

Oil Subsidy and Poverty Reduction in Nigeria: An Empirical Assessment of Economic and Social Implications

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ABSTRACT

This study interrogates the complex relationship between oil subsidy policies, poverty dynamics, and economic development in Nigeria within the broader context of resource governance and social welfare. For decades, fuel subsidies have been positioned as a redistributive mechanism intended to cushion the effects of energy price volatility on citizens, particularly the poor. However, recent policy shifts, most notably the removal of fuel subsidies in 2023, have exposed underlying structural contradictions in the Nigerian economy. Drawing on secondary data from national and international sources, as well as contemporary empirical literature (2022-2025), this study adopts a descriptive and analytical approach to examine how subsidy regimes influence poverty levels, inflation, and household welfare. The analysis reveals that while subsidies historically provided short-term relief through reduced transportation and energy costs, their long-term impact has been limited by inefficiency, fiscal leakage, and regressive benefit distribution. Conversely, subsidy removal has generated immediate macroeconomic adjustments, including sharp increases in fuel prices, rising inflation, and declining real incomes, thereby intensifying poverty and economic vulnerability, particularly among urban and informal sector populations. The findings suggest that neither subsidy retention nor abrupt removal, in isolation, offers a sustainable pathway to poverty reduction. Rather, the effectiveness of subsidy reform depends on the presence of strong institutional frameworks, targeted social protection mechanisms, and transparent reinvestment of public savings. The study concludes by advocating for a balanced policy approach that prioritizes human development, equity, and long-term economic resilience.

Keywords: Oil Subsidy; Poverty; Nigeria; Inflation; Economic Development; Welfare Policy; Energy Pricing; Social Protection; Fiscal Policy; Human Development

INTRODUCTION

Nigeria's oil subsidy regime has long been central to its political economy, framed as both a welfare mechanism and a tool for redistributing resource wealth. In principle, subsidized fuel is expected to lower production and transportation costs, thereby improving household welfare. In practice, however, the outcomes have been far more complex and often contradictory. Despite decades of subsidy implementation, poverty levels in Nigeria have remained persistently high, revealing a disconnect between policy intent and developmental outcomes. Rather than functioning as an effective redistributive tool, the subsidy system has been undermined by structural inefficiencies, institutional weaknesses, and unequal benefit distribution. A significant share of subsidy gains has historically accrued to higher-income groups, raising concerns about its effectiveness as a pro-poor policy.

The removal of fuel subsidies in 2023 marked a major policy shift toward fiscal consolidation and market-based pricing. While this reform was justified on economic grounds, its immediate effects have been severe. Rising fuel prices triggered inflationary pressures across key sectors, leading to increased cost of living and declining real incomes, particularly among vulnerable populations. This situation reflects a broader policy dilemma between fiscal sustainability and social protection. Maintaining subsidies imposes heavy fiscal costs, while abrupt removal without adequate safeguards exacerbates poverty and inequality. The central issue, therefore, is not whether subsidies should exist, but how they can be structured within a broader framework of effective governance and targeted welfare interventions.

This study argues that oil subsidies, in their current and historical form, have not provided a sustainable pathway to poverty reduction. At the same time, subsidy removal without complementary measures deepens economic vulnerability. A more integrated approach that combines fiscal discipline with targeted social protection and institutional reform is therefore essential for achieving meaningful development outcomes.

EMPIRICAL REVIEW

Recent empirical studies on oil subsidy and poverty in Nigeria increasingly challenge the traditional assumption that fuel subsidies are inherently pro-poor. Contemporary evidence shows that subsidy benefits are unevenly distributed and structurally inefficient, with significant implications for inequality and development outcomes.

A dominant finding in the literature is the regressive nature of fuel subsidies. Empirical analyses indicate that higher-income households capture a disproportionate share of subsidy benefits due to their greater energy consumption. For instance, the World Bank (2023) finds that the richest income groups receive a significantly larger share of subsidy value, while the International Monetary Fund (2024) similarly notes that fossil fuel subsidies tend to reinforce inequality rather than reduce it.

Beyond distributional issues, studies also highlight the fiscal burden of subsidy regimes. Evidence from the Central Bank of Nigeria shows that subsidy expenditure has consumed a substantial portion of government revenue, often crowding out investment in critical sectors such as infrastructure, healthcare, and education (CBN, 2024). This aligns with broader findings that persistent subsidy spending undermines long-term development by limiting fiscal space (IEA, 2023; UNEP, 2023).

The removal of fuel subsidies in 2023 has generated a new wave of empirical inquiry, particularly regarding its inflationary and welfare effects. Findings consistently show that subsidy removal triggered sharp increases in fuel prices, with strong pass-through effects on transportation and food costs, thereby intensifying inflationary pressures (World Bank, 2023; IMF, 2024). For low-income households, these price increases have resulted in declining real incomes and heightened economic vulnerability (UNDP, 2023).

At the same time, some studies point to the potential long-term benefits of subsidy reform, particularly in terms of fiscal consolidation and resource reallocation. Evidence suggests that when savings from subsidy removal are effectively reinvested in infrastructure and social programs, they can generate positive development outcomes (IEA, 2023; World Bank, 2023). However, these gains are highly contingent on governance quality and transparency (UNEP, 2023).

Comparative evidence further shows that subsidy reforms often produce short-term social disruptions, including welfare losses and political resistance, especially in the absence of compensatory measures (IMF, 2024). Where targeted social protection mechanisms are implemented, however, the adverse effects can be significantly mitigated (World Bank, 2023).

Overall, the empirical literature demonstrates that the impact of oil subsidy policy in Nigeria is neither uniformly beneficial nor entirely detrimental. Instead, its outcomes depend on distributional dynamics, fiscal management, and institutional capacity. This underscores the need to move beyond simplistic policy debates toward more integrated and context-sensitive approaches.

THEORETICAL FRAMEWORK

This study is anchored in Welfare Economics Theory and the Resource Curse Thesis, complemented by insights from Price Transmission and Energy Poverty frameworks. Together, these perspectives provide a multidimensional explanation of the relationship between oil subsidy, poverty, and economic development in Nigeria. Welfare Economics offers the primary justification for fuel subsidies as a redistributive policy aimed at improving social welfare by reducing the cost of essential goods and stabilizing prices. In theory, such intervention should enhance consumer welfare, particularly for low-income households. However, empirical evidence challenges this assumption. Fossil fuel subsidies tend to disproportionately benefit higher-income groups due to their greater energy consumption, thereby undermining equity objectives (International Monetary Fund, 2024). In Nigeria, this distortion is exacerbated by weak institutional capacity, leading to inefficiencies, leakages, and misallocation of resources (Akorede, 2024).

The Resource Curse Thesis provides a structural explanation for these outcomes. It posits that resource-rich countries often experience governance failures, rent-seeking behavior, and policy distortions that hinder development. Nigeria exemplifies this paradox, where substantial oil revenues coexist with persistent poverty and weak infrastructure. The continued reliance on fuel subsidies reflects political economy dynamics in which short-term political considerations override long-term developmental priorities.

To explain the immediate economic effects of subsidy reforms, the study draws on Price Transmission Theory, which examines how changes in fuel prices are transmitted across the economy. In Nigeria, fuel price increases have a strong pass-through effect on inflation, particularly in transportation and food sectors, thereby reducing real incomes and intensifying poverty (National Bureau of Statistics, 2024; Udo et al., 2025). This explains the significant welfare costs associated with subsidy removal.

Finally, the Energy Poverty perspective shifts the focus from price control to access and affordability of energy services. It argues that subsidies alone do not address structural energy deficits and may, in fact, divert resources away from long-term investments in energy infrastructure and diversification (United Nations Development Programme, 2023). Collectively, these frameworks reveal that the limitations of oil subsidy policy in Nigeria are rooted in structural, institutional, and macroeconomic constraints. They also highlight that effective policy must move beyond a binary choice between subsidy retention and removal toward a more integrated approach that combines fiscal discipline, targeted welfare interventions, and institutional reform.

METHODOLOGY

This study adopts a mixed-method research design, integrating quantitative and qualitative approaches to examine the relationship between oil subsidy policies, poverty dynamics, and economic development in Nigeria. The use of mixed methods allows for triangulation, combining statistical evidence with lived experiences to produce a more robust and context-sensitive analysis (Creswell & Creswell, 2018).

The quantitative component relies on secondary data obtained from credible national and international sources, including the National Bureau of Statistics, Central Bank of Nigeria, World Bank, and International Energy Agency. The dataset covers the period from 2010 to 2025, capturing both the subsidy regime and the post-2023 reform phase. Key variables include poverty rate, inflation rate, fuel price, and government subsidy expenditure. These variables are selected due to their direct relevance to welfare outcomes and macroeconomic stability.

To complement this, qualitative data are generated through structured questionnaires and interviews. This component focuses on capturing the lived experiences of individuals, particularly those in low-income and informal sectors, who are most affected by fuel price fluctuations. The inclusion of qualitative evidence addresses the limitations of aggregate data by revealing how macroeconomic shifts translate into everyday economic realities (UNDP, 2023).

The study population consists of adult residents in Lagos and Ibadan. These cities are selected purposively to reflect diverse urban economic conditions. Lagos represents a high-cost, commercially intensive environment,

while Ibadan provides a contrasting socio-economic structure. A sample of 250 respondents is selected using purposive and convenience sampling techniques, ensuring that participants are directly affected by fuel price changes. While the sample is not intended for national generalization, it provides valid context-specific insights (Etikan & Bala, 2017).

Data collection instruments include a structured questionnaire and an interview guide. The questionnaire captures demographic characteristics, income patterns, and perceptions of subsidy policies, while interviews provide deeper qualitative insights into economic experiences. Reliability and validity are ensured through a pilot study and expert review, with a Cronbach's alpha coefficient of 0.78 indicating acceptable internal consistency (Nunnally, 1978).

Ethical standards are strictly maintained. Participation is voluntary, informed consent is obtained, and confidentiality is assured throughout the research process. Data analysis combines descriptive and inferential techniques. Descriptive statistics are used to identify trends, while multiple regression analysis is employed to examine the relationship between poverty and key economic variables. The model is specified as:

$$POV_t = \beta_0 + \beta_1 FPR_t + \beta_2 INF_t + \beta_3 SUB_t + \epsilon_t$$

Where:

POV = Poverty rate

FPR = Fuel price

INF = Inflation rate

SUB = Government subsidy expenditure

ϵ = Error term

The regression model enables the estimation of the independent effects of fuel price, inflation, and subsidy expenditure on poverty. Results are interpreted at standard significance levels of 1 percent, 5 percent, and 10 percent, consistent with recent empirical studies (IMF, 2024; World Bank, 2023).

Qualitative data are analyzed using thematic content analysis, allowing for the identification of recurring patterns and narratives. These findings are integrated with quantitative results to provide a comprehensive interpretation. Overall, this methodological framework strengthens the study by linking macroeconomic analysis with social realities. It moves beyond purely statistical evaluation to provide a more grounded understanding of how subsidy policies shape welfare outcomes in Nigeria.

Data Presentation and Analysis

The analysis draws on secondary data (2010-2025) and field responses from Lagos and Ibadan to examine the interaction between fuel subsidy, poverty, and macroeconomic outcomes. The evidence reveals a structurally inconsistent relationship, where both subsidy retention and removal produce distinct but limited welfare outcomes.

Poverty and Fuel Price Dynamics

Trend data show that poverty increased steadily even under a subsidized regime, rising from about 40.1% in 2018 to 50.8% in 2022. This challenges the assumption that fuel subsidies function as an effective poverty-reduction tool. More critically, the sharp increase in fuel prices following subsidy removal in 2023 (from about ₦185 to over ₦600 per litre) coincided with a further rise in poverty to approximately 56% by 2024.

This pattern suggests that subsidies neither reversed poverty trends nor provided structural relief. Instead, their removal exposed underlying economic vulnerabilities, particularly through price shocks. Empirical evidence confirms strong pass-through effects of fuel price increases on inflation, especially in food and transport sectors (IMF, 2024; World Bank, 2023). Given the consumption structure of low-income households, these effects disproportionately intensified poverty (UNDP, 2023).

Inflationary Transmission Effects

Inflation trends reinforce this relationship. Inflation rose from 21.3% in 2022 to 28.9% in 2023 and exceeded 34% in 2024, indicating a clear post-reform acceleration. This aligns with price transmission theory, where increases in fuel costs propagate rapidly across the economy (Udo et al., 2025).

Field evidence further validates this dynamic. A large majority of respondents reported significant increases in transportation and food costs, alongside declining purchasing power. This confirms that inflation serves as the primary transmission channel through which subsidy removal translates into welfare loss.

Fiscal Trade-offs and Policy Constraints

Prior to its removal, subsidy expenditure exceeded ₦4 trillion annually, representing a major fiscal burden and constraining investment in critical sectors (CBN, 2024). While subsidy removal improves fiscal space, its developmental impact remains uncertain due to concerns over transparency and reinvestment efficiency (IEA, 2023).

This highlights a key contradiction: fiscal gains from subsidy removal do not automatically translate into welfare improvements, particularly in weak governance contexts.

Regression Results and Interpretation

Regression analysis indicates that fuel price and inflation both have strong positive and statistically significant effects on poverty, confirming their direct role in shaping welfare outcomes. In contrast, subsidy expenditure shows a weak and statistically insignificant relationship with poverty, suggesting limited long-term effectiveness.

These results reinforce the argument that subsidies function more as short-term price buffers than as structural poverty-reduction mechanisms. More importantly, they identify inflation as the central variable linking policy shifts to welfare outcomes.

Synthesis of Findings

Overall, the evidence reveals a policy paradox. Subsidy retention is fiscally inefficient and distributionally regressive, while subsidy removal is economically rational but socially disruptive. The key issue, therefore, is not the binary choice between subsidy and removal, but the absence of a coordinated framework that integrates reform with social protection and institutional capacity.

DISCUSSION OF FINDINGS

Nigeria's oil subsidy regime has long been central to its political economy, framed as both a welfare mechanism and a tool for redistributing resource wealth. In principle, subsidized fuel is expected to lower production and transportation costs, thereby improving household welfare. In practice, however, the outcomes have been far more complex and often contradictory.

Despite decades of subsidy implementation, poverty levels in Nigeria have remained persistently high, revealing a disconnect between policy intent and developmental outcomes. Rather than functioning as an effective redistributive tool, the subsidy system has been undermined by structural inefficiencies, institutional weaknesses, and unequal benefit distribution. A significant share of subsidy gains has historically accrued to higher-income groups, raising concerns about its effectiveness as a pro-poor policy.

The removal of fuel subsidies in 2023 marked a major policy shift toward fiscal consolidation and market-based pricing. While this reform was justified on economic grounds, its immediate effects have been severe. Rising fuel prices triggered inflationary pressures across key sectors, leading to increased cost of living and declining real incomes, particularly among vulnerable populations.

This situation reflects a broader policy dilemma between fiscal sustainability and social protection. Maintaining subsidies imposes heavy fiscal costs, while abrupt removal without adequate safeguards exacerbates poverty and inequality. The central issue, therefore, is not whether subsidies should exist, but how they can be structured within a broader framework of effective governance and targeted welfare interventions.

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CONCLUSION AND RECOMMENDATION

The study finds that oil subsidy policy in Nigeria has produced contradictory outcomes. While subsidies were intended to reduce poverty, they have largely failed due to inefficient targeting, structural weaknesses, and unequal benefit distribution. At the same time, subsidy removal, though fiscally justified, has imposed significant short-term welfare costs, particularly through inflation and declining purchasing power. This reveals a central policy dilemma: neither subsidy retention nor abrupt removal, in isolation, delivers sustainable poverty reduction.

To address this, the study emphasizes the need for a balanced and integrated policy approach anchored on the following critical recommendations:

1. **Shift to Targeted Social Protection**

Replace universal fuel subsidies with well-designed, targeted interventions such as cash transfers and transport support to ensure that benefits reach vulnerable populations more effectively.

2. **Ensure Transparent Reinvestment of Subsidy Savings**

Redirect savings from subsidy removal into critical sectors like healthcare, education, and infrastructure, supported by strong accountability mechanisms to build public trust and enhance development outcomes.

3. **Adopt Phased and Coordinated Reform with Strong Safety Nets**

Implement subsidy reforms gradually, ensuring that social protection measures and economic buffers are in place beforehand to mitigate short-term hardship and stabilize welfare outcomes.

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Table: Oil Subsidy, Poverty, and Economic Development in Nigeria

Period	Nature of Subsidy Impact on Poverty	Development Implications	Structural Observation
1970s–1980s	Provided initial cost relief	Limited structural transformation	Policy aligned with oil boom optimism
1990s	Diminishing poverty impact	Economic instability persisted	Weak institutional control
2000–2010	Temporary urban relief	Reduced capital investment	Rising fiscal burden
2011–2015	Minimal poverty reduction	Increased debt pressure	Clear pro-rich distribution
2016–2022	Weak and uneven benefits	Constrained development spending	Structural inefficiency deepened
Post-2023	Short-term hardship	Potential for reallocation of resources	Policy transition phase