

## ENDING HUNGER, ACHIEVING FOOD SECURITY, IMPROVING NUTRITION AND SUSTAINABLE AGRICULTURE IN SOUTH WESTERN STATES IN NIGERIA

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**Abstract:** *The study reveals the contribution of increased agricultural education on food security, ending hunger and improving nutrition in the South West, Nigeria. This study was a survey design of descriptive type. It comprised of all subsistence and commercial farmers in the south western states in Nigeria. Simple random sampling technique was used to select two states from the six south western states. Simple random sampling technique was also used to select a senatorial district from each of the selected states and two local governments from each of the senatorial districts and 50 farmers from each of the local governments using simple random sampling technique making a total of 200 respondents. The instrument used for data collection was structured questionnaire of four likert scale type. Test of reliability was conducted using test-retest method with reliability coefficient of 0.98 which showed high reliability. Data collected were analyzed using both descriptive and inferential statistics. The descriptive statistics used include mean and standard deviation while inferential statistics used include Analysis of Variance (ANOVA) at 0.05 level of significance. The results showed that the roles of Agricultural education is crucial in ending hunger, achieving food security, improving and sustaining nutrition in south western state in Nigeria. It therefore recommend that agricultural education should be strengthen to increase food production and eventually attain food security for all in Nigeria*

**Keywords:** Agricultural Education, Hunger, Food Security, Nutrition, Agriculture

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### INTRODUCTION

Agriculture education plays a key role in the promotion of social, economic and cultural development in Nigeria from time memorial. It worth being emphasized at all levels of

education to enhance food sustainability especially in Nigeria where the population is increasing rapidly. In developed countries, such as USA, China, and Brazil, agriculture education is ranked highly and is offered as a compulsory subject in the curriculum (Mustapha & Greenan,

2007). Agriculture has been the main source of food and nutrition to the nation. It also supplied essential raw materials to industries and provides employment for 70 percent Nigerians who reside in the rural areas and predominantly engage in agricultural production (Olatunde, 2015).

Education in agriculture involves instructions on crop production, livestock management, soil and water conservation, irrigation farming among additional areas (Schutt and Wiekert, 2008). It further involves food production that help farmers increase subsistence and commercial production leading to quality life of the population. Agriculture is essential and its singular role is to ensure that diverse, nutritious foods, adequate to meet the needs of people of all ages, are available and accessible at all times, either from the market or from farmers' own production.

Despite the laudable roles of Agricultural education, Nigeria is still facing the problem of hunger as a result of food insecurity. Hunger syndrome is a bit difficult to understand despite the natural position of Nigeria as a green area with huge resources endowment. The persistence of hunger, poor nutrition, food insecurity and poverty must therefore be to a large extent, the failure of the agricultural sector to fully impact positively on the people. There is a major problem of food insecurity in Nigeria. This is demonstrated by the widening food gap. The gap in food demand and supply is met mainly from commercial food imports (Okorie, 2017).

One of the most fundamental agricultural education objectives is ending hunger, achieving food security, improving nutrition and sustainable agriculture (Tangermann, 2015). In Nigeria the food problem has become a household, political and economic issue. Improving nutrition is a major goal of agricultural programmes and policies, and substantial evidence confirms that increases in agricultural production alone and/or increased income do not necessarily translate into improved diets and nutrition without concurrent and well-designed nutrition education and

behaviour change approaches. It is now well accepted, that in order to make agriculture work for nutrition, agricultural production and markets must improve access to diversified nutrient-dense foods from all the food groups. Hence, the study is set to examine the essential roles of Agriculture education in order to ensure end to hunger, achieving food security, improving nutrition and sustainable agriculture in south-western states in Nigeria.

#### *Objectives of the Study*

The broad objective of the study is to examine the roles of Agriculture education in ending hunger, achieving food security, improving nutrition and sustainable agriculture in south-western states in Nigeria. The specific objectives of the study are to;

1. Examine the roles of Agricultural education in ending hunger among dwellers in south-western states, in Nigeria;
2. Examine the roles of Agricultural education in achieving food security in south-western states, in Nigeria;
3. Examine the roles of Agricultural education in improving and sustaining nutrition in south-western states, in Nigeria.

#### *Research Questions*

1. Is there any significant role of Agricultural education in ending hunger among dwellers in south-western states, in Nigeria?
2. Is there any significant role of Agricultural education in achieving food security in south-western states, in Nigeria?
3. Is there any significant role of Agricultural education in improving and sustaining nutrition in south-western states, in Nigeria?

#### *Research Hypotheses*

1. There is no significant role of Agricultural education in ending hunger among dwellers in south-western states, in Nigeria
2. There is no significant role of Agricultural education in achieving food security in south-western states, in Nigeria.

3. There is no significant role of Agricultural education in improving and sustaining nutrition in south-western states, in Nigeria.

## **LITERATURE REVIEW**

### *Concept of Agriculture*

Agriculture is being defined by different experts based on the field of specialization or understanding. Agriculture therefore, refers to the human activity of cultivating crops and plantations for production of food and goods such as fibers, biofuels, animal feed etc. In a broader sense, agriculture also includes breeding and raising livestock, poultry and dairying. Hornby, (2012) defined agriculture as simply a science, art or practice of farming. The researcher defined Agriculture as the human activity of cultivating crops and plantations for production of food and goods such as fibers, biofuels, animal feed among others. In a broader sense, agriculture also includes breeding and raising livestock, poultry and dairying. Agriculture can also be defined as the systematic and controlled production and use of living organisms and the environment to improve human condition.

The importance accorded to agriculture in the school curricular reflects the recognition of the vital role it plays in the contemporary society. Abdullahi (2006) stated that agriculture has continued and will continue to play a key role in Nigeria economy. The sector holds the key to rapid economic transformation, poverty alleviation, stable democracy and good governance. There is no National Security without food security. The sector contributes about 41% of the Gross Domestic Products (GDP), 88% of the non-oil foreign exchange earnings, employs about 70% of the active labour force as well as provides raw materials for the agro-industrial sector.

Olomola (2007) described agriculture in Nigeria as a major branch of the economy providing employment for 70% of the population. The sector is being transformed by commercialization at the small, medium and large-scale enterprise levels. Major crops include beans, sesame, cashew nuts, cassava,

cocoa beans, groundnuts, gum Arabic, kolanut, maize (corn), melon, millet, palm kernels, palm oil, plantains, rice, rubber, sorghum, soybeans and yams. Agriculture constitutes a large proportion of gross domestic product (GDP) in many developing countries, and it is the primary source of income and subsistence for many of the poorest and most vulnerable individuals and households. In sub-Saharan Africa (excluding South Africa) 60-80% of the populations are employed in agriculture, producing 30-40% of GDP (Dembele & Staatz, 2008). Agriculture contributes 22-28% of GDP in South Asia and employs around 60% of the labour force. Similarly, 40-50% of the population in South East Asia and in the Pacific and East Asia, and an estimated 20% in Latin America and the Caribbean, are employed in agriculture (ILO, 2007).

### *Hunger, Food Security, Nutrition and Sustainable Agriculture in Nigeria*

Hunger refers to “a personal, physical sensation of discomfort while food insecurity refers to a lack of available financial resources for food at the household level”. People in developing countries face both of these issues because of factors they can and cannot control. Due to a lack of economic resources, families become stuck in what is known as a poverty trap- where because they are poor and cannot afford nutrient-dense food it leads them to be undernourished, which in turn makes it difficult for them to find work, leaving them without any money to spend on food (Concern Worldwide 2017). This cycle becomes never-ending and affects more and more people once they reach poverty. Other factors include food shortages caused by the previous year’s harvest not being sufficient to last until the new season, environmental conditions like droughts that lead to crop failures, food waste, population growth, and gender inequality (Concern Worldwide, 2017). In one way or another one or more of these factors affect families in poverty, and by opening the door to a few new resources and options these families’ lives could change completely.

Food security refers to the situation “when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO, 2010). Many people consider it as a basic human right but approximately one billion people around the world especially in the food deficit and low income developing countries are still living with chronic poverty and undernourishment (IEG, 2018). Food security is access by all people at all times to sufficient food for an active and healthy life (Nwajiuba, 2013). Within the framework of this definition, food security requires fulfilling certain conditions related to the supply, demand and household-level utilization of food. Everyone should at all times, have food in adequate quantity and quality. For Nigeria to be food secure, residents must have food year-round and in every part of the country. The quantity of food available must not only be adequate on the aggregate but there must also be per-capita adequacy at all times. Access in this respect must not be only by own production (subsistence) but also from the market with consumers having adequate purchasing power to constitute effective demand.

Sustainable agriculture will greatly depend on basic economic concerns, conservation, and maintenance or improvement of the resource base.” This view stems from environmental and ecological concerns and it directly focuses on the ecological integrity of farming practices. Sustainable agriculture is a management system for renewable natural resources that provides food, income, and livelihood for present and future generations while maintaining or improving the economic productivity and ecosystem services of these resources” (Eswaran, 2015).

Sustainable agriculture shifts in developing countries from environmental issues to issues surrounding crop yield, crop diversity, and farmer’s income. The implementation of these agricultural practices leads to communities being able to sustain themselves due to the increase in available food. Because of the more efficient farming techniques farmers will be able to create an abundant food supply to feed their families and to profit from in markets. A few of

these practices include focusing on efficient cropping systems, pest-control methods, and creating potable water supplies. The main focus is on pursuing “agricultural progress that can sustain their population and their country” (Eswaran, 2015).

In a more general sense, the world must shift their mindset to think of sustainable agriculture as being “an action program that addresses the needs of farmers in context of their environment” (Eswaran, 2015). Sustainable practices will be unique to each individual, it is just finding what actions they can take to improve their situation. These farming practices may also change depending on the size of the operation, “ranging from a single farmer’s field, a farm, or a watershed to an ecosystem, a country, a continent, or the Earth as a whole” (Eswaran, 2015). The important takeaway of any sustainable agriculture practice is that it is going to solve the issues within reach.

There can be a reduction in the number of people who go to sleep hungry every night through sustainable practices that promote an increase in food production and that can be sustained for generations. These agricultural practices include introducing drought-resistant or high yielding seeds, cheaper and less labor-intensive farming techniques, including more female farmers, introducing insurance to promote risk-seeking behavior, and in many cases just informing farmers about new concepts. By introducing new types of seeds that are not only suitable for dry environments but will produce more, the amount of available food will increase and the percentage of crop failure may decrease. Informing the farmers about new techniques can also make a big difference since they may still be farming with less efficient techniques.

## **METHODOLOGY**

This study was a survey design of descriptive type. It comprised of all subsistence and commercial farmers in the south western states in Nigeria. Simple random sampling technique was used to select two states from the six south western states. Simple random sampling technique was also used to select a senatorial district from each of the selected states and two local governments from each of

the senatorial districts and 50 farmers from each of the local governments using simple random sampling technique making a total of 200 respondents. The instrument used for data collection was structured questionnaire of four likert scale type. Test of reliability was conducted using test-retest method with reliability coefficient of 0.98 which showed high reliability. Data collected were analyzed using

both descriptive and inferential statistics. The descriptive statistics used include mean and standard deviation while inferential statistics used include Analysis of Variance (ANOVA) at 0.05 level of significance.

**RESULTS AND DISCUSSION**

This section presents the results of the empirical analysis regarding the objectives of the study.

**Table 1: Roles of Agricultural education in ending hunger, achieving food security, improving and sustaining nutrition**

S/N	Items	Mean	Standard Deviation	Decision
1.	Agriculture provides food to reduce discomfort and hunger	3.57	0.59	Agreed
2.	Agriculture provides diverse nutritious foods, adequate to meet the needs of people of all ages.	3.00	0.34	Agreed
3.	There is reduction in the number of people who go to sleep hungry every night through sustainable practices that promote an increase in food production in agriculture	3.01	0.84	Agreed
4.	Agricultural production increases income, improve diets and nutrition	3.83	0.91	Agreed
5.	Agriculture ensure stability in food production	3.56	0.59	Agreed
6.	Increase in agricultural production leads to increase in diet and nutrition	3.89	0.86	Agreed
7.	Agriculture production cater for the need of people to resolve hunger	3.23	1.08	Agreed

**Mean greater than 2.50 ‘Agreed’ otherwise ‘Disagreed’**

**Source: Field Study 2022**

The data shows in table 1 revealed that mean opinions of respondents ranged from 3.00 to 3.89. The table shows that all the variables (1-7) have an high mean values greater than 2.50. The result shows that the entire variables are the roles of Agricultural education in ending hunger,

achieving food security, improving and sustaining nutrition

**Test of Hypotheses**

**Hypothesis 1:** There is no significant role of Agricultural education in ending hunger among dwellers in south-western states, in Nigeria

**Table 2: Summary of Analysis of Variance for role of Agricultural education in ending hunger**

Source	Type III Sum of Squares	df	Mean Square	F	P-Value
Corrected Model	3663.477	34	107.749	112.173	.000
Intercept	31303.878	1	31303.878	3536.612	.000
Ending Hunger	3663.477	34	107.749	112.173	.000
Error	982.503	161	8.851		
Total	63889.000	196			
Corrected Total	4645.979	195			

a R Squared = .789 (Adjusted R Squared = .724) \*p < 0.05

Table 2 shows that there is significant role of Agricultural education in ending hunger among dwellers in south-western states, Nigeria as ( $f_{(1, 196)} = 112.173, p < 0.05$ ). This implies that agricultural education helps in ending hunger. Therefore, the hypothesis was rejected.

**Hypothesis 2:** There is no significant role of Agricultural education in achieving food security in south-western states, in Nigeria.

**Table 3: Summary of Analysis of Variance for role of Agricultural education in achieving food security**

Source	Type III Sum of Squares	df	Mean Square	F	P-Value
Corrected Model	813.234	34	78.780	12.173	.000
Intercept	723.800	1	4387.871	3536.612	.000
Food Security	663.897	34	60.749	76.173	.000
Error	67.093	161	10.201		
Total	2189.034	196			
Corrected Total	2045.029	195			

a R Squared = .650 (Adjusted R Squared = .632) \*p < 0.05

Table 3 shows that there is significant role of agricultural education in achieving food security in south-western states, Nigeria as ( $f_{(1, 196)} = 60.749, p < 0.05$ ). This implies that agricultural education helps in in achieving food security. Therefore, the hypothesis was rejected.

**Hypothesis 3:** There is no significant role of Agricultural education in improving and sustaining nutrition in south-western states, Nigeria

**Table 4: Summary of Analysis of Variance for role of Agricultural education in improving and sustaining nutrition**

Source	Type III Sum of Squares	df	Mean Square	F	P-Value
Corrected Model	3003.819 <sup>a</sup>	34	323.819	20.219	.001
Intercept	5239.809	1	725.819	85.755	.000
Nutrition	3118.854	34	311.819	47.219	.001
Error	2008.283	161	1709.474		
Total	13876.000	196			
Corrected Total	14098.102	195			

Note: R Squared = .725 (Adjusted R Squared = .720) \*p < 0.05

Table 4 shows that there is significant role of agricultural education in improving and sustaining nutrition in south-western states, Nigeria as ( $f_{(1, 196)} = 42.219, p < 0.05$ ). This implies that agricultural education helps in improving and sustaining nutrition. Therefore, the hypothesis was rejected.

*Discussion*

The finding of the study revealed the roles of Agricultural education in ending hunger, achieving food security, improving and sustaining nutrition in south-western states, Nigeria. It was found that Agriculture provides

food to reduce discomfort and hunger, Agriculture provides diverse nutritious foods, adequate to meet the needs of people of all ages, there is reduction in the number of people who go to sleep hungry every night through sustainable practices that promote an increase in food production in agriculture, Agricultural production increases income, improve diets and nutrition, Agriculture ensure stability in food production, increase in agricultural production leads to increase in diet and nutrition and Agriculture production cater for the need of people to resolve hunger. The finding is in line with Eswaran, (2015) that Agricultural education through its sustainable programme provides food, income, and livelihood for present and future generations while maintaining or improving the economic productivity and ecosystem services of these resources.

The study further revealed that there is significant role of Agricultural education in ending hunger, achieving food security, improving and sustaining nutrition among dwellers in south-western states, Nigeria. This finding is similar with Abdullahi (2006) that agriculture has continued and will continue to play a key role in Nigeria economy. It holds the key to rapid economic transformation, poverty alleviation, stable democracy and good governance.

## CONCLUSION

The study concluded that the roles of Agricultural education is crucial in ending hunger, achieving food security, improving and sustaining nutrition in south western state in Nigeria. It therefore recommends that agricultural education should be strengthen to increase food production and eventually attain food security for all in Nigeria.

## REFERENCES

Abdullahi, S. Y. (2006). The role of agriculture in the development of Nigeria: The development universal consortia. *International Journal of Food and Agricultural Research*, (3), (2), Pp. 24-26

- Dembele, N. & Staatz, J. (2008). *Agriculture for development in Sub-Saharan Africa: Background Paper for World Development Report 2008*, Michigan State University. Retrieved June 5, 2012 from <http://www.poeticfarmer.wordpress.com/tag/practical-agriculture/>.
- Eswaran, H. (2015). "Sustainable Agriculture in Developing Countries: Constraints, Challenges, and Choices." Technologies for Sustainable Agriculture in the Tropics ASA Special Publications, pp. 7-24.
- FAO. (2010), *Production Year Book*. Vol. 1.55
- Hornby, R. C. (2012). *Cereal crop cultivation in the tropical Africa*. Oxford: Oxford University Press.
- IEG (2018). "Growth and Productivity in Agriculture and Agribusiness: Evaluative Lessons from World Bank Group Experience". Washington, DC: World Bank.
- Ilo, U. (2007). Roles of Agriculture in economic development in the North Eastern States of Nigeria. *Nigerian Vocational Journal*, 11 (1), 75-85.
- Mustapha R.B & Greenon J.P (2007). Roles of vocational Education in economic development in Malaysia. Educators and employers perspectives. *Journal of industrial teacher's education*. 6 (2), 10-15
- Nwajiuba, C. (2013), "*Food Insecurity: An Overview*", Paper Presented at the Dept of Agric Econs, FUTO, Owerri
- Okorie, E.O. (2017), "Public Opinion and the Conduct of Nigeria's Foreign Policy: Two Selected case studies", *The Nigerian Journal of the Social Sciences*, Vol. 3, No.1. pp 35-40
- Olomola, A. S. (2007). Strategies for managing the opportunities and challenges of the current agricultural commodity booms in SSA in seminar papers on managing commodity booms in sub-Saharan Africa. *AERC Senior Policy Seminar IX. African Economic Research Consortium (AERC)*, Nairobi, Kenya. Retrieved February 5, 2012 from

<http://www.nationsencyclopedia.com/economies/Africa/nigeriaagriculture.html>  
Ruel, R. (2001), *One Hundred Countries: Two Billion People*. The Dimensions of Development, New York: Praeger.

Tangermann, S. (2015), "Food Security and Poverty in LDCS", *Finance and Development*, Vol. 22, Nos. 7-11.

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