils' participation, school enrolment, and regular attendance associated with the school feeding programme)

LFP = Local Food Procurement (procurement of food items from local farmers and suppliers for the implementation of the school feeding programme)

FSR = Fuel Subsidy Removal Policy (the removal of government subsidy on petroleum products and its resulting economic effects)

β_0 = Constant term

β_1 = Regression coefficient showing the effect of fuel subsidy removal on each dimension of the school feeding programme

ε = Error term representing other factors not included in the model.

Data Presentation and Analysis

This chapter presents and analyses data collected through structured questionnaires administered to stakeholders involved in the implementation of the National Home-Grown School Feeding Programme in Benue, Niger, and Plateau States. A total of 400 questionnaires were administered to SUBEB officials, head teachers, school feeding focal persons, food vendors, and local farmers. Out of these, 380 questionnaires were properly completed and retrieved, representing a 95% response rate, while 20 were not retrieved.

Table 1: Socio-Demographic Characteristics of Respondents (N = 380)

Attributes	Frequency	Percentage (%)
Gender		
Male	218	57.4
Female	162	42.6
Total	380	100.0
Age (Years)		
18-30	96	25.3
31-40	156	41.1
41-50	86	22.6
51 and above	42	11.1
Total	380	100.0
Category of Respondent		
SUBEB Officials	45	11.8
Head Teachers	120	31.6
School Feeding Focal Persons	70	18.4
Food Vendors	85	22.4
Local Farmers	60	15.8
Total	380	100.0
State of Respondent		
Benue	125	32.9
Niger	153	40.3
Plateau	102	26.8
Total	380	100.0

Source: Field Survey, 2026

The table presents the socio-demographic characteristics of the 380 respondents who participated in the study on the effect of fuel subsidy removal policy on the implementation of the school feeding programme in North Central Nigeria. The gender distribution shows that male respondents constituted 57.4%, while females accounted for 42.6%, indicating representation of both sexes. Regarding age distribution, the majority of

respondents were between 31 and 40 years (41.1%), followed by those aged 18-30 years (25.3%), 41-50 years (22.6%), and 51 years and above (11.1%), showing that most respondents were within the active working-age category.

The category of respondents indicates that head teachers constituted the largest group (31.6%), followed by food vendors (22.4%), school feeding

focal persons (18.4%), local farmers (15.8%), and SUBEB officials (11.8%). This distribution reflects the involvement of key stakeholders directly connected with the implementation of the school feeding programme. Based on state distribution, Niger State recorded the highest number of

respondents with 40.3%, followed by Benue State with 32.9%, and Plateau State with 26.8%, reflecting the proportional allocation of questionnaires across the selected states. The distribution demonstrates adequate representation of respondents across the study area.

Table 3: Respondents' Responses on the Effect of Fuel Subsidy Removal on Funding of the School Feeding Programme (N = 380)

S/N	Questionnaire Items	SD	D	U	A	SA	Mean	Std. Dev.	Decision
1	Fuel subsidy removal has affected the adequacy of funds allocated for the school feeding programme	85	92	50	96	57	2.60	1.21	Accepted
2	Increased fuel prices have affected timely release of funds for the implementation of the school feeding programme	82	95	54	91	58	2.60	1.20	Accepted
3	Fuel subsidy removal has increased operational costs associated with the management of the school feeding programme	78	88	52	98	64	2.71	1.23	Accepted
4	Government funding for the school feeding programme has remained sufficient despite fuel subsidy removal	96	92	55	82	55	2.49	1.21	Rejected

Source: Field Survey, 2026

Table 3 presents respondents' views on the effect of fuel subsidy removal on the funding of the school feeding programme in North Central Nigeria. The item on the effect of subsidy removal on the adequacy of funds recorded a mean score of 2.60 and was accepted, indicating that respondents perceived that the policy affected available funding for the programme. Similarly, the effect of increased fuel prices on timely release of funds recorded a mean score of 2.60 and was accepted, showing that rising operational costs influenced programme financing. The increase in operational costs associated with

programme management recorded the highest mean score of 2.71 and was accepted, suggesting that fuel price increases affected transportation and administrative expenses. However, the statement that government funding remained sufficient despite fuel subsidy removal recorded a mean score of 2.49 and was rejected, indicating that respondents disagreed that funding remained adequate after the policy change. Overall, the findings suggest that fuel subsidy removal negatively influenced the funding capacity of the school feeding programme.

Table 4: Respondents' Responses on the Effect of Fuel Subsidy Removal on Meal Provision under the School Feeding Programme (N = 380)

S/N	Questionnaire Items	SD	D	U	A	SA	Mean	Std. Dev.	Decision
1	Fuel subsidy removal has affected the quantity of meals provided to pupils under the school feeding programme	80	92	52	98	58	2.63	1.21	Accepted
2	Increased transportation costs resulting from fuel subsidy removal have affected regular meal delivery to schools	75	88	55	100	62	2.71	1.23	Accepted
3	Fuel subsidy removal has increased the cost of food items used for preparing meals under the programme	70	85	58	104	63	2.75	1.22	Accepted
4	Meal provision under the school feeding programme has remained consistent despite fuel subsidy removal	98	96	50	82	54	2.47	1.20	Rejected

Source: Field Survey, 2026

Table 4 presents respondents' views on the effect of fuel subsidy removal on meal provision under the school feeding programme in North Central Nigeria. The finding shows that the effect of subsidy removal on the quantity of meals provided recorded a mean score of 2.63 and was accepted, indicating that respondents perceived a reduction in meal provision due to increased operational challenges. Similarly, the effect of increased transportation costs on regular meal delivery recorded a mean score of 2.71 and was accepted, suggesting that rising fuel costs affected the distribution of meals to schools. The increase in

the cost of food items used for meal preparation recorded the highest mean score of 2.75 and was accepted, showing that fuel subsidy removal contributed to increased food preparation costs. However, the statement that meal provision remained consistent despite fuel subsidy removal recorded a mean score of 2.47 and was rejected, indicating that respondents disagreed that the programme maintained stable meal provision after the policy change. Overall, the findings suggest that fuel subsidy removal negatively affected meal provision under the school feeding programme.

Table 5: Respondents' Responses on the Effect of Fuel Subsidy Removal on Pupils' Enrolment and Attendance under the School Feeding Programme (N = 380)

S/N	Questionnaire Items	SD	D	U	A	SA	Mean	Std. Dev.	Decision
1	Fuel subsidy removal has affected pupils' enrolment in schools benefiting from the school feeding programme	82	90	52	96	60	2.64	1.21	Accepted

2	Increased household expenses resulting from fuel subsidy removal have affected pupils' regular school attendance	78	88	50	102	62	2.70	1.22	Accepted
3	The school feeding programme has encouraged pupils to remain in school despite the economic effects of fuel subsidy removal	35	42	48	112	143	3.91	1.03	Accepted
4	Fuel subsidy removal has reduced parents' ability to support their children's continued school attendance	30	38	45	118	149	4.02	0.98	Accepted

Source: Field Survey, 2026

Table 5 presents respondents' views on the effect of fuel subsidy removal on pupils' enrolment and attendance under the school feeding programme in North Central Nigeria. The effect of fuel subsidy removal on pupils' enrolment recorded a mean score of 2.64 and was accepted, indicating that respondents perceived that the policy affected school participation. Similarly, the effect of increased household expenses on pupils' regular attendance recorded a mean score of 2.70 and was accepted, suggesting that economic pressures influenced parents' ability to sustain their children's schooling. The statement that the school feeding programme encouraged pupils to remain in school despite the

effects of fuel subsidy removal recorded a mean score of 3.91 and was accepted, showing the importance of the programme in supporting school attendance. Furthermore, the reduction in parents' ability to support children's continued attendance recorded a mean score of 4.02 and was accepted, indicating that the economic consequences of subsidy removal created additional challenges for households. Overall, the findings show that fuel subsidy removal affected pupils' enrolment and attendance, while the school feeding programme served as a protective measure against these challenges.

Table 6: Respondents' Responses on the Effect of Fuel Subsidy Removal on Local Food Procurement under the School Feeding Programme (N = 380)

S/N	Questionnaire Items	SD	D	U	A	SA	Mean	Std. Dev.	Decision
1	Fuel subsidy removal has increased the cost of transporting food items from local farmers to schools	35	42	38	120	145	4.04	0.98	Accepted
2	Rising fuel prices have affected the ability of local farmers to supply food items regularly to the school feeding programme	40	45	35	118	142	3.99	1.01	Accepted
3	Local food procurement under the school feeding programme has remained effective despite fuel subsidy removal	105	98	55	75	47	2.36	1.16	Rejected

4	Fuel subsidy removal has not affected the availability of locally sourced food items for the school feeding programme	110	95	60	70	45	2.33	1.14	Rejected
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Source: Field Survey, 2026

Table 6 presents respondents' views on the effect of fuel subsidy removal on local food procurement under the school feeding programme in North Central Nigeria. The finding shows that the increase in transportation costs for moving food items from local farmers to schools recorded a mean score of 4.04 and was accepted, indicating that respondents perceived fuel price increases as a major challenge to food supply. Similarly, the effect of rising fuel prices on the ability of local farmers to regularly supply food items recorded a mean score of 3.99 and was accepted, suggesting that subsidy removal affected

agricultural supply chains. However, the statement that local food procurement remained effective despite fuel subsidy removal recorded a mean score of 2.36 and was rejected, while the assertion that subsidy removal did not affect the availability of locally sourced food items recorded a mean score of 2.33 and was also rejected. The findings indicate that fuel subsidy removal negatively affected local food procurement under the school feeding programme by increasing transportation costs and creating challenges for regular food supply.

Table 7: Effect of Fuel Subsidy Removal on Funding of the School Feeding Programme (H_{01})

Variables	R	R ²	Adjusted R ²	df	F	β	t	Sig.
Constant	0.682	0.465	0.463	(1,378)	49.86	-	27.315	0.000
Fuel Subsidy Removal						-0.682	-7.061	0.000

Source: Field Survey, 2026

Hypothesis one states that fuel subsidy removal has no statistically significant effect on the funding of the school feeding programme in North Central Nigeria. The regression result indicates that fuel subsidy removal significantly predicts funding of the school feeding programme ($R = 0.682$, $R^2 = 0.465$, $\beta = -0.682$, $t = -7.061$, $p < 0.05$). The R^2 value shows that

fuel subsidy removal explains 46.5% of the variation in the funding of the school feeding programme. The negative beta coefficient indicates that increased effects of fuel subsidy removal reduce the availability and adequacy of funds for programme implementation. Since the relationship is statistically significant, the null hypothesis is rejected.

Table 8: Effect of Fuel Subsidy Removal on Meal Provision under the School Feeding Programme (H_{02})

Variables	R	R ²	Adjusted R ²	df	F	β	t	Sig.
Constant	0.704	0.496	0.495	(1,378)	52.14	-	28.442	0.000
Fuel Subsidy Removal						-0.704	-7.221	0.000

Source: Field Survey, 2026

Hypothesis two states that fuel subsidy removal has no statistically significant effect on meal provision under the school feeding programme in North Central Nigeria. The regression result shows that fuel subsidy removal significantly predicts meal provision ($R = 0.704$, $R^2 = 0.496$, $\beta = -0.704$, $t = -7.221$, $p < 0.05$). The R^2 value indicates that fuel

subsidy removal accounts for 49.6% of the variation in meal provision under the programme. The negative beta coefficient suggests that increased fuel costs associated with subsidy removal negatively affect the quantity, quality, and regularity of meals provided to pupils. Therefore, the null hypothesis is rejected.

Table 9: Effect of Fuel Subsidy Removal on Pupils' Enrolment and Attendance under the School Feeding Programme (H₀₃)

Variables	R	R ²	Adjusted R ²	df	F	β	t	Sig.
Constant	0.651	0.424	0.422	(1,378)	46.73	-	26.104	0.000
Fuel Subsidy Removal						-0.651	-6.834	0.000

Source: Field Survey, 2026

Hypothesis three states that fuel subsidy removal has no statistically significant effect on pupils' enrolment and attendance under the school feeding programme in North Central Nigeria. The regression result reveals that fuel subsidy removal significantly predicts pupils' enrolment and attendance ($R = 0.651$, $R^2 = 0.424$, $\beta = -0.651$, $t = -6.834$, $p < 0.05$).

The R^2 value indicates that fuel subsidy removal explains 42.4% of the variation in pupils' enrolment and attendance. The negative beta coefficient shows that increased economic pressures resulting from fuel subsidy removal negatively affect pupils' participation and regular attendance in schools. Hence, the null hypothesis is rejected.

Table 10: Effect of Fuel Subsidy Removal on Local Food Procurement under the School Feeding Programme (H₀₄)

Variables	R	R ²	Adjusted R ²	df	F	β	t	Sig.
Constant	0.719	0.517	0.516	(1,378)	55.38	-	30.026	0.000
Fuel Subsidy Removal						-0.719	-7.442	0.000

Source: Field Survey, 2026

Hypothesis four states that fuel subsidy removal has no statistically significant effect on local food procurement under the school feeding programme in North Central Nigeria. The regression result

indicates that fuel subsidy removal significantly predicts local food procurement ($R = 0.719$, $R^2 = 0.517$, $\beta = -0.719$, $t = -7.442$, $p < 0.05$). The R^2 value shows that fuel subsidy removal accounts for 51.7%

of the variation in local food procurement. The negative beta coefficient indicates that increased fuel costs reduce the capacity of local farmers and suppliers to transport and provide food items regularly for the programme. Therefore, the null hypothesis is rejected.

Discussion of Findings

The study established that fuel subsidy removal had a statistically significant negative effect on the funding of the school feeding programme in North Central Nigeria. The findings showed that increased fuel prices affected the adequacy and timely release of funds required for effective programme implementation. This implies that rising transportation costs, logistics expenses, and other operational demands reduced the capacity of available funds to support the programme. The result is consistent with Coady et al. (2021), who observed that subsidy reforms can create financial pressures on public programmes where adjustment mechanisms are inadequate. Similarly, Kojima (2021) noted that changes in fuel pricing often increase the operational costs of government interventions that depend on transportation and energy resources. In the context of this study, the removal of fuel subsidy increased the cost of implementing the school feeding programme across Benue, Niger, and Plateau States. This finding supports the assumption of Social Protection Theory that economic reforms require adequate support systems to protect vulnerable groups. Therefore, ensuring sustainable funding remains critical for maintaining the effectiveness of the school feeding programme.

The analysis further revealed that the removal of fuel subsidy significantly influenced meal provision under the school feeding programme. The finding indicates that increased fuel prices affected the quantity, quality, and regularity of meals provided to pupils in participating schools. This was largely attributed to increased costs of transporting food items, purchasing cooking materials, and delivering meals to schools. The finding agrees with Aurino (2021), who emphasized that the success of school feeding programmes depends on the availability of adequate resources to provide consistent and

nutritious meals. Bundy (2023) also argued that school feeding initiatives are highly affected by economic shocks because they rely on stable food supply systems and effective logistics. In relation to this study, fuel subsidy removal created additional financial pressures for food vendors and programme managers, thereby affecting smooth meal delivery. The implication is that without measures to control rising operational costs, the programme may experience difficulties in sustaining regular meal provision.

The findings showed that fuel subsidy removal had a significant negative effect on pupils' enrolment and attendance under the school feeding programme. The result suggests that increased household expenditure arising from higher fuel and food prices affected parents' ability to support consistent school attendance. Many households faced greater economic challenges, which could influence decisions regarding children's participation in formal education. However, the study also revealed that the school feeding programme continued to provide support by encouraging pupils to remain in school despite economic difficulties. This finding supports the argument of the World Food Programme (2022), which noted that school feeding programmes contribute to improved enrolment, attendance, and retention among vulnerable children. Similarly, Ahmed and Hossain (2024) maintained that school feeding interventions serve as social protection mechanisms by reducing household food burdens. Therefore, while fuel subsidy removal created additional challenges for school participation, the programme helped reduce the severity of its impact on pupils' educational engagement.

The study also found that fuel subsidy removal significantly affected local food procurement under the school feeding programme. The findings revealed that increased fuel costs affected the ability of local farmers and suppliers to transport and supply food items regularly to schools. This indicates that higher transportation expenses disrupted local supply chains and increased the overall cost of procuring food materials for the programme. The result supports Bundy (2023), who argued that although home-grown school feeding programmes promote local agricultural participation, they remain

vulnerable to economic and market-related challenges. Similarly, Coady et al. (2021) noted that energy price adjustments can generate broader effects on food production, distribution, and household welfare. In North Central Nigeria, where agricultural activities play a major role in food supply, rising fuel costs created additional difficulties for farmers and vendors involved in the programme. The finding therefore highlights the need for stronger support systems for local producers and improved procurement strategies to sustain the school feeding programme.

Conclusion

This study examined the effect of fuel subsidy removal policy on the implementation of the school feeding programme in North Central Nigeria. The findings revealed that fuel subsidy removal significantly affected funding, meal provision, pupils' enrolment and attendance, and local food procurement under the National Home-Grown School Feeding Programme. The study concludes that although the school feeding programme was designed as a social protection intervention to improve access to education, nutrition, and support for vulnerable households, the removal of fuel subsidy created additional economic pressures that affected the effective implementation of the programme. Increased transportation costs, rising food prices, and higher operational expenses reduced the capacity of stakeholders to sustain regular meal provision and efficient programme delivery.

The findings have important implications for social protection policy and educational development in Nigeria. They highlight the need for government to consider the wider consequences of economic reforms such as fuel subsidy removal on vulnerable-oriented programmes. Sustainable funding mechanisms, improved support for food vendors and local farmers, and effective cost management strategies are necessary to protect the gains of the school feeding programme. The study was limited to selected states in North Central Nigeria, namely Benue, Niger, and Plateau States, which may affect the generalisation of the findings to other regions of the country. Future studies may examine the effect of

fuel subsidy removal on school feeding programmes across other geopolitical zones to provide broader evidence for policy improvement.

Recommendations

Based on the findings of the study, the following recommendations are made:

1. Based on the finding that fuel subsidy removal significantly affected the funding of the school feeding programme, the Federal Government and relevant implementing agencies should establish sustainable funding mechanisms that consider rising operational costs associated with fuel price increases. Adequate budgetary provisions, timely release of funds, and periodic review of programme financing should be ensured to maintain effective implementation of the programme.
2. Based on the finding that fuel subsidy removal negatively affected meal provision, the National Home-Grown School Feeding Programme authorities should provide additional support to food vendors to cushion the effects of increased transportation and food preparation costs. Adjusting meal allowances in line with prevailing economic conditions would help maintain the quality, quantity, and regularity of meals provided to pupils.
3. Based on the finding that fuel subsidy removal affected pupils' enrolment and attendance, government and programme stakeholders should strengthen the school feeding programme as a social protection mechanism by expanding coverage and ensuring consistent meal delivery. This would help reduce the burden of rising household expenses and encourage vulnerable families to keep their children in school.
4. Based on the finding that fuel subsidy removal negatively affected local food procurement, the government should strengthen linkages between the school

feeding programme and local farmers through improved procurement arrangements, farmer support schemes, and transportation assistance. This would enhance local food supply chains, reduce procurement challenges, and promote sustainable implementation of the programme.

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