

**FOOD INSECURITY AND SUSTAINABLE DEVELOPMENT IN ZAMFARA
STATE, NORTH-WEST GEO-POLITICAL ZONE, NIGERIA**

BY

APIYTAN TUME

FEDERAL COLLEGE OF EDUCATION (TECHNICAL)

SCHOOL OF VOCATIONAL EDUCATION

DEPARTMENT OF HOME ECONOMICS

GUSAU ZAMFARA STATE, NIGERIA

Verishimaapi@yahoo.com

070113272707

Abstract

This study examined influence of food insecurity on sustainable development in Zamfara State, North-West Geo-political zone of Nigeria. The population of the study comprised all people resident in the state while the sample selected across the urban and rural areas of the state was 1,852. Three research questions were raised and the instrument for data collection was a self-designed questionnaire which consisted of 13 items on indicators and causes of food insecurity in the area as well as the influence of food insecurity on sustainable development in the state were used to collect data from the respondents. Data collected was analyzed by percentage and \bar{x} (mean) score. The findings of the study revealed food insecurity influences sustainable development of the state in terms of state expenditure, individual and national survival. The study therefore recommended among others that in order to create a flourishing sustainable agricultural system that meets the needs of people of today and those of future generations, there is the need for innovative government policies to encourage mechanized or industrial farming in the nation especially in Zamfara State where farming is a pride.

Introduction

The Universal Declaration of Human Rights of the 1948 proclaimed that ‘Everyone has the right to a standard of living adequate life for health and well-being of himself, his family, including the elimination of hunger’. Furthermore, Article II of the International Convention on Economic, Social and Cultural Rights reaffirms the right to a standard of living for the household while also recognizing the fundamental right to be free from hunger. In a bid to reaffirm the 1948 Declarations, the United Nations in the year 2000, during the Millennium General Assembly agreed in principle that the nations of the world must pursue and attain some minimum standards that will not only make life more meaningful for the inhabitants of the earth but would also make the earth a sustainable planet for continued human existence. It is unfortunate to note that food insecurity has been a major worldwide problem. It is estimated that 800 million people in the world are food insecure and the majority of whom live in South Asia and Africa with smaller percentages in Latin America, the Middle East and Eastern Europe (World Bank, 1986). There have been some improvements universally in food security over the past 30 years, for example, in South and West Asia, the food insecure population shrunk by half during the 1971-2000 period.

According to Allen (1993), reasons for hunger in cities in the developing world include high rates of population growth beyond productive capabilities, high rates of income inequality, land degradation and soil erosion, as well as a host of institutional and economic factors limiting developing societies from achieving food security. Nigeria, as a developing nation, faces huge food security challenges. About 70 percent of the population live on less than N100 (US\$ 0.70) per day, suffering hunger and poverty. Despite its reputation as petroleum resource-dependent, Nigeria remains an agrarian economy. The sector provides over 40% of gross domestic product (GDP) with between 60 and 70% of the population productively engaged in farming, despite this, large regional differences exist. For instance, in the South-East, 22% of the people live in rural areas with most of them engaged in non-farming activities. The growing population is dependent on imported food staples, including rice, wheat and fish.

Concept of Food Insecurity

Food security refers to the availability of food and one’s access to it. A household is considered food secure when its occupants do not live in hunger or fear of starvation (FAO 2001). Food security for a household means access by all members at all times to enough food for an active and healthy life. Food security includes a minimum of

1. The ready availability of nutritional, adequate and safe foods and

2. An assured ability to acquire acceptable foods in socially acceptable ways, that is without resorting to emergency food supplies, scavenging, stealing or other cropping strategies (USDA 2008). In the World Bank Policy Study (2006) food security is defined as access by all people at all times to enough food for an active healthy life. The Economic Commission for Africa (2009) explained that food security involves not only food availability through storage, and trade but also more importantly food access through domestic or home production. It is the contentions of the (FAO, 2010) that for a country to have sustainable food security, food supplies must keep pace with increase population and urbanization.

On the other hand, food insecurity, according to FAO (2010), refers to the consequences of inadequate consumption of nutritious food, considering the physiological use of food by the body as being within the domain of nutrition and health. Malnourishment also leads to poor health; hence individuals fail to provide for their families. In this context therefore, food insecurity is conceptualized as lack of access to enough food, limited number of resources to produce food, persistent inadequate diet and food production in an unhygienic or unsafe environment. Food insecurity therefore endangers sustainable development.

Concept of Sustainable Development

Sustainable development is a process in which national resources are not allowed to deteriorate but utilized optimally for the benefit of the current and future citizens. World Commission on Environment Development (2000) described sustainable development as development that meets the needs of the present without compromising the future generations to meet their own.

Statement of the Problem

Food insecurity is a threat to national sustainable development and has become a serious global concern to everyone. Hunger and poverty are characterized among other threats to sustainable development especially in the North-West Geo-political zone of Nigeria which comprises Zamfara, Sokoto, Kano, Kaduna, Katsina, Kebbi and Jigawa States. According to the Central Bank of Nigeria (2010), about 70% of the Nigeria's population lives in poverty with incomes of less than one dollar a day. Furthermore, the highest proportion of the poor people are found in the Northwest States of Nigeria. This issue has raised a concern with reference to Zamfara State where hunger and poverty are ravaging the people despite their popular slogan "farming is our pride".

Purpose of the Study

This study investigated the influence of food insecurity on sustainable development in Nigeria with focus on Zamfara State. The study was carried out to specifically;

- (i) Examine the indicators of food insecurity as perceived by urban and rural dwellers in Zamfara State;
- (ii) Find out causes of food insecurity as perceived by urban and rural dwellers in Zamfara State; and
- (iii) Investigate the influence of food insecurity on sustainable development as perceived by urban and rural dwellers in Zamfara state.

Research Questions

The following research questions were raised to guide the study;

- (i) What are the indicators of food insecurity as perceived by urban and rural dwellers in Zamfara State?
- (ii) What are the causes of food insecurity as perceived by urban and rural dwellers in Zamfara State?
- (iii) What are the influence of food insecurity on sustainable development as perceived by urban and rural dwellers in the State?

Area of the Study

Zamfara is one of the seven states that form the North-West geopolitical zone of Nigeria. It shares an international border with the Republic of Niger to the North and interstate boundaries with Katsina State to the East, Sokoto State to the West, Kebbi and Niger States to the South. Gusau is the state capital. Zamfara covers an area of 35,711 square kilometres and lies at latitude 12° 10' north and longitude 6° 15' east. Its population is approximately 3,278,873 (2006 census figures) and it has a population density of 92 people per square kilometre. The population of Zamfara State is 2.3% of Nigeria's population. The area today called Zamfara State was one of the old Hausa city-states. The Zamfara Kingdom came into being in the eleventh century and flourished until the sixteenth century. The kingdom became part of the Sokoto Caliphate after the 1804 jihad of Usman Dan Fodio. Agriculture is the core of the state's economy. It employs about ninety per cent of the state population in various forms. Major crops grown in the state include maize,

millet, cotton, rice, groundnut, guinea corn, tobacco and beans. Animals such as sheep, goats, and cattle are reared on a large scale in the state. Minerals found in the state include: alluvial gold, mica, granite, silica, feldspar, gold, limestone, quartz, kaolin and sand. The people of the state also engage in weaving, dying and designing materials and other kinds of woven products, usually made from date – palm raffia.

Methodology

Research Design

The research design used in this study was the non-experimental design since there are no viable manipulations. Its main focus is to observe and describe the nature of the situation as it exists at the time of the study, without interfering with the situation or events being described. It is noteworthy that non-experimental research is not generally directed towards hypothesis testing (Baba, 2005). In the study, the cross sectional design type of descriptive or survey design shall be used where the researcher studies the subjects at one time or within a specified time period.

Population

The population of the study comprised all people resident in Zamfara State. The population of Zamfara State is 2.3% of Nigeria's population. Therefore, the population for the study was 3,278,873 (2006 census figures).

Sample and Sampling Technique

The sample of the study was 1,852 respondents selected across the (urban and rural areas) of the state. The sample was selected through stratified random sampling technique. The area of the study was stratified into the 14 Local Government Areas (LGAs) of the State. The LGA's headquarters were referred to as urban areas while the villages in each of the LGA's were referred to as rural areas and 14 LGA's headquarters and 28 villages from all the LGA's in the state making a total number of 42 towns and villages. Two (2) villages each were randomly selected from each LGA making a total number of 28 villages and 14 LGA's headquarters. 70 respondents were selected from each LGA's headquarters to make a total of 981 while 31 respondents were randomly selected from each villages making a total of 871 from the rural areas. Therefore, the sample of 1,852 respondents was selected through stratified sampling technique and simple random sampling technique in each of the stratified areas.

Research Instrument

The instrument used for data collection was a self-designed questionnaire tagged “Food Insecurity and Sustainable Development in Zamfara State, Nigeria, FISDIZSN”. The questionnaire was designed into two sections ‘A’ and ‘B’. Section “A” consisted of background information about the respondents such as area (rural/urban), gender among others while section “B” comprised 13 items. Four point Likert scale was used to measure the degree of agreement and disagreement with each of the items on the questionnaire. The four point scale used were Strongly Agree (SA, 4 points), Agree (A, 3 points), Disagree (D, 2points) and Strongly Disagree (SD, 1 point).

Data Collection and Analysis

Data were collected by the researcher with the other two research assistants. Data collected was analyzed through the use of percentage and x (mean) score.

Data Analysis

Research Question 1: What are the indicators of food insecurity as perceived by urban and rural dwellers in Zamfara State ?

Table 1: Perception of Urban and Rural dwellers in Zamfara State on indicators of food insecurity.

S/N	ITEMS Indicators of Food Insecurity	No of Urban dwellers	% of Urban dwellers	X score	No of Rural dwellers	% of Rural dwellers	X Score	Grand x	Remarks
1.	Hunger	981	53	3.21	871	47	3.40	4.91	Agreed
2.	Poverty	981	53	2.84	871	47	3.92	3.38	Agreed
3.	Famine	981	53	2.77	871	47	3.71	4.63	Agreed
4.	Malnutrition	981	53	2.86	871	47	3.20	3.03	Agreed

The above table indicated the perception of urban and rural dwellers in Zamfara State. Majority of the respondents agreed that hunger, poverty, famine and malnutrition are

indicators of food insecurity in the state with x (mean) scores of 4.91, 3.38, 4.63 and 3.03 respectively.

Research Question 2: What are the causes of food insecurity as perceived by urban and rural dwellers in Zamfara State?

Table 1: Perception of Urban and Rural dwellers on causes of food insecurity in Zamfara State.

S/N	ITEMS	No of Urban dwellers	% of Urban dwellers	X score	No of Rural dwellers	% of Rural dwellers	X score	Grand x	Remarks
1.	Climatic change	981	53	2.53	871	47	2.70	3.88	Agreed
2.	Poor food preservation	981	53	2.51	871	47	3.91	4.47	Agreed
3.	Low level of food technology	981	53	3.10	871	47	3.14	4.67	Agreed
4.	Poor food handling	981	53	2.84	871	47	3.34	4.51	Agreed
5.	Poor storage facilities	981	53	2.75	871	47	4.25	4.88	Agreed

Table 2 above expressed the perception of respondents in Zamfara state on causes of food insecurity. The causes as shown in this table are climatic change, poor food preservation, low level of technology, poor food handling and poor storage facilities with x (mean) score of 3.88, 4.47, 4.67, 4.51 and 4.88 respectively.

Research Question 3: What are the influence of food insecurity on sustainable development in Zamfara State, Nigeria?

Table 3: Perception of respondents on influence of food insecurity on sustainable development in Zamfara State, Nigeria

S/N	ITEMS	No of Urban dwellers	% of Urban dwellers	X score	No of Rural dwellers	% of Rural dwellers	X Score	Grand x	Remarks
1.	Food production capacity is limited	981	53	2.58	871	47	3.21	2.89	Agreed
2.	More spending on supply (importation) of food items	981	53	3.10	871	47	2.75	2.93	Agreed
3.	Food insecurity threatens national security	981	53	3.22	871	47	3.02	3.12	Agreed
4.	Food insecurity threatens national survival	981	53	2.96	871	47	3.42	3.19	Agreed

Table 3 above revealed the perception of respondents on the influence of food insecurity on sustainable development in Zamfara state. It was revealed that food insecurity leads to limited food production capacity, more spending on food importation, threatens national security and survival with x (mean) scores of 2.89, 2.93, 3.12 and 3.19 respectively.

Summary of Findings

From the data presented and analyzed in this study, it was discovered that the indicators of food insecurity in Zamfara State are hunger, poverty, famine and malnutrition. The study also find out that food insecurity is caused by climatic change, poor food handling, low level of technology, poor food preservation and poor storage facilities. Climate change compounds the challenges confronting agriculture. The sector is dependent on

the natural resource base and thus faces risks such as desertification, rising temperatures, changing rainfall patterns and sea level rise, leading to degrading agriculture and exacerbating conflict. Empirically, the World Bank (1996) established that low productivity in agriculture is the cause of high incidence of food insecurity and poverty in Nigeria. Also, the Federal Office of Statistic/World Bank (2001) in Adeolu and Taiwo (2004), noted that poor families are in higher proportion in farming households that are mainly in the rural area.

The study find out that food insecurity influenced the sustainable development in such that food production capacity is limited, more money are spent on provision of food items, it threatens the national security and national survival. This is in line with Lucas (2007; 3) who asserted that in the modern world, no nation can truly be great if it cannot feed her populace and no meaningful progress can be made in other sectors of life if there is scarcity of food for the people...No system – whether capitalism, socialism or other political ideologies that mushroomed in Africa and other parts of the world, can sustain the loyalty of underfed and impoverished people (Lucas, 2007: 3). Also, (Oyeshola, 2008: 21) supported that unsustainable use of abundant natural resources poses serious threat to wholesome environment pursuance of food production through farming and industrial processing but the search for food security does not necessarily threaten environmental endowments. This implied that used, unused and misused of natural resources for food production can lead to unsustainable development in any given society.

Recommendations

Based on the findings of this study, the following are recommended that;

- (i) In order to create a flourishing sustainable agricultural system that meets the needs of people of today and those of future generations, there is the need for innovative government policies to encourage mechanized or industrial farming in the nation especially in Zamfara State where there is none.
- (ii) There should be proper and adequate orientation and enlightenment for all stakeholders on better ways of managing climatic change to enhance effective food production.
- (iii) Government Agencies, Development Partners and NGOs should help in the provision of adequate storage facilities and establishment of more food processing industries.
- (iv) Government should provide basic inputs and farm implements such as fertilizers, tractors/animal drawn equipment, improved seeds, among others in order for households to increase their food production levels.

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