

Insecurity Challenges and Achievement of Sustainable Development Goal: The Perspective of Food Insecurity In Nigeria.

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Submitted: 25-01-2022

Revised: 05-02-2022

Accepted: 08-02-2022

ABSTRACT

As the threat of hunger and food insecurity looms in most part of Sub-Saharan Africa, Nigeria already embarked on a review as far back as 2006. The aim was to achieve a 'zero hunger' target and provide nutritious food to its teeming population. The prevalence of undernourishment reflected the fact that 25.5% of the population was lacking adequate and improved nutrition. At the same time, severe food insecurity within the population based on the Food Insecurity Experience Scale stood at 26.4% based on data from the National Bureau of Statistics. Against this backdrop, this paper examines insecurity challenges and achievement of the sustainable development goals in Nigeria: the perspective of food insecurity. Literatures were reviewed on food insecurity, consequences of food insecurity, sustainable development goal, challenges of SDG in Nigeria, challenges of sustainable food security in Nigeria and panacea toward sustainable food security in Nigeria. Empirical studies were also reviewed. Using the food insecurity experience scale as adopted by Cleopatra and Abayomi (2020), to assess the extent of food security, it was discovered that more than half of the households have been experiencing severe food insecurity in Nigeria most especially during the COVID19 pandemic. Aside other challenges of food security as identified in the literature review, the major challenge of food security in Nigeria is poverty. Poverty reduces the

purchasing power of the people making it difficult for them to acquire their daily minimum requirement of food. Other causes of food insecurity are environmental factors, inconsistent policy pronouncement, unsustainable agricultural productivity and underdeveloped infrastructural facilities, especially in the rural areas. The paper recommends intensive promotion of research which will help to increase food production, environment friendliness as well as policy change in order to achieve sustainable food security in Nigeria.

KEYWORD: Food Insecurity & Sustainable Development Goal

I. INTRODUCTION

Nigeria government has implemented many National Development Plans and visions in its search for an appropriate development strategy. Successive governments made efforts at vision and development plan; hence four development plans were produced between 1960 and 1985. The core object of the plans was to build a strong and dynamic economy as a foundation for improving the living standards of Nigerians. However, since 1986, government development planning has been through the instrumentality of short- to medium-term blueprints such as the Structural Adjustment Programme (SAP), Vision 2010, and NEEDS, followed by the Medium-Term Expenditure Framework (MTEF) – a three-year rolling plan stressing the expenditure and revenue profile of

government. The Government returned the economy once again to comprehensive planning in 2006 through the development of the Vision 20:2020 economic blueprint with a 5-year development plan. The Government accepted the Vision 20:2020 and the Transformation Agenda was derived from the Vision document (United Nations Sustainable Development Partnership Framework [UNSDPF, 2017]).

Upon inception in May 2015, government underlined three policy goals, namely, tackling corruption, improving security and re-building the economy. This was followed by the formulation of the Strategic Implementation Plan (SIP) for the 2016 Budget of Change as a short-term strategy. Building on this, it adopted the Economic Recovery and Growth Plan (ERGP) 2017-2020, as a medium-term plan to restore economic growth while promoting social cohesion and laying the foundations for long-term structural change. The plan, which was developed following broad-based consultations, has three strategic objectives: restoring growth, investing in people and building a globally competitive economy. These are complemented by five thematic priorities, namely, stabilizing the macroeconomic environment, achieving agriculture and food security, ensuring energy sufficiency (power and petroleum products), improving transportation and infrastructure, and driving industrialization focusing on small- and medium-scale enterprises. The Plan also recognizes the need to leverage Science, Technology and Innovation (STI) and build a knowledge-based economy. The ERGP is consistent with the aspirations of the Sustainable Development Goals (SDGs) given that the initiatives address its three dimensions of economic, social and environmental sustainability issues (UNSDPF, 2017).

Nigeria currently faces a challenge of food insecurity due to various factors, including over dependent on crude oil, insurgency in major agricultural zones in the country, reliance on rain-fed agriculture, global economic downturn, increase in food prices, negative impact of climate change, as well as insecurity and conflict. The hardest hit are the poor and disadvantaged groups such as orphans, female-headed households, and those in rural communities and slums in particular. According to National Demographic and Health Survey (NDHS, 2013), 37% of children under age five are stunted, 18% are wasted, and 29% are underweight. Overall, only 10% of children aged 6-23 months are fed appropriately based on recommended infant and young children feeding (IYCF) practices. Also, about 11% of women are

under-nourished ($BMI < 18.15$), while another 25% are overweight or obese ($BMI > 25.0$). Malnutrition continues to be an important public health issue and the underlying cause of more than half of the estimated 2,300 and 960,000 under-5 daily and annually deaths, respectively. Moreover, some 262,000, or 27 per cent of these deaths, are estimated to occur within the first 28 days of birth. Being underweight in the early years of life accounts for 8 per cent of Disability-Adjusted-Life-Years (DALYs). The DALYs lost from Vitamin A deficiency in Nigeria is nearly 800,000 annually, with virtually all losses occurring in children under age five (UNSDPF, 2017).

Nigeria has not been able to exploit the potential of its agricultural sector and is thus experiencing food insecurity and increased poverty. This is manifested in the importation of rice, fruits, oil, wheat and fish, among other food items. The country's agricultural sector is undeveloped, due to various factors such as climate change, unfavorable policy environment, limited application of appropriate technology, and dwindling export prices.

As a social determinant of health and sustainable development (McIntyre, 2003), food security is of global concern with about 10% of the world's population and 19% of Africans severely food insecure (Food and Agriculture Organization of the United Nations [FAO] et al., 2020). That is, they have limited access to sufficient food due to inadequate financial capacity and other resources (Nord, Andrews, & Carlson, 2005). Besides, with a Global Hunger Index (GHI) score of approximately 28 suggesting a serious level of hunger in Nigeria (GHI, 2019), and the possibility of COVID-19 pandemic increasing the total number of the undernourished people in the world by 83 to 132 million in 2020 (FAO et al., 2020). Achieving food security for every Nigerian continues to be a challenge, despite the recent agricultural intervention policies geared towards minimizing reliance on food imports while increasing domestic production.

It is against the above backdrop that this paper examines insecurity challenges and achievement of the sustainable development goals in Nigeria: the perspective of food insecurity.

II. CONCEPTUAL REVIEW

Concept of Food Insecurity

About 795 million people, or every ninth person, is undernourished, including 90 million children under the age of five (FAO, IFAD and WFP 2015). The vast majority of them (780 million people) live in the developing regions, notably in

Africa and Asia. Depending on the region considered, the share of undernourished people differs considerably, between less than 5 per cent and up to more than 35 per cent. In particular, sub-Saharan Africa shows high values, with almost 25 per cent of the population undernourished (FAO et al., 2015). While the hunger rate - the share of undernourished in the total population - has fallen in the region, the number of undernourished people has increased by 44 million since 1990 due to population growth. In absolute terms, the number of people exposed to food insecurity is highest in Southern Asia, with 281 million undernourished people (FAO et al., 2015).

Food insecurity has evolved in the past four decades to reflect changes in official policy thinking. The term food insecurity is said to have originated from the discussions of international food problems during the 1970s. The World Food Conference of 1974 defined food security in terms of food supply: availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in productions and prices (FAO cited in Dioume, 2015). That is food insecurity implies lack of food supply: unavailability or inadequate food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in productions and prices.

In 1983, the FAO as cited in Dioume, (2015), redefined food security by focusing on food access and the balance between food demand and supply: ensuring that all people at all times have both physical and economic access to the basic food that they need. This implies that food insecurity depicts inaccessibility and imbalance between demand and supply of food.

Providing sufficient, safe and nutritious food to all people is one of the major global concerns historically and in the twenty-first century. Food security is usually framed in four dimensions food availability, access to food, food use/utilization and food stability (FAO, 2016a). These dimensions build the overall framework of the definition established by the Food and Agriculture Organization of the United Nations (FAO): "Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life" (FAO, 2016b).

In addition to the short-term effects of food insecurity, there are also long-term developmental impacts of lack of food security. Beyond the direct obvious cost in terms of lost

human lives and well-being, there is an indirect economic cost: Malnourished people are less productive, hungry children get no or little education, and become less capable adults even if hunger is overcome. Even short-term food insecurity has a long-term lasting impact on growth potential for the economy (United Nations Conference on Trade And Development [UNCTAD, 2017]).

In context of this paper, food insecurity can be described as when all people at all times lack both physical and economic access to sufficient food to meet their dietary needs for a productive and healthy life. In response to global food insecurity, a number of governments and international organizations have adopted plans and developed policies to improve diets and lifestyles of people around the world. One major effort is the Sustainable Development Goals (SDGs), within which SDG2 explicitly calls to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture.

Consequences of food insecurity

Since food insecurity has to do with the availability, accessibility, and acceptability of food, among others, it is clear why those who are food insecure suffer from hunger and undernutrition. Hunger and undernutrition are themselves two of the several consequences of food insecurity. Hamelin, Habicht & Beaudry (1999) as cited in Igwe, (2009), confirmed this when it noted that important aspects of human development depend on food security. Thus, one of the basic consequences of food insecurity is that several aspects of human/social development are delayed or entirely unattended to. With regard to the household consequences of food security, Hamelin, Habicht & Beaudry (1999) as cited in Igwe, (2009), noted that there are three potential areas of consequence of food insecurity. These are: physical impairment, psychological suffering, and sociofamilial perturbations.

Physical impairment

- Hunger
- Depletion
- Illness

Psychological suffering

- Constrained to go against held norms and values
- To be stressed (e.g., fear of losing custody of a child)

Sociofamilial perturbations

- Modification of eating patterns and ritual

• Disrupted household dynamics • Distorted means of food acquisition and management (Adopted from Hamelin et al 1999 in Igwe, 2009).

Social implications of chronic food insecurity

Intermediate Global

- Impaired learning for children and adults
- Loss of productivity
- Increased need for health care
- Intensification of process of exclusion and feeling of powerlessness Feeds socioeconomic inequities and affects the potential for social and
- Erosion of transfer of knowledge and practices to next generation
- Erosion of conviviality
- Decreased constructive participation in social life
- Reinforcement of development of a two-tiered food distribution system
- Threat to harmonious life in a community economic development (Adopted from Hamelin et al 1999 in Igwe, 2009).

These consequences of food insecurity are referred to as “social implications” because they very likely affect the potential for development of a society. And they also correspond to the three areas described above.

Buhi (2003) agrees to these by submitting that food insecurity may also result in severe social, psychological, and behavioural consequences. Food-insecure individuals may manifest feelings of alienation, powerlessness, stress, and anxiety, and they may experience reduced productivity, reduced work and school performance, and reduced income earnings. Household dynamics may become disrupted because of a preoccupation with obtaining food.

There are other related but specifically health implications of food insecurity crisis. WHO (2009) noted that the health implications of food insecurity are immense beginning from the effects of acute or chronic malnutrition. Some of these health implications are:

- increased malnutrition, child and maternal mortality and morbidity, and communicable diseases;
- an inability for the poorest to afford healthy food, forcing them to buy low quality products, negatively changing dietary patterns, and increasing the burden of non-communicable diseases;
- less money to spend on health services because of higher food bill. This will greatly affect

people living with HIV/AIDS and tuberculosis in particular;

- likely impaired mental development, diminished learning ability, reduced work productivity, and increased prevalence of chronic disease;
- likely increase in wasting (low weight for height) among young children, plus anaemia and other micronutrient deficiency conditions, especially among women and children;
- a delay in attaining health and nutrition-related Millennium Development Goals (1, 4, 5 and 6).

Agreeing very much to the above views by WHO (2009), Hamelin et al (1999) noted that the understanding of the consequences of food insecurity at the household level has broader implications, as indicated above also. These, joined together, suggest that important aspects of human development depend on household food security. It therefore underscores the need to prevent food insecurity, especially in the most vulnerable areas like Africa.

Sustainable Development Goal

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: The concept of needs, in particular the essential needs of the world’s poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment’s ability to meet present and future needs”. (Brundtland Report as cited in Musah & Bah, 2018)

In an ecological perspective, sustainability must involve limits on the population and consumption levels and the process that generate variability and novelty—the generation of genetic diversity and the resultant processes of evolution and change in species and ecosystem. Jonathan Harris (2000) as cited in Musah & Bah, (2018) noted that advocates of sustainable development recognize social development as an essential part of the paradigm shift. The major area of emphasis included; Human Development index per capita GNP/GDP Gender Equity, poverty, e.t.c he concluded by saying that “true sustainability means a major shift from existing techniques and organization of production (in areas as Agriculture, Energy, industry, renewable resource system) to newer techniques that will practically address the real issues without Jeopardizing the future, but instead, preserve it.”

The Sustainable Development Goals (SDGs) is the United Nations’ effort to transform our world using a development framework that cuts across all areas of human endeavors within the society. This framework also referred to as the global agenda or the universal goals was a fall-out from the resolution of the United Nations’ General Assembly held on the 25th of September, 2015, with the view to proffering solutions to global challenges. The goals were unanimously adopted by Members State of the UN to pilot their development endeavor in a bid to address crucial societal problems and make the world a better place. SDGs according to Igbinovia (2017) is a set of 17 goals and 169 targets expected to stimulate development within the next 15 years and it is a transition from the Millennium Development Goals (MDGs)

The sustainable development goals are made up of 17 items namely:

- Goal 1. End poverty in all its forms everywhere
- Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3. Ensure healthy lives and promote well-being for all at all ages
- Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 5. Achieve gender equality and empower all women and girls
- Goal 6. Ensure availability and sustainable management of water and sanitation for all
- Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 10. Reduce inequality within and among countries
- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12. Ensure sustainable consumption and production patterns
- Goal 13. Take urgent action to combat climate change and its impacts

Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development

Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development

Goal 2: End Hunger, Achieve Food Security; Improved Nutrition and Promote Sustainable Agriculture

The Overview

As the threat of hunger and food insecurity looms in most part of Sub-Saharan Africa, Nigeria already embarked on a review as far back as 2006. The aim was to achieve a ‘zero hunger’ target and provide nutritious food to its teeming population. The prevalence of undernourishment reflected the fact that some 25.5% of the population was lacking adequate and improved nutrition. At the same time, severe food insecurity within the population based on the Food Insecurity Experience Scale stood at 26.4% based on data from the National Bureau of Statistics.

In addition, there was a stunting or delayed growth prevalence of 37.45% among children of kindergarten; 37.4% for school age and 15% severe cases of malnutrition for under 5 children. The Government’s response was to embark on an aggressive growth enhancement scheme to improve the yield of agricultural commodities. Huge investments were made on the setting up of irrigation sites for farmers in order to provide the platform for cultivation of agricultural products all year round(NVR, 2017).

Overall, the trajectory to end hunger is on course, particularly given the strong collaboration among different stakeholders with the aim of improving nutrition and promoting sustainable agricultural development programmes. The table 1 summarizes the Goal 2 indicators against the 2015 baseline, a 2020 projected target and finally the 2030 SDG (Agenda 2030) target.

TABLE 1: Goal 2 Indicators and Projected Targets

Indicator	Baseline 2015 (%)	Derived Target 2020 (%)	ERGP SDG 2030 Target
Prevalence of undernourishment	25.5	17	0

Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES).	26.4	17.6	0
Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age	37.4	18.7	0
Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5, disaggregated by type (wasting and overweight).	16.4	10.9	0
Volume of production per labour unit by classes of farming/ pastoral/forestry enterprise size.	-	33.3	100
Percentage of agricultural area under sustainable agricultural practices.	56.6	71.1	100

Source: MDGs Survey (2015) and Adopted by National Voluntary Review (NVR, 2017).

Federal Policy and Programme Drivers Leading Towards Goal 2 Targets

According to National Voluntary Review (NVR, 2017). There are at least seven specific federal policy and programme drivers as listed here below aimed at the realization of the Goal two (2) targets:

- (i) The Green Alternative Agriculture Promotion Policy
- (ii) Staple Crops Processing Zones (SCPZ)
- (iii) Nigeria Incentive-Based Risk-Sharing System for Agricultural Lending (NIRSAL)
- (iv) Rural Finance Institution Building Programme (RUFIN)
- (v) Anchor Borrowers' Programme (ABP)
- (vi) Commercial Agricultural Credit Scheme (CACS)
- (vii) Youth Enterprise with Innovation in Nigeria (YouWiN)

Main Challenges of SDG in Nigeria

According to National Voluntary Review (NVR, 2017), there are at least three major challenges as summarized hereunder:

- (i) **Over-reliance on the oil and gas sector; dwindling agricultural production and productivity as well as limited value addition in the agricultural sector:** In order to grow the economy, create jobs, address poverty and ensure food security much more than oil and gas is evidently required. The dwindling agricultural productivity is mainly due to the negative impacts of climate change; desertification; natural and man-made

disasters; unresponsive /land tenure as well as the general low utilization of mechanized farming.

- (ii) **Infrastructural Deficits and Technological gaps:** A major challenge to the SDGs attainment is the infrastructural deficit and technology gaps which hinder service provision and application of science, technology and innovations in many spheres of life.
- (iii) **Economic Recession and Humanitarian crisis:** Economic recession in the country due to fluctuating oil price in the international market and the humanitarian crisis in the North East of the country all present unique challenges that are detrimental to the achievement of the SDGs.

CHALLENGES OF SUSTAINABLE FOOD SECURITY IN NIGERIA

According to Amaka, Kenchukwu and Olisa (2016) Poverty is the major problem of food accessibility, availability and utilization. Poverty leads to insufficient income needed to meet household basic need.

Amaka, et al (2016) identified the political and socioeconomic problems leading to food insecurity in Nigeria which includes; government policy, agricultural practice, population increase, environmental issues and corruption.

A. Government Policy:

Nigeria depended so much on agricultural productivity for its revenue until the exploration of

oil in 1970s. The oil boom led to the negligence of the non-oil sectors especially the agricultural sector which used to be the major source of revenue for the country. The attention given to agriculture reduced drastically, farming reduced drastically, farmers needs were not attended to and the worst of all was that research and development in the sector slowed down causing a stagnation in food production.

Government policies with regard to agricultural production were rapid with plans hastily put together and little or no participation from those who are engaged in agricultural productivity. Moreover, policy change that championed increased incentive for local farmers for improved local food productions were neglected. Urban and community farming and even home gardening were no longer encouraged as land agents made it too difficult for people to obtain land for building as well as for agricultural productivity (Amaka, et al 2016).

B. Agricultural Practices:

The type of farming system prevalent in Nigeria is the traditional subsistent farming. This system is characterized by use of simple farm tools, small farm holdings, restricted access to credit facilities and low agricultural inputs, inadequate storage facilities, insecure markets for post-harvest products and exploitation of farmers by the middlemen. In terms of technology, Nigeria is still lagging behind when compared to other nations in Europe and Asia. Due to poverty and illiteracy, farmers do not have access to modern communication system with which they can access information regarding new technologies. Also, there are few extension officers to transfer new technology to the farmers. Funding for agricultural research is still low in Nigeria. Also, heavy importation of food crops affects productivity of local farmers because the small farmers cannot compete with the imported crops (Amaka, et al 2016).

C. Population Increase:

The demand for food exceeds the supply of food because the rate of growth of population is higher than the growth in agricultural productivity. Also, the large population continues to relocate to the urban areas in search of white-collar jobs which do not exist. This youth rural-urban drift makes it difficult for the country to be food secured (Amaka, et al 2016).

D. Environmental Issues:

Flood, drought, desertification are environmental issues affecting availability of food in Nigeria. Climate change affects food supply through loss of farmland, fluctuating food prices,

increases in food borne illnesses and other food utilization issues (GCF, 2016). The recent environmental degradation through deforestation and flooding has wide negative implication for food production. For instance, in 2012 the country witnessed an unprecedented rainfall as a result of extreme weather. The rainfall resulted in severe flooding causing loss of agricultural crops, live stocks and human lives. According to Metu, Kalu and Ezenekwe (2015), the estimated loss of the country's GDP was worth N2.6 trillion. In the same period, share of agriculture value added to total GDP declined from 23.89% in 2010 to 22.05% in 2012 (WDI, 2014). Other environmental factors that may affect food security includes soil degradation, soil pollution and deforestation. Also, air and water pollution from industrialization threaten both human and natural resources to an extent that food securities capabilities are damaged (Amaka, et al 2016).

E. Corruption:

Corruption in Nigeria has been on the increase leading to money budgeted for public utilities being siphoned for private use. This leads to decay in infrastructure especially rural infrastructure where majority of the farmers live and operate from. For instance, we have seen situations where money meant for importation of fertilizers are siphoned (Amaka, et al 2016).

PANACEA TOWARD SUSTAINABLE FOOD SECURITY IN NIGERIA.

The panacea towards achieving sustainable food security must include reduction in the level of poverty because income must be improved to enable people meet the basic necessities of life, including food. According to Amaka, et al (2016), reduction in poverty level takes a long time to be achieved; therefore, immediate solvable solutions must be taken and they include the following:

A. Improved Agricultural Productivity:

Different projects/schemes have been established by different governments in the country in order to improve agricultural productivity, but they have failed because poor policy implementation. Agricultural productivity can be improved through encouragement of research. Research Institutes should be funded so as to encourage innovation and participatory research. Through research, foreign technology can be modified and applied in Nigeria. Inorganic fertilizers and chemicals can be replaced with alternatives such as cow waste and composite manure which are environmentally friendly. Also extensions services should be encouraged and

strengthened because through the extension services new technology can be transferred to the farmers.

There should be storage facilities to enable farmers store their post-harvest crops. Farm products are perishables; farmers are forced to sell their products so quickly thereby making revenues that do not meet their daily need. The storage facilities can help them preserve their products before taking them to the market for sale. The storage facility will also help provide enough food reserve for the country (Amaka, et al 2016).

B. Agricultural Biodiversity:

Improved agricultural biodiversity through improved agricultural practices will also increase food supply. Large scale farming involves planting one type of crop on a large piece of land, but with improved farming different genetically improved crop types and species may be planted on a piece of land. Mono-cropping also exposes crops to both pests and diseases and also increases the use of organic fertilizers and pesticides that erode soil biodiversity. In other to achieve sustainable food security, Nigeria farmers as well as government should embrace this modern food production technique that comes in form of agricultural biodiversity aimed at increasing livestock and crop production (Amaka, et al 2016).

C. Environmental Management:

Efforts to increase productivity have led to pressure on natural resources as well as environmental damage. There should be effective management of the environment by reducing the rate of deforestation. Trees should be planted as often as possible especially in the desert. Providing habitat for agricultural pests and increasing resilience to shocks and long-term climate change can help in the improvement and management of natural resources. Tree planting should be encouraged because forest trees outside the forest helps in protecting soil and water resources, promotes soil fertility and provides protection from extreme weather events (Amaka, et al 2016).

D. Policy Changes:

Sustainable food security can be achieved if the government adopts inclusive growth in its development efforts. Development should be participatory and environmentally friendly. People-Centered agricultural development puts the farmers first and attacks poverty with opportunities and education. It requires involving the rural people in decision making stages of agriculture productivity. The inability of government to involve these sets of people in defining and designing projects has led to the failure of some of these projects. There should be well designed social protection systems -such as

risk insurance scheme and community empowerment- to help households sustain their resilience to shocks (Amaka, et al 2016).

III. EMPIRICAL LITERATURE

In study by Adetayo (2018) on "Achieving the Sustainable Goals (SDGs) In Nigeria: Challenges and prospects", gave list of countries with top performance and low performance with respect to the actualisation of SDGs. The position of Nigeria with regards to her performance in the actualisation of SDGs alongside with other countries was in the rank of low performance. The list showed that Nigeria is not among the top 20 countries with high SDGs performances but rather appears among the low performing countries with a position of 141. The implication of this poor ranking is that Nigeria as at the time of this survey are not doing so much to achieve sustainable development.

Dioume, (2015), in his study "Food Imports as a Hindrance to Food Security and Sustainable development: The Cases of Nigeria and Senegal" tested whether being dependent on imported food constitutes a hindrance to food security and therefore to sustainable development by assessing the agricultural policy of the two countries (Nigeria and Senegal) and analyzing the impact of food import dependency on poverty, which is seen as a measure of sustainable development. After discussing the problem of food security in Africa in detail, the researcher performed several correlation analyses between the level of food imports and the level of poverty. He found that while in Senegal, there was a significant non-lagged relationship, suggesting that food is being imported to address poverty, there were no significant correlations for Nigeria or for a lagged relationship in either country. He therefore conclude that food imports do not cause poverty but that they also do not contribute to alleviating it. Indeed, other factors such as the cost of imported food must be examined to generate a complete picture of the way in which food imports affect development.

The study by Igwe, (2009) focused on finding out the emerging roles agricultural extension workers need to perform in meeting the food security needs of the Millennium Development Goals in Onitsha central zone of Anambra State. Descriptive survey research design was employed for the study covering a target population of 480 registered farmers and twenty-four extension workers out of which a sample of 120 registered farmers was taken, and all the twenty-four extension workers were used giving a

total sample size of 144. Mean and Standard deviation were used to answer the research questions while t-test was used to test the hypotheses at 0.05 level of significance. The findings of the study revealed that for the food security needs of the MDG to be achieved, seventeen gender issues, fourteen environmental conservation issues, eight HIV/AIDS issues, eleven ICT application issues, and four migration issues, need to be given adequate attention by the extension agents. These are supposed to constitute parts of their emerging roles. The study recommended that: (1) adequate mobilization and remuneration should be given to the extension workers to boost their morale and to enable them to cope with the challenges from these new roles; (2) there should be review of extension workers' training programme to include these new roles; (3) public campaign and awareness programmes should be introduced by the government for the farmers to enable them not to see the extension workers as crossing their boundaries while carrying out their emerging roles.

Emmanuel and Peter (2012) in the study on "Food Security in Nigeria: An Overview", with a comprehensive review of Nigeria's agricultural policy noted that much still needs to be done if the crisis in the sector will not escalate more so, in a supposedly democratic dispensation which expectedly should promote the value of welfarism. The paper infers that Nigeria needs to come up with food policy which for now it lacks. What public policy makers pursue is merely an agricultural policy that still suffers enormously from a wide gap between intent and actual practices.

Amaka, et al (2016) in their descriptive study on "Achieving Sustainable Food Security in Nigeria: Challenges and Way Forward", attempt to evaluate food security situation in Nigeria from 1991 to 2015. The paper shows that there is a shortfall in domestically produced food in Nigeria because the growth in the population of Nigeria is at the rate of 3.2% while the growth in food production has been less than one. This shows that demand for food (population) is greater than the supply (agricultural production) because of factors such as inconsistent government policies, environmental degradation and non-sustainable agricultural production. The paper also shows that Nigeria depends so much on food importation. To achieve sustainable food security in Nigeria, the paper recommends an improvement in environmental management in order to increase agricultural productivity.

Harris-Fry et al. (2015) employed a multinomial logistic regression in identifying household wealth status, increased household size, women's literacy and freedom to access market as the dominant factors influencing food security in Bangladesh. Meanwhile, Ngema, Sibanda and Musemwa (2018) whose study employed a binary logistic regression approach also identified the level of education, income, infrastructural support and access to credit as the major determinants of food security. Applying a similar regression as Ngema et al. (2018), Abdullah et al. (2019) noted that remittances, inflation, gender, assets, unemployment, age and diseases are the determinants of food insecurity in Pakistan. More recently, Sisha (2020) discovered that a higher level of education, increased wealth status, proximity to service centres and residing in an urban area minimizes the risk of food insecurity whereas households with a high dependency ratio and households that experienced shocks are at a higher risk of experiencing food insecurity.

The socio-economic effect of COVID-19 is being studied extensively across and within countries and there is also a growing body of literature investigating the nexus between COVID-19 and food security amongst other indicators of sustainable development. For instance, a cross-sectional study of 1478 low-income adults in the United States (Wolfson & Leung, 2020) showed that 44% were food insecure, 36% were food secure and 20% experienced marginal food security in the early stages of the pandemic. Besides, the effects of COVID-19 were magnified among food-insecure and low-income households and it was disproportionately distributed among communities with coloured individuals. During the early weeks of the stay-at-home order in Vermont, Niles et al. (2020) assessed food insecurity prior to and during COVID-19 and found 36% of new households with food insecurity, while also noting that individuals who had experienced a job loss had a higher odds of experiencing food insecurity. Alvi and Gupta (2020) argued that the effect of COVID-19 on food security and education will be more severe for girls and children who are already from disadvantaged ethnic groups, while findings from Udmale et al. (2020) suggests that 15 African countries, 4 Asian countries, 10 Latin American countries and 6 countries from Oceania among other developing countries are at a greater risk of transitory food insecurity.

In Africa, Shupler et al. (2020) discovered that during the lockdown, 88% of the respondents from a Kenyan informal settlement were food insecure while a survey of 600 Ethiopian

households conducted by Abate et al. (2020) found that two-thirds of the respondents observed a decline in their source of income, with lower-income households experiencing the highest impact. A number of these households used their savings to cushion food consumption; hence, food insecurity was not alarming. In South Africa, Arndt et al. (2020) found that households where members depend largely on labour income and possess lower educational qualification were at a higher risk of food insecurity, while Inegbedion (2020) whose study examined the implication of the lockdown induced by COVID-19 on food security using a cross-sectional survey elicited via social media found that the pandemic adversely affected transportation, security, and farm labour which may undermine the production of food and accelerate food insecurity in Nigeria.

Finally, in a study by Cleopatra and Abayomi (2020) on “Household Food Security And Covid-19 Pandemic In Nigeria”, The study investigated the food security status of households during the pandemic and examined its determinants using the COVID-19 National Longitudinal Phone Survey (COVID-19 NLPS). In analysing the data, descriptive statistics, bivariate as well as multivariate analysis were employed. Findings from the descriptive statistics showed that only 12% of the households were food secure, 5% were mildly food insecure, 24% were moderately food insecure, and over half of the households (58%) experienced severe food insecurity. The result from the ordered probit regression identified socioeconomic variables (education, income and wealth status) as the main determinants of food security during the pandemic. The study further indicates that over 60 per cent of the households’ lives were threatened by food insecurity in Nigeria. The finding indicates gross inadequacy of government palliative support and distribution. Thus, in reference to policy implication, interventions and palliatives should be well planned and consistent with household size and needs.

IV. CONCLUSION

Using the food insecurity experience scales adopted by Cleopatra and Abayomi (2020), to assess the extent of food security, it was discovered that more than half of the households have been experiencing severe food insecurity in Nigeria most especially during the COVID19 pandemic. Cleopatra and Abayomi (2020) revealed that the dominant determinant of food security was the socioeconomic status of the household in terms of education, income and wealth status. This

suggests that households in the lower socioeconomic class were disproportionately affected by food insecurity.

To achieve sustainable food security implies ensuring continuous access to food both quantity and quality for the present generation as well as the future generations. Nigeria and most sub-Saharan African countries are food insecure because food production falls below the demand for food even though the government tries to supplement through importation of food.

Aside other challenges of food security as identified in the literature review, the major challenge of food security in Nigeria is poverty. Poverty reduces the purchasing power of the people making it difficult for them to acquire their daily minimum requirement of food. Other causes of food insecurity are environmental factors, inconsistent policy pronouncement, unsustainable agricultural productivity and underdeveloped infrastructural facilities, especially in the rural areas. The situation is not insurmountable. The paper recommends intensive promotion of research which will help to increase food production, environment friendliness as well as policy change in order to achieve sustainable food security in Nigeria.

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