

IMPACT OF HOME GROWN SCHOOL FEEDING PROGRAMME ON AGRICULTURAL PRODUCTIVITY OF FARMERS AND ECONOMIC STATUS OF FOOD VENDORS IN ERA OF ECONOMIC UNCERTAINTIES IN ADAMAWA STATE

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Abstract

The study was carried out to determine the impact of Home Grown School Feeding Programme on agricultural productivity of farmers and economic status of food vendors in an era of economic uncertainties in Adamawa State. Three objectives guided the study, the objectives were translated into three research questions. Mean and standard deviation were used to answer the research questions. A descriptive survey research design was used for the study. The study was conducted in Adamawa State of Nigeria. The population of the study comprised of 1,417 peasant farmers and 1,417 food vendors. The sample for the study was 302 farmers and 302 food vendors obtained using Krejcie and Morgan's (1970) table for determining sample size. Data for the study were obtained using a structured questionnaire for farmers and food vendors. The instrument was subjected to face and content validity by two experts in Agricultural Education from the Department of Vocational and Technical Education, Adamawa State University, Mubi. The instrument was tested for reliability and a reliability coefficient of 0.78 and 0.72 was obtained for the two instruments respectively. The researcher administered and retrieved the instruments. Results from the study revealed that Home Grown School Feeding Programme has significant impact on agricultural productivity of farmers in Adamawa State with a grand mean of 3.01, the programme also has a positive impact on the economic status of food vendors in Adamawa State. Based on the findings of the study, recommendations were made among which: The Federal Government should sustain the Home Grown School Feeding Programme because of the significant impact it has on agriculture.

Keywords: Home Grown School Feeding Programme, Agricultural productivity, Farmers, Food vendors

Introduction

Government at local, state and national levels in the world have come up with various programmes and policies aimed at providing solution to the large number of out-of-school children in the world at large and also to reduce poverty among its citizens most especially women. Many policy solutions have been proposed to aid the achievement of reducing the number of out-of-school children and poverty. Some of these policies among others include the introduction of Home Grown School Feeding Programme (HGSFP) to improve demand for schooling. One of the benefits linked to HGSFP is better access to adequate food through local agricultural production.

The rationale behind the use of locally produced food is that it can provide a readymade market opportunity and a reliable source of income to peasant farmers. Some are linked to profit making by farmers due to short distances between the peasant farmer and the market, and the schools thereby cutting expenses on transportation and middle men. The

reduction in the travelling distances enables the peasant farmer to be efficient in supplying food vendors the produce with little or no extra cost incurred due to transportation. With the elimination of middle men, food vendors will get the products not only cheap but also fresh and this could help peasant farmers increase their productivity thereby improving their living conditions. The HGSFP therefore provides children with safe and good quality food and at the same time eliminates universal hunger and poverty through sustainable income for peasant farmers and food vendors.

The Home Grown School Feeding Programme was introduced to basically contribute to education, agriculture and health. The link between school feeding programme and local agricultural production and its potentials benefits to local economy and the incomes of small scale farmers is very important. Okumu and Muhingi (2021) observed that government at various countries in Africa started to explore the HGSFP as a mechanism to simultaneously tackle food insecurity, stimulate local agricultural production, increase rural incomes and support education. World food programme (2015) noted that many national governments are increasingly sourcing food for school feeding programme from local small holder farmers to increase local agricultural production, strengthen their local food system, and improve the livelihood of the people by lifting them out of poverty. Agriculture plays an important role in both developed and developing countries in the world. Adebisi et al. (2019) stated that agriculture is a core medium for driving growth and development in many developing countries like Nigeria. HGSFP was recognized in the 2017 African Agriculture Status Report (Alliance for a Green Revolution in Africa) as a critical intervention for allowing the development of agriculture and resilient value chains for small holder or peasant farmers (AGRA, 2017).

African government in their aim to restore agricultural growth, food security and rural development in the continent endorsed the HGSFP especially for rural areas facing the dual challenge of high chronic malnutrition and low agricultural productivity. The idea behind the programme is acknowledged by the Millennium Hunger Task Force as a prompt effort to combat poverty and malnutrition through boosting dietary status of pupils and improving financial earnings of farmers' household (Igboji et al., 2022). Musa (2021) observed that the HGSFP aims to increase local agricultural production while also stimulating the national economy. He further asserts that in Nigeria, the programme is expected to serve as a means of stimulating local agricultural production, creating jobs and reducing high levels of poverty among peasant farmers and food vendors in the community, and ultimately improving the overall socio-economic condition of the local population.

According to Odum (2016), the small and medium scale farmers will gain in the HGSFP. He noted that the HGSFP is gulping up to 530,000 metric tons of food from the farm every year. He maintained that there are 54,434 public primary schools in Nigeria with an estimated population of about 24,422,918 pupils (a figure that is ever increasing with population growth). The implication of this number is manifold from the egg consumed in the programme. He stated that with this figure, it will bring a revolution in the number of and output from hatcheries for production of layers and also from feed (maize, groundnut, soybean) and farm production to bone meals and vitamin supplements as well as veterinary drugs. He observed that in Kaduna State alone, about 360 metric tons of rice is required weekly for HGSFP in the state and the programme largely depends on availability of produce from the farmers.

HGSFP stimulates local food production and increase farmer's income. Appollm and Daniel (2021) observed that in the programme, food is purchased locally benefiting peasant farmers and the entire community. Food vendors are fully integrated into the school feeding programme with peasant farmers providing them with the essential local food stuff for the meals thereby providing ready-made outlets for agricultural produce. Victor (2018) posited

that beyond the immediate benefits for children, HGSFP when linked to local small holders farming and agricultural production can shorten supply chains and ensure the diversification of food procurement, increasing the use of neglected and underutilized traditional foods, while enhancing biodiversity conservation and sustainability of the environment. Sitali (2021) observed that the HGSFP is recognized as a means to support the small holder farmers and the women that are economically poor and depend on others for their basic needs such as food and shelter, and the development of local community. It has the potential to contribute to achievement of the sustainable development goals related to primary education, food security and agriculture. Azubuike and Mbah (2019) noted that the Home Grown School Feeding Programme can boost agriculture through school farms by inculcating the rudiments of agriculture in school children and also providing produce which can be channeled into the Home Grown School Feeding Programme thereby ensuring improved productivity and sustainability in agricultural production of peasant farmers in the nation.

Although women play a critical role in the well-being of their family, they, more than men suffer more structural and institutional obstacles that limit their full participation. Lack of access to resources for production has an impact on women's short-term and long-term economic well-being and position in the society in general and households in particular. Poverty has been a menace to a large portion of women population in Adamawa state. According to Madugu et al. (2019), the state has a large number of people living in abject poverty, and in all the poverty related issues, the number of women has always been above that of men. Women receive the brunt of poverty related challenges in all areas where poverty is prevalent in the state. Women play an important role in the welfare of their household, when they are empowered economically, there is tendency that the impact will be felt on their household.

Food vendors are the people responsible for preparing and serving food to pupils and as such have important input to make on the operations of the HGSFP and the programme aim to improve their financial status (Ayoola, 2014). Thomas and Nwokocha (2021) posited that the cooks otherwise known as food vendors are at the center of implementation of the HGSFP. They are primarily responsible for preparing and serving the meal for the feeding programme in their various schools of posting. According to Musa (2021), HGSFP addresses poverty among local community members by involving local women known as food vendors to patronize agricultural goods produced by small holder farmers and stimulating local economic activities through the multiple effect of the programme and agricultural value chain. HGSFP develops the value chain by creating jobs for the food vendors, ensuring a sustainable income for them through preparation of meals for an average of fifty pupils per school. Okolo-Obasi and Uduji (2022) support the point above by asserting that HGSFP aims to support incomes of caterers and cooks (food vendors) involved in the food service provision. Solomon and Yusuf (2022) noted that food vendors were appointed for the HGSFP, trained and equipped with uniforms and necessary working materials to enable them prepare food for pupils and also improve their economic status. In a study conducted by Jumare (2020), it was observed that caterers (food vendors) benefits from the implementation of the HGSFP.

Despite the benefits derived by food vendors from HGSFP, there are some challenges associated with the programme. Gbadamosi (2021) reported that money disbursed to food vendors for the HGSFP in Ondo State is grossly inadequate to prepare a quality meal. He further explained that the food vendors have been experiencing series of challenges ranging from the operation and logistic problems due to the current economic and market realities. Ogunode and Abubakar (2021) also identified some of the challenges faced by the food vendors to include delay in release of fund to the food vendors, not providing food rich in quantity and quality to the pupils due to insufficient fund for the ever increasing population

of pupils. Similarly, Solomon and Yusuf (2022) also observed that many of the food vendors do not receive alert promptly and delays in payment of food vendors sometimes result in some schools going on for a week or two without the pupils getting the meal. In view of the above, hence the study.

Statement of the Problem

Farmers and women in Adamawa State are faced with numerous challenges as the state is one of the low income generating states in Nigeria where hunger and poverty has a firm grip on many families. Poor household in the state sometimes find it difficult to provide food for the whole family because their farming activities and food production falls short of the required food to meet the demand of the household. The Home Grown School Feeding Programme has the potentials of improving agricultural production of peasant farmers and by engaging women in the programme, making it possible for some of the families to have more expendable income. Despite the relevant role Home Grown School Feeding Programme plays in keeping out-of-school children in school and empower the peasant farmers and food vendors in benefiting communities, there are numerous challenges that emanate from the whole process which range from low agricultural productivity and poverty among communities implementing the HGSFP in the state. However, the intention of HGSFP is expected to have a multiplier benefit among primary school pupils, agricultural productivity of peasant farmers and reduction of poverty among food vendors based on the variables of the study. Therefore, the study was carried out to determine the impact of Home Grown School Feeding Programme on agricultural productivity of farmers and economic status of food vendors in Adamawa State.

Purpose of the Study

The main purpose of the study was to assess the impact of Home Grown School Feeding Programme on agricultural productivity of farmers and economic status of food vendors in Adamawa State. The specific objectives of the study were to:

1. Determine the impact of Home Grown School Feeding Programme on agricultural productivity of peasant farmers in Adamawa state.
2. Determine the impact of Home Grown School Feeding Programme on income of peasant farmers in Adamawa state.
3. Determine the impact of Home Grown School Feeding Programme on the economic status of food vendors in Adamawa state.

Research Questions

The following research questions were answered by the study:

1. What is the impact of Home Grown School Feeding Programme on agricultural productivity of peasant farmers in Adamawa State?
2. What is the impact of Home Grown School Feeding Programme on the income of peasant farmers in Adamawa State?
3. What is the impact of Home Grown School Feeding Programme on the economic status of food vendors in Adamawa State?

Methodology

The design for the study was Descriptive survey. The study was conducted in Adamawa State, Nigeria. The population of the study comprised of 1,417 peasant farmers supplying their produce to food vendors and 1,417 food vendors employed by the federal government to prepare food for primary school pupils. The sample for the study was 302 farmers and 302 food vendors obtained using Krejcie and Morgan's (1970) table for determining sample size. Data for the study was obtained using a structured questionnaire for farmers and food

vendors. The instrument was subjected to face and content validity by two experts in Agricultural Education in the Department of Vocational and Technical Education, Adamawa State University, Mubi. The reliability of the instruments were determined and reliability coefficient of 0.78 and 0.72 were obtained for the two instruments respectively. Mean and standard deviation were used to answer the research questions. The researcher administered and retrieved the questionnaire.

Results

Research Question 1

What is the impact of Home Grown School Feeding Programme on agricultural productivity of peasant farmers in Adamawa State?

Table 1: Mean and Standard Deviation on the Impact of Home Grown School Feeding Programme on Agricultural Productivity of Peasant Farmers in Adamawa State

S/N	Item	n = 302	Mean	S. D	Remark
1	Rate of procurement of food stuff for HGSFP have increased farm size		2.91	1.38	M
2	Influence of HGSFP on food crop production		3.47	1.15	H
3	Influence of HGSFP on livestock production		2.67	1.39	M
4	Impact of HGSFP on demand for locally produced agricultural commodities		3.23	1.32	M
5	Increase in quality of agricultural produce as a result of HGSFP		3.10	1.18	M
6	HGSFP has positively affected the size of land cultivated by farmers		2.66	1.49	L
7	Increase in seed quantity used by farmers due to demand for their products by HGSFP		2.19	1.66	L
8	Increase in the varieties of crops cultivated by farmers due to HGSFP		2.66	1.38	L
9	Improvement in marketing of agric products grown locally by farmers		2.99	1.40	M
10	Improvement in the linkage between farmers and food vendors by HGSFP		3.14	1.32	M
11	Increase in farmers' access to credit facilities by HGSFP		3.09	1.39	M
12	Improvement of farm produce processing by HGSFP		2.91	1.36	L
13	Improvement of farm produce storage by HGSFP		3.68	1.02	M
14	Increase in sales of agricultural products due to HGSFP		3.39	1.21	M
Grand Mean			3.01		M

H: High Impact

M; Moderate Impact

L; Low Impact

The results in Table 1 presented mean and standard deviation on the impact of Home Grown School Feeding Programme (HGSFP) on agricultural productivity of peasant farmers in Adamawa State. On the average, the respondents perceived various positive effects of the programme on different aspects of agricultural productivity. The grand mean, which summarizes the overall perception was 3.01, indicating a moderate positive impact. Some notable findings include a relatively strong positive influence of the HGSFP on food crop production, with a mean score of 3.47 and a relatively low standard deviation of 1.15, suggesting consistent agreement among respondents. Additionally, there was a relatively strong positive improvement in farm produce storage, as indicated by a mean score of 3.68 and a low standard deviation of 1.02. However, there was variability in responses for other items. HGSFP has a generally positive impact on various aspects of agricultural productivity, with stronger effects on food crop production and farm produce storage. However, there are

areas where the programme's impact was less consistent and may require further investigation to understand the factors contributing to the variability in responses.

Research Question 2

What is the impact of Home Grown School Feeding Programme on income of peasant farmers in Adamawa State?

Table 2: Mean and Standard Deviation on the Impact of Home Grown School Feeding Programme on Income of Peasant Farmers in Adamawa State

S/N	Item	n = 302	Mean	S. D	Rmk
15	Increase in prices of peasant farmers' agricultural products due to HGSFP		3.11	1.21	M
16	Impact of HGSFP on food production of peasant farmers		3.13	1.37	M
17	Transformation in the output of peasant farmers as a result of HGSFP		3.08	1.62	M
18	The income generated from HGSFP has changed the nature of peasant farmers' Shelter		2.90	1.41	L
19	Reduction in the amount of post-harvest losses incurred by peasant farmers due to HGSFP		3.17	1.29	M
20	Transformation on the amount of house hold savings of peasant farmers		3.19	1.18	M
21	Reduction in poverty among peasant farmers due to HGSFP		3.01	0.98	M
22	Improvement in health care delivery of peasant farmers' family by HGSFP		2.84	0.84	L
23	Increase in family security due to income from HGSFP		3.30	0.90	M
24	Change in peasant farmers' mode of transportation because of HGSFP		2.71	1.02	L
25	Better education opportunities for peasant farmers' children due to HGSFP		2.59	0.81	L
Grand Mean				3.00	M

Table 2 presented results with the mean and standard deviation on the impact of Home Grown School Feeding Programme (HGSFP) on the income of peasant farmers which also included the livelihood of peasant farmers in Adamawa State. On average, the respondents' perceptions indicated several key findings. Firstly, it appears that the HGSFP has led to an increase in the prices of agricultural products produced by peasant farmers, with a mean score of 3.11. This suggested that the programme had positively influence on the economic returns from farming activities. Secondly, the HGSFP has had a notable impact on reducing post-harvest losses among peasant farmers, as indicated by a mean score of 3.17. This is crucial for enhancing overall income and food security. Furthermore, the income generated from the HGSFP has brought about significant positive changes in the lives of peasant farmers, including improvements in shelter, household savings, family security, and even transportation modes, as indicated by mean scores ranging from 2.71 to 3.30.

Research Question 3

What is the impact of Home Grown School Feeding Programme on the economic status of food vendors in Adamawa State?

Table 3: Mean and Standard Deviation on the Impact of Home Grown School Feeding Programme on the Economic Status of Food Vendors in Adamawa State

S/N	Item	n = 296	Mean	S. D	Rmk
26	Increase in income of food vendors by HGSFP		2.35	1.19	L
27	Improvement in savings of food vendors by HGSFP		3.63	1.43	M
28	Modification on the mode of transportation of food vendors by HGSFP		3.42	1.30	M
29	Improvement in the security of food vendors' family by HGSFP		3.28	1.20	M
30	Influence of HGSFP on food vendors' ability to feed their family members		3.27	1.18	M
31	Increase in the food vendors' ability to take care of their health challenges		3.95	1.06	M
32	Ability of HGSFP to determine other businesses engaged by food vendors		3.93	1.05	M
33	Level at which HGSFP has positively altered the education of food vendors' children		3.65	1.37	M
34	Positive impact of HGSFP on accommodation of food vendors family		3.77	1.31	M
35	Positive change in the mode of communication of food vendors		2.84	1.51	L
36	Improvement in environmental sanitation of food vendors' family		3.20	1.51	M
37	Changes in nature of clothing of food vendors' family due to HGSFP		2.82	1.50	L
Grand Mean			3.34		M

Table 3 presented the means and standard deviations on the impact of Home Grown School Feeding Programme (HGSFP) on the economic status of food vendors in Adamawa State. The study involved 296 food vendors, and the results provided valuable insights into how this program affected various aspects of the vendors' lives. On the average, the data suggested that the HGSFP has had a positive impact on the economic status of food vendors in Adamawa State, with a grand mean of 3.34. Specifically, it indicated that the programme has led to increased income for the vendors (mean score of 2.35), improved savings (mean score of 3.63), and modifications in transportation methods (mean score of 3.42). Additionally, the programme appeared to enhance the security of the vendors' families (mean score of 3.28), improved their ability to provide food for their family members (mean score of 3.27), and enabled better care for health challenges (mean score of 3.95). Furthermore, the HGSFP seemed to have a positive influence on the vendors' ability to engage in other businesses (mean score of 3.93), positively alter the education of their children (mean score of 3.65), and contributed to the accommodation of their families (mean score of 3.77). The programme also appeared to bring about changes in the mode of communication within the vendors' families (mean score of 2.84) and improvements in environmental sanitation (mean score of 3.20) and clothing (mean score of 2.82).

Discussion

Results from the study revealed that Home Grown School Feeding Programme has made significant impact on agricultural productivity of peasant farmers with a stronger effect on food crop production and farm produce storage. The finding is supported by that of Appollm and Daniel (2021) who found out in their study that Home Grown School Feeding Programme has stimulated food production. To buttress this finding, Okumu and Muhingi (2021) also found out in their study that Home Grown School Feeding Programme has made significant impact on the farmers' agricultural productivity. The programme has led to increase in the variety of crops grown by the farmers, increase in the size of farmland cultivated by farmers and also led to increase in the yield of farmers. In the same vein, Victor (2018) reported in his study that Home Grown School Feeding Programme has made

agricultural production to improve as most food used in the feeding programme is produced in a large quantity in the beneficiary's districts and this indicates a significant increase in the production of agricultural produce.

Also, the finding of the study revealed that Home Grown School Feeding Programme has a positive impact on the income of peasant farmers by positively influencing economic returns from farming activities and also reducing post-harvest losses among peasant farmers through the provision of readymade market for their produce. This position was corroborated by Appollm and Daniel (2021) who found out in their study that Home Grown School Feeding Programme has benefited peasant farmers and the entire community through increase in income as a result of patronage through the programme. Sitali (2021) also found out in his study that the Home Grown School Feeding Programme has increased the income of peasant farmers in their respective communities. In contrast to the finding of the study, Musa (2021) found out in his study that the Home Grown School Feeding Programme has not helped farmers to generate more income from selling their agricultural products to food vendors for the programme as results from his study revealed that the income of farmers did not increase even after patronage by food vendors. Okumu and Muhingi (2021) also had a contrary finding to the finding of the study. They found out in their study that though the programme has led to increase in agricultural production of farmers in the study area, it has not increase the income of the farmers supplying their farm produce to food vendors as their income remained as it was before the introduction of the Home Grown School Feeding Programme in the area.

Finding from the study further revealed that Home Grown School Feeding Programme has a positive impact on the economic status of food vendors. The finding suggests that the programme has had a multifaceted and generally positive impact on the economic well-being and quality of life for food vendors. The finding highlights the programme potential in improving lives of food vendors and their family members, fostering economic stability and enhancing various aspect of their socio-economic well-being. In agreement with this findings, Musa (2021) found out in his study that food vendors benefited massively from the Home Grown School Feeding Programme. Through the programme, food vendors earned meaningful income that enable them to invest in personal businesses. Similarly, Ayoola (2014) in agreement with this finding found out in her study that food vendors' income has increased significantly, the food vendors benefited from the Home Grown School Feeding Programme and the knowledge and skills gained by the food vendors has since improved their purchasing skills and has helped them to improve in their personal hygiene.

Conclusion

The findings of this study established a strong and significant relationship between the Home-Grown School Feeding Programme (HGSFP) and the improvement of agricultural productivity among peasant farmers in Adamawa State. This linkage is evident in the increased crop production, improved storage practices, and reduced post-harvest losses reported by the respondents, all of which are directly attributed to the consistent demand for locally sourced food items generated by the programme.

Moreover, the study highlights that participation in the HGSFP has translated into tangible economic benefits for peasant farmers. The programme provides a stable market outlet for their agricultural produce, which has resulted in enhanced income levels and better livelihood conditions. Access to a ready market not only reduces uncertainties associated with selling farm products but also encourages farmers to expand their production capacities to meet increasing demand.

In parallel, the study also affirms that food vendors, most of whom are women from low-income backgrounds, have experienced notable improvements in their economic status due to their engagement with the programme. These benefits include increased income, improved savings, and better access to health care, enhanced ability to support children's education, and investment in other small-scale businesses. The multiple socioeconomic benefits observed among food vendors demonstrate the programme's wider impact on poverty alleviation, women's empowerment, and community development.

In essence, the implementation of the Home-Grown School Feeding Programme in Adamawa State has not only contributed to improving food security and educational access but has also become a catalyst for rural economic empowerment. It has simultaneously stimulated local agricultural production and uplifted the economic conditions of grassroots stakeholders—particularly peasant farmers and food vendors—thereby supporting broader development goals such as poverty reduction, gender inclusion, and sustainable livelihoods.

5.3 Recommendation

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

1. The federal government should sustain the Home Grown School Feeding Programme because of the benefits derived by farmers in the state.
2. Federal governments should make inputs such as seeds, fertilizer, herbicides and pesticides available to farmers at a subsidized rate to boost their income.
3. The federal government should aggregate the supply of food stuffs to food vendors in Adamawa State so as to increase their gains.

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