

Tackling food insecurity using respondents' views towards national food security: A call for stakeholders' action in Teaching, research, and practice.

Etim John John.; Okoi, Nta Obono.; Inah, Grace Michael. ; Asikong, Ruth Ekome. ; Ekpo, Ekpo Iyamba.

¹Department of Public Health University of Calabar, Calabar, Nigeria.

E- mail: etmjhn@gmail.com

²Department of Family Medicine, University of Calabar Teaching Hospital, Calabar, Nigeria.

³Department of Hospitality and Tourism Cross River University of Technology, Calabar, Nigeria.

⁴West African Peoples' Institute Calabar, Cross River State, Nigeria.

⁵College of Health Technology, Calabar, Cross River State, Nigeria.

ABSTRACT

A nation that cannot feed her teaming population cannot boost of complete success and development in our present time and future. The issue of food security has been critical in many parts of the world including Nigeria and her communities. Food security is the ability for individuals to obtain sufficient/adequate food on a day-to-day basis. The purpose of this study was to bring to light the unavoidable role of all stakeholders in teaching, research, and practice towards sustaining national food security as a public health concern. Quantitative and qualitative research designs were employed through the use of researcher administered questionnaire and field observations to elicit responses from 120 respondents. Data generated were coded and analyzed using Scientific Package for Social Sciences (SPSS) version-20 and results are presented descriptively in tables, simple percentages, and graphs. The study findings and results show that possible causes of food insecurity included; flood 10 (8.3%), poor

planning 13 (10.8%), poor government policies 13 (10.8%), poor agricultural programs 20 (16.7%), poor attitude to agricultural practice 17 (14.2%), climate change/weather fluctuations 14 (11.7%), seasonal variations of farm produce 15 (12.5%), and poor storage system for farm produce 18 (15.0%). Based on these findings, the following are recommended: improvement in agricultural programs, surveillance/preparedness, positive government policies/planning, encourage individuals towards farming, providing proper storage systems for farm produce to make all kinds of farm produce available at all seasons, and government/NGOs investing in farmers as this will encourage/motivate farmers and bring out their technological skills toward effective farming.

Keywords: *National food security, Teaching, Research, Practice, and Public Health.*

INTRODUCTION AND BACKGROUND TO THE STUDY

Food security is the ability for individuals to obtain sufficient/adequate food on a day-to-day basis. Food and nutrition security refers to a situation where all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life (Davies, 2009). It will not be out of place to say emphatically that a nation that cannot feed her people cannot boast of complete success and development. If right to life need to be achieved, then there is need for every individual to have 'right to food' as a basic human right. This is because nutrition is seen as an input to development and as an output to development. Food security exists when all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life (Clover, 2003). This will also be culturally accepted by the people.

In the dimensions of food security, there is need to ensure: Food availability – the availability of sufficient quantities of food of appropriate quality and supplied through domestic production or imports; Food accessibility – access by individuals to adequate resources for acquiring appropriate foods for a nutritious diet; Food utilization – utilization of food through adequate diet, clean water, sanitation and health care to reach a state of nutritional well-being where all physiological needs are met as this brings out the importance of non-food inputs in food security, and finally; Food stability – a population, household or individual must have access to adequate food at all times. This implies that people should not risk losing access to food may be due to consequences of sudden shocks (e.g. an economic or climatic crisis) or cyclical events (e.g. seasonal food insecurity). More so, the concept of food stability can therefore refer to both food availability and

food accessibility dimensions of food security (FAO, 2006).

Proactive measures are pertinent through the Public Health prism by ensuring effective teaching, research and practice towards ensuring food availability, affordability and accessibility at all seasons. Technology can help us achieve this especially in terms of storage where constant power supply can help and growing the food sources in all seasons by improving the farming system to commercial. This is so because issue of National food security requires interdisciplinary, multi-disciplinary, and trans-disciplinary collaborations which further implies that it is an area which when looked upon by all institutions can yield self-reliance, food security, food processing, employment and national development (Achor, 2014). These measures can lead to better food production, processing and preservation in Nigeria.

STATEMENT OF THE PROBLEM

Ensuring food security for any nation is not a new issue but until it is fully achieved, no nation will stop emphasising on it. There are still a number of people going to bed without food in Nigeria. The issue of food security has been critical in many parts of the world including Nigeria and her communities. At the global level, somewhere in the world, a child dies of hunger every five seconds, although the planet has more than enough food for all. The problem is with man in the aspect of managing the limited resources to avoid scarcity. Without being conclusive, one of the major problems is waste of food. Achieving food security is a significant and growing challenge in the developing world and very critical to alleviating hunger and poverty. People's health and education are compromised by not having food security. That is, if the food is available, it is not affordable; if it is affordable, it is not accessible; and if it is

available and affordable, it is not sufficient, adequate and not available in all seasons. Developing countries, the poor, women and girls are the most vulnerable/susceptible group to the impact of food insecurity because they have less access to and control over resources than developed countries, the rich and men. This case is not different in the study area for this research as there are indicators (food wastage, inflation of food products and high cost of living/hunger) of food insecurity. It is on these field observed problems that the researchers were interested in bringing to light the unavoidable role all stakeholders in teaching, research, and practice towards ensuring sustainability of national food security as a Public Health concern.

PURPOSE OF THE STUDY

The purpose of this study was to bring to light the unavoidable role of all stakeholders in teaching, research, and practice towards sustainability of national food security as a Public Health concern using food processing and consumption pattern of Koko community in Warri North Local Government Area of Delta State, Nigeria.

LITERATURE REVIEW

Concepts of food security have evolved in the last thirty years to reflect changes in official policy thinking (Clay, 2002) and the term first originated in the mid-1970s (Heidhues, Atsain, Nyangito, Padilla, Ghersi & Le Vallée, 2004). The Right to Food is not a new concept, and was first recognized in the United Nations Declaration of Human Rights in 1948 (FAO, 2006). There are basically two types of food insecurity: chronic food insecurity and transitory food insecurity. The former is long-term or persistent while the latter is short-term or temporary.

Chronic food insecurity occurs when people are unable to meet their minimum food requirements over a sustained period of time, resulting from extended periods of poverty, lack of assets and inadequate access to productive or financial resources (FAO, 2008). Transitory food insecurity occurs when there is a sudden drop in the ability to produce or access enough food to maintain a good nutritional status, resulting from short-term shocks and fluctuations in food availability and food access, including year-to-year variations in domestic food production, food prices and household incomes (FAO, 2008).

The essence of food cannot be over emphasized. Food is a vital path of human existence. In the study of Iyam, Inah, Udonwa and Etim (2013) on “Diet and lifestyle: a panacea for achieving longevity in Ugep, Nigeria”, they stated that nutrition (food) is to health (body) what drug is to the body too and of such, the body cannot be healthier than the food man eats. This means that you are what you eat. Still in their research, they pointed out that as vital food is to the body the same way drug is to the body in recovering from ill health, too little is a problem and excess also becomes a problem which for this reason they recommended moderation as the best option by always striking a balance (Iyam, Inah, Udonwa & Etim, 2013). This implies that, as important food is to man, its scarcity or insufficiency can seriously affect man if no public health preventive measures are put in place (public health food surveillance).

Similarly, in the study of Emmanuel and Peter (2012) on “Food security in Nigeria: an overview”, they stated clearly that food is life; hence food has become an instrument of national power. For all these to be consolidated on,

there is need for individuals to obtain sufficient/adequate food on a day-to-day basis. If man must have right to life, then the right to adequate food is pertinent.

According to Idachaba (2004 & 2009), Nigeria, blessed as it is, with abundant agro-ecological resources and diversity, has become one of the largest food importers in sub-Saharan Africa. This is no good news for a blessed country like Nigeria. From the Public Health point of view, hunger and malnutrition are one of the key indicators of the absences of food security in a nation. Hunger, defined here as the absence of food or/and a situation in which there is an inadequate quantity of available food; and malnutrition which is indicative of intake of unbalanced diets, have been ravaging most developing countries, severely menacing poor families and individuals has arose the need for food security.

It is not out of place to understand that even though food may be said to be present, food cannot be said to be secured if it is not affordable and accessible in all seasons. Food cannot be said to be secured not until it is available, accessible and affordable to all that need it and in all seasons. This further implies that there must be equity in its circulation (Iyam, Inah, Udonwa & Etim, 2013). Any system where food demand is not sufficiently marched by supply is no doubt one with looming food crisis (Emmanuel & Peter, 2012).

“Poverty should not be a barrier to accessibility and affordability of food. It is only in this case one can say there is national food security, where the rich can feed and the poor can as well feed. Anything less than

*this is not ideal.”
(Etim, J. J.)*

In the words of the United Nations (UN) Secretary General, Ban Kimoon in 2009, he laid out a sobering statistics as he kicked off a three day summit on world food security in Rome by saying “today, more than one billion people are hungry”, he told the assembly leaders. Six million children die of hunger every year, 17,000 every day. Ban Kimoon in 2009 added that in 2050, the world will need to feed two million more mouths – 9.1 billion in all (Nigerian Compass, November, 18, 2009:6).

Sequel to the above, effort from all stakeholders in teaching, research and practice can go a long way in preventing food insecurity. Stakeholders in Public Health, Nutrition, Dietetics, Agriculture, Engineering, Vocational studies, Marketing, etc. are all professionals that can strive in synergy towards the attainment of this course (Ekpu, 2009) and other contemporary issues including the general well-being populations. This cannot be achieved in isolation. Therefore, all hands must be on deck.

METHODOLOGY

Quantitative and qualitative research designs were employed in this study. Close-ended questionnaire and field observations were used to elicit responses from 120 respondents.

Study setting

This study was carried out in Koko community. Koko is a village in Warri North Local Government Area of Delta State, Nigeria. Her headquarters is in the town of Koko, a cosmopolitan town with a sea port. It has a land mass of 1,841km² and a population of 137,300 as at 2006 National Census. It lies between latitude 4°46'0” North and longitude 8°15'0” East.

The local government is predominantly riverine. It is bounded in the east with Ologbo in Edo State, in the north with Oghara in Ethiope West Local Government Area of Delta State. The main dwellers/inhabitants are; the Itsekiris and IZONS. The major widely spoken language is Ijaw and Itsekiri. The main occupation of the people include; fishing, carving of canoes, net weaving, hunting, clothes dyeing, trading, crafting, and farming. It is also the location of a lovely tourist attraction, the floating market at Ogheye. However, it is an oil producing area and as a result of this, some of the dwellers find it an excuse not to farm owing to their believe that the land has been polluted by oil spills/ activities of the oil companies in the land and the few who try it are not serious about it but depend largely on the remunerations paid to the indigenes by sailors or the oil companies around. Due to their land that is polluted with hydrocarbon and Methane (CH₄), farming is a challenge for the people and therefore they practice more of micro farming and importation of food from neighbouring communities.

Scope of study

This study is centred on “tackling food insecurity using respondents’ views towards national food security: a call for stakeholders’ action in teaching, research, and practice”. Data were elicited from 120 respondents living in the study area as at the time of this study. The study elicited responses from males and females aged 18 and above, schooled (formal) and unschooled (no formal education), single, married, divorced, widowed, and those cohabiting, Christians, Muslims, and traditional believers were recruited in the study. Children were not included in the

study (that people less than 18 years), the deaf and the blind were as well not included in the study. This is because they (deaf and blind) may not be able to hear or see the questionnaire.

Study population

The population of this study comprised of all dwellers in the study area as at the time of this research upon which 120 respondents were drawn.

Sample size determination

The sample of 120 respondents was accidentally and conveniently determined by the researchers after which a systematic random sampling was employed in the selection of streets and households in the street upon which not more than two respondents are assessed from each household.

Sampling procedure

A multi-stage probability sampling was used in the sampling. First, streets are systematically selected in the interval of one after the first street is selected, then the third street is selected. Secondly, in each selected street, after the first household is selected, the next household is picked after the interval of four where the fifth household is picked and thirdly, at least one respondent is assessed but not more than two were assessed in a household where there are more respondents who fell in the inclusion criteria of this study.

Instrument for data collection

A well-structured (close-ended) researcher administered questionnaire of two sections with 11 items was designed by the researchers and 120 copies of it

were proliferated to use in eliciting responses from respondents. Section-A elicited data on respondents socio-demographics while Section-B elicited data on respondents perception on national food security. However, the researchers also used direct field observations to get data for the study which guided their empirical analysis and discussion of the data.

Method of data analysis

Data generated were coded and analysed using SPSS version-20 and results were presented descriptively in tables, simple percentages, means, standard deviation and graphs.

RESULTS AND FINDINGS

Data was collected from 120 respondents. Out of these, 70 (58.3%) respondents were males and 50 (41.7%) females. Among these, respondents aged

18 – 27 were 9 (7.5%), 28 – 37years were 36 (30.0%), 38 – 47years were 48 (40.0%), 48 – 57years were 20 (16.7%), and respondents aged 58 & above were 7 (5.8%). With regards to the respondents marital status, 14 (11.7%) were single, 40 (33.3%) married, 30 (25.0%) divorced, and 25 (20.8%) were widowed while 11 (9.2%) were cohabiting. With respect to family size of respondents, 25 (20.8%) respondents were less than or equal to three (≤ 3) in the family, 80 (66.7%) were four to five (4-5), while 15 (12.5%) were greater than or equal to six (≥ 6) in the family. On analysing data on educational status of respondents, 4 (3.3%) had no formal education, 1 (0.8%) had primary education, 18 (15.0%) had secondary education, 75 (62.5%) had undergraduate certificate while 22 (18.3%) had postgraduate certificate as the highest level. On religious affiliation, 96 (80.0%) subscribed to Christianity, 13 (10.8%) subscribed to Islam, 3 (2.5%) subscribed to traditional worship while 8 (6.7%) were none disclosures (Table-1).

Table 1
Demographic characteristics of respondents

Variables	Frequency	Percentage (%)
Gender		
Male	70	58.3
Female	50	41.7
Total	120	100
Age		
18 – 27	9	7.5
28 – 37	36	30.0
38 – 47	48	40.0
48 – 57	20	16.7
58 & above	7	5.8
Total	120	100
Marital Status		
Single	14	11.7
Married	40	33.3

Divorced	30	25.0
Widowed	25	20.8
Cohabiting	11	9.2
Total	120	100
Family Size		
≤ 3	25	20.8
4 – 5	80	66.7
≥ 6	15	12.5
Total	120	100
Educational Status		
No formal education	4	3.3
Primary education	1	0.8
Secondary education	18	15.0
Undergraduate certificate	75	62.5
Post graduate certificate	22	18.3
Total	120	100
Religion		
Christianity	96	80.0
Islam	13	10.8
Traditional	3	2.5
None disclosure	8	6.7
Total	120	100

Data Source: Field Survey, 2016.

In describing food security, 43 (35.8%) perceived it to be the presence of food at all time (availability), 12 (10.0%) said the ability to buy food (affordability), 31 (25.8%) viewed it to be feeding at least three times daily, 19 (15.8%) viewed it to be availability of food to both the rich and the poor (equity in circulation), 8 (6.7%) viewed it to be the absence of hunger (utility), 3 (2.5%) viewed it as the absence of malnutrition (adequacy), while 4 (3.3%) said it is the absence of poverty. Respondents suggested indicators of food insecurity to include: presence of hardship/hunger 19 (15.8%), malnutrition 65 (54.2%), poverty 15 (12.5%), and inflation on farm produce/food products 21 (17.5%).

Possible causes of food insecurity included; flood 10 (8.3%), poor planning 13 (10.8%), poor government policies 13 (10.8%), poor agricultural programs 20 (16.7%), poor attitude to agricultural practice 17 (14.2%), climate change/weather fluctuations 14 (11.7%), seasonal variations of farm produce 15 (12.5%), and poor storage system for farm produce 18 (15.0%). 12 (10.0%) respondents perceived that the race more vulnerable to food insecurity are Blacks, 21 (17.5%) said by continent, it is Africa, 27 (22.5%) said the poor as well as poor nations/continents are more vulnerable to food insecurity, 28 (23.3%) said children, females and the aged are more vulnerable while 32 (26.7%) said victims of disaster and the ill are more vulnerable. On

preventive/remedial steps to food insecurity, respondents suggested; improvement in agricultural programs 10 (8.3%), surveillance/preparedness 12 (10.0%), positive government

policies/planning 14 (11.7%), encourage individuals towards farming 23 (19.2%), proper storage systems for farm produce 19 (15.8%), and government/NGOs investing in farmers 42 (35.0%).

Table 2
Respondents' perception on food security: Indicators, Causes, Vulnerability and Possible Remedy.

Variables	Frequency	Percentage (%)	Mean	SD
Food Security as viewed by respondents			2.68	1.624
Presence of food at all time (availability)	43	35.8		
Ability to buy food (affordability)	12	10.0		
Feeding at least three times daily	31	25.8		
Availability of food to both rich and poor	19	15.8		
Absence of hunger (utility)	8	6.7		
Absence of malnutrition (adequacy)	3	2.5		
Absence of poverty	4	3.3		
Total	120	100		
Indicators of Food Insecurity			2.32	0.944
Presence of hardship/hunger	19	15.8		
Malnutrition	65	54.2		
Poverty	15	12.5		
Inflation on farm produce/food products	21	17.5		
Total	120	100		
Possible causes of Food Insecurity			4.78	2.206
Flood	10	8.3		
Poor planning	13	10.8		
Poor government policies	13	10.8		
Poor Agricultural Programs	20	16.7		
Poor attitude to agricultural practice	17	14.2		
Climate change/weather fluctuations	14	11.7		
Seasonal variations of farm produce	15	12.5		
Poor storage system for farm produce	18	15.0		
Total	120	100		
Those more vulnerable			3.39	1.318
Blacks	12	10.0		
Africa	21	17.5		
The poor and poor nations/continents	27	22.5		
Females, children and aged	28	23.3		
Victims of disaster and the ill	32	26.7		
Total	120	100		
Possible Remedies/Prevention			4.29	1.662
Improvement in agricultural programs	10	8.3		
Surveillance/preparedness	12	10.0		
Positive government policies/planning	14	11.7		

Encourage individuals towards farming	23	19.2
Proper storage systems for farm produce	19	15.8
Government/NGOs investing in farmers	42	35.0
Total	120	100

Data Source: Field Survey, 2016.

DISCUSSION OF RESULTS/FINDINGS

This study indicated in the analysis of data elicited that respondents described food security to imply the presence of food at all time (i.e. availability), the ability for individuals to buy or purchase food with their limited resources (i.e. affordability/purchasing power), ability for individuals and families to feed at least three times daily, the availability of food to both the rich and the poor (i.e. equity in circulation), the absence of hunger (utility), the absence of malnutrition (adequacy), and the absence of poverty. This is corroborated by the study of Emmanuel and Peter (2012) who is of the opinion that poverty should not be a barrier to access to food. This is also supported by the study of Iyam, Inah, Udonwa and Etim (2013) who opined that food cannot be said to be secured not until it is available, accessible and affordable to all that needs it and in all seasons, which further implies that there must be equity in its circulation/distribution.

Respondents suggested indicators of food insecurity to include: presence of hardship/hunger, malnutrition, poverty, and inflation on farm produce/food products. This is supported by the study of Ekpu (2009) who predicted that there may be hunger in developing nations if food security is not taken serious. The Food and Agricultural Organization (2008) stated that chronic food insecurity occurs when people are unable to meet their minimum food requirements over a sustained period of time, resulting from extended periods of poverty, lack of assets and inadequate access to productive or financial resources. This implies that when there is uncontrollable level of poverty or/and hardship, lack of assets or where much money is running after few food products, then one can predict food insecurity and of such requires prompt attention. From the Public Health point of view, hunger and malnutrition are one of the key indicators of the absences of food security in a nation (Fig.-1).

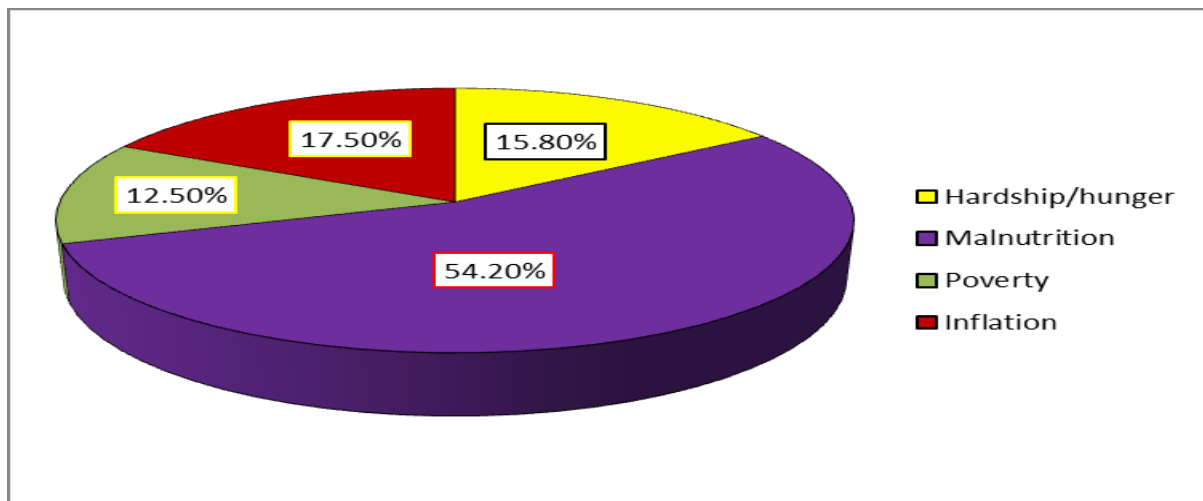


Fig.-1. Authors Rendition of Indicators of Food Insecurity.

Data Source: Field Survey, 2016.

One of the major causes of food insecurity, though not sported out by respondents, is over population. Increase in family size not commensurate to family income can interfere with the monitoring of food security. This is corroborated in the study of Inah, Inah, Osuchukwu, Etim, Ogri and Osuchukwu (2014) on “the effect of population explosion on family standard of living in Calabar, Nigeria. They opined that it is always threatening if a population keeps exploding without an observable increase in the resources available. These resources include food. They added that some of the effects of population explosion are malnutrition, health complications, morbidity and mortality. Respondents perceived that flood, poor planning, poor government policies, poor agricultural programs, poor attitude to agricultural practice, climate change/weather fluctuations, seasonal variations of farm produce and poor storage system for farm produce are visible causes of food insecurity. This is corroborated by Haile (2005), who stated that weather condition can affect food security.

Findings of this study showed that respondents perceived that the race more vulnerable to food insecurity are Blacks, in terms of continent, Africa is more susceptible, as regards social class, the poor as well as poor/developing nations/continents are more vulnerable to food insecurity, children, females and the aged being more vulnerable as compared to their opposite gender while victims of disaster and the ill also being another set of people more vulnerable. According to Clay (2002), developing countries, the poor, women and girls are the most vulnerable/susceptible to the impact of food insecurity because they have less access to and control over resources than developed countries, the rich and men.

Respondents suggested preventive/remedial steps to food insecurity to include; improvement in agricultural programs, surveillance/preparedness, positive government policies/planning, encourage individuals towards farming, providing proper storage systems for farm produce to make all kinds of farm produce available at all seasons, and government/NGOs investing in farmers as this will encourage/motivate farmers and bring out their technological skills toward effective farming.

SUMMARY/CONCLUSION

The study findings/results showed that when institutions of learning make the awareness of food security as part of the learning curriculum, it will go a long way in telling in the practice of every profession. This study consolidates on the fact that research in home economics will yield lasting solutions towards the monitoring of food security in the nation. This study indicates that, from the public health point of view, if institutions of learning are serious in learning, teaching, research and practice, then national food insecurity can be prevented.

RECOMMENDATIONS

Based on the study findings of this study, the following recommendations are made:

- i. Production of food at all seasons through irrigation systems during dry seasons.
- ii. Improvement in agricultural programs by government and non-governmental agencies.

- iii. Surveillance/preparedness towards food insecurity by all stakeholders and institutions.
- iv. Positive government policies/planning towards food security.
- v. Encouraging individuals and families towards farming by creating and increasing awareness.
- vi. Proper storage systems for farm produce to make food available in all seasons by adopting better technologies for national food storage and food bank.
- vii. Government/NGOs investing in farmers to encourage them in their initiatives and farming.

In addition to the above recommendations, it is also recommended that the teaching, research and practice in Nigeria should be taken seriously in our institutions.

SUGGESTION FOR FURTHER STUDY

It is suggested that this study be carried out in a different study area to authenticate this findings. However, this study can also be carried out with a larger sample size to help for generalization of the findings of this study.

REFERENCES

- [1] Achor, N. C. (2014). Enhancing creativity in entrepreneurship through home economics education in Nigeria. *American International Journal of Contemporary Research*, 4(6), 104-107.
- [2] Clay, E. (2002). Food security: Concepts and measurement. Paper for FAO expert consultation on trade and food security: Conceptualising the linkages. Rome. Published as Chapter 2 of *Trade Reforms and Food Security: conceptualising the linkages*. FAO, Rome.
- [3] Clover, J. (2003), Food security in Sub-Saharan Africa. *African Security Review*, 12(1), 1-6.
- [4] Davies, A. E. (2009). Food security initiatives in Nigeria: Prospects and challenges. Monograph, Department of Political Science, University of Ilorin, Nigeria.
- [5] Ekpu, R. (2009). A harvest of hunger, in Special Colloquium Edition, Newswatch, (August 3), Lagos.
- [6] Emmanuel, O. O. & Peter, F. A. (2012). Food security in Nigeria: An overview. *European Journal of Sustainable Development*, 1(2), 199-222.
- [7] FAO, (2006). Food security. Policy brief of Food and Agricultural Organization, 2,1-6.
- [8] FAO, (2008). Food security information for action: Practical guide. EC-FAO Food Security Programme. Retrieved August, 2016 at www.foodsec.org/docs/concepts_guide.pdf
- [9] Haile, M. (2005). Weather patterns, food security and humanitarian response in sub-saharan Africa in philosophical transactions. *Biological Sciences*, 360(1463), 1-17.
- [10] Heidhues, F., Atsain, A., Nyangito, H., Padilla, M., Gherisi, G. & Le Vallée, J. (2004). Development strategies and food and nutrition security in Africa: An assessment. *2020 Discussion Paper* No. 38.

[11] Idachaba, F. (2004). Food security in Nigeria challenges under democratic dispensation. A paper presented at ARMTI, Ilorin, Kwara State (March 24).

[12] Idachaba, F. S. (2009). The looming food crisis. *NewsWatch*, Lagos, (August 3), Special Colloquium Edition, Retrieved August, 2016.

[13] Inah, G. M., Inah, E. U., Osuchukwu, N. C., Etim, J. J., Ogri, A. I. O. & Osuchukwu, E. C. (2014). The effect of population explosion on family standard of living in Calabar, Nigeria. *European Scientific Journal*, (10)20, 190-204.

[14] Iyam, M. A., Inah, G. M., Udonwa, R. E. & Etim, J. J. (2013). Diet and lifestyle: A panacea for achieving longevity in Ugep, Nigeria. *European Journal of Biology and Medical Science Research*, 1(4); 19-33.