INFLUENCE OF OIL SUBSIDY REMOVAL ON FARMERS' ACCESS TO INPUTS AND AGRICULTURAL PRODUCTION IN NORTHERN CROSS RIVER STATE, NIGERIA

Eneji Emmanuel Esidene & Cajethan U. Ugwuoke

Department of Agricultural Education, University of Nigeria, Nsukka.
Corresponding Author: emmanuel.eneji.95492@unn.edu.ng

Abstract

The study examined the influence of oil subsidy removal on farmers' access to inputs and agricultural production in Northern Cross River State, Nigeria. Four research questions guided the study. The population of the study comprised all practicing farmers in Northern Cross River State. The study used simple random and accidental sampling techniques to select 280 farmers. Data were collected with structured questionnaires titled "Subsidy Removal Questionnaire" and was distributed to 280 farmers in the study area. Mean and standard deviation were used to answer the research questions. The results revealed that the removal of fuel subsidy has negatively influenced on agricultural production in the study area. The influence includes: increase in transportation cost, increase in the cost of purchasing farm inputs and increase in the cost of farm labour. The results also revealed that farmers can adopt some farming methods such as backyard farming and community farming, organic farming, use of green farming technologies and use of solar power to pump water for irrigation among others. The findings revealed that high cost of transportation affects the price of agricultural inputs and produce. The study concluded that government should give support to farmers in the form of loans, grants and subsidized farm inputs. Also, farmers can mitigate the influence of fuel subsidy removal by adopting farming methods that use renewable energy sources instead of fossil fuel. Therefore; the study recommended that government should support farmers by subsidizing transportation, giving incentives to farmers as well as loans and grants.

Keywords: Oil Subsidy, farmers, Agricultural production, Inputs

Introduction

Nigeria has been subsidizing petrol for her citizens over the years. This has been in practice to ensure that the citizens purchase petroleum products below the global price. Petrol subsidy is the financial support provided by the government to lower the price of petrol or gasoline for the citizens (Akinnibi, 2023). It is done to minimize the impact of rising world oil prices on Nigerians. The subsidy helps the citizens to buy petroleum products at low price and that is why fuel pump prices have been low for some years despite the rise in world oil prices by about 50% in the last few months. However, lately the Nigerian government has been seriously agitating for a change and removal of this petrol subsidy. Literature has shown that Nigeria is the largest in Africa and the sixth largest oil producing country in the world (Ering and Akpan in Obasi et al. 2017). The country's economic strength is derived largely from its oil and gas sector, which contributes 99% of government revenues and 38.8% of GDP (Federal Government of Nigeria (FGN), 2010). However, as in most developing countries, the revenue generated from petroleum products has not improved the welfare condition of Nigerians; instead, through inefficiencies, corruption, abuse of national monopoly powers, mismanagement and smuggling has rendered the country poor (Ibanga, 2011; Balouga, 2012).

The subsidy was introduced in Nigeria in 1970s by the federal government of Nigeria as a response to the oil price shock in 1973 (Okongwu & Imoisili, 2022). The fuel subsidy policy in Nigeria was introduced as a means to stabilize the price of fuel until the local industries pass the rehabilitation process. The subsidy according to Neil McCulloch et al. (2020) was meant to last for six months, but has lasted for over twenty-four years. The country's domestic refineries have failed to function due to neglect and abandonment by the government, and its license for rehabilitation given to a range of companies proved futile, a situation that has made the country to keep on buying imported refined products and paying subsidies. There have been agitations by several governments for the removal of fuel subsidy in the country but attempts by the government have not been successful due to strong popular opposition by the citizens (Okongwu and

Imoisili, 2022). According to Evelyn Bankole (2018), the first petrol subsidy removal was in 1986, with Ibrahim Babangida as President, when he announced a partial removal of oil subsidies, which saw petrol price rise from 20 kobo to 39 kobo per liter. This followed President Ibrahim Babangida implementation of the Structural Adjustment Program as set out by the International Monetary Fund. This move to remove subsidy on petroleum products was opposed by several groups in the country. In 2012, the subsidy was removed by the President Goodluck Jonathan and the price of petrol became twice as high as it was. Following the removal, there were mass protests against the corruption and the inhuman treatment of Nigerians by the government. In May 2016 during President Muhammadu Buhari's administration, the subsidy was removed again with the global drop in oil and petrol prices, the government claiming that it was no longer possible to continue with the process, keeping in mind the heavy corruption in the subsidy payment (Okongwu and Imoisili, 2022). Under the administration of the current president on Nigeria, President Bola Ahmad Tinubu, fuel subsidy removal was announced while delivering his inaugural speech on the 29th day of May, 2023 when he said "subsidy is gone" (Garba, 2023). Ever since the announcement was made, there has been increase in the cost of fuel across the nation, a situation that has led to high cost of transportation fare which has seriously affected farmers. The cost of purchasing farm inputs has tripled and bringing farm produce to the consumers as well. This situation has also led to high cost of living in the country as farmers especially the arable crop farmers have no choice other than to increase the prices of their farm produce which are majorly food crops (Evans et al, 2023).

Arable crop farming is a crop production type that comprises several crops. It is the cultivation of field crops that complete their life cycle, from germination to seed production, within one year. These crops include grain crops such as maize, rice and millet; pulse crops such as beans and peas; oilseed crops such as rapeseed, soyabean and sunflower and tuber crops such as potato, cassava and yam amongst others (Hajdu, 2024). The crops are grown as part of agricultural production operations for human use as well as industrial use. Agricultural production is the cultivation of crops and rearing of livestock for food production and other usage.

Oil subsidy removal in 2023 as announced by President Bola Amed Tinubu has significantly affected farmers' access to farm inputs and generally agricultural production. The increase in the price of fuel has hiking transportation fare, irrigation cost, fertilizer cost as well as cost of labour and the overall production cost of farmers. This situation has led to a reduction in farmers' profit and has as well discouraged many farmers in their production operations. It is based on the current state of farmers' inability to access farm inputs that the researcher decided to investigate the influence of oil subsidy removal on farmers' access to inputs and agricultural production in Northern Cross River State, Nigeria.

Purpose of the Study

The general purpose of the study was to investigate the influence of oil subsidy removal on farmers' access to inputs and agricultural production in Northern Cross River State, Nigeria. Specifically, the study investigated:

1. influence of oil subsidy removal on the costs of farm inputs in Northern Cross River State
2. the extent to which oil subsidy removal has influenced agricultural production in Northern Cross River State
3. the government policies and interventions for post-subsidy removal to support farmers in Northern Cross River State
4. what alternative farming methods can be adopted by farmers at post-subsidy removal in Northern Cross River State

Research Questions

The following research questions guided the study:

1. In what ways have removal of oil subsidy influenced the costs of farm inputs in Northern Cross River State?
2. To what extent has oil subsidy removal influenced agricultural production in Northern Cross River State?
3. What are the government policies and interventions at post-subsidy removal to support farmers in Northern Cross River State?
4. What alternative farming methods can be adopted by farmers at post-subsidy removal in Northern Cross River State?

Methodology

The study adopted a survey research design. The study was carried out in Northern Cross River State, Nigeria. The population for the study comprised all practicing farmers in the area. The sample of the study was 280 farmers who were selected using random and accidental sampling techniques. The instrument for data

collection was a structured questionnaire. The question items had a 4-point response scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) with corresponding values of 4, 3, 2 and 1. The instrument was validated by three university lecturers from Department of Agricultural Education and Crop Science Department of the University Calabar and University of Benin, Benin City respectively. Their corrections and suggestions were utilized to improve the initial copy of the questionnaire. Cronbach alpha reliability method was adopted to determine the internal consistency of the questionnaire item. A Cronbach alpha coefficient of 0.82 was obtained this was done by administering the questionnaire to arable crop farmers in Southern Cross River State. Two hundred and ninety copies of the questionnaire were administered to the respondents and 280 copies were retrieved and analyzed. The data gathered was analyzed using SPSS version 23. Mean and standard deviation were used to answer the research questions. The decision rule is that any item with a mean rating of 2.50 and above was regarded as agreed, while any item with a mean score less than 2.50 were regarded as disagreed.

Results

Research Question 1: In what ways have removal of oil subsidy influenced the costs of farm inputs and costs of farming generally in Northern Cross River State?

Table 1: Mean ratings of farmers on the influence of oil subsidy removal on the costs of farm inputs and cost of farming in Northern Cross River State

S/N	Item Statement	$\bar{X}$		SD	Decision
1.	Transportation cost to go to farm has greatly increased	3.88	0.33	Agreed	
2.	The cost of taking farm produce to market and buyers has Increased	3.85	0.36	Agreed	
3.	Cost of purchasing farm tools such as cutlass and hoe has Increased	3.73		0.45	Agreed
4.	Cost of purchasing seeds and seedlings for planting has Increased	3.44	0.63	Agreed	
5.	Nutrient replenishing inputs such as fertilizers and manure cost has increased	3.64	0.61	Agreed	
6.	The prices of herbicides for weed control have increased	3.78		0.41	Agreed
7.	Costs of pesticides, insecticides, avicides and rodenticides have increased	3.72		0.45	Agreed
8.	Farm labour has become very expensive	3.84		0.36	Agreed
9.	Price of land renting and purchase has greatly increased	3.89		0.32	Agreed
10.	Irrigation cost is no longer convenient for farmers as it has increased greatly	3.41		0.49	Agreed

Keys: *$\bar{X}$ = Mean, SD = Standard Deviation, n = Number of Respondents*

Data in Table 1 showed the mean responses and standard deviations of farmers on the influence of oil subsidy removal on the costs of farm inputs and cost of farming in Northern Cross River State. The mean values ranged from 3.41 to 3.89 while the standard deviation ranged from 0.32 to 0.63. The values of the standard deviation are considerably low and this shows that the responses are clustered around the mean. It can be deduced from the mean values that all the identified items are influences of oil subsidy removal on the costs of farm inputs and cost of farming in the study area.

Research Question 2: To what extent has oil subsidy removal influenced agricultural production and outputs in Northern Cross River State?

Table 2: Mean ratings of farmers on the influence of oil subsidy removal on agricultural production and outputs in Northern Cross River State.

S/N	Item Statement	$\bar{X}$		SD	Decision
12.	Farmers have reduced the size of their farm due to high cost of inputs and labour	3.40	0.49	Agreed	
13.	Some farmers have quitted farming due to high cost of Production	3.61	0.49	Agreed	
14.	Subsidy removal has affected farm infrastructural development	3.53	0.50	Agreed	
15.	Farmers now find it difficult to use farm machines due to high cost of fuel	3.48	0.50	Agreed	
16.	Farmers outputs have reduced as a result of high cost of Production	3.74	0.44	Agreed	
17.	Fuel subsidy removal has resulted in shortage of food supply	3.91	0.29	Agreed	
18.	Subsidy removal has heightened inflation and cost of living of farmers	3.68	0.47	Agreed	

Keys: *$\bar{X}$ = Mean, SD = Standard Deviation, n = Number of Respondents*

Data in Table 2 showed the mean responses and standard deviations of farmers on the influence of oil subsidy removal on agricultural production and outputs in Northern Cross River State. The mean values ranged from 3.41 to 3.91 while the standard deviation ranged from 0.29 to 0.49. The values of the standard deviation are considerably low and this shows that the responses are clustered around the mean. It can be deduced from the mean values that all the identified items are influences of oil subsidy removal on agricultural production and outputs in the study area.

Research Question 3: What are the government policies and interventions at post-subsidy removal to support farmers in Northern Cross River State?

Table 3: Mean ratings of farmers on government policies and interventions at post-subsidy removal in supporting farmers in Northern Cross River State

S/N	Item Statement	$\bar{X}$		SD	Decision
19.	Government should give grants to farmers to support them	3.78	0.41	Agreed	
20.	Government should give farmers land for free use or at low rate	3.78	0.41	Agreed	
21.	Seeds and seedlings should be supplied to farmers at subsidized Rate	3.54	0.50	Agreed	
22.	Farmers should be allowed access to farm machines at subsidized rate	3.54	0.50	Agreed	
23.	Transportation should be subsidized for farmers	3.63	0.48	Agreed	
24.	Agrochemicals for weed, pests and disease control should be subsidized for farmers	3.57	0.50	Agreed	
25.	Loans should be given to farmers at no or low interest rate	3.69	0.46	Agreed	
26.	Government should provide incentives to farmers	3.71	0.45	Agreed	
27.	Government should offer excise tax exemptions to farmers	3.69	0.46	Agreed	
28.	Offering financial assistance for crop and animal insurance in case of any disaster	3.68	0.44	Agreed	
29.	Offering free training and retraining programs for farmers on modern farming techniques	3.98	0.16	Agreed	

Keys: *$\bar{X}$ = Mean, SD = Standard Deviation, n = Number of Respondents*

Data in Table 3 revealed that the mean responses of farmers on government policies and interventions at post-subsidy removal in supporting farmers in Northern Cross River State are negative. The mean values ranged from 3.54 to 3.98. This showed that the items are government interventions that can help farmers in the study area cope with oil subsidy removal.

Research Question 4: What alternative farming methods can be adopted by farmers at post-subsidy removal in Northern Cross River State?

Table 3: Mean ratings of farmers on alternative farming methods that can be adopted by farmers at post-subsidy removal in Northern Cross River State

S/N	Item Statement	$\bar{X}$		SD	Decision
30.	Backyard farming and community farming should be adopted by farmers	3.53	0.50	Agreed	
31.	Organic farming can reduce the need for fuel		3.55	0.49	Agreed
32.	Use of green farming technologies should be adopted	3.74	0.44	Agreed	
33.	Diversification of crops and animal production	3.61	0.49	Agreed	
34.	Make use of solar power to pump water for irrigation	3.64	0.48	Agreed	
35.	Exploring vertical farming and hydroponics to maximize space	3.41	0.49	Agreed	
36.	Integrating aquaponics system for integrated fish and crop Production	3.41	0.49	Agreed	
37.	Use family labour instead of paid labourto reduce production cost	3.53	0.50	Agreed	

Keys: $\bar{X}$ = Mean, SD = Standard Deviation, n = Number of Respondents

Data in Table 4 revealed that the mean responses of farmers on alternative farming methods that can be adopted by farmers at post-subsidy removal in Northern Cross River State are positive. The mean values ranged from 3.41 to 3.74 and are above the bench mark of 2.50. This showed that the alternative farming methods contained in the items if adopted by farmers at post-subsidy removal will benefit farmers.

Discussion of the Findings

Based on the findings in Table 1, it was discovered that there are influences of oil subsidy removal on the costs of farm inputs and cost of farming in Northern Cross River State. Some of these influences include: increase in transportation cost to farm, increase in the cost of taking farm produce to market and buyers, cost of purchasing farm tools such as cutlass and hoe has increased, cost of purchasing seeds and seedlings for planting has increased, nutrient replenishing inputs such as fertilizers and manure cost has increased, prices of herbicides for weed control have increased, costs of pesticides, insecticides, avicides and rodenticides have increased, farm labour has become very expensive, price of land renting and purchase has greatly increased and irrigation cost is no longer convenient for farmers as it has increased greatly. The result is in in line with the report of Adewale (2024) who highlighted the effects of fuel subsidy removal on economy and logistics to include hike in fuel pump price and quality of petroleum products, increase in cost delivery and increase in cost of purchase amongst others. These findings also align with that of Evans Et al. (2023) who highlighted some of the influences of fuel subsidy removal on the economy to include hike in cost of goods and cost of living being on the increase.

The findings in Table 2 showed the influences of oil subsidy removal on agricultural production and outputs in Northern Cross River State. Some of these influences include: farmers have reduced the size of their farm due to high cost of inputs and labour, some farmers have quitted farming due to high cost of production, subsidy removal has affected farm infrastructural development, farmers now find it difficult to use farm machines due to high cost of fuel, farmers outputs have reduced as a result of high cost of production, fuel subsidy removal has resulted in shortage of food supply and subsidy removal has hiked inflation and cost of living of farmers. The result is in consonant with the report of Mukaramah et al. (2018) who reported that removal of oil subsidy led to increase in the prices of goods, agricultural production as well as outputs. The result is also in agreement with the report of Ozili et al. (2023) who reported that fuel subsidy removal increases poverty, inflation and prices of goods amongst others.

The findings in Table 3 revealed government policies and interventions at post-subsidy removal which can serve as support to farmers in Northern Cross River State. Some of the interventions include: government should give grants to farmers to support them, government should give farmers land for free use or at low rate, seeds and seedlings should be supplied to farmers at subsidized rate, farmers should be allowed access to farm machines at subsidized rate, transportation should be subsidized for farmers, agrochemicals for weed, pests and disease control should be subsidized for farmers, loans should be given to farmers at no or low interest rate, government should provide incentives to farmers, government should offer excise tax exemptions to farmers, offering financial

assistance for crop and animal insurance in case of any disaster and offering free training and retraining programs for farmers on modern farming techniques. These findings are in consonant with the report of Obiezu (2023) who reported that President Tinubu ordered immediate release of 200,000 metric tons of grains to households and 225,000 metric tons of fertilizers, seedlings and other farm inputs to farmers to reduce the impact of fuel subsidy removal.

The findings in Table 4 showed alternative farming methods that can be adopted by farmers at post-subsidy removal in Northern Cross River State. The alternative farming methods are: backyard farming and community farming should be adopted by farmers, organic farming can reduce the need for fuel, use of green farming technologies should be adopted, diversification of crops and animal production, make use of solar power to pump water for irrigation, exploring vertical farming and hydroponics to maximize space, integrating aquaponics system for integrated fish and crop production and use family labour instead of paid labour to reduce production cost. The result is in affirmation with the report of Ozozoyin (2023) who reported that some farmers had adopted the use of solar and gas driven water pump engines for irrigation due to high cost of fuel after subsidy removal.

Conclusion

This study investigated influence of oil subsidy removal on farmers' access to inputs and agricultural production in Northern Cross River State, Nigeria. The need to cushion the impact of fuel subsidy removal cannot be over-emphasized. These can be achieved by giving necessary aids to farmers to enable them carry on with their farming activities. In conclusion, government should give support to farmers in the form of loans, grants and subsidized farm inputs. Also, farmers can mitigate the influence of fuel subsidy removal by adopting farming methods that use renewable energy sources instead of fossil fuel.

Recommendations

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

1. Government should help to subsidize farm inputs for farmers to enable them continue with farming activities.
2. Transportation cost should be subsidized for farmers by government at all levels.
3. Government should give grants and loans to farmers as well as other incentives in order to cushion the effect of subsidy removal.

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