



## Fuel Subsidy Removal and Academic Performance of Agricultural Science Senior Secondary School Students in Oyo Metropolis, Oyo State, Nigeria

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### Abstract

The impact of eliminating petrol subsidies on the academic performance in agricultural science among students at a subset of secondary schools in Oyo Metropolis, Oyo town, which is made up of four local government areas in Oyo State, Nigeria, is the main subject of this study. A total number of four hundred (400) students were randomly selected from forty (40) secondary schools that offered agricultural science and ten (10) schools in each of the local governments while ten (10) students were picked from each selected school in the study area were used for this study. The structured questionnaires were designed and administered to the students in the collection of data on the impact of fuel subsidy removal. The findings showed that there was knowledge and comprehension of the effects of the removal of fuel subsidies. Transportation and student attendance were impacted financially, along with a decline in academic performance. The psychological and social well-being of society as a whole was also adversely affected. It was determined that the elimination of gasoline subsidies had an impact on agricultural science students' academic achievement. It was suggested that the government invest in educational subsidies, provide school buses to all educational institutions, supply instructional materials for basic and secondary school institutions, start student scholarship and bursary programs, and review and raise the pay and benefits of all educational staff members in light of the identified impacts.

**Keywords:** Agricultural Science, Subsidy, Academic Performance, Secondary Schools, Oyo Metropolis

### Introduction

Education moulds people, communities, and cultures; it is more than just a passing tradition, it is essential to independence, self-reliance, and freedom. An essential tool for social, political, and economic advancement is education. Education must keep evolving to satisfy the needs of students, instructors, and society at large as societies and technologies evolve (Aregbesola, 2023). Education encompasses character development and personal growth in addition to intellectual excellence. Government actions frequently impact education by determining priorities, standards, funding, and curricula. Removal of petroleum product subsidies is one such choice. To lower the cost of particular goods or services, the government or other organizations may offer financial support or incentives to individuals, firms, or particular industries and this encourages economic expansion or accomplishes particular policy goals (Adewumi et al., 2014). Teaching agricultural science to students involves instructing them in agricultural productivity processes and teaching methods. Agricultural science is a major vocational curriculum subject taught in junior and senior secondary schools in Nigeria. Ransford et al. (2015) posit that Agricultural science education was introduced, especially in secondary schools, with the intention of eradicating the perceived anti-farming sentiment among students and providing them with additional exposure to the knowledge and skills necessary for agricultural production, should they choose to pursue a career in farming. The senior high school agricultural science curriculums seek to assist students become self-sufficient in agriculture, show that farming is a respectable and lucrative career, and improve the skills necessary to carry out agricultural practices (Ogunode & Ojehenome, 2023). This will help create an agricultural career outlook and make it possible for schools to actively participate in the growth of the country through agricultural endeavours.

Therefore, the purpose of agricultural science is to impart the knowledge and abilities needed to practice agriculture for good citizenship and to contribute to food security for the sustainability of the country.

Meanwhile, Ejembi (2018) lists the seven main goals of agricultural science education: Encourage students' interest in agriculture; Provide students with a foundational understanding of agriculture; The capacity to help students acquire fundamental agricultural skills; the capacity to help students combine knowledge and skills in agriculture; the capacity to introduce students to opportunities in the agriculture sector; the capacity to prepare students for additional agricultural studies; and the capacity to prepare students for careers in agriculture.

The goals and forms of subsidies vary and include social subsidies for housing, health care, and education; infrastructure subsidies; trade subsidies; environmental subsidies; consumer subsidies for goods like food, fuel, and transportation; producer subsidies for goods like agriculture, renewable energy, and exports; and subsidies for goods like culture and art. Both positive and negative outcomes are possible with subsidies (Akinyemi et al., 2017). They can be an effective instrument for accomplishing a number of social and economic objectives, including fostering innovation, lowering poverty, and assisting businesses during recessions. However, if not properly planned and managed, they can be expensive, alter market dynamics, and result in inefficiencies. Careful policy selection and ongoing assessment are necessary to strike a balance between the advantages and disadvantages of subsidies (Ogunode & Ojechene, 2023). Nigeria is a country with abundant natural resources, its oil and gas deposits being the most notable. The country produced crude oil in the region to 2.4 million barrels per day in 2010 and accounts for about 24% of all petroleum output on the continent. It also possesses 28% of Africa's proven oil reserves, which is second only to Libya (Sanchi et al., 2023). The removal of the Premium Motor Spirit fuel subsidy is currently one of the most contentious issues in Nigeria (PMS). Nigeria's economy has not improved nor has the common public benefited from the enormous amount of money the country obtains from oil. Rather, because of smuggling, bureaucratic bottlenecks, corruption, abuse of natural monopoly advantages, incompetence, and excessive subsidies, the country's supply of refined crude oil has all but collapsed (Ibanga, 2011; Adenikinju, 2009).

The removal of fuel subsidies is a big economic policy choice with far-reaching effects on many facets of society. One area of concern is its impact on the education sector, particularly on the academic performance of students in specialized fields such as Agricultural Science. In many developing countries, fuel subsidies have traditionally helped to keep transportation costs low, which is critical for students who rely on affordable travel to access educational institutions, research farms, and training facilities. With the removal of these subsidies, there is a potential increase in transportation and overall living costs, which has created financial strain on students and their families. This economic pressure has led to several adverse outcomes, including increased absenteeism, reduced time for study due to the need for additional part-time work, and heightened stress levels. These factors can collectively deteriorate the academic performance and engagement of Agricultural Science students, who often require frequent travel for practical training and fieldwork. Moreover, Agricultural Science programs typically involve hands-on learning experiences that are essential for developing practical skills and competencies. The increased costs associated with travel to farms and other educational sites may hinder students' ability to fully participate in these critical learning activities, thereby compromising the quality of their education and future professional readiness. This study seeks to investigate the specific implications of fuel subsidy removal on the academic performance of Agricultural Science students. It will examine the extent to which increased transportation costs affect attendance, engagement, and overall academic outcomes. By understanding these impacts, the study aims to provide insights that can inform policy decisions and support measures to mitigate any negative consequences for students' education and future career prospects in the agricultural sector.

### **Purpose of the Study**

This study's goal is to investigate how the removal of fuel subsidies affects education. Among its particular goals are the following:

1. Determine the understanding of removal of fuel subsidies by agricultural science students
2. Find out how transportation and attendance of students were affected during removal of fuel subsidy on agricultural science.
3. Determine the financial implications of the removal of fuel subsidy on agricultural science students.
4. Find out how the academic performance of students was affected during the removal of fuel subsidy
5. Determine the psychological and social impacts of the removal of fuel subsidy on agricultural science students.

### **Research Questions**

1. What is the understanding removal of fuel subsidy among agricultural science students?

2. How were transportation and attendance of students affected during removal of fuel subsidy on agricultural science?
3. What are the financial implications of removal of fuel subsidy on agricultural science students?
4. How were the academic performance of students affected during the removal of fuel subsidy?
5. What are the psychological and social impacts of the removal of fuel subsidy on agricultural science students?

### Methodology

The research design used in this study is a descriptive survey research method. The study's use of a survey approach is ideal for gauging student opinions on the relationship between academic achievement and the elimination of fuel subsidies. This study was carried out in the Oyo town of Oyo state, Nigeria, This Oyo metropolis comprises four local government areas which are Oyo West, Oyo East, Atiba and Afijio local government areas of Oyo State. The population for the study comprises all the students in the secondary schools of Oyo local government areas of Oyo state, Nigeria. The total number of four hundred (400) students were randomly selected from forty (40) secondary schools that offered agricultural science and ten (10) schools in each of the local governments while ten (10) students were picked from each selected school in the study area. Students' opinions of the withdrawal of the fuel subsidy were gauged using Likert-type items on a five-point scale in closed-ended questionnaires titled "Impact of removal of fuel subsidy on academic performance of students," which were created by the researchers. For simple quantitative analysis, each case should be given a numerical value. Saunders et al. (2000) claimed that the researcher can ascertain students' opinions on how much they agree or disagree with a set of statements by using the Likert-style rating method in questionnaire design. Another benefit is that it makes it possible to give cases a numerical value for simple quantitative analysis (Zinberg et al., 2006). The consistency and accuracy of the measurement scales were examined using the Cronbach alpha test as a reliability test to gauge the instrument's dependability. With a reliability value of 0.89, it can be concluded that the questions in each construct measure the same idea.

Data was obtained through the distribution of questionnaires. There were six key sections to the questionnaire. The respondents' demographic features were the main topic of the first section. Three-item questions about awareness and comprehension of the influence and academic achievement of students dominated the first section. The second section was a five-item question on the transportation and attendance during the removal of fuel subsidy on agricultural science students, the third section focused on the four-item questions on the financial implications of the removal of fuel subsidy by agricultural science students. The fourth part was four-item questions on academic performance and students during the removal of fuel subsidy by agricultural science students. The fifth part focuses on the four-item questions on psychological and social impact during the removal of fuel subsidy by agricultural science students while the last part is on recommendations and solutions for the removal of fuel subsidy by agricultural science students. These were developed in order to address the research questions. A total of 400 copies of questionnaires were distributed to the students studying agricultural science. The Likert rating system, which has five points, was used to gauge the student's thoughts as they were expressed in the questionnaires. The pupils were given the questionnaire directly by the researchers. For data analysis, all completed questionnaires were gathered and combined. The arithmetic mean and standard deviation were used to evaluate and interpret the collected data. "Agree" was indicated by the variables with a mean of 2.5 (the midpoint) or higher, while "disagree" was indicated by a mean of less than 2.5. It was designated as a decision rule and used to show how variable the students' responses were, as measured by standard deviation (SD). A student's response is allowed if its mean score is 2.5 or higher; it is rejected if its mean score is less than 2.5.

### Results

Table 1 shows the awareness and understanding of the removal of fuel subsidies by agricultural science students. The results indicated that fuel subsidy affected students' daily transportation costs, the students first learn about the fuel subsidy removal from their family and the concept of fuel subsidy with its implications were understood which are of mean values 3.45, 3.90 and 3.67 respectively with standard deviations ranges from 0.789 to 1.056.

**Table 1: Understanding of the impact of Removal of Fuel Subsidy by Agricultural Science Students**

S/N	Item	Means	StD. D	Remark
1	Fuel subsidy affected students' daily transportation costs	3.45	0.789	Accepted
2	First, learn about the fuel subsidy removal from the family	3.90	1.056	Accepted
3	The concept of fuel subsidy and its implications	3.67	0.989	Accepted

StD. D = Standard Deviation

Table 2 indicates the impact of transportation and attendance during the removal of fuel subsidy on agricultural science students. The findings depicted that the students agreed that fuel subsidy affected their daily transportation costs to school, transportation costs increased significantly, often missing school due to transportation issues with low student punctuality and often coming to school late with mean values of 4.55, 4.34, 4.22, 3.45 and 4.01 respectively. The standard deviation varies from 0.890 -1.098.

**Table 2: Impact on transportation and attendance during removal of Fuel Subsidy among Agricultural Science Students**

S/N	Item	Means	StD. D	Remark
1	Fuel subsidy affected your daily transportation costs to school	4.55	1.098	Accepted
2	Transportation costs increased significantly	4.34	0.890	Accepted
3	Often missing school due to transportation issues	4.22	1.004	Accepted
4	Students punctuality	3.45	1.088	Accepted
5	Often coming to school late	4.01	1.009	Accepted

StD. D = Standard Deviation

The financial implications of the removal of fuel subsidy by agricultural science students are shown in Table 3. The results show that fuel subsidy removal affected students family's overall financial situation, increased financial strain, cutting down on any other expenses to afford transportation to school and food, clothing and educational materials were mostly affected during this period. Thus, the mean values were 3.45, 3.09, 2.67 and 3.92 respectively coupled with standard deviation that ranges from 0.987 to 1.098.

**Table 3: Financial Implications of removal of fuel Subsidy on Agricultural Science Students**

S/N	Item	Means	StD. D	Remark
1	Fuel subsidy affected students ' families' overall financial situation	3.45	1.045	Accepted
2	Increased financial strain	3.09	0.987	Accepted
3	Cutting down on any other expenses to afford transportation to school	2.67	0.190	Accepted
4	Food, Clothing and Educational materials	3.92	1.098	Accepted

StD. D = Standard Deviation

Table 4 revealed the effect of academic performance and students during the removal of fuel subsidy on agricultural science students. The results depicted that the students felt the inability to purchase necessary educational materials (books, uniforms, etc.), inability to participate in practical agricultural science activities and declined grades in the agricultural science outcomes with the mean values of 3.45, 3.09, 2.67 and 3.92 while the standard deviation varies from 0.987 – 1.098.

**Table 4: Academic performance of students affected during the removal of fuel subsidy**

S/N	Item	Means	StD. D	Remark
1	Inability to purchase necessary educational materials (books, uniforms, etc.)	3.56	1.098	Accepted
2	Inability to participate in practical Agricultural Science activities	3.67	1.090	Accepted
3	Grades in Agricultural Science changed	4.06	1.045	Accepted
4	Feel less motivated to study Agricultural Science due to financial	3.78	1.091	Accepted

StD. D = Standard Deviation

The psychological and social impact of the removal of fuel subsidy by agricultural science students is presented in Table 5. The results indicated that students accepted that fuel subsidy caused any stress or anxiety related to their school attendance and academic performance, felt supported by teachers in managing the challenges, noticed many changes in their classmates' attendance and participation with more absences and less participation and these had mean values of 3.95, 4.08, 4.23 and 4.56 respectively with a standard deviation of 1.092, 1.008, 0.908 and 1.005 respectively.

**Table 5: Psychological and Social Impact During Removal of Fuel Subsidy**

S/N	Item	Means	StD. D	Remark
1	Fuel subsidy caused any stress or anxiety related to students' school attendance and academic performance	3.95	1.092	Accepted
2	Felt supported by teachers in managing the challenges	4.08	1.008	Accepted
3	Noticed any changes in your classmates' attendance and participation	4.23	0.908	Accepted
4.	More absences or less participation	4.56	1.005	Accepted

StD. D = Standard Deviation

Table 4.6 depicts the recommendations and solutions for the removal of fuel subsidy that will impact positively on agricultural science students. The findings show that the students agreed that the provision of transportation, provision of scholarships, free school meals and subsidized transportation, the provided solutions were effective and government assistance will be always needed to survive the situation of removal of fuel subsidy with mean values of 4.50, 4.05, 4.55 and 4.67 respectively while the standard deviation is from 1.034 to 1.090.

## Discussion

The awareness and understanding removal of fuel subsidy by agricultural science students in the study shows that most of the students heard this issue from their family and the problems that this will cause and this is similar to the results of Adewunmi et al. (2014) and Ogunode and Aregbesola (2023) that reported that family firstly had the awareness and understanding the negative effects of removal of fuel subsidy before the students will felt it. Adewunmi et al. (2014) emphasise that the society at large which started from a single-family felt the econometric effect of the removal of fuel subsidy while Ogunode and Aregbesola (2023) claimed that families first felt the negative influence of subsidy removal on the fuel. However, transportation and attendance during removal of fuel subsidy by agricultural science students revealed daily transportation costs to the school, transportation costs increased significantly, often missing school due to transportation issues with low student punctuality and often coming to school late. These observations were in accordance with the works of Ogunode and Ukozor (2022); and Chinwuba and Bandekaji (2023) who reported that the soaring costs of school bus fees and the outrageous rates charged by commercial motorcyclists, often known as motorcycles, have made it more and more difficult for me to get my kids to school. This is a major concern for many parents. This study was also in agreement with Ogunode and Abiola (2022) who believed that educators are responsible for carrying out the educational curriculum. They prepare lesson plans and notes, assess students, create test questions, and grade answer sheets in addition to teaching. In addition, they serve as class leaders, offer academic support, communicate with parents about their children's development, and occasionally accompany pupils on field trips

with permission from the school. However, Ogunode et al. (2020a); Ogunode and Abubakar, (2021) claimed that the subsidy removal has impacted negatively on the students and learners in Nigerian educational institutions while many of the students transported to school dailies because their schools are located far from their homes. Due to the high cost of transportation fairs that is caused by the removal of subsidies, many of the students at the basic schools and secondary schools now miss lessons in their respective schools and these observations agree with this present study.

Financial implications of the removal of fuel subsidy by agricultural science students indicated that students' families were affected in terms of overall financial situation, increased financial strain, and cutting down on any other expenses to afford transportation to school and food, clothing and educational materials were mostly affected during this period. Thus, this finding was in agreement with the studies of Ogunode and Ojochenemi (2023); and Ogunode and Ukozor (2022) that due to Nigeria's removal of subsidies, the cost of numerous instrument materials has increased, and the increase in gasoline prices has had an impact on the removal of subsidies, driving up the price of commodities on the market. The academic performance and students during the removal of fuel subsidy on agricultural science students indicated that students felt the inability to purchase necessary educational materials (books, uniforms, etc.), inability to participate in practical agricultural science activities and declined grades in the agricultural science outcomes. This study agreed with the works of Darlington and Monday, (2023) that fuel is our nation's lifeblood; anything you touch here will have an impact on everything. As a result, the cost of educational materials is particularly high due to the high expense of bringing these resources from the cities. Ikenga and Oluka (2023) reported that learning power would be negatively affected due to fuel subsidy removal in their study on an examination of the benefits and challenges of the fuel subsidy removal on the Nigerian economy in the fourth republic which agreed with a present study on the impact of the removal of fuel subsidy on academic performance of agricultural science.

The psychological and social impact during the removal of fuel subsidy on agricultural science students depicted that students accepted that fuel subsidy caused any stress or anxiety related to school attendance and academic performance, felt supported by teachers in managing the challenges, and noticed any changes in their classmates' attendance and participation. This is in harmony with earlier findings of Ogunode et al. (2020b) noted that the efficient execution of instructional programs at educational institutions depends heavily on the teachers and there is no substitute for teachers in educational institutions. The recommendations and solutions of the removal of fuel subsidy on agricultural science students show that students agreed that the provision of transportation, provision of scholarships, free school meals and subsidized transportation, the provided solutions were effective and government assistance will be always needed to survive the situation of removal of fuel subsidy. This was similar to the study of Ogunode and Ojochenemi (2023) that noted an investment of 20% of subsidy funds on education, provision of school buses to all educational institutions, provision of instructional resources for basic and secondary school institutions, commencement of scholarship and bursaries programmes for tertiary institutions students, review and increase the salaries and allowances of staff of educational institutions at all levels.

## Conclusion

The study shows that the students first learned about the removal of the fuel subsidy from their family and the concept of fuel subsidy with its implications were understood, subsidy affected students' daily transportation costs to school, transportation costs increased significantly, and often missing of school due to transportation issues with low students punctuality and often coming to school late. Moreover, fuel subsidy removal affected students' families' overall financial situation, increased financial strain, cutting down on any other expenses to afford transportation to school and food, clothing and educational materials. The students felt the inability to purchase necessary educational materials (books, uniforms, etc.), and the inability to participate in practical agricultural science activities which later affected their poor performance and led to declined grades in agricultural science. The students accepted that fuel subsidy caused any stress or anxiety related to their school attendance and academic performance, felt supported by teachers in managing the challenges, and noticed many changes in their classmates' attendance and participation with more absences and less participation.

## Recommendations

The study's impacts were taken into consideration while making the following recommendations:

1. Financial aid sure be provided to enhance financial programme of the students such as abundant scholarship schemes and provision of educational materials for secondary school students.
2. To lower the high expense of operating student transportation, the government should offer free transportation with assistance from a number of agencies.

3. Tutoring and counselling services should be encouraged by educational assistance programs in order to assist pupils in overcoming their current academic obstacles.
4. Governments and other interested parties ought to make an effort to support school instructors with their lesson plans.
5. Students appear to be at the receiving end of the learning process, thus anything that occurs has a direct impact on them, which suggests that there should be enough resources provided.
6. Monitoring and evaluation as a means of providing input to the government in order to prevent any government support from being implemented in a way that might negatively impact students in the event that the fuel subsidy is removed.

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