Rising Cost of Food Prices and Food Insecurity in Makurdi Metropolis, Benue State-Nigeria

Timothy Tyowase Anchovur, Donald Tarfa Ende, and **Fanen Dekera**
Department of Sociology, Benue State University, Makurdi - Nigeria.

Benjamin Terzungwe Tough
Department of Political Science, Benue State University, Makurdi - Nigeria.

Abstract
Soaring food prices has had a global toll on food security. This study accessed how rising food prices affect food security in Nigerian cities with a focus on Makurdi Metropolis. The objectives of the study were to find out the nature of food prices, identify the factors that influence the rising food prices, ascertain the effects of the rising food prices on food security and suggest measures that will reduce high cost of food and ensure food security. The study adopted Rational Choice Theory as a theoretical guide. Data for the study were collected from 379 respondents using Questionnaires. The study hypothesised that high food prices do not affect physical and economic access to food. However, tested at 0.5 significant level, the Chi-Square result shows that high food prices have a significant effect on food security. Findings also revealed that increase in exchange rate, government embargo on some food stuffs, low production by farmers, population increase and purposeful increment by marketers are the factors that have led to the rise in the cost of food prices. Other findings revealed that due to the high cost of food prices, the quantity and quality of food purchased by households in Makurdi is negatively affected thereby reducing the quantity of nutritional food that is required for household consumption. The study recommends, among others, that government should revisit its food importation policy and ensure that food items that are not produced enough locally to meet up with demand are allowed into the country until local production is capable of meeting the demands of the population. Government should set up maximum prices on food items so that consumers can afford to buy foodstuffs that would meet up with their household physical and nutritive consumption needs.

Key words: Cost, Food Prices, Food Insecurity, Makurdi

Introduction

Changes in the prices of agricultural commodities in markets across the globe have raised major concerns about their impact on consumers. Major price spikes occurred in 2007-2008 and 2011-2012 (Agronomo, 2016). After many years of relatively stable food prices on world agricultural markets, there have been reports of price spikes in the past few years. This price volatility has drawn the attention of ordinary citizens, the media, government, and international organizations around the world.

In the global context, there has been a dramatic increase in food prices in the recent past, signalling an end to a long-term decline in real food prices. For example, the Food and Agricultural Organisation (FAO) food price index of commodity prices rose to 57% over March 2007-March 2008 after a 9% increase in 2006 (cited in The Kenya Food Security Steering Group [KFSSG], 2008). At the beginning of 2008, real prices reached their highest level in nearly 30 years. The sustained rise has negative implications for household food security of vulnerable groups.

The food security assessment in 2005 indicated that 750 million people were food insecure in 70 low-income countries. Asia and Commonwealth of Independent States experienced a 30% drop in the number of hungry people (FAO, 2008). Food prices in Latin American and the Caribbean countries has varied slightly over time, but there has been a discernible trend across the region as a whole. In the African region, Sub-Saharan Africa is the region where hunger has increased significantly in the last decade (FAO, 2008). The challenge today is that high food prices will cause increase in food insecurity

and widespread food crisis in many developing countries. To FAO (2008), poor people in developing countries spend between 50-80% of their income on food to meet consumers need. Any increase in food prices will reduce food consumption and increase hunger.

The issue of food security has been on the front burner for long and statements are that several countries in Africa are facing food insecurity. Indeed, most African countries such as Somalia, Ethiopia, some parts of Kenya and Nigeria, among others have been confronted with horrific photographs of starving children. These frightening photographs depict an avoidable disaster. Thus, Africa's agricultural system is backward, and worsened by high global food prices (Eme, Onyishi, Uche & Uche, 2014). In Nigeria, food accounts for a large, and increasing share of family budgets for poor rural and urban families. As prices of staple foods soar, poor people bear the brunt. Currently, the prices of rice, corn, yam, tomatoes and wheat among others records high roof-tops and the urban population is the most affected in the situation.

Food crisis has been attributed to a number of factors including climate change, population growth, increased demand for bio-fuels, failure to improve crop yield, high oil prices, leading to increased input loss for producers and traders. The structural problems like under-investment in agriculture and dominance in supply chain of food and agricultural policies have influenced the increase in the prices of food. Rapid urban growth, communal and farmer-herder conflicts for instance, are raising concerns about food supply (Terzungwe & Tordue, 2018).

High food prices, especially when they have increased suddenly and unexpectedly, have been found to hurt many poor people around the world. The Global Monitoring Report [GMR] (2012), finds that the food price shock that peaked in early 2011 pushed nearly 50 million people into poverty. Martin and Ivanic (2012), explains that on one level, this is not surprising because the poorest people, after all, spend nearly all of their income on food. But on further reflection, this result is not so obvious as three quarters of the world's poor are rural and the majority of them depend on farming for their livelihoods. The problem is that, unlike farmers in rich countries, many poor farmers in developing countries do not produce enough food to meet their families' needs. Obviously, these net buyers of food are hurt by higher food prices even though they are farmers.

In Nigeria, food prices exhibit some behaviour through time. Olukosi and Isitor (1990) and Okuneye (2008), note that such behaviour included seasonal patterns of change, yearly variations, trends and cycles. But of all these changes, seasonal price changes stand out as the most distinct feature of agricultural commodities. It is common to see highly reduced market prices of food crops particularly during harvest time and skyrocketed prices off seasons. This scenario is quite common with food grains and vegetables. These price variations often determine the level of access and consumption of these food crops by households. Now, the question that remains unanswered is, will there ever be a time when one will not have to worry about where his or her next meal is coming and at what cost? This challenge among others modestly constitutes the thrust of this research work, with particular attention to Makurdi, the metropolitan area of Benue State, Nigeria. The broad objective of this study therefore was to access the impact of rising food prices on food security in Nigerian cities especially in Makurdi metropolis, while the specific objectives were to:

i. Assess the nature of food prices in Makurdi metropolis
ii. Ascertain the factors responsible for rising food prices in Makurdi metropolis
iii. Examine the effects of the rising food prices on physical and economic access to food in Makurdi metropolis
iv. Suggest measures that can help reduce high food prices and ensure food security in Makurdi metropolis

Research Hypothesis

i. High food prices have no effect on physical and economic access to food among households in Makurdi metropolis

Literature Review

Nature of Food Prices in Nigerian Cities

Since the Food and Agriculture Organisation (FAO) started to record the food price index, world food prices have fluctuated periodically. According to Leyaro, Morrisey and Owens (2009), the rate of the rise in world food prices has shot up, and was reportedly still rising, even at the peak between January 2007 and 2008. The situation changed and prices started falling but then greatly started to increase in June 2010 and reached their peak in 2011 (Mbegalo & Yu, 2016). According to the FAO (cited in Mbegalo & Yu, 2016), during the food prices crisis of 2011, the food prices index was even higher than the recorded food prices index of 2008. Minot (2010), points out that the global food price is partially transmitted in the domestic markets in sub- Saharan Africa, particularly in Nigeria.

Nigeria has experienced higher prices since early 2004. Between 2003 and 2008 domestic prices of important food items, which include maize, fresh cassava and dry cassava, increased by 44%, 50% and 44% respectively (Andrea & Thadeus, 2010). According to the National Bureau of Statistics [NBS] (2012), food prices increased by 22% between October 2008 and December 2012. The sharp rise in global food and fuels prices in 2008 and again in 2011 has caused a significant rise in headline inflation in Nigeria. At their peak, in December 2011, year- on-year inflation in the food and energy sub-indices reached 25.6% and 41.0% respectively (NBS, 2011). These global crises were expected to have a powerful impact on overall inflation, both directly, and in the case of energy prices, indirectly through the large share of transport and distribution costs that make up retail prices (Adam, Kwimbere, Mbowe & O'Connell, 2012).

The food price crises place an extra burden on consumers by reducing their purchasing power and consumption basket, because most of the household expenditures in urban areas are on food. For instance, Mbegalo and Yu (2016), states that the average share of food expenditure in the total household's expenditure in Tanzania, stood at 69.5% in 2001 and declined marginally, hitting 66.6% in 2007, reflecting a small decline in the poverty level during this period. The price of goods and services have a major impact on the livelihood of consumers; food price has a major impact on non-food items and inflation trends as it accounts for 51% of the consumption basket in Tanzania with energy and transport costs accounting for a further 60% each (Adam et al., 2012).

In general, the prices of many commodities have followed an increasing trend that skyrocketed between 2007 and 2008, especially in the case of rice, sorghum, cassava, soybean, maize, millet, and wheat. Even after 2008, prices of many crops continued to rise and from 2020 prices of food products have been on the rise. This has great implication on household budgets.

Factors Responsible for Rising Food Prices

There is growing consensus that food prices have increased due to fundamental shifts in global supply and demand. A variety of forces contribute to rising food prices: high energy prices, increased income, climate change and the increased production of biofuel. Income and per capita consumption in developing countries has increased; consequently, demand has also risen. Biofuel policies adopted in developed countries also explain the growth in demand (World Bank, 2012).

According to Cohen and Garrett (2009), a number of structural and closely connected forces aligned to drive prices up. In the short term, these included rising energy prices, recently increased subsidies for biofuel production, weather disruptions, lower holdings of international cereal stocks, and restrictive trade policies. Contributing factors included income and population growth (leading to higher demand for food in general, and for processed foods or meats that required higher amounts of cereal inputs), as well as land and water constraints, underinvestment in rural infrastructure and agricultural innovation, and lack of access to inputs. The factors responsible for the increase in food prices include among others weather/temperature, pests/disease, high energy prices, transportation costs and extortion, labour costs, supply/demand nexus, and exchange rate swings.

Impact of Rising Food Prices on Food Security in Nigeria

Higher food prices have radically different effects across countries and population groups. At the country level, countries that are net food exporters will benefit from improved terms of trade, although some of them are missing this opportunity by banning exports to protect consumers. Net food importers, however, will struggle to meet domestic food demand. Given that almost all countries in Africa are net importers of cereals, they will be hard hit by rising prices. At the household level, surging and volatile food prices hit those who can afford it the least—the poor and food insecure. The few poor households that are net sellers of food will benefit from higher prices, but households that are net buyers of food—which represent the large majority of the world's poor—will be harmed (Terzungwe & Tordue, 2018). Adjustments in the rural economy, which can create new income opportunities, will take time to reach the poor.

The impact of high food prices on food security in developing countries, where food represents over half of consumer spending and as much as 70-80 percent of expenditure by low-income families, is severe (FAO, 2008). Malnutrition is worsened, when the poor are unable to afford higher quality foods, including meat, dairy products and vegetables. Higher food prices lead poor people to limit their food consumption and shift to even less-balanced diets, with harmful effects on health in the short and long run. At the household level, the poor spend about 50 to 60% of their overall budget on food. For a five-person household living on US$1 per person per day, a 50 percent increase in food prices removes up to US$1.50 from their US$5 budget, and growing energy costs also add to their adjustment burden (Terzungwe & Tordue, 2018).

High food prices no doubt affect other aspects household security. According to Cohen and Garrett (2009), an increase in the price of a main staple can lead to a substantial drop in ability to purchase other needed goods. This impact is greatest among the poorest households, who spend the most, in percentage terms, on food. Using data from household surveys in nine developing and transition countries, FAO found that in urban areas a 10 per cent rise in staple food prices hurt the bottom 20 per cent of the income distribution the most. In countries where the main staple accounts for a large share of total calories (for example, Bangladesh, Malawi and Tajikistan), poor urban and rural households suffer substantial declines in calorie intake (FAO, 2008; Bouis, 2008). This impact varies by gender: female-headed households suffer a larger proportional drop in welfare than male-headed households because they tend to spend proportionally even more on food.

To Meerman and Aphane (2012), large, sudden and unexpected increases in food prices force people to adjust quickly. They added that consumer purchasing power goes down and households are pushed closer to or below poverty lines. This is especially true for urban families, rural households that are net consumers, and for households headed by women. At household and individual level, it means that both dietary quality and total energy intake may be reduced, compromising child growth and cognitive development, increasing risk of micronutrient deficiencies for all family members, and increasing risk of infant and maternal mortality. It means that at national level, prevalence of stunting, underweight and other forms of malnutrition may increase, slowing human development and economic growth. At global level, these outcomes threaten achievement of multiple MDGs.

It has been argued that high cost of food prices makes most households to change their diets. Meerman and Aphane (2012), avers that shifting from a varied diet rich in micronutrients to one that is derived predominantly from high-carbohydrate staples is a common response to declines in income. This is because most staple foods (for example, rice, maize, cassava) are much cheaper than fruits, vegetables and animal source foods. However, when staples are eaten on their own or with very small amounts of other foods, the result is a poor quality, monotonous diet that is likely to be nutritionally inadequate in protein, fats and micronutrients (Thompson, 2009). For example, cassava root, one of the cheapest and hence most popular staple foods in much of sub-Saharan Africa, is particularly low in protein (1.2 g protein/100 raw edible grams as compared to 6.1 g for rice) (Stadlmayr, Charrondiere, Enujiugha, Bayili, Fagbohoun, Samb & Burlingame, 2012). Nevertheless, demand for cassava increased among many cash-strapped households in sub-Saharan Africa in 2008 (FAO, 2009).

When households replace meat, fruits, vegetables and other micronutrient-rich foods with high carbohydrate staples, their energy intake may remain above the minimum requirement, but both macro and micronutrient intake is compromised, thus increasing risk of stunting, micronutrient deficiencies and associated poor health outcomes. For instance, Vitamin A deficiency (VAD) and iron deficiency anaemia (IDA) - two of the most common nutritional deficiencies in the world – are caused by diets low in animal source foods, fat, and certain fruits and vegetables. VAD is associated with impaired immunological function, increased risk of maternal and infant death, and impaired eyesight. IDA affects physical productivity in adults and cognitive and physical development in children. It is particularly detrimental during pregnancy when women's iron requirements are high. Both deficiencies are associated with increased healthcare costs and compromised human capital (FAO, 2004; Horton & Ross, 2003; World Bank, 2006).

If prices rise further and downgrading dietary quality is not enough, total caloric intake will be reduced. In addition to further increasing malnutrition, reducing total energy intake also increases risk of health shocks. This is because inadequate dietary intake weakens the immune system and increases susceptibility to disease. Infectious disease, in turn, increases nutrient requirements and weakens the immune system. This vicious circle can begin when dietary intake is inadequate in terms of quality but still acceptable in regards to total caloric intake. The situation worsens once energy requirements are no longer met (Meerman & Aphane, 2012).

Theoretical Framework

The rational choice theory, also known as choice theory or rational action theory, is adopted to explain the topic. It is a theory for understanding and often modelling social and economic as well as individual behaviour. Adam Smith is known to be the founder of the Rational Choice theory. The theory's core assumptions were subsequently developed by what is now referred to as neoclassical economics (Terzungwe & Tordue, 2018). The theory has three assumptions: (1) individuals have selfish preferences, (2) they maximize their own utility, and (3) they act independently based on full information. This means that individuals base their decisions on cost-benefit calculations and choose the alternative that generates the highest expected utility.

Rational choice theory is an umbrella term for a variety of models explaining social phenomena as outcomes of individual action that can in some way be construed as rational. "Rational behaviour" is behaviour that is suitable for the realization of specific goals, given the limitations imposed by the situation. The key elements of all rational choice explanations are individual preferences, beliefs, and constraints. According to Terzungwe and Tordue (2018), preferences denote the positive or negative evaluations individuals attach to the possible outcomes of their actions. Preferences can have many roots, ranging from culturally transmitted tastes for food or other items to personal habits and commitments. On the other hand, beliefs refer to perceived cause-effect relations, including the perceived likelihood with which an individual's actions will result in different possible outcomes. More so, constraints define the limits to the set of feasible actions (e.g., the amount of credit one can get imposes a budget constraint on those considering buying a house) (Wittek, 2002).

Elster (1989), states the essence of rational choice theory when he said that "when faced with several courses of action, people usually do what they believe is likely to have the best overall outcome" (cited in Terzungwe & Tordue, p.28). The 'rationality' defined by the rational choice theory adopts a more specific and narrower definition, which simply means that "an individual acts as if balancing costs against benefits to arrive at action that maximizes personal advantage" (Friedman, 1953 cited in Terzungwe & Tordue, 2018, p.28).

From the tenets of the theory, it could be related that the inhabitants of Makurdi are rational beings. Therefore, given the rising cost of food prices in Makurdi, people's preferences towards food items change; they tend to prefer food items that cost less in order to maximize consumption and at the same time, save cost. Thus, peoples' choices with regards to food items is important in ensuring household food security. This is because, they will be able to purchase enough food items that costs less

so as to maintain an average consumption level. So, given that for instance, 'foreign' rice now costs more that 'local' rice, people decide to patronize more of 'local' rice than 'foreign' rice. The same applies to vegetables and fruits. In the case of vegetables, when the price pumpkin leaf becomes higher than that of water leaf and amarantus for instance, people prefer the later to the former; thereby ensuring consumption optimality and household food security.

Methodology

The study adopted descriptive survey research design. This was because as Babbie (2001) states, descriptive surveys are useful tools in the measurement of public opinions, attitudes and orientations, which are dominant among a population at a particular period. The setting of this study was Makurdi metropolis. Makurdi was chosen because of the enormity of markets that would be used to assess the changes in prices of food items. It serves a dual purpose of a metropolitan local government as well as the cradle of Benue State administration (Adejo, 2008).

At the 2006 census, Makurdi has a population of 300, 377; the population projection by the National Population Commission [NPC] (2016), puts the population of Makurdi at 405, 500 persons. Makurdi people are mostly traders, fishermen, agriculturalists, public servants and civil servants. Livestock like sheep, goats, cattle, pigs and poultry are reared in the metropolis. Most of these products are sold in established markets including the Modem Market, North Bank Market, High Level Market, Wurukum Market, motor parks and gardens which provides an impetus for the study.

The study adopted cluster and simple random sampling. The choice of cluster and simple random sampling techniques was because of their ability to give assurance that all the elements involved are fairly represented. This ensured reliability, objectivity and accuracy of the research sampling procedure. Consequently, the study area was clustered into eight (8) and fifty (50) respondents were drawn from each of the clusters. These areas included Kanshio, Wurukum, High Level, Modern market, Fiidi, Railway, Wadata and North Bank. At Kanshio, the researcher drew responses from traders and consumers in Kanshio market and its environs. The same applied to Wurukum, High Level, Modern Market, Fiidi, Railway, Wadata and North Bank areas. These areas were selected because of the presence of commercial markets where food items are sold on a daily basis. Also, these areas constitute the metropolitan area of Makurdi.

In drawing respondents for the study, simple random sampling technique was employed. From the random selection, fifty (50) persons were selected in each market visited to make up four hundred (400) respondents.

The data collected for the study was collated and analysed using descriptive statistics such as frequency distribution and simple percentages. Decisions were reached on the percentage level of each response. Chi-Square was used to test the hypotheses.

Data Presentation

Socio-Demographic characteristics of the Respondents

This analysis hinges on three hundred and seventy nine (379) copies of successfully completed and returned questionnaire. This is because out of four hundred (400) questionnaires that were administered to the respondents, twelve (12) got missing while eight (8) damaged.

Table 1: Socio-demographic Attributes of Respondents

Variables	Frequency	Percentage (%)
Sex		
Male	178	47.0
Female	201	53.0
Total	**379**	**100**
Age (in years)		
18-27	118	31.1
28-37	145	38.3
38-47	98	25.9
48 and above	18	4.7
Total	**379**	**100**
Marital Status		
Single	102	26.9
Married	253	66.8
Divorced	24	6.3
Others	-	-
Total	**379**	**100**
Educational Attainment		
No formal education	15	4.0
Primary	54	14.2
Secondary	100	26.4
Tertiary	210	55.4
Total	**379**	**100**
Occupation		
Farming	45	11.9
Civil/Public Service	109	28.8
Studying	161	42.5
Trading	64	16.9
Total	**379**	**100**

Source: Field Survey, 2021

Table 1 presents a summary of the socio-demographic attributes of the respondents. The data shows that both males (47.0%) and females (53.0%) participated more in the research. However, females were dominant. This is also an indication they are the ones that are often directly involved in the purchasing of food items in the market. The data reveals that (31.1%) of the respondents were between the ages of 18-27. Similarly, those between the ages of 28-37 constituted (38.3%) of the total population. Again, those between the ages of 38-47 years comprised (25.9%). Lastly, the respondents between the ages of 48 years and above had 4.7%. It can be deduced from the above that youths participated more in the research as they were more available and willing to participate in the study.

The marital status of the respondents shows that married respondents dominated the study (66.8%). This was followed by single respondents (26.9%) and lastly the divorcees (6.3%). The highest percentage of the married respondents shows that married respondents participated more in the study. This also indicate that they have several many family obligations including ensuring appropriate feeding of their family members with limited resources at their disposal.

On the educational attainment of the respondents, the data shows that most of the respondents had tertiary education (55.4%). This was closely followed by those who had attained secondary level of education (26.4%), then respondents who had primary education (14.2%); while (4.0%) of the respondents had no formal education. It could be concluded from the above analysis that the respondents were literate enough which proves their understanding of the dynamics of food prices and food security.

Lastly, the study comprised of more students (42.5%). Civil/public servants also participated in the study (28.8%). Another category of people that participated in the study were traders (16.9%) and farmers (11.9%). This is an indication that though people from all works of life were involved in the study, students participated more.

Nature of Food Prices in Makurdi Metropolis

Table 2: Percentage distribution on the changes in food prices over the past one year

Response	Frequency	Percentage (%)
The prices have increased	185	48.8
The prices have reduced	-	-
The prices have been fluctuating	137	36.1
The prices have remained the same	57	15.1
Total	**379**	**100**

Source: Field Survey, 2021

On Table 2, data reveals that the highest percentage of the respondents were of the opinion that food prices in Makurdi have increased from the past one year (48.8%). Others noted that the food prices have been fluctuating (36.1%) and some were of the opinion that food prices in Makurdi have remained the same (15.1%). This analysis indicates that food prices in Makurdi have indeed increased from the past one year. This increase obviously affects the purchasing power of people in the town. It also means that most food items have become unaffordable to the common person, further entrenching food insecurity.

Factors responsible for Rising Food Prices in Makurdi Metropolis

Table 3: Percentage distribution on the causes of the rising food prices

Response	Frequency	Percentage (%)
Low production by farmers/food shortages	97	25.5
Increase in exchange rate	114	30.1
Population increase	48	12.7
Purposeful increment by marketers	15	4.0
Government embargo on importation of some food stuffs	105	27.7
Total	**379**	**100**

Source: Field Survey, 2021

Table 3 shows the causes of rising food prices. These causes as revealed by the table include: low production by farmers (25.5%), increase in exchange rate (30.1%), population increase (12.7%), purposeful increment by marketers (4.0%), and government embargo on importation of some food stuffs (27.7%). It could be deduced that among these causes however, increase in exchange rate (increase in the value of the dollar over the naira) is the major cause of the rising food prices in Makurdi. Secondly, due to government's policy of non-importation of most foreign consumables, the demand for local products have increased, leading to a huge demand-supply gap, creating food shortages and indeed high prices of available foods. Thirdly, it can be stated that low production by farmers, owing to their displacement status caused by conflicts and inadequate inputs, is obviously limiting the extent to which food is available to people. Fourthly, urbanisation, which has led to the influx of people in towns is another problem as higher population puts pressure on available food, thereby increasing the demand supply gap. This ensures that marketers of food items purposively increase food prices in order to maximise profits. Fifthly, due high exchange rates, the cost of production has become high because some

inputs as well as the tools used for processing of food are imported. Due to this, farmers as well as food processing companies have increased food prices in order to make-up for their inputs.

Effects of Rising food Prices on Household Food Security

Table 4: Percentage distribution on whether income levels affect accessibility and affordability of food items given the high cost of food

Response	Frequency	Percentage (%)
Yes	352	92.9
No	27	7.1
Total	**379**	**100**

Source: Field Survey, 2021

On Table 4, data shows that most (92.9%) of the respondents were of the opinion given their current income level and the rise in food prices, they hardly access and afford food stuffs. On the other hand, some of the respondents (7.1%) indicated that they have no problem accessing and affording food stuffs. It can be concluded from the above analysis that the income level of the people in Makurdi is not commensurate with the high cost of food stuffs. Given the fact that most of the inhabitants are students who do not have specified means of income and civil servants whose salaries are often delayed, there are challenges in their economic access to food. As a consequence, the purchasing power of all categories of the people in the town has been affected. This means that the quantity of food they purchase in the wake of rising food prices is less than what they wish to. Besides, focus is shifted from the dietary value of food to what one can eat to fill their stomach.

Table 5: Percentage distribution on whether there is access to the desired quantity of nutritive food for consumption.

Response	Frequency	Percentage (%)
Yes	47	12.4
No	332	87.6
Total	**379**	**100**

Source: Field Survey, 2021

Table 5 shows that most (87.6%) of the respondents submitted that as a result of high cost of food prices, they no longer buy the desired quantity of nutritive food for consumption. This is in contrast to some (12.4%) of the respondents who said even though food prices are high, they still purchase the desired quantity of quality food that would meet up with the physical and nutritive requirements of their households. Thus, a significant number of the respondents said they do not buy the desired quantity and quality of food that would meet up with their household consumption needs. This is an indication that high cost of food prices affects the quantity of nutritive food that is required for household consumption, thus, affecting household food security. The implication is that in a State where income levels are low and the fact that salaries are not paid for several months, the rise in food items highly affects peoples' economic access of food items. This is especially true where there are other competing needs such as school fees, medical bills, electricity bills, rent, among others.

Measures that will reduce High Cost of Food Prices and ensure Food Security

Table 6: Percentage distribution on measures that will ensure a reduction in food prices and food security

Response	Frequency	Percentage (%)
Fixation of maximum prices by the government	48	12.6
Settlement of disputes and resettlement of farmers in rural communities	61	16.1
Equitable provision/distribution of farm inputs to farmers	23	6.1
Government should set up monitoring committees to guide against arbitrary increment of food prices by marketers	109	28.8
Provision of storage/processing facilities and food management strategies to ensure adequate food in the market	69	18.2
Increase in the salaries/wages of workers	69	18.2
Total	**379**	**100**

Source: Field Survey, 2021

Data on Table 6 shows the various measures that could be put in place to ensure that food prices are reduced and food security is ensured. These include: fixation of maximum prices by the government (12.6%), settlement of disputes and resettlement of farmers in rural communities (16.1%), equitable provision/distribution of farm inputs to farmers (6.1%). Again, setting up monitoring committees that would guide against arbitrary increment of food prices by marketers (28.8%), provision of storage/processing facilities and food management strategies to ensure adequate food in the market (18.2%), and increase in workers' salaries (18.2%). From the analysis however, it could be concluded that though other measures would help reduce food prices in Makurdi. The setting up of monitoring committees that would guide against the arbitrary sale of food products among marketers would ensure that households could afford to purchase foodstuffs at lower prices hence providing enough food for families within Makurdi and Benue State at large.

Test of Hypotheses

High food prices have no effect on physical and economic access to food among households in Makurdi metropolis

Table 7: Chi-square statistic for hypothesis one

χ^2 Cal.	χ^2 tab.	Df	Level of Sig.
38.925[a]	16.92	9	0.5

Decision: The table value of the chi-square is less than the calculated value, hence, the alternative hypothesis, which states that high food prices have significant effect on physical and economic access to food among households in Makurdi metropolis is accepted. In fact, given the rise in the cost of food items, the purchasing power of people becomes affected; people tend to by lesser quantities of food. This means that consumers of food items often skip the daily food intake requirements of breakfast, lunch and dinner. Some may skip breakfast just to take the lunch and sometimes even skip the dinner; some people may take breakfast and skip lunch just to end the day with dinner. More so, the quantities of nutritional foods that are supposed to be purchased by households are generally affected. Households tend to go for those food items that are of less nutritional value but affordable, thus, affecting the nutritional requirements for a healthy living. As a result, some people become malnourished. On the whole, it has been established that high food prices leads to food insecurity.

Discussion of Research Findings

The findings of this study are discussed in accordance with the objectives of the study as enumerated in the first chapter of this work. Consequently, the first research objective was to find out consumers' perceptions on the nature of food prices in Makurdi. Going by this objective, finding revealed that food prices in Makurdi have increased over the past one year and have become unaffordable for most households. This finding corroborates FAO (2008), that in Nigeria, food accounts for a large, and increasing share of family budgets for poor rural and urban families. As prices of staple foods soar, poor people bear the brunt. Currently, the prices of rice, corn, yam, tomatoes and wheat among others records high roof-tops and the urban population is the most hit.

The second objective of the study was to identify the causes of the rising food prices in Makurdi. On this objective, findings revealed that increase in exchange rate, government embargo on some food stuffs, low production by farmers, population increase and purposeful increment by marketers are the factors that have led to the rise in the cost of food prices. In terms of government embargo on some foodstuffs, it could be explained that since there have been a ban on some staple foods; there has been competition over the existing foodstuffs in the country hence shortage of such foodstuffs, leading to an increase in food prices. On low production by farmers, it could be related that conflicts in the rural areas of Benue State where most foodstuffs are produced and shifted to the urban areas are entangled in one form of conflict to another, pushing most farmers out of the rural areas hence low production. On the population increase, it is understood that as more people move from rural areas and other urban centres into Makurdi, the demand for foodstuffs gradually outweighs the supply hence vertical changes in prices. All these factors sometimes trigger selfish interest among some marketers who wants to maximize their profits hence a purposeful increase in food prices. These findings are related to those of Okuneye (2008) who maintained that in most urban centres in Nigeria like Makurdi, the rate of increase in human population through rural-urban migration for instance does not enjoy a corresponding rate of increase in food supply. This seems to create a huge food supply deficit among the people as food demand seem to always outstrip the level of supply, creating an immense pressure on the available food items with the attendant increases in market prices.

The third objective of the study was set out to ascertain the effect of the rising food prices on household food security. Findings on this objective revealed that the current prices of food items in Makurdi outweigh the purchasing power of the inhabitants. Thus, bearing in mind the other competing demands of mobility, health and other daily bills, the amount of food bought becomes less than required for households. This could be implied that households in Makurdi do not have enough food in their households for consumption. It is understood that due to the high cost of food prices, the quantity and quality of food purchased by households in Makurdi is negatively affected. Households tend to go for those food items that are of less nutritional value but affordable, thus, affecting the nutritional requirements for a healthy living. As a result, people become malnourished which is a feature of food insecurity. This finding is similar to Cohen and Garrett (2009), who posit that an increase in the price of a main staple can lead to a substantial drop in ability to purchase other needed goods. They furthered that this impact is greatest among the poorest households, who spend the most, in percentage terms, on food. In addition, to Meerman and Aphane (2012), large, sudden and unexpected increases in food prices force people to adjust quickly.

The last objective of the study was to suggest measures that will reduce high cost of food and ensure food security. Considering this objective, findings revealed that setting up monitoring committees that would guide against arbitrary increment of food prices by marketers, fixation of maximum prices by the government, provision of storage/processing facilities and food management strategies to ensure adequate food in the market would go a long way to curtail food prices. In addition, settlement of disputes and resettlement of farmers in rural communities and equitable provision/ distribution of farm inputs to farmers would help reduce food prices. Findings further revealed among these measures that would help reduce food prices in Makurdi, the setting up of monitoring committees to guide against the arbitrary increase of food prices among marketers. Moreover, increase in workers' wages would ensure that households could afford to purchase foodstuffs at lower prices hence providing enough food for families within Makurdi and Benue State at large.

Conclusion

From the findings of the study, it can be concluded that there is a negative impact of high food prices on food security. Given the level of poverty in Nigeria, it is inarguable that the purchasing power of households in the wake of high food prices and other competing demands is affected. Thus, adequate policy measures are required to bring down the prices of food so that even the poorest of the poor can afford a three-square nutritive meal all year round.

Recommendations

Going by the findings of the study and the conclusion drawn, the following recommendations have been made:

i. Government should revisit its food importation policy and ensure that food items that are not locally produced to meet up with demand are allowed into the country until local production is capable of meeting the demands of the population.
ii. Government should set up maximum prices on food items so that consumers can afford to buy foodstuff that would meet up with their household physical and nutritive consumption needs.
iii. Government should set up a monitoring committee that would comprise of Market Association Leaders, people from the Ministry of Industry, Trade and Investment, youth leaders, and traditional rulers that would oversee and guide against the sale of food prices at exorbitant prices.
iv. Government should strengthen policies on grain reserves in order to control food prices during scarcity and subsidize farm inputs and availability to boost food production and thus lower food prices.
v. Endemic conflict in rural areas should be decisively addressed and serious deterrent measures implemented, as this would enable farmers resettle and produce more food that would meet the demands of the urban population.
vi. Farmers should take upon themselves to ensure that they scale up the production of staple foods as this would ensure that food items flood the market –a situation that would close the gap of food scarcity.
vii. Salaries/Wages of workers should be increased and concerned bodies should pay pensions as well as pension arrears. This will enhance the purchasing power of senior citizen.

References

Agronomo, I. (2016). An assessment of the impacts of rising food prices on consumers: Implications for the welfare of the poor and vulnerable. Unpublished Doctoral Thesis. Universidad Plitecnical de Mardid.

Babbie, E. (2001). *The Practice of Social Research.* Balmont: Wadswroth Publishing Company.

Campiche, J. L., Henry L. Bryant, James W. R., & Joe L. O. (2007). Examining the evolving correspondence between petroleum prices and agricultural commodity prices. *The American Agricultural Economics Association Annual Meeting, 29*, 1-15

Carr, E. (2008). Postmodern conceptualization, modernist applications: Rethinking the role of society in food security. *Food Policy, 31,* 14-29

Chit, M. M., Rizov M., & Dirk W. (2010). Exchange rate volatility and exports: new empirical evidence from the emerging East Asian Economies. *World Economy, 33*(2), 239-263.

Cohen, M. J. & Garrett, J. L. (2009). The food price crisis and urban food (in)security. IIED and UNFPA Human Settlements Working Paper Series: Urbanization and emerging population issues – 2.

Dekera, F. (2019). Communal conflicts and food security in Benue North-East senatorial district. Unpublished Masters thesis, Benue State university.

Eme, O. I., Onyishi, T., Uche, O.A. & Uche, I.B. (2014). Challenges of food security in Nigeria: Options before Government. *Arabian Journal of Business and Management Review (OMAN Chapter), 4*(1), 15-25.

FAO (2003). Trade Reforms and Food Security: Conceptualizing the Linkages. Combined report. Rome.

FAO (2004). The state of food insecurity in the world. Rome: FAO.

FAO (2006). *Preparation of Comprehensive National Food Security Programme: Overall Approaches and Issues.* FAO: Rome.

FAO (2008). Soaring food prices: Facts, perspectives, impacts, and actions required. Information Paper prepared for the High-Level Conference on World Food Security: The Challenges of Climate Change and Bioenergy, Rome, 3–5 June, FAO, Rome.

FAO (2009). Declaration of the World Food Summit on Food Security *(PDF). Rome: Food and Agriculture Organization of the United Nations.*

FAO (2013). International Conference on Nutrition: Major Issues for Nutrition Strategies. In A.O. Okore (Ed), *Population and Social Development in Nigeria: Theoretical and Policy Considerations*. Pp. 23-44. Rome.

Global Monitoring Report (2012). Food Prices, Nutrition, and the Millennium Development Goals. https://openknowledge.worldbank.org/handle/ 10986/6017

Ivanic, M. & Martin, W. (2012). Estimating the short-run poverty impacts of the 2010 surge in food prices. *World Dev., 40*(11), 2302–2317

Meerman, J. & Aphane, J. (2012). Impact of High Food Prices on Nutrition. Proceedings for FAO's Expert Consultation on Policy Responses to High and Volatile Food Prices, held in November 2012.

Minot, N. (2010). Food price volatility in sub-Saharan Africa: Has it really increased? *Food Policy, 45*, 45-56.

Okuneye, P. A. (2008). Rising cost of food prices in Nigeria and its implication for poverty reduction. *Central Bank of Nigeria Economic and Financial Review, 39*(4), 30.

Olukosi, J. O. & Isitor S. U. (1990). Introduction to Agricultural Marketing and Prices: Principles and Applications. Living Books Series. GU Publications, Abuja, FCT, Nigeria. pp.61-66.

Ott, H. (2012). Fertilizer markets and their interplay with commodity and food prices. Report for the European Commission Join Research Centre, Brussels (2012).

Patel, R. (2013). Food sovereignty' is next big idea*. Financial Times.* January, 17.

Terzungwe, N. A. & Tordue, S. T. (2018). Rising Cost of Food Prices and Food Insecurity in Urban Areas of Benue State: A Case Study of Makurdi Metropolis. Undergraduate Project, Benue State University, Makurdi.

The Kenya Food Security Steering Group (KFSSG) (2008). The impact of rising food prices on disparate Livelihoods groups in Kenya.

Wittek, R. (2004). *Rational Choice Theory.* UK: Sage Publications.

World Bank (2006). *Repositioning Nutrition as Central to Development*. Washington D.C.: World Bank.

World Bank (2011). Nuts and Bolts. http://wbln0081.worldbank. uement.

Zezza, A., B. Davis, C. Azzarri, K. Covarrubias, L., & Tasciotti, G. A. (2008). *The impact of rising food prices on the poor.* ESA Working Paper 08-07. Rome: Agricultural and Development Economics Division, Food and Agriculture Organization of the United Nations.