

STRATEGIES HOUSEHOLDS ADOPT TO ENSURE FOOD SECURITY IN SOUTH-EAST, NIGERIA

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ABSTRACT

Food security is very important for the survival of households. Due to the importance of food security, it became necessary to ascertain the strategies households adopt to ensure household food security. Hence the study seeks to ascertain the strategies households adopt in ensuring food security in South East Nigeria. The study also seeks to identify the level of house hold food security as well as the constraints to household food security. Four research questions were posed to guide the study. The study will adopt a case study research design and will be carried out in South East Nigeria. The population for the study consists of all rural household members located within the 5 states of the region which equates 450, 000. From the five states, 5000 households will be randomly selected yielding a sample size of 5000 households. The oldest person available from each of the 5000 households will be selected and form part of the respondents involved in the focus group discussion. A focus group discussion schedule will be used to guide the focus group discussion. Data collected will be analyzed qualitatively and points which are suggested by a majority of the participants will form part of the findings of the study. It is expected that the strategies that households employ to ensure food security in South East Nigeria will be discovered and the researcher hopes that the findings of the study will help to identify strategies that will help to solve the issue of food insecurity in the area.

Key words: Households, Food security, South East Nigeria.

1. Introduction

Providing food security continues to be a major public policy challenge in developing countries. Achievement of food security in any country is typically an insurance against hunger and malnutrition, both of which hinder economic development (Davies 2009). This is why all developed and some developing countries make considerable efforts to increase their food production capacity. Approximately one billion people worldwide are undernourished, many more suffer from micronutrient deficiencies, and the absolute numbers tend to increase further, especially in Sub-Saharan Africa (Food and Agricultural Organization (FAO), 2008). Over the years, there have been various definitions of food security. During the first world food conference, the United Nations (1975) defined food security simply as “availability at all times of adequate world supplies of basic food-stuffs”. The World Bank proposed a definition of food security which remains current today, broadening the emphasis from food availability to include access to food, and narrowing the focus from the global and national to households and individuals: “access by all people at all times to enough food for an active, healthy life” (World Bank 1986). A recent definition of food security was provided by Adegbeniga (2009) and it states that food security refers to access by all people at all times to the food needed for an active and healthy life. Food security as an issue may be considered beyond the simplistic issue of mere availability and there are four pillars underpinning food security: food availability, food accessibility, food utilization and food stability (Mohammed, 2003).

Food availability implies having food and this entails production and storage for off-seasons (Irohibe & Agwu, 2014). Food availability does not ensure food accessibility. For food to be accessible, individuals or families must have sufficient purchasing power or ability to acquire quality food at all times (Omonona, Agoi & Adetokunbo, 2007). Food utilization refers to sufficient quality and quantity of food intake by individuals and

households that is not inhibited by health or hygiene problems (Integrated Food Security Strategy (IFSS), (2002). These elements of availability, accessibility and utilization in a larger context, embraces the supply, demand and adequacy of food at all times. Food stability refers to stability of the other three dimensions (food availability, accessibility and utilization) over time (Dhruba, 2014). Therefore, food security in the context of the study refers to a situation in which food is available, accessible and properly utilized all year round. Inadequate food security which is also called food insecurity defined as lack of access to an adequate diet which can be either temporary (transitory food insecurity) or continuous (chronic food insecurity) continues to be a problem for families and households (Devereux, Vaitla, Haunstein, 2008). Food insecurity continues to undermine the health, productivity, and often the very survival of households (Smith & Subandoro, 2007).

Food accounts for a substantial part of a typical Nigerian household budget due to the fact that food is a basic necessity of life. It is regarded as the basic means of sustenance, and an adequate food intake in terms of quantity and quality, is a key for healthy and productive life (FAO, 2005). Various foods serve as important vehicles for taking nutrients into the body and bringing about a healthy state, hence the need for food to be taken in the right quality and quantity. To measure the quality of any food taken, there are classes of essential nutrients, which must be combined in appropriate proportion to ensure an adequate food intake. These include: carbohydrates, proteins, fats and oil, vitamins and minerals (Omonona, Agoi & Adetokunbo, 2007). The need for food is topmost in the hierarchy of needs as it is essential for a healthy living. Thus, achievement of food security is important in any given country.

In Nigeria, the most populous country in Africa, the majority of households are food insecure, especially the rural farming households (Mohammed, 2003). Several evidences have suggested that majority of the world's food insecure live and work in the rural areas (International Fund for Agricultural Development (IFAD), 2001). This indicates that reducing rural food insecurity is very important to reducing overall food insecurity. Given the role of agriculture in the Nigerian economy, food insecurity and poverty could be attributed to the poor performance of the agricultural sector, which in turn, creates food availability and accessibility problems at the household and national levels (Akinsanmi & Doppler, 2005). In other words, the poor performance of the sector directly creates supply shortages and indirectly creates demand shortages by denying the rural farming households access to sufficient income. To ensure food security among households, various strategies have been suggested.

Strategies to ensure household food security according to Adebayo (2012) include; Borrowing money, relying on less preferred and less expensive food, reducing the quantity of food to be eaten, getting money through cooperative, buying food on credit, reducing number of meals, relying on help from family and friends, working in exchange for money, sending household member to eat elsewhere and selling personal belonging. According to Adegbenga (2009), food security strategies include skipping meals, consumption of unconventional food, reliance on help from relatives and friends outside the household as well as reduction in quantity served to children. Despite these strategies, there are certain constraints faced by households in ensuring food security.

Some of the constraints experienced by households in ensuring food security include; lack of credit facilities, low income from sales, lack of input, poor transportation network and pest and diseases (Adebayo, 2012). According to Adegbenga (2009), the major constraints households encounter in trying to ensure food security include; finance, transportation and agricultural related problems like pest and diseases infestation in farms. However, it is difficult to generalize about coping strategies and constraints in response to food insecurity (Shah & Strong, 2000). The strategies are at best region specific and when ineffective, vulnerability of marginal groups is increased. It is therefore critical to verify and screen the adaptation options in a particular situation to generate relevant information for the area (South – East, Nigeria).

1.1 Statement of the Problem

Food is necessary for human survival as well as necessary for physical and mental stability. Due to the importance of food, there is need for food security which means availability, accessibility, utilization and stability of food all year round. Unfortunately, food security status is low in most locations in Nigeria. This is due to a variety of reasons such as inadequate finance, pest and diseases attack in farms and large family sizes. This has led to some negative effects due to the need to have access to food among family members. Some family members have resulted to negative vices such as stealing food items so as to survive. To counter these negative effects of food insecurity, various strategies to be adopted by household have been suggested by authors. Some of these strategies include forming cooperatives to pull resources together, selling personal belongings and relying on less expensive foods. However, Shah and Strong (2000) opined that it is difficult to generalize about coping strategies in response to food insecurity in all locations. As a result, strategies are best area specific. It therefore became important to ascertain coping strategies suitable for households in South East, Nigeria.

South East Nigeria is one of the six geopolitical zones in Nigeria. The region consists of the following states; Abia, Anambra, Ebonyi, Enugu and Imo. The region covers a land mass of 40, 000 km² and is inhabited by approximately 40 million people (Chigere, 2016). International Food Policy Research institute (IFPRI) (2018) estimated that about 15 million people in South East Nigeria which is 37.5% of its entire population were food insecure. Despite the fact that many of its citizens are farmers, food insecurity in the area is very high. The most likely cause of this issue is the nature of the strategies adopted by families to ensure food security. Even though there are general coping strategies for food security in households, it is necessary to ascertain the strategies utilized by households in South-East Nigeria as well as the characteristics of the people in the area. This will help to formulate strategies suited to the South East Nigeria based on the characteristics of the study area and the indigenes. Hence, the study aims at identifying strategies households adopt in ensuring food security in South East Nigeria.

1.2. Purpose of the Study

The major purpose of this study was to find out the strategies households adopt in ensuring food security in South East Nigeria. Specifically, the study seeks to;

1. Ascertain the level of household food security among families in South East Nigeria.
2. Find out the ways households ensure food security in South East Nigeria
3. Identify the constraints faced by households in ensuring food security in South East Nigeria.

1.3. Research Questions

The following research questions guided the study

1. What is the level of household food security among families in South East Nigeria?
2. In what ways do households ensure food security in South East Nigeria?
3. What constraints are faced by households in ensuring food security in South East Nigeria?

2. Methodology

The study will adopt a survey research design. According to Nworgu (2015), survey research design as studies which aim at collecting data and describing in a systematic manner the characteristics, features or facts about a given population. The study was conducted in South East, Nigeria. It was carried out in all the states in South East, Nigeria which include are Abia, Anambra, Ebonyi, Enugu and Imo state. The region was selected based on the fact that no studies on food security and coping strategies have been conducted in the area. In addition, the need for food aid has been increasing in the area as over 37.5% of the population in South East Nigeria is food insecure. (IFPRI, 2018). The population of the study consisted of rural household members located within the 5 states of South East Nigeria which equals 450, 000 households. (Source: Statistics Unit of registered household in each of the 5 selected States, 2018). Non-proportionate random sampling technique was used to select 1000 households from each of the states which will yield a sample size of 5000. A focus group schedule was adopted as the instrument for data collection. It was used to guide the respondents during the focus group discussion to avoid deviating from the goal which is answering the research questions. Validation of the instrument was done by 12 experts of agriculture consisting of three from the Department of Agricultural Education, University of Nigeria, Nsukka, three from the Department of Agricultural Extension, University of Nigeria, Nsukka and six from the Department of Agricultural Economics, Nnamdi Azikiwe University, Awka.

Data was collected on the spot through focus group discussion with the help of 25 research assistants (5 for each state). The researcher briefed the research assistants on the best way to collect data. The researcher and the research assistants recorded the conversation with the respondents with the aid of video and cassette recorders and jotted down the points suggested by the participants during the focus group discussion. The data collected was analyzed qualitatively. Video and tape recordings as well as the jotted points were transcribed by the researchers and 5 data analysts. Points which were suggested by a majority of the participants formed part of the findings of the study. The researcher used the points raised to make inference.

3. Results

Research Question 1: What is the level of household food security among families in South East Nigeria?

Data for answering the research question was generated from the responses of the participants during the focus group discussion and were presented in Table 1. Their responses were classified based on food availability, food accessibility, food utilization and food stability.

Table 1: Responses of the Focus Group Participants on their Level of Food Security

S/N	RESPONSES OF PARTICIPANTS
	Cluster i: Food Availability - What are the available food items you have?
1	Rice
2	Yam
3	Indomie
4	Garri
6	Fish
7	Vegetables
8	Fruits
8	Cassava
	Cluster ii: Food Accessibility - What are the accessible food items you have?
9	Rice
10	Yam
11	Cassava
12	Fish
13	Beans
14	Few fruits like mango and cashew available in the community
15	Indomie
	Cluster iii: Food Utilization
	A. what measures are taken to keep food healthy and safe?
16	Warming food regularly
17	Covering the pot always
	B. what hygienic practices are carried out during cooking?
18	Putting the turning spoon in a clean plate until when needed
19	Covering the pot properly
20	Washing of raw foods before cooking
21	Emptying of waste bins to prevent flies
	C. In what ways is food stored?
22	Sun drying
22	Salting
24	Smoking
25	Frying
	D. What are the sources of water for cooking and drinking
26	Stream water
27	Rain water
28	Well water
	Cluster iv: Food Stability- What food items are available all year round?
29	Rice
30	Cassava
31	Yam
32	Beans
33	Garri
34	Indomie

Findings from Table 1 revealed that only few food items were available and accessible in the area. Also, findings from the table on food utilization revealed that the method applied in keeping food healthy were inadequate and crude. The hygienic practices employed during cooking were inadequate. The methods of storing foods were inadequate and traditional. Also, the sources of water for drinking and cooking were not safe sources. The findings on food stability revealed that only a few items were available all year round.

Research Question 2: What are the ways households ensure food security in South East Nigeria? Data for answering the research question was generated from the responses of the participants during the focus group discussion and were presented in Table 2

Table 2: Responses of the Focus Group Participants on Ways Households Ensure Food Security

S/N	RESPONSES OF PARTICIPANTS
1	Proper meal planning to avoid wastage
2	Taking appropriate preservative measures like sundry to avoid food spoilage
3	Diversion of money meant for other purposes to buy food
4	Engaging in various jobs to increase household income
5	Reduction in quantity of food consumed
6	Reduction in quality of food consumed
7	Purchase of less preferred food
8	Borrowing money to buy food
9	Skipping meals per day
10	reliance on help from relatives and friends
11	Reducing quantity served to younger ones
12	Recycling left overs

Findings from Table 2 revealed that there are certain strategies employed by households in ensuring food security. Some of the strategies are negative while others are positive. The negative strategies include skipping meals per day, borrowing money to buy food, recycling left overs which may have gone bad, diversion of money meant for other purposes to food, reduction in quantity of food consumed, purchase of less preferred food, reliance of help from friends and relatives and reducing quantity served to younger ones. The positive strategies include; proper meal planning, taking appropriate preservative measures to avoid food spoilage and engaging in various jobs to enhance income.

Research Question 3: What are the constraints faced by households in ensuring food security in South East Nigeria?

Data for answering the research question was generated from the responses of the participants during the focus group discussion and were presented in Table 3

Table 3: Responses of the Focus Group Participants on Constraints Faced By Households in Ensuring Food Security

S/N	RESPONSES OF PARTICIPANTS
1	Poor road networks
2	Inadequate storage facilities
3	Bad weather for agricultural production
4	Activities of rodents
5	Inadequate income
6	Increase in food prices
7	Poor electricity supply which prevents use of refrigerators
8	limited access to credit
9	Soil is not very infertile
10	Inadequate land for cultivation
11	Incidence of pests and diseases

4. Discussion of Findings

The findings on food availability revealed that the available food items are: Rice, yam, indomie, garri, fish, vegetables, fruits and cassava. The findings show that only few items are available and they are lacking essential nutrients like fats and oil as well as minerals. The findings also reveal that the accessible items are: Rice, yam, cassava, beans, fish, few fruits like mango and cashew available in the community. The accessible food items are few and this is as a result of low income and poor road networks. The findings on food utilization reveal that measures such as warming food regularly and covering pot taken to keep food healthy are inadequate. The findings on food utilization also show that the hygienic practices adopted by households during cooking such as washing of raw foods and emptying waste bins are good but inadequate. The findings on food utilization also show that the ways in which food is stored include; sun drying, salting, smoking and frying. These methods are crude, traditional and adequate. Furthermore, the findings on food utilization revealed that the sources of water for cooking and drinking include; stream water, rain water and well water. These sources are not safe sources of water. Finally, the findings on stable food items revealed that the stable food items are rice, cassava, yam, beans, garri, indomie. These items are not adequate and are made up of most carbohydrates. Therefore, it can be concluded from the findings of the study that the level of food security in South East Nigeria is low. The findings of the study are in line with

Adebayo (2012) who carried out a study titled; Effects of Family Size on Household Food Security in Osun State, Nigeria. The author found out that the level of food security among households in Osun state was low. The findings of the study are also in agreement with Adegbeniga (2009) who carried out a study titled; Food insecurity and coping strategies among rural households in Oyo State, Nigeria. The author found out that there was high level of food insecurity among households in Oyo state.

The findings of the study on the ways households ensure food security revealed that the ways include; proper meal planning to avoid wastage, taking appropriate preservative measures like sundry to avoid food spoilage, diversion of money meant for other purposes to buy food, engaging in various jobs to increase household income, reduction in quantity of food consumed, reduction in quality of food consumed, purchase of less preferred food, borrowing money to buy food, skipping meals per day, reliance on help from relatives and friends, reducing quantity served to younger ones and recycling left overs. The findings are in line with Diromriwe (2000) who found out that diversification of sources of income is a strategy which ensures food security. The findings are also in line with Ibrahim, Uba-Eze, Oyewole and Onuk (2009) who found out that coping strategies employed by households for ensuring food security include reducing the quality and quantity of meals and the purchase of less preferred food.

The findings of the study on constraints to food security revealed that the constraints experienced by households in South East Nigeria include; poor road networks, inadequate storage facilities, bad weather for agricultural production, activities of rodents, inadequate income, increase in food prices, poor electricity supply which prevents use of refrigerators, limited access to credit, soil is not very infertile, inadequate land for cultivation and incidence of pests and diseases. The findings are in line with that of Federal Ministry of Agriculture and Water Resources (2008) who found out that the major constraint to food insecurity among households is limited access to credit. The findings also agree with Seydou, Liu and Baohui (2014) who found out that the constraints to food security include; diseases and insects, flooding, soil infertility, lack of enough inputs, land not enough, lack of money and increase in food prices.

5. Conclusion and Recommendations

Food is a fundamental need of man. Due to the importance of food, there is need for food security among households. Food security refers to a situation in which food is available, accessible, properly utilized and stable. Food availability implies having food and this entails production and storage for off-seasons. Food availability does not ensure food accessibility which refers to individuals or families having sufficient purchasing power or ability to acquire quality food at all times. Food utilization refers to sufficient quality and quantity of food intake by individuals and households that is not inhibited by health or hygiene problems. Food stability refers to stability of the other three dimensions (food availability, accessibility and utilization) over time.

The findings on food availability revealed that the showed that only few items are available and they are lacking essential nutrients like fats and oil as well as minerals. The findings also revealed that accessibility to food items were low in the area. The findings of food utilization also revealed the extent of utilization of food items was low. The study also revealed that there were inadequate stable food items in the area and that the few stable items were mostly carbohydrate. Therefore, the findings on level of food security in South East Nigeria revealed that the level of food security in the area is low. The reasons for the low level of food security were as a result of some constraints which led to families adopting various coping strategies. However, these coping strategies didn't really solve the problem of food insecurity in the area. Hence, the following were recommended.

1. The government should provide basic infrastructure such as good roads and adequate power supply in South East Nigeria. This will raise the level of food security among households because through good roads, they will have access to food and through adequate power supply, they can utilize food properly by storing it in refrigerators which is efficient.
2. The state ministries of agriculture should provide loans and subsidies to farmers. This will raise the quantity of food available because the farmers will produce more.
3. Seminars and workshops should be organized by the local government to teach households about financial security and ways have ensuring farmers have multiple streams of income.
4. Households should form cooperatives among themselves which would make it easier to get loans and subsidies from the government as a unit.
5. Modern and adequate storage facilities should be provided by the government to ensure that food produced is not wasted through spoilage.

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