Volume 8, Issue 2, 2025 (pp. 9-20)



SUSTAINABLE AGRICULTURE, FOOD SECURITY AND IMPROVED NUTRITION IN NIGERIA

Patricia Onyemowo Abah (Ph.D.)¹ and Oka Ene Abah²

¹Department of Economics, Federal University of Lafia, Nasarawa State, Nigeria. Email: mowopat@gmail.com; Tel.: +2348065454842

²Department of Business Administration, Federal University of Lafia, Nasarawa State, Nigeria.

Email: okaabah88@gmail.com; Tel.: +2348035332779

Cite this article:

Abah, P. O., Abah, O. E. (2025), Sustainable Agriculture, Food Security and Improved Nutrition in Nigeria. African Journal of Agriculture and Food Science 8(2), 9-20. DOI: 10.52589/AJAFS-LO3IYIBW

Manuscript History

Received: 28 Mar 2025 Accepted: 2 May 2025 Published: 23 May 2025

Copyright © 2025 The Author(s). This is an Open Access article distributed under the terms of Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International (CC BY-NC-ND 4.0), which permits anyone to share, use, reproduce and redistribute in any medium, provided the original author and source are credited.

ABSTRACT: Based on the mandate of Sustainable Development Goals 2 (SDG2), that food security in every nation must be achieved by 2015, the objective of this paper is to investigating the effect of sustainable agriculture and food security on improved nutrition in Nigeria. Using content analysis and drawing out causal mechanisms with systematic evaluation, this study reveals the various dimensions of sustainable agriculture and food security in Nigeria, breaking down their elements into systems as drawn from the existing literature, and critically linking them to improved nutrition. The study therefore found out that for a sustainable agriculture and food security to be attained in Nigeria, there must be an interaction between the natural biological cycle and control, optimized management and use of farm resources, protect and renew soil fertility and natural resources. The study also found out that, making use of non-renewable energy, purchase productive input and provide human security, and promote opportunity in family farming community to enhance the quality of life for farmers and society as a whole is paramount. The study therefore recommends that the authority on agriculture and food production should urgently coordinated actions and policy solutions to address rooted inappropriateness in food production and invest in sustainable agricultural practices to reduce the menace and conflict of food insecurity and pandemic on the Nigerian food and nutrition.

KEYWORDS: Sustainable Agriculture, Food Security and improved Nutrition.

Volume 8, Issue 2, 2025 (pp. 9-20)



INTRODUCTION

The soaring agricultural produce price have created food crisis of unexampled dimension in Nigeria. According to the Global food security index (2023), 36.4% of Nigerian population suffer from food security, 7.9% of the population are undernourished with the intensity of food deprivation at 48kcal per person per day. This is evidenced in an untold food deficiency, lead under nutrition, hunger and frequent death occurrences in the country (Madhok &English, 2023). The trend is contrary to the SDG2 goal of achieving food security by 2015. To SDG2, by 2015, people, globally, should 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 lifestyle. It is expected therefore that adequate production of food and consumption should be governed by societal social values that are just and equitable as well as moral and ethical for this goal to be attained (Wudil, Usman, Szyrocka, Pilar & Boye, 2022).

Some countries around the world during the past fifty years have sought to improve agricultural productivity to better the food security in a supportive policy and institutional initiatives. These policies and institutional initiatives are implanted in the complex web of social, economic and ecological factor that mediate food security outcome at different human and institutional scale. For example, the United States Department of Agriculture (USDA), the United Kingdom and China have undertaken sufficient effort to build in-country capacity to confront food security by training local small farmers and build experts in organic farm produce and animal health system in the USA, Asian and sub-Sahara African region (USDA, 2024 & UK parliament, 2023). To this effect, according to USDA (2024) and Uk parliament (2023), 87.2% (115.5 million) households in USA are food secure, Uk maintained domestic production of all food available in the UK at around 60% of consumption and indigenous food at 73%, and China in the 2019 Global Food Security Index is ranked 38th out of 113 countries in terms of food quality and safety (Maoming, 2023).

The sub-Sahara Africa on the other hand has not improved in food security, since the 2015 SDG2 goal of end hunger (Usman & Landry, 2021). According to the reports from the World Food Programme (WFP, 2023), and Food and agricultural Organization of United Nation (FAO, 2023), about 282 million of Africans (about 20% of the population) are malnourished, 7.2million of East African are at risk of hunger and food crisis have increase in west Africa with 27 million experiencing severe hunger in Burkina Faso, Chad, Mail, Niger and Nigeria. Africa is naturally endowed with natural resources, but significantly has an untapped potential when compared to the region in the Asian continent that has similar agro-ecological zones and if its acquired arable land is not significantly utilized, would not be free from food insecurity (Onwujekwe & Ezemba, 2021). The resultant effect of under utilization of these endowed resources is lack of productivity, lead the continent's economy become an import dependent economy (Wudil, Usman, Szyrocka, Pilar & Boye, 2022).

Economic productivity in Nigeria has deteriorated in 2023 compare to two years back. According to African Development Group (ADG, 2023), on the Nigerian Economic outlook, the Nigerian Real Gross Domestic Product (GDP) dropped from 3.6% in 2021 to 2.7% in 2023 and to 2.5% in the second quarter of 2024. ADG (2023) also attested that the decline in GDP growth was driven by the reduction in public consumption by 2.5% and net exports by 80%. This, by implication is an indication of either no or low agricultural productivity. Growth in income per capital declined from 1.2% in 2021 to 0.8 in 2023 fueled by the increase in inflation

Volume 8, Issue 2, 2025 (pp. 9-20)



rate, peaked at a two-decade high of 34.7%, devastating energy and food price increases and pass-through effect of exchange rate (National Bureau of Statistics Nigeria (NBS, 2023).

Sustainable agricultural productivity is imperative in Nigeria. This is so because agriculture is the key activity that provide livelihood to Nigerians after oil. 70% of the populace depend on agriculture for employment and for nutrition (Amachi 2018). Series of efforts have been put to boost agriculture in Nigeria. A resent effort among other in 2022 is the lunching with the supports of USAID, a new agriculture policy called National Agricultural Technology and Innovation Policy (NATIP) with the sole aim of transforming the aggro-food system in Nigeria through private sector involvement. With the past effort and those in the recent years, food production and supple is still empirical and has not impacted in the lives of Nigerian.

Low agricultural produce has aggravated food insecurity posing indescribable suffering on the people in the country. In the Northern Nigeria alone, the number of children suffering from acute malnutrition increased from 1.74millon in 2022 to 2 million in 2023 (Simona, 2020). According to NBS (2023), food inflation in Nigeria averaged 13.50% from 1996 to 2024, reaching an all-time high of 40.87% in June of 2024. Other major problem of food insecurity could be Government wrong policy on importation of food. According to African Development Bank Group (ADBG, 2024), the 2024 Nigeria's policy on food importation could jeopardize all the past and present efforts on agricultural produce in the country. Attesting to ADBG (2024), Onwujekwe and Ezemba (2021) said that Africa could achieve food self-sufficiency only if it stopped depending on food importation.

By implication, Nigeria should be producing food to stabilize food price while creating jobs and reducing foreign spending. With an increasing population in Nigeria, the trend of low or no productivity and import dependency needs to be reversed, if the aim of food security is to be realized. It is to this end that this study sought to assess the effect of sustainable agriculture and food security on improved nutrition in Nigeria. The study used contextual analytical method to explore sustainable agriculture and food security, in relation to sustainable nutritive development and their disproportionately large contributions to the well-being of the nation.

LITERATURE REVIEWED AND THEORETICAL FRAMEWORK

Conceptual Literature

Sustainable Agriculture, Food Security and Improved Nutrition.

Dubey (2024) defines sustainable agriculture as a system that strive to provide the resources necessary for present human populations while conserving the planet's ability to sustain future generations. Aparna, Sandeep and Preeti. (2024) see it as sustaining future agroforestry, regenerative agriculture permaculture, and organic farming; and the Sustainable Agriculture Research and Education (SARE, 2021) sees it as an agricultural system that meets the society's food and textile needs in the present without compromising the ability of future generations to meet their needs. These three definitions in line with this research goal on sustainability needs of nutritive food consumption for future generation.

The concept of food security emerged in 1974 at the World Food conference where emphases were only made on the availability and the price stability of the basic food stuff only at the

Volume 8, Issue 2, 2025 (pp. 9-20)



national and international level. The standard definition of food security evolved since after World Food Summit in 1996. There, an agreed definition was adopted; as when all people at all time have physical and economic access to sufficient, safe and nutritious food that meet their dietary needs and food preferences for an active and healthy life (WFS, 1996). The Food and Agriculture Organization (FAO, 2018) in line with WFS (1996) focus on the physical, social and economic availability of food in the society. They describe food security in three dimensions; food availability, food accessibility, food utilization and stability. Ibukun and Adebayo (2021) defined food security as the ability of the food-deficit nations, households, and individuals to meet target levels of consumption on an annual basis. This means that a nation, individual or group of people is referred to being food secured if they are not hungry or free from living in fear of hunger. That is to say that frantic effort is to be made for adequate food availability and on time when needed by the society.

Food Nutrition according to Bhupathiraju and Hu (2023) is a process of consuming, absorbing, and using nutrients needed by the body for growth, development and maintenance of life. It is a biochemical and physiological process by which an organism uses food to support its life (Food Security and Nutrition (VCDP) Nigeria, 2020). The component of the nutrients needed for the body include carbohydrates, proteins, fats vitamins, Dietary fiber and water. These are found in grains, lean meats, poultry product and all forms of peas, dairy product, oil which comes from vegetable, food, nuts and fruits especially from whole fruit.

According to Sustainable Agriculture Research & Education Program (SAREP, 2021), the foods eaten supply the nutrients the body needs to maintain the brain, muscle, bone nerves, skin, blood circulation and immune system of an individual. A deficiency in one of these, is a deficiency in the healthy living of an individual. Lack of or an unimproved nutrition result to a vision cycle of misery in human, society and economy. To this study, improved nutrition is therefore adequate production of food and consumption turned societal and ethical values, a lasting health of the people in the country.

Theoretical Literature

This study is premised on Sustainable Development Goal 2 (SDG2). The sustainable development states that there should be an approach to growth and human development that meet the needs of the present without compromising the ability of the future generation to meet their own needs (UN, 2015). This means that, there must a societal values and governance in which living conditions and resources meet human needs of this generation without destroying the environmental endowments for future generation's needs. This study is anchored on the SDG2 which says to end hunger by promoting sustainable agriculture, achieve food security, and improve nutrition. The end hunger, achieving food security and improve nutrition is hinge on well-developed and sustainable agricultural development.

Agricultural development is a multi-sectional activity that support and promote positive change in the local and urban areas. It is through agriculture that food security and good nutrition is ensured (Abdulazeez, Asghar, Abdulwahab and Raza, 2023), Therefore, sustainable agricultural development path means ensuring and maintain productivity capacity, enough to supply food and nutrition now and always. It also means that urgent coordinated action and policy solution are imperative to address rooted inappropriateness in food production and invest in sustainable agricultural practices to reduce and mitigate the impact of conflict and pandemic on the Nigeria food security and nutrition.

Volume 8, Issue 2, 2025 (pp. 9-20)



METHODOLOGY

This research adopted a collaborative research method (Kansheba and Wald, 2020), and a systematic approach Belitski and Heron (2017) which incorporate varieties of content analysis, conversation analysis and possible discourse analysis by implementing a systematic literature review approach. This helps in integrating the overviews of the content of sustainable agriculture, food security and improved nutrition. The views from this content analysis were to help in describing and developing a theoretical understanding of responses of the literature reviewed (Belitski & Heron 2017). First, a broad literature overview in the fields of sustainable agriculture and food security were conducted, and afterward allowing a link to improved nutrition adopting an approach to the understanding of the dynamic interactions and processes of the sustainable agriculture, food security and improved nutrition

Secondly, the systematic literature review was conducted to reveal the concept and theoretical evolution of the sustainable agriculture, food security and improved nutrition. Furthermore, the research main strategy included the search terms in conjunction sustainable agricultural development and their contributions to food security and improved nutrition in the society at large. These include among others include Sustainable Agricultural Development in Nigeria, Components of Sustainable Agricultural Development, Sustainable Agricultural and improve Nutrition in Nigeria. Food Security in Nigeria, components of food security in Nigeria, Food Security and Improved Nutrition in Nigeria, Also, a variety of sources were conducted in an attempt to source for information and insights from different perspectives. These sources include Journals, special issues, relevant reports and selected conference proceedings.

SUSTAINABLE AGRICULTURAL DEVELOPMENT, FOOD SECURITY AND IMPROVED NUTRITION

Sustainable Agricultural Development in Nigeria

Nigeria, although naturally endowed with agricultural resources and intensified with product harvested per unit area, farms in the country areas are unable to meet the needs of the increasing population (Wudil etal 2022). Despite efforts made to combat agricultural problems in Nigeria, agriculture in the country is still facing number of drawbacks. These drawbacks are largely in degradation of ecosystems and the related biodiversity loss, a loss of crop diversity, numerous animal welfare concerns, and human health risks (Ejeh & Orokpo (2022). Sustainable agriculture has become the solution to these issues. It therefore calls for active role of and government efficient and equitable management of the natural environmental endowments of the country, because its basic tenets are to promote socio-economic, equity profit, and maintaining ecosystem. This could be done by protecting and improving the environmental health, thereby minimizing the offsite environment impact, reducing the environmental risk, optimizing resource usage and conservation to bring forth high production benefits, low-cost production and improve general food productivity.

Volume 8, Issue 2, 2025 (pp. 9-20)



Possible Ways to make Agriculture Sustainable in Nigeria

The state of agriculture in Nigeria will be desolate if there is no proper management of the endowed resource. In as much as the human learn how to manipulate the natural resource to get the best food and other outcome, only good stewardship of the natural world and its resources will ensure that the agro-ecosystems can function through the eminent problems of the environment such as global agricultural shocks, climate changes, war and other agricultural problems. One of the fundamental criteria is the adoption of agricultural practices as a societal, social, moral and ethical values without reservation. In this regard, there must be changes in government policy that neglect agriculture to agricultural empowerment. Blue print Newspaper Limited (BPNL,2021) attested that Nigeria government still pays lips services to agricultural sector and has not taken agriculture as its priority. According to BPNL (2021), in 2021, only 1.73% of the annual budget was allocated to agriculture, which is below the agricultural budgetary allocation of some of its state, such as Oyo, Kwara, and Borno, with 3,6%, 3.0%, 4.65% respectively. Also, the government should encourage export produce and wean itself from import dependency.

The use of lucrative agricultural practices is paramount. (Kisaan 2021) suggested agricultural practices that protects and supports biodiversity. These include a poly-culture crop production. Instead of relying on a single crop production, diverse crop production which are often suited to a region's particular climate should be encourage. The advantage of poly-culture is that, it generally improves soil quality and the need for chemical pesticides and fertilizers will be reduced. Also, crop rotation can help in soil productivity, the use of nitrogen-fixing cover crops smother crops and green manures can help restore soils and reduce erosion (Kisaan, 2021).

In 2024 ministry of livestock was instituted, if managed properly could be a plus in agricultural development in the country. Livestock production is responsible for a large proportion of the greenhouse gases driving anthropogenic global warming. Sustainably managing manure and implementing animal feed additives can reduce the emissions of methane, a potent greenhouse gas (SAREP, 2021).

Water conservation is very important in agricultural practice. The rural agricultural areas in Nigeria rely on simple flooding, or surface irrigation, as the principle means of irrigation. However, flooding often overwhelms fields with more water than crops require and a lot of water are lost to evaporation or during transportation of water from the source. As such, reduced -volume irrigation, which provides slow streams of water to meet the water needs of specific crops while lessening water waste should be encouraged. Furthermore, a shift from nonrenewable fossil fuels to clean and renewable modes of energy should be encourage even the local areas. These renewable modes of energy include solar, wind nuclear and hydroelectricity power to meet their electricity needs instead of fossil fuel consumption which is associated with air pollution, acid rain and also releases carbon dioxide, one of the major drivers of global warming (SAREP, 2021).

Provision of credit and incentive will help in sustaining agricultural practices in the country. Access to credit facilities has been shown empirically by studies to have helped sustaining agricultural practices in the country. This and cash or credit incentives are important to the small-scale farmers who need credit facility especially during the planting period to enable them afford planting materials needed for production. In addition, sustainable policies and programmes to facilitate equitable market for the informal farmers who are involves in the

Volume 8, Issue 2, 2025 (pp. 9-20)



major farm produce in the country, such as training and market protection monitoring schemes will help sustainable agricultural practices.

Food Security in Nigeria

Food security has become important issue in Nigeria, in view of the role it plays in the alteration of people's lives, especially in health and alleviation the widespread poverty and misery. Until the discovery of petroleum in Nigerian, after which the country's attention is drifted from agriculture, Nigeria had been able to cope with the national and international demand of agricultural food (Amachi, 2018). However, with the high dependency on oil proceeds and the non-development, ineffective and inefficient food production practices, the country now face food insecurity and misery (Ejeh & Orakpo (2022).

Nigeria in the past was faced with transitory food insecurity, where the insecurity is caused, mostly by a sudden and unpredictable shocks such as environmental attack; like drought or pests, and when the regular pattern of non-assessment of food is caused by default in timing of the season; such as delay in rainfall, too much rain or no rain. However, food insecurity in Nigeria now is allied with human factor, such regional wars, community clashes, kidnapping and herdsmen. Some of the indicators of food insecurity according to FAO (2023), is food availability, affordability, per capital food productivity in the economy, and domestic food price volatility.

According to the Anwanaodung (2023), Nigeria is ranked 107 among all the analyzed 113 countries in the affordability index for 2022 with score of 22, 44% below the global average and is close to the bottom in term of food availability, with an index score of 39.5, being considerably lower than the 57.8 global average. Per capita food productivity in Nigeria witnesses a surge of 39.6% for 2016 to 2020(). Food inflation rate in Nigeria is on increasing rate, 25.3% in June 2023 to 40.9% in 2024 (Nigerian Inflation Rate – Trading Economics, NIR, 2024). Thus, Nigeria needs to make frantic efforts on what determines security food security in the nation.

Component and Determinant of Food Security in Nigeria

The goal of the Nigeria policy makers is to device means to ensure sustainable food security in the country. The FAO (2023)'s definition of sustainable food security outlines some components and determinants of lasting and adequate food supple in an economy. These component and determinants include; food accessibility, availability, affordability, utilization and stability. The availability of food to the great extent depends on the a stable agricultural (local) productivity. That is to say that, the amount of food physically available must be enough in quantity, quality and should be in variety for the growing population of the people in the regions of the country. With Nigeria's per capita food productivity surged by 48% and 82% decline in exportation, Nigeria needs to come up with a paying strategy to arouse agricultural productivity.

The affordability of food in an economy is the pillar of food assessment such as the average food cost visa vis the percentage of the population with low income, agricultural trade, and food safety net programs. Nigerian has struggled with a rising 5% point in food cost between 2022 and 2023 and worsen in the second half of 2024 with food price inflation at 40.9% (NIR, 2024). The enabling law, the price control Act of 1977, however existing but may have been more or less rescinded because the increasing rate of food price in Nigeria is high. Thus, price

Volume 8, Issue 2, 2025 (pp. 9-20)



floors, which ensure just compensation for labour and provide price ceilings to prevent the exploitation of the consumers by capping prices definitely could not be functioning. The forces of demand and supply could set up price that could control the market, but only when adequate productivity of agricultural produce sets in. Thus, agricultural productivity in the Nigeria must be encouraged and the 1977 Act on price control must be re-indorsed.

The accessibility of food refers to economic, social and physical accessibility of food by all and the time when needed. The economic access depends on the income, price of food and purchasing power of individuals in the economy. The physical access depends on the food availability and resources needed for productivity and distribution of food in the economy.

Food utilization refers to how the body makes use and benefits from the numerous food nutrients from the consumption of food. It is measure by the level of nutrition and the quality of nutritional value in the food consumed. Children in Nigeria are the most vulnerable in reference to food utilization. According to Madhok (2022), about 1.74 children under five living in the northern states of Nigeria; in Borno, Adamawa, Yobe, Sokoto, Katsina, and Zamfara are suffering from malnutrition and the number is expected to rise to 2million in 2024. Thus, the federal government of Nigeria and the private stakeholders must urgently commit resources and implement measures to save lives and support the vulnerable families across the country.

Stability in food security refers to the ability to respond to shocks in the economy that would have affected agricultural productivity. It has to do with the ability to adjust to short-term risks which could have a way of endangering a long-term effect on the welfare of economy. The key indicator of this risk could be climate shock, such as droughts, erosion, volatility of prices of imputes for food production. 50% cause of lack of agricultural productivity is as the result of high cost of agricultural imputes (Ejeh etal). The inability to access new technologies and technical machineries poses threat to vulnerable small-scale farmer and local domestic food producers as they stand the chance of losing investments skill.

Emergence cause of food insecurity in Nigeria

There is a plethora of reason for the food crisis in Nigeria. One of the basic is the inability of the country to produce food to match the explosive population growth, and the problem of increase in urbanization. According to the World Data (2023), from 1960 to 2022, the population of Nigerians have increased from 45.14 million to 218.54 million people with around 54% of the inhabitants living in the country's larger cities; away from where agricultural productivity take place and the growing trend of urbanization is increasing by 3.8% annually. The reason for the migration to the rural areas could be because farming is not profitable for their financial up-keep as the result of poor pricing of farm produce, lack of good storage facilities and the work associated with traditional framing practices owing to the high cost or insufficient agricultural technologies and tools.

The current trend in the food insecurity in the country is transport and logistics to move food around the country. This problem is made worse since the removal of fuel subsidy. Petrol, which was sold at 160 Nigerian naira per liter in 2022 is sold at an average of N1200 in the third quarter of 2024. This condition is reflected in the high level of food loss between harvest and consumer purchase because of lack of transport facilities. Also, sadly enough, the country experiences insecurity in the farming intensive areas as the result of clashes between farmers and cattle herders and tribal conflict and kidnapping. Mukhtar and Haruna (2018) attested that

Volume 8, Issue 2, 2025 (pp. 9-20)



Boko Haram, an Islamic extremist group based in North-eastern Nigeria has drastically reduced food production as famers fled their homes and abandoned their farms out of fears. Mukhtar and Haruna (2018) opined that if insecurity, especially those emerging from herdsmen and Boko Haram is not check, Nigeria is expected to see about 25.5 million people grappling with high level of food insecurity at the end of four quarter of 2024.

Improved Nutrition in Nigeria

To receive good nutrition, people need to consume a healthy diet which is consist of variety of nutrients found in food, vegetables and fats. The United States Department of Agriculture (USDA, 2020-2025)'s Dietary Guideline for Americans, states that; a healthy dietary pattern consists of nutrient-dense forms of foods and beverages across all food groups such as vegetables, fruits, grains, dairy, protein and oil in recommended amount. Improved nutrition is depended on the level of agricultural productivity in the country and access of the all-food groups.

The SDG2 specification on nutrition is specifically on women and children who are under 5 years of age. The SDG2's target was for stunting, wasting and overweight among children under the age of five, exclusive breastfeeding and low-birth weight and anemia in women. Stunting is the condition in children such as being too short for their age, undermines the physical and cognitive development. Child wasting is a life-threatening condition caused by insufficient nutrient in children. Affected children are dangerously thin, with weakened immunity and a higher risk of mortality. The Nigeria government must therefore make stringent effort on achieving good food nutrition for all.

Sustainable Agriculture, Food Security, and Improved Nutrition in Nigeria

Agricultural practice in a sustain manna in Nigeria is paramount because abundant food in the country brings joy and happier living. Improved standard of living of the people in the country could be a source of reduction of social ills and improves health condition of the people which is projected to the community, region and the entire country at large. Agriculture, food security and good nutrition form a nexus at the heat of sustainable development because of its important in a face of a growing population of the nation and for the demand for economic growth and development. Alongside being a source of nutrition and food security, agriculture is a source of employment generation across the regions of the country and has helped cushion the desolation effect of poverty especially in the rural areas of the country.

The negative consequences of hunger and malnutrition in Nigeria has been the source of worries. This probably explains why food security has become a first-order of the present Nigerian government so much that the expounded National Food Security Council Nigeria (NFSCN) has been tasked to actively oversee strategies repones for land, soil, seed, water, harvest, storage and logistics securities, and also connect with food production, importation and distribution so that the country will be food self-sufficient and surplus (Nigerian Economic Summit Group (NESG, 2023). With these efforts, the world food production statistics (WFPS 2024) still said that the number of food insecurity in Nigerian increase significantly from 66.2 million in the 1Q 2023 to 100 million in the 1Q quarter, 2024. Thus, the tasks on NFSG must be achieved.

To determine the nutritive content of a person, Height and Weight and the body Index (BWI) of the person is calculated. The Body Mass Index (BMI) is calculated by dividing weight (in

Volume 8, Issue 2, 2025 (pp. 9-20)



kilogram) by square of the height (in meter). If BMI is 18.5 and 24.9, it is considered normal and healthy. If otherwise, it means malnutrition. According to Socio-economic Demographic Contextual Predictor of children (SDCP, (2023), about 6.5% of children under five years in Nigerian experience wasting, above the global average of 4.6%. 31.5% of children experience stunting, which is also above the global average of 19.9%. Worst of it all, is the fatal consequences of the malnutrition.

Although current data on women malnourision in Nigeria is no known, Madhok, 2022 observed that women are more malnourished in Nigeria when compared to men. Simona (2020) attested that, more than 3 million women and children are malnourished in 2023 and they projected that, more will fall victim in 2024 and beyond if agricultural practices do not improve. Thus, the Nigerian government need urgent coordinated action, and policy solutions that are imperative to address the entrenched inequality, transform food systems, invest in sustainable agricultural practices, reduce and mitigate the impact of the pandemic on food security and nutrition in the country.

CONCLUSION AND RECOMMENDATION

Creating food security via sustainable agricultural development for improved nutrition is now a major policy focus of the developing nation and Nigeria inclusive because of the need to produce agricultural produce to meet the population blast. Sustainable agricultural development approach has emerged as the response to food insecurity. Specifically, the paper explored the component of sustainable agriculture and how agriculture can be sustainable in Nigeria. The paper also accesses the emergence insecurity in Nigeria, the course and the possible solution to the problems of food security in the country. The aim is to bring out all sustainable agriculture arsenal factors that affect food security and improved nutrition in the country.

Judging from the literature, the government officers on policy measure on sustainable agriculture is myopic in their decision as it relate to sustainable agriculture matter. This is evidence in the frequent breakage in agricultural policy execution and frequent formulation new ones, embarking on wrong policy on agriculture and a low budgetary allocation of agricultural sector undermining the importance of agriculture in the society.

Drawing from the study, the country is endowed with conducive resources for agriculture power that could offer prospects for economic feasible developments in agriculture to eliminate food insecurity in the country, However, these resources are cramped, untapped and are degenerating because the country lack the ability to effectively utilize the resources. This research paper therefore, strongly recommends that there should be a significant long-tern public spending and private investment on agricultural technology and necessary incentives to the local farmer such as training and credit facilities for effective agricultural practices and for adequate food production. Also, the Nigerian government should constitutionally adoption sustainable agricultural practices as a societal, social, moral and ethical values without reservation.

Volume 8, Issue 2, 2025 (pp. 9-20)



REFERENCES

- Abdulazee, H. W.Asghar, A. Aderinoye-Abdulwahab, S and Raza, H. A. (2023). Determinants of food security in Nigeria: Empirical evidence from beneficiaries and non-beneficiaries rice farmers of the Kano River Irrigation Project. Frontier in food security. Available at; https://www.frontiersinorg/acticle/103389/fsufs2023.999932/ful
- African Development Bank Group (2024). Food Security and Financial Sustainability in Africa: The Role of the Church Speech by Dr. Akinwumi A. Adesina President, African Development Bank Group Council of Anglican Provinces of Africa Retreat July 12, 2024 Abuja, Nigeria available at; https://www.afdb.org/en/news-and-events/press-releases/nigerias-food.
- African Development Bank Group (ADBG)(2023). Nigerian Economic outlook 2024. https://www.afdb.org/en/countries-west-africa-nigeria/nigeria-economic-outlook#
- Amachi, L. N. (2018). Food Security and Sustainable Agricultural Development in Nigeria. *The International Journal of Social Sciences and Humanities Invention* 5 (5),4765-4768.
- Anwanaodung, E (2023). Nigeria Placed Close to the Bottom of Food Insecurity Index. Mustard Insights https://blog.mustardinsights.com/data-that-affects-you/nigeria-placed-close-to-the-bottom-of-food-insecurity-index-and-affordability-and-availability-show-strain.
- Aparna, V., Sandeep, K. V. and Preeti S. (2024). Sustainable Agriculture Practices and Approaches. Research Gate. Available at: https://www.researchgate.net/publication/381162477
- Blue print newspaper Limited (2021). Available at https: blueprint<ng>food-security-in-nigeria-reality-challenges-prospects.
- Bhupathiraju, S. N & Hu, F. (2023). Healthy Living; overview of Nutrition MSD Manual, professional Vision. Available at; https://www.msdmanuals.com/professional/searchresults?
- Dubey, A. (2024) sustainable Agriculture Britannica, https://www.britannica.com/technology/sustainable-agriculture.
- Ejeh, A. W & Orakpo, O. F. (2022). Towards Sustainable Food Security in Nigeria: Issues and Challenges. *International Journal of Social Sciences and Conflict Management* 7(1), 32-47http://www.casirmediapublishing.com.
- Eneanya, A.N. (2018). Innovation and Sustainable Food Security in Nigeria. *Covenant University Journal of Politics & International Affairs*, 9 (1) 133-146.
- GFSI (2019). The Global Food Security Index (GFSI 2019). Avaliable at; https://impact economist.com. sustainable > project:
- Ibukun, C.O., & Adebayo, A.A., (2021, March 10). Household Food Security and COVID-19 Pandemic in Nigeria. African Development Review. Available at; https://www.uneca.org/sites/default/files/AEC/2020/presentations/household.
- Kisaan, H. (2021). The New Era of Agro Technology Revolution. Available at; https://www.linkedin.com/pulse/what-practices-make-agriculture-sustainable-kisaan-helpline-1
- Mukhtar, F. B. & Haruna, U. (2018). Sustainable development goals and food security: Incorporating innovative farming techniques in times of Boko Haram crisis in Nigeria Received 2. *International Journal of Agricultural Policy and Research*, 6 (6),83-89. Available online at https://www.journalissues.org/IJAPR/
- Madhok, R. & English, J. (2023) 25 million Nigerians at high risk of food insecurity in 202.UNICEF. Available at; https://www.unocha; org/publications/report/nigeria.

Volume 8, Issue 2, 2025 (pp. 9-20)



- Moaming, C. (1022). China contributes to Global Food Security. Chaina consul General; Lagos available at: https://thediplomat.com/2023/02/what-do-we-really-know-about-chinas-food-security/
- NBS (2023). National Bureau of Statistics Nigeria (NBS, 2023) Economic outlook. https://www.nigerianstat.gov.ng
- NESG (2024). Nigerian Economic Summit Group: Issues a Policy Brief on the Status of Food Security in Nigeria. Available at; https://www.nesgroup.org/blog/NESG-Issues-a-Policy-Brief-on-the-Status-of-Food-Security-in-Nigeria
- Onwujekwe E.C., Ezemba C.C. Food Security and Safety: Africans Perspectives A Review. Arch. Curr. Res. Int. 2021; 21:14–20.
- Punch Newspaper (2020). Nigeria food production hit 62 pounds in 2024. Punch Newspaper. Available at https://punchng.com/nigerias-food-production-to-hit-e62bn-in-2024
- SAREP (2021) Sustainable Agriculture Research & Education Program https://sarep.ucdavis.edu/sustainable-ag
- Shaibu, M. (2021). Sustainable Development Goal 2: Assessment of Nigeria's Food Security Situation From 1960 2020, Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, 21 (4) 503-518
- Simona, V. (2020). Prevalence of Severe Food Insecurity in Nigeria 2014-2019. Available at; https://www.statista.com/statistics/1135843/prevalence-of-severe-food-insecurity-in-nigeria/
- Trüeb, R. M. (2020). "Brief History of Human Nutrition". Nutrition for Healthy Hair. Springer. pp. 3–15. doi:10.1007/978-3-030-59920-1_2. ISBN 978-3-030-59920-1. S2CID 229617949.
- Usman Z., Landry D. (2021) Economic Diversification in AFRICA: How and Why It Matters. Carnegie Endowment for International Peace; Washington, DC, USA: [Google Scholar]
- Wudil, A. H., Usman, M. Szyrocka, J. R. Pilar, L. and Boye, M (2022), Reversing Years for Global Food Security: A Review of the Food Security Situation in Sub-Saharan Africa (SSA). *Int J Environ Res Public Health*. 19(22): 14836. Published online 2022 Nov 11. doi: 10.3390/ijerph192214836
- UK Parliament Seventh Report of Secession (2023); Food Security. Available at https://committees.parliament.uk/work/6861/food-security/publications/.
- USDA Economic research services.US Department of Agriculturehttps://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/key-statistics-graphics/#foodsecure
- SDCP (2023). Socio- economic Demographic Contextual Predictor of children (SDCP) https://bmcnutr.biomedcentral.com/articles/
- United Nations (2015). Sustainable Development Goals: 17 Goals to Transform our World. Exhibits. Available at; https://www.un.org/en/exhibits/page/sdgs-17-goals-transform-world
- World food production statistics (WFPS,2024) https://www.google.com/search?q=world+food+production+statistics+2022