

Current Barriers to Staple Food Production and Affordability in Nigeria: The Food Security Implications

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Abstract

This study focused on ascertaining current barriers that affect the production of staple foods and how that affects affordability, in Nigeria. The study specifically focused on rice production, in Ebonyi State, South-east Nigeria. The motivation for the study stems from the recent astronomical increase in the prices of staple foods in Nigeria, including rice, and the need to introduce urgent measures, aimed at addressing the impacts on consumers, in terms of affordability, as well as to prevent an escalation of the current food security challenges in the country. The objective of the study is to find out the current challenges confronting rice farmers in Ebonyi State, and the implications for affordability and food security. Data for the study was collected through key informant interviews, with 50 rice farmers in Ebonyi State. The collected data were analyzed using the thematic analysis approach. The study found that the challenges which currently confronted farmers of rice in Ebonyi State and contribute to the recent hike in rice price include; the scarcity of land for cultivation, and the associated high land lease cost, high cost of fertilizers and insecticides, scarcity of labour, and erratic

weather conditions, which sometimes affects crop yield. It was also found that the prices of previously subsidized fertilizers and insecticides, provided by the State government, have suddenly increased by almost 200 percent. Amongst others, this study recommends immediate government intervention in addressing the issue of high fertilizer and insecticides price, by forming partnerships with other organizations like NGOs, local and foreign, in order to bring down the prices and also expand the reach, in terms of the number of beneficiaries. It also recommends that government should provide more support by holding Agriculture Extension trainings, which will equip farmers with the knowledge and skills needed to navigate round other challenges.

Keywords: Staple Food, Production, Affordability, Food Security, Nigeria

Introduction

Staple foods are essential food items, which form the basis of a majority of diets consumed by people (Zhang et al, 2017). Staple foods typically provide a significant part of a person's their daily calorie intake. In the case of Nigeria, staple foods play a paramount role, when it comes to the diet of it's population. The most commonly consumed staples in Nigeria, include foods like; rice, maize, cassava, yam, and beans (Olumati, 2017). These foods are not only important for their nutritional value, but also have strong cultural significance, as they make up the Nigerian cuisine in different ethnic groups. Rice, in particular, holds a special position amongst the various staple foods consumed in Nigerian homes (Gyimah-Brempong et al, 2016). It is a versatile grain, which can be prepared in various ways, sometimes in combination with other foods, and is a popular food in many households. The historical analysis of rice production in Nigeria, shows that over the years, there has gradual increase in cultivation since the 1960s, when the government introduced various initiatives to enhance rice production. Today, Nigeria is the largest producer of Rice in West Africa, as the country is responsible for over 40% of the rice produced in the sub-region (Okonkwo et al, 2021). As at 1960, the production of rice in Nigeria was about 360 000 tonnes of rice per annum (Chukwu & Umeh, 2015). *Today, the production of Milled rice in Nigeria has increased, as shown by the figure below, which presents data on the production of milled from the year 2010-2023.*

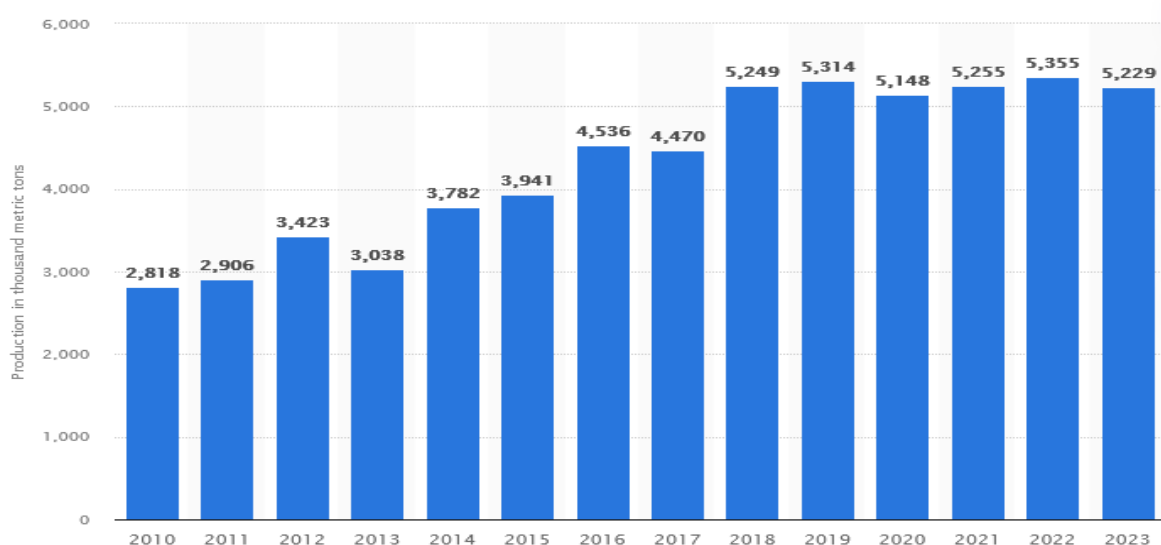


Figure 1: Production of Milled Rice in Nigeria, from 2010 to 2023 (in 1000 MTs)

Source: Statista (2025)

The above graph shows that as at 2023, production of milled rice in Nigeria, stood at about 5, 229 Metric Tonnes. However, despite the significant increase in production, Nigeria still relies heavily on rice imports, to meet it's domestic rice demand. In 2022 alone, Nigeria imported 6.06 Million Dollars worth of rice, which made the country the 162nd highest importer of rice in the world (OEC, 2022). However, with a population of over 200 million people and a growing demand for rice, the current production rate falls short of meeting the country's needs, as Nigerians consume about 6.7 million Metric Tonnes of rice, going by the 2021 statistics (Akomolafe, 2024).

Ebonyi State stands out as a major rice cultivation location in Nigeria, especially in the South-east region (Osuji, et al, 2023). The State has experienced significant growth when it comes to rice production over the years, and has become one of the leading producers and suppliers of rice in the country (Isu & Chukwu, 2023). There are contrasting statistics on the amount of rice produced in Ebonyi State annually. In 2021, the then commissioner of Agriculture claimed that Ebonyi State produces about 4 Million Metric Tonnes of rice annually, which makes the State not just a significant contributor to the overall rice production venture in Nigeria, but one of the largest producer of rice in the country (Okutu, 2021). However, recent statistics indicates that Ebonyi State, ties with Benue State, as the second largest producers of Rice after Kebbi State, as they both respectively have a production capacity of 1.5 million Metric Tonnes of Rice, annually. Given the paramount role which Ebonyi State plays as a major rice producer and supplier in Nigeria, it is important to investigate the current barriers to staple food production and affordability in the State, as part of efforts towards ensuring food security in the country.

In recent years, Nigeria has been confronted by many challenges that have led to an increase in the price of staple foods, thereby causing hardship for many Nigerians (Obiora et al, 2023). Some of these challenges include; poor infrastructure, inadequate storage facilities, inconsistent government policies, climate change, as well as the devaluation of the naira (Bello et al, 2024). These factors have all influenced the rise in the cost of staple foods, such as; rice, beans, maize, as well as yam. In the last five years, there has been significant increase in the price of staple foods in the Southern Nigeria, especially in the South-east region. According to available statistics, the prices of foods in Nigeria rose by about 91.6 % in 2024 alone, with the South-east region being the worst hit, as average food prices rose from N3,366.41 in November 2024 to N3,484.48 in December 2024, according to the National Bureau of Statistics (The Sun, 2025). This increase has been attributed to factors like; poor road networks, high transportation costs, as well as inadequate market infrastructure.

In the South-east region, including Ebonyi State, rice production plays a significant role in food security (Nwachukwu, 2023). Despite Ebonyi State's large scale rice production, the price of rice has also skyrocketed in recent times. In the last 5 years, the price of rice per bushel has risen from around N15,000 - N20,000, to about N40,000. That is a 100% increment.

Some studies have been conducted to determine the reasons behind the constant increase in staple food prices in Nigeria, including rice. Some of the authors who have conducted research in this area include Amolegbe et al (2021), Hatzenbuehler et al (2017), Matemilola (2017) and Okou et al (2022). However, despite existing studies, there is limited scholarly research attention directed towards investigating the peculiar challenges that affect rice producing in

States in Nigeria, like Ebonyi State, which play significant roles in food production, from the perspective of the farmers themselves. Therefore, this study aims identify the underlying reasons behind the recent rise in the cost of rice in Nigeria, with a specific focus on Ebonyi State, in order to provide insights on how to address the identified challenges, with the ultimate goal of enhancing rice production as well as affordability for the population.

Methodology

Data for the study was collected through key informant interviews, with 50 rice Farmers of Rice in Ebonyi State, who were purposively selected from Ohaozara, Onicha, Ishielu, Afikpo North and Abakaliki Local Government Areas. Interview was chosen as the methods of data collection because it allowed for the collection of rich and nuanced information. The collected data were analyzed using the thematic analysis Approach.

Results

The study found the following as the production related challenges to rice production, in Ebonyi State:

Scarcity of Land for Cultivation: Going by the responses of the interviewees, it was found that it is difficult to secure land for rice cultivation in Nigeria. That was attributed to a mixture of factors, which includes; the refusal of land owners to lease land, the scarcity of land suitable for rice cultivation and the high cost of renting land. The foregoing contributes to creating product scarcity and hence, price increments.

High cost of Insecticides: It was also found, based on the responses of the study participants, that the cost of fertilizers and insecticides/herbicides used in tending of the rice after cultivation, has increased by over a 200 percent. One of the study participants stated that the price of fertilizers per bag, which previously used to be around 6000 Naira, now sells for about 35,000 Naira to 40,000 Naira. On the other hand, the price of the Insecticides for pest control per carton, has moved from about 15,000 Naira to about 55,000 Naira (for the government subsidized insecticides), with some non-government connected vendors selling for as high as 75,000 Naira per carton. That extra production cost is being shifted to the consumers, which is part of the reasons why there is an increase in the price of Ebonyi rice, per bag. In addition, in the case of the Insecticides/Herbicides one of the farmers complained of reduced efficacy, as he observed that the chemicals sprayed on the farmlands to kill the grasses, in preparation for the rice cultivation, appears not to be very effective, as farmers usually have to resort to manual weeding of the grasses, even after spraying of the chemicals. That increases the labour cost, or cost of hiring manual labourers.

Erratic Weather Changes: the study participants also indicated that variations in rainfall, also affects their crop yield, the production scale and consequently the price of rice per bag. They noted that extreme weather conditions, characterized by low rainfall or very high rainfall, usually affects the crop yield. When there is low crop yield, price is certainly going to be affected as there will be product scarcity.

Low Quality Seeds, Incompatible Seeds and Scarcity of Seedling: Also, the responses of study participants indicated that they face difficulties when it comes to getting quality seedlings for cultivation. In addition to that, some available seedlings are usually of low quality. There is also the issue of seedlings being incompatible with the different soil types

across communities in Ebonyi State. For instance, the farmers noted that the premium rice seedlings made available by the Ebonyi State government was not suitable for all the soil types in the various communities in Ebonyi State, and only seemed to do well in the Afikpo area. These challenges also contribute to causing under-production, scarcity and consequently, high purchase price for the final consumers.

Existence of resistant pests: One of the study participants also noted that there appears to be existence of resistant pests, which have been found to attack the rice farms, towards the advanced periods of germination. According to him, those pests seriously affects their crop yield. However, he was unable to identify the pest by name, and that indicates the need to study further, in order to identify the specific pest in question, and how to stop it's attacks.

High cost of Labour: Again, high cost of Labour was found to be one of the factors that affect rice production in Ebonyi State. The rural to urban migration trends, which has seen many young people moving to the cities, appears to have affected the availability of labourers to work on farms. Consequently, available labourers charge exorbitantly high for their services, and that particularly accounts for why the price of the rice is very high for consumers.

Discussion

The findings of this study are consistent with that of similar studies conducted in other parts of the world, especially in Asia, where rice production is also a major agricultural venture. A study by Jilito & Wedajo (2020) in Ethiopia found that the high cost of products such as fertilizers and pesticides, as well as labor, stand as major constraints to food production in the country. Similarly, a study by Chu et al (2021) in Vietnam, highlighted the challenges of land scarcity as well as the high cost of inputs in rice production, which also contribute to the increases in price of rice for consumers. In India, a study by Kumar et al (2021) also identified challenges related to seed quality and pest resistance in rice production. The study found that farmers in India, also face difficulties when it comes to accessing high-quality seeds and also struggle with pest attacks, which invariably affects their crop yield, and contribute to the high cost of rice production. These challenges are comparable to what was found in the current study in Nigeria, where farmers also face issues with seed quality and pest resistance.

Furthermore, a study by Cosslett et al (2018) in Laos also highlighted the impact of fluctuations in weather patterns, on rice production. That is consistent with the findings of the current study in Ebonyi State. The study in Laos found that variations in rainfall as well as extreme weather conditions, affects crop yield and production scale, thereby leading to price increments for consumers. This is similar to the situation in Nigeria, where farmers also struggle with erratic weather changes, that affect their rice production and pricing. Also, a study by Islam (2018) in Bangladesh emphasized the issue of labor scarcity when it comes to rice production. Labour scarcity was also identified as a challenge in the current study on Ebonyi State. The study in Bangladesh found that rural-to-urban migration has resulted to a shortage of laborers in the agricultural sector, thereby resulting to high labor costs for farmers. This is a shared challenge faced by farmers in Nigeria as well, where the availability of laborers is limited, and those available charge high prices for their services, thereby leading to increased production costs and higher prices for consumers.

The important contributions made by this study is that it has shed light on the peculiar challenges faced in third world sub-Saharan countries like Nigeria, where the high consumption of rice, calls for a more efforts to increase production. Note that the need for increased production is vital not just for Nigeria, but for the whole West African region as well, given the high consumption rate in the region (NEPAD, 2022).

Conclusion

This study shed light on the various barriers affecting rice production and affordability in the region. The challenges were found to range from the scarcity of land for cultivation, to the high cost of production inputs, such as; insecticides and labor, and the challenges posed by erratic weather conditions, as well as poor seed quality. The study highlights that rice farmers in Ebonyi State are facing significant obstacles, which affect their productivity, as well as the availability and affordability of rice for consumers. The presence of resistant pests further compounds these challenges, thereby making it difficult for farmers to maintain optimal crop yields. In the face of these obstacles, it is imperative to implement strategic interventions to address the underlying issues and promote sustainable rice production in the region. Hence, this study makes the following recommendations:

1. The government should collaborate with local and foreign NGOs, to bring down the prices of fertilizers and insecticides, by expanding subsidies and support programmes. Forming partnerships will allow for expanding the reach of the interventions, and that expansion would benefit a larger number of farmers. This will help reduce the production costs for farmers and subsequently lower the prices of rice for consumers, improving affordability and access.
2. There is a need for the introduction of agricultural extension trainings, tailored towards addressing the specific challenges identified in the study. These trainings should focus on providing farmers with knowledge and skills on crop management techniques aimed at dealing with erratic weather conditions, implementing effective pest control strategies, proper seed selection, based on soil types, as well as effective soil management practices. Capacity building through training programmes, will help to empower farmers to enhance their productivity as well as resilience against the production challenges.
3. Also, investments in research and development is paramount, for overcoming the issue of resistant pests as well as developing high-quality seeds and suitable seed varieties, that are compatible with the different soil types in Ebonyi State. Prioritizing research and development initiatives, will help in the innovation of agricultural technologies aimed at ensuring efficient and sustainable production practices. The research efforts should also focus on finding out the specific resistant pests, which affect rice farms, in order to develop targeted solutions for pest management.
4. In order to address the high cost of labor, arising largely due to the rural-to-urban migration trends, incentives and support programmes should be implemented, in order to encourage youth participation in agriculture. This can help to mitigate the labor shortage as well as reduce labor costs for farmers. In addition, promotion of mechanization and modern farming techniques should be implemented, in order to enhance productivity and efficiency in rice production, and minimize the dependence on manual labor.

Theoretical and Contextual Significance of the Study

The significance of this study lies in the valuable insights which it provides, when it comes to the barriers that affect staple food production in Nigeria, especially with regards to rice production. The findings of the study makes useful contributions to existing knowledge, on the factors that influence staple food production and affordability in Nigeria, especially with regards to highlighting the role which the government can play, in addressing the causative factors like high price of insecticides or pesticides. This research is specifically relevant to recent discourses on food security in Nigeria, being that it contributes to shedding more light on the recent surge in food prices in Nigeria. Its emphasis on the need for collaborative efforts, between the Nigerian government and other non-State actors, as a viable approach to alleviating the impact of the barriers on farmers production capacity, as well as consumers purchasing ability in the country, underscores the useful contributions made by the study.

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