

EFFECTS OF INCREASE IN FOOD PRICES ON HOUSEHOLD'S FOOD SECURITY IN IDO LOCAL GOVERNMENT AREA OF OYO STATE, NIGERIA

Aluko, O.J.¹, Alarape A.B², Ojo-Fakuade, F.F¹ and Adelusi, F.T¹

1. Department of Agricultural Extension and Management, Federal College of Forestry, Jericho-Ibadan, Oyo State, Nigeria
2. Department of Basic and General Studies Federal College of Forestry, Jericho-Ibadan, Oyo State, Nigeria

Correspondence author email: juliwal2002@yahoo.com

Abstract

The study was carried out in Ido Local Government area of Oyo state, Nigeria to investigate the effects of increase in food prices on household's food security. It was carried out through the use of multi stage sampling to select 108 respondents and data were collected by means of oral interview and well -structured questionnaire. The data were analyzed through the use of descriptive and inferential statistics. The result of the findings showed 72.8% were female, married (93.5%) and respondents that fall within the age of 31-40 are highest with 58.3%, and about 72.8% have a household size of above 3 members. It was revealed that majority (87 %) of the respondents consumed rice more than other stable food while market (91.7%) was the mean source of purchasing the foodstuff. The Chi square analysis of the study shows that there was no significant relationship between the effects of increase in food prices and some selected socio economic characteristics like age ($X^2=0.967, p > 0.05$), sex ($X^2=0.935, p > 0.05$), marital status ($X^2=-0.219, p > 0.05$), household size ($X^2=0.219, p > 0.05$), at 5% level of significance. There was also no significant relationship between the types of foods and the effects of increase in price of foods as indicated by ($r = 0.065$ and $p = 0.504$). Based on this study, it is therefore recommended that the household should be endeavoring to practice agricultural activities like subsistence farming.

Keywords: Food security, Households, Food, Price increase and Rural Dwellers

IJAFS 2022 (1).12:1724 - 1732

Introduction

Food is a major necessity for all humans as it constitutes a major part in the basic needs of man globally. It is generally believed that the ability of a man to feed his immediate family assists in reducing poverty at the household level. Hence, a household becomes food insecure when such a household is unable to afford, or have access at all times to such quantity and quality of food that makes for healthy living (Obayelu and Orosile, 2015). Issues relating to food security vis-à-vis availability, accessibility/affordability, and sustainable utilization remain pertinent for policymakers and academics (Aborisade and Bach 2014). Therefore, food availability,

accessibility and affordability are major concern for everyone most especially in the developing world.

Rapid and unregulated increases in food price in Nigeria are gradually becoming a problem to every household in Nigeria. Both the rich and the poor are feeling the effect of increase in food prices, thereby making it difficult to plan for the income and earnings of the family. Availability, affordability and accessibility of foods is a major problem due to the fact that the food security is directly link to the prices of the commodities.

It is disheartening that the vision of the country to have physical and economic access to food on a continuous basis still remains a mirage. The population of food insecure households in Nigeria was 18% in 1986 (Babatunde *et. al*; 2010) but had increased to 40% in 2005 and higher in the subsequent years. Akerele (2013) found that approximately 3.99 million people in Nigeria could have been pushed into hunger and calorific under-nutrition due to food price upsurge. Obayelu and Onasanya 2016 noted that food price increases have affected virtually all agricultural products in Nigeria without equivalent increase in disposable income of families and population groups (especially the vulnerable groups). As noted earlier, advanced food price spike can have a non-trivial negative impact on food security as these can compromise people's ability to access adequate food in quality and diversity.

Many Nigerians have energy intake that is far below the minimum recommended daily per capita intake and this has been due to various reasons like increase in food prices the economic development of a nation is known to be dependent on its factor endowment and this includes both the non-human and human resources. The productive capacity of the human resources is however a function of how well fed they are. Food is a major necessity for all humans as it constitutes a major part in the basic needs of man which must be satisfied for a healthy and productive living. Hunger and malnutrition adversely affect the livelihood and well-being of a massive number of people and inhibiting the development of many poor countries. It was recommended that an individual should consume between 65-86g crude proteins per day out of which 35g (or 40%) must be animal protein (Babatunde and Qaim, 2010).

Many Nigerians have energy intake that is far below the minimum recommended daily per capita intake and this has been due to various reasons like increase in food prices, therefor this project will be aimed at investigating the effects of increase in price of food products, the rate at which they are affected and the perception to solutions suggested to reduce or alleviate the effects of increase of prices on household food security. It is against these background that this research is design to is to investigate the effects of increase in food prices on household food security in Ido local government, Oyo state Nigeria. This objective was achieved by proffering answers to the following research questions.

- i. What are the types and sources of foods consumed?
- ii. What are the effects of increase in food prices on household food security among the respondents in the study area?
- iii. What is the relationship between some selected socio-economic characteristics of the respondents and the effects of increase in food prices on household food security among respondents in the study area?

Effects of Increase in Food Prices on Household's Food Security in Ido Local Government Area Of Oyo State, Nigeria. Aluko, O.J., Alarape A.B, Ojo-Fakuade, F.F and Adelusi, F.T. JABU International Journal of Agriculture and Food Science (IJAFS) Volume 12.

- iv. What are the relationships between the effects of increase in food prices on household food security and the types of foods consumed by respondents in the study area?

Methodology

Study Area

The study was carried out in Ido Local Government Area (L.G.A) of Oyo State with its headquarters in Ido. The local government is located in the rain forest zone of Nigeria between latitude 6° 45' N and 9° 41' N and longitude 2° 30' E and 5° 15' E.

Sampling Procedure and Sampling Size

Multistage sampling technique was used to select the household and the wards that was used for this study

Stage 1: Identification of Wards in Ido Local Government

There are 10 wards in Ido local government, which include Aba emo, Akinware, Akufo, Apete, Batake, Fenwa, Erinwusi, Ido, Ogundele, Omi adio.

Stage 2: Random Selection of Wards

Out of the 10wards in Ido local government 3 wards was selected because they have the high number of households. The wards include Akufo, Ido, Omiadio.

Stage 3: Identification of Rural Areas in the Randomly Selected Wards.

Akufo- Abigbinde, Adegbite, Akindale, Akinware, Akufo, Araromi, Batake, Ile tuntun, Idi oro.
Ido- Aba emo, Aba oke, Akerele, Apete, Awotan, Erinwusi, Idi amu, Idi-igbaro, Onigbodogi
Omi adio- Abidogun, Abiona, Ajobo, Batakari, Elenusonso, Fenwa, Oloko, Omowunmi.

Stage 4: Random selection of rural areas.

Akufo- Akinware, Akufo, Araromi, Ile tuntun.
Ido- Aba emo, Erinwusi, Idi-igbaro, Onigbodogi
Omi adio- Ajobo, Batakari, Elenusonso, Fenwa.

Sampling Size

A total of 108questionnaire were administered and 9 households were selected in each selected rural area.

Method of Data Analysis

The Statistical tools used for this research work are descriptive statistical tools, which include frequency table and simple percentile while inferential statistics such as Chi square and Pearson Product Moment Correlation (PPMC) was used for hypotheses

Results and Discussion

Table 1: Socio-Economic Characteristics of The Respondents

Variables	Frequency	Percentage (%)
Sex		
Male	24	22.2
Female	84	72.8
Total	108	100
AGE		
20 –30	7	6.5
31–40	63	58.3
41–50	38	35.2
Total	108	100.0
Marital Status		
Single	7	6.5
Married	101	93.5
Total	108	100.0
Religion		
Christian	63	58.3
Islam	45	41.7
Total	108	100.0
Education Level		
Primary education	7	6.5
Secondary education	94	87.0
Tertiary education	7	6.5
Total	108	100.0
Household Size		
<3	7	6.5
4-6	101	93.5
Total	108	100.0
Monthly Income		
Less than #20,000	7	6.5
#20,001 - #30,000	31	28.7
#30,001 - #40,000	17	15.7
Above 40,000	53	49.1
Total	108	100.0
Income Generating Activities		
Trading	31	28.7
Farming	7	6.5
Civil servant	53	49.1
Artisan	10	9.3
Others	7	6.5
Total	108	100.0

It was revealed that 72.8% of the respondents are female while 22.2% are male. This is an indication that female is more into purchasing of foodstuffs for household consumption. Also 58.3% of the respondents are between the age range of 31-40 which implies that they are youths and in their active stage which could assist in engaging in economic activities to make their family food secure. The table above further revealed that 93.5 % of the respondents were married and by implication leads to increase in food intake and also create a need to be food secured by the family members of the respondents in the study area. This is in correlation with findings of (Zagorsky, 2005) who reported that being married enhances family income and wealth which will have a positive effect on food intake, thereby promoting food and nutrition security.

Furthermore, in the area of educational background, 87.0% had secondary education, 7% had primary and tertiary education respectively which indicates that the respondents are less prone to food insecurity due to the level of education and access to relevant information. This was collaborated in a similar report by Babatunde *et al.*, 2010 which suggested that education attainment decreases food insecurity headcount in a particular environment.

The table above further reveals that majority (87.5%) of the respondents have a household size of between 4-6 members and this implies that the respondents will be able to provide food adequately for the households that are not too large. This is in line with previous studies by Omotesho *et al.*,2007 who found a similar relationship between household size and food security. The table above also revealed that respondents that earn between #20,001-#30,000 are the highest with 28.7% which indicates that the respondents are prone to the effects of hike in food prices since their monthly income is low and this correlates with Food Price Monitor, 2015, that posits that the income has a relationship with the desire of consumers to purchase food products.

Table 2.1: Types of Foods

Variables	Yes	No
1. Vegetables	7(6.5)	101(93.5)
2. Rice	94(87.0)	14(13.0)
3. Meat	63(58.4)	45(42.8)
4. Fish	33(30.6)	75(69.4)
5. Fruits	7(6.5)	101(93.5)
6. Pulses	14(13.0)	94(87.0)
7. Tubers(yams)	60(55.6)	48(44.4)
8. Spicy	38(35.2)	70(64.8)

The table above shows the types of food majorly consumed by respondents in the study area with 87% consuming rice, 55.6% consuming yam, 58.4% consuming meat. This could be attributed to the benefits derived from the foods and the prices as consumers prefer to go for foods that are readily available, affordable and nutritious with health benefits. Green *et al.* (2013) report that the rise in food prices will most likely result in a reduction in demand for animal source foods including meat, fish and dairy; but will have less impact on demand for staple foods such as cereals and tubers. Darmon and Drewnoski (2015) reported that energy

given foods have lower costs while foods with low energy-contents such as fish, vegetables and fruit have higher costs, as noted in a systematic review.

Table 2.2 Sources of Food

Variables	Yes	No
1. Market	99(91.7)	9(8.3)
2. Shops	38(35.2)	70(64.8)
3. Farms	45(41.7)	63(58.4)
4. Shopping mall	17(15.7)	91(84.3)

Source: Field Survey, 2021.

The table reveals that majority (91.7%) of the respondents purchase their foodstuffs from the market while 41.7% purchase their products from the farms. This is an indication that majority of the consumers purchase their food stuffs from sources where they can be able to negotiate the prices of the foodstuff, they want to purchase in order to purchase foodstuffs at their desired amount or price.

Table 3 Effects of Increase in Food Prices on Household Food Security Among Respondents

Effects	High	Mild	Low	No
1. Consumers spend more on food	9(8.3)	41(38.0)	51(47.2)	7(6.5)
2. Reduction in the consumption by household	-	43(39.8)	58(53.7)	7(6.5)
3. Nutritional status is affected.	-	94(87)	7(6.5)	7(6.5)
4. Reduction in the standard of living.	99(91.7)	2(1.9)	-	7(6.5)
5. Reduction in per capital income	-	50(46.3)	-	58(53.7)
6. Affect the consumer decision making process	33(30.6)	17(15.7)	51(47.2)	7(6.5)
7. Leads to borrowing of money	31(28.7)	19(17.6)	51(47.2)	7(6.5)
8. The generated income can't be spent on other necessities.	2(1.9)	48(44.4)	51(47.2)	7(6.5)
9. Affect savings of consumers.	-	50(46.3)	51(47.2)	7(6.5)
10. It leads to increment in tax payment.	-	50(46.3)	51(47.2)	7(6.5)

Table 3: The table above shows the effects of increase in food prices on the household dwellers. 91.7% of the respondents reported their standard of living reduced based in the fact they were not were able to get the foodstuff at an affordable price and the effect was indicated through malnutrition, consuming of foods with little or no benefits and food insecurity and this corroborates with (FAO, 2011 and Tadesse, 2014) who affirmed that the negative impacts of food price spikes in areas are evident in the deviation of purchasing power of consumers, reduction in caloric intake, consumption of less varied foods, deepening food insecurity, poverty and malnutrition, etc.

The table furthermore revealed that 87% of the respondents reported their nutritional status was mildly affected which implies as a result of increase in prices they are unable to purchase foods and they tend to buy cheaper foods that could not meet their nutritional demands as Mkhawani *et al* (2016) who posits that Consuming cheaper food products with a poor nutritive value makes it impossible for many households to eat a healthy, balanced diet, also 30.6% of the respondents claimed they were highly affected by the increase in food prices as it leads to change in their

decision making process, i.e. consumers find it difficult to plan and decide on which foodstuff to buy while some choose to buy other food stuffs as according to several studies like Mkhawani *et al.* (2016) who reported that in Runnymede Village, 57% of the study participants changed their purchasing patterns because of higher food prices.

Hypothesis Testing

H₀1: There is no significant relationship between some selected socio-economic characteristics of the respondents and the effects of increase in food prices on household food security among respondents in the study area

Table 4.1: Chi Square Analysis Showing Relationships between Some Socio-Economic Characteristics of the Respondents and the effects of increase in food prices on household food security

Variables	Chi-Square Value	P-Value	Decision
Sex	0.935	0.530	N.S
Age	0.967	0.617	N.S
Marital status	0.219	0.639	N.S
Religion	0.456	0.499	N.S
Education level	0.426	0.808	N.S
Household size	0.219	0.639	N.S'
Occupation	3.566	0.468	N.S

Chi square analysis shows that there is no significant relationship between selected socio-economic characteristics of the respondents above and the effects of increase in food prices on household food security among respondents in the study area. This is an indication that the socio-economic profile does not have really impact on increase in household food security in the study area.

H₀2: there is no significant difference between the effects of increase in food prices on household food security and the types of foods consumed by respondents in the study area.

TABLE 4.5.2: P.P.MC Relationship Between Effect of Increase in Food Prices and Types of Foods Consumed by the Respondents in the Study Area.

Variablēs	r-value	P-value	Decision
Types vs Effects	0.065	0. 5054	N.S

Source: Field Survey, 2021.

The table shows there is no significant relationship between the types of food consumed by the respondent and the effects of increase in food prices among respondents in the study area as indicated in the study above with (r-value= -0.065 and p-value =0.5054) which is not significant at 5% level of significance.

Conclusion

Based on the findings of this study it was observed that majority of the respondents were females between the youthful age and they are majorly involved in non-agricultural activities or occupations. It was also observed they purchase and consume majorly staple foods based as a result of the benefits (calorie content, e.t.c) obtain from the products with majority of the products serving as daily food which the household feeding depends on majorly. It could be inferred from the study that most of the respondents purchase their products from sources where they can be able to negotiate the prices of the products. The study shows majority of the households are prone to the effect of increase in food prices which was indicated by their responses showing various negative effects of increase in food prices on their standard of living, nutritional status and other effects.

Recommendations

Government support or intervention for the rural households dwellers should be make available in times of increase in food prices through cash transfer, food distribution, etc,. The respondents should also venture into agricultural activities at least subsistence farming so as to provide foods that could afford them opportunity to meet their teeming nutritional and dietary need and to withstand the periods of increase in food prices. Given the fact that increase in prices of foods increase occurs abruptly this could be tackled diligently when consumers purchase foods in bulk when the price of foodstuff is affordable.

References

- Aborisade, B., and Bach, C. (2014): Assessing the pillars of sustainable food security. *European International Journal of Science and Technology*, 3(4), 117–125.
- Akerele, D. (2013): Food demand, nutrition and policy analysis in Nigeria. An unpublished PhD Thesis, University of Reading UK.
- Babatunde, R. O., Adejobi, A. O. and Fakayode, S. B. (2010): Income and calorie intake among farming households in rural Nigeria: results of parametric and nonparametric analysis. *Journal of Agricultural Science*, 2(2), 135–146.
- Babatunde, R.O., Omotesho, O.A., & Sholotan, O.S. 2007: Factors influencing food security status of rural farming households in North Central Nigeria. *Agricultural Journal*, 2(3), 351-357.
- Darmon N & Drewnoski A (2015): Contribution of food prices and diet cost to socioeconomic disparities in diet quality and health: a systematic review and analysis. *Nutrition Reviews*. 2015; 73: 643-660.

Effects of Increase in Food Prices on Household's Food Security in Ido Local Government Area Of Oyo State, Nigeria. Aluko, O.J., Alarape A.B, Ojo-Fakuade, F.F and Adelusi, F.T. JABU International Journal of Agriculture and Food Science (IJAFS) Volume 12.

- FAO (2011): The state of food insecurity in the world: how does international price volatility affect domestic economies and food security? Food and Agriculture Organisation of the United Nations, Rome
- Green R, Cornelsen L, Dangour AD, Turner R, Shankar B, Mazzocchi M, Smith RD (2013): The effect of rising food prices on food consumption: systematic review with metaregression. *British Medical Journal.*; 346:f3703
- Mkhawani K, Motadi SA, Mabapa NS, Mbhenyane XG, et al. (2016): Effects of rising food prices Mopani District, South Africa. *South African Journal of Clinical Nutrition.*;29
- Obayelu, A. O., and Orosile, O. R. (2015): Rural livelihood and food poverty in Ekiti State, Nigeria. *Journal of Agriculture and Environment for International Development - JAEID*, 109(2), 307–323
- Obayelu, O. A., and Onasanya, O. A. (2016): Maize biodiversity and food security status of rural households in the derived Guinea savannah of Oyo state, Nigeria. *Agriculturae Conspectus Scientificus*, 81(4), 241–250.
- Omotesho, O. A., Adewumi, M. O., &Fadimula, K. S. (2007): Food security and poverty of the rural households in Kwara State, Nigeria. In: A Conference Proceedings from Association of Agricultural Economists AAAE (2007) (pp. 571–575).
- Tadesse, G., Algieri, B., Kalkuhl, M. and von Braun, J. (2014): Drivers and triggers of international food price spikes and volatility. *Food Policy* 47: 117–128
- Von Braun, J. (2014): Aiming for food and nutrition security in a changed global context: Strategy to end hunger. *Alternative Development Strategies for the Post-2015 Era*,163
- Zagorsky, J. L. 2005.Marriage and Divorce's Impact on Wealth. *Journal of Sociology*