



INNOVATIONS IN AGRICULTURAL EDUCATION FOR SUSTAINABLE NATIONAL ECONOMY, POVERTY REDUCTION AND WEALTH CREATION

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ABSTRACT

This paper discussed innovations in agricultural education for sustainable national economy, poverty reduction and wealth creation. The paper focused on poverty situation in Nigeria, indicators of poverty in Nigeria, innovations in agricultural education for poverty reduction and wealth creation.

KEYS WORDS: Innovation, Economy, Sustainable, Development, Poverty.

INTRODUCTION

Nigeria got her independent in 1960, and since then Nigeria has been striving to achieve political and economic independence which has not been realized. The country is still having poor and insufficient health care services, high mortality and mobility rates, high maternal and infant mortality rates especially in the rural areas. Malnutrition, hunger, low agricultural production which is heavily dependent on human labour and use of crude implements, low food processing and preservation as well as inefficient marketing system and research are being experienced in Nigeria. Furthermore, the country is still suffering from inefficient communication, power supply and transport system. Most Nigerians are still living in the slumps with uncontrollable population growth. United Nation Development project Report (2006). In the education, sector, Igborgbor (2012) reported that many tertiary institutions lack adequate lecture halls, students are seen over-crowded in lecture halls and some sit by the window sides to take lectures. He further explained that libraries in most campus are filled with obsolete textbooks and reference materials, students live in shanty environments without the basic amenities. All these are symptoms of poverty. Poverty according to Olaitan, Ali, Onyemachi and Nwachukwu (2000) is the scarcity of human basic needs, or the inability of an individual or society to acquire human basic needs for existence. Alademerin (2000) explained that poverty is the deprivation of basic needs such as food, shelter, accessible and good health care, good governance, sound education, better paid employment and manageable household population control. Poverty among the individuals and the society brings about corruption, drug and human trafficking, kidnapping, prostitution among ladies, and other anti-social vices which are prevalent in the Nigerian society at present. Olaitan *et al.* (2000) explained that poverty in the society could be caused by many factors but principally due to lack of functional and stable national economy. National economy according to Nixon and Lucinda (1999) is the nation's wealth, resources and financial status. It involves all the economic activities of

the citizens of a nation as well as the monetary policies, businesses transactions, growth and the labour market (Wikipedia, 2012). A functional and stable national economy creates wealth and reduces poverty in any nation. In Nigeria, efforts have been made by the governments since after independence to formulate policies and programmes aimed at alleviating poverty in individuals and the society, such policies and programmes include; farm settlement scheme which was established by in 1962 in the first Republic under the leadership of Dr. Michael Okpara regime in the then Eastern Nigeria. Operation feed the nation (OFN) which was established in 1976 during the military regime headed by Gen. Olusegun Obasanjo, the Green Revolution which was established in 1979 in the second Republic, under the leadership of president Shehu Shagari, the Agricultural Development project (ADP) and River Basin Authority (RBA) which were established in 1983 by the military government of major Gen. Muhammadu Buhari. The National Directorate of employment (NDE), the Directorate of food, Road and Rural infrastructure (DFRRI), the national Agricultural land Development Authority (NALDA), National Accelerated food production programme (NAFDPP), Better life for Rural women and Family support programme (FSP) which were established between 1985-1993 by the military president, Gen. Ibrahim Badamashi Babangida. Other skill acquisition programmes like National economic empowerment Development strategy (NEEDS) state economic empowerment Development strategy (SEEDS), local economic empowerment Development strategy (LEEDS) as well as introduction of agricultural education programme into the Nigerian Education system. Some of these programmes and policies have to some extent made positive impact in poverty reduction and alleviation among individuals and the society in Nigeria, but many of them failed and could not achieved their objectives. However some innovations in agricultural education have impacted positively towards sustainable national economy, poverty reduction and wealth creation in Nigeria: Ndem (2010). Agricultural education is an aspect of vocational education which

prepares individuals for practical skills and scientific knowledge in agricultural production. Sulainaman and Usman (2007) reported that agricultural education also involves the inculcation of the right attitudes, values, habits, abilities, understanding, competencies, scholarship, leadership and citizenship needed for entry into agricultural occupation and progress in it. FRN (2004) specified the following as the goals of vocation agricultural education;

- a. Provide trained manpower in the applied sciences, technology and business particularly at craft, advanced craft and technical level.
- b. Provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development.
- c. Give training and impart the necessary skills to individuals who shall be self-reliant economically.

Also the FME (2007) enumerated the following as the objectives of agricultural education;

- i. To prepare graduates with the right attitudes, knowledge and professional competencies in vocational agriculture
- ii. To produce competent teachers who will be capable of motivating students to acquire interest and aptitude for agriculture,.
- iii. To develop student-teachers the appropriate communicative skills for effective transmission of agricultural information and skills to the students in the context of their environment.
- iv. To equip the student-teachers with adequate knowledge and ability to establish and manage a model school farm effectively.
- v. To provide sound background to enhance further academic and professional progression of the student- teachers.
- vi. Develop interest in the students on agricultural production.
- vii. Take advantage of the numerous career opportunities offered by agriculture, and become prepared for further studies in agriculture.

In line with the above stated objective, agricultural education has numerous innovations for sustainable national economy, poverty reduction and wealth creation. This paper covered the following areas; concepts of sustainable national economy, poverty situation in Nigeria, indicators/indices of poverty in Nigeria and innovations in agricultural education for poverty reduction and wealth creation.

POVERTY SITUATION IN NIGERIA

Poverty is a situation of deprivation of individual or society, the basic resources of human comfort. Poverty is one of the greatest threats to human security, political and economic instability.

Ezeji (2000) explained that poverty is the failure of an individual to meet basic requirements of a "decent" life. These basic requirements are not restricted to the economic spheres but extend to social and spiritual sphere of life. He went further to say that poverty is the state of living in which an individual or group is faced with economic, social, political, cultural and environmental deprivation. The United Nation Development Project

(1994) defined poverty as a multi-dimensional and global phenomenon characterized by food insecurity, lack of access to health services, poor or inadequate education, clothing, sanitation as well as psychological experience of violence and insecurity in the society. The poverty situation in Nigeria is enormous and is threatening the human existence. For instance, in Nigeria today, the population of human beings is estimated to be more than 140 million (National population commission, 2006). More than half of the 140 million people do not have access to balanced diet, decent residential accommodation, good education, good medical care, constant supply of electricity and good drinking water (UNDP, 2006). World Bank (2000) rated Nigeria as the 12th poorest country in the world with Gross National product (GNP) per capital of \$740 as at 1998. However, there might have been an improvement in the Gross National product of Nigeria over the years. Also the World Bank (2000) rated Nigeria as the poorest nation. It is evident from statistics that Nigeria is a poor nation because her citizens live below an acceptable per capital income. For instance the minimum monthly wage of eighteen thousand naira N18000 which is equivalent to \$112.5 is far below the international standard. Still many state governments in Nigeria cannot afford to pay the eighteen thousand Naira minimum wages. According to Olaitan (2000), when an individual lives below the per capital income, it can be said that poverty line has occurred or that a nation has fallen below an acceptable minimum wage. Nigeria is in this types of predicament because she, the citizens have received an orientation towards personal indulgence which can be expressed in corruption and attachment to foreign culture irrespective of her abundant rich cultural, natural and human resources, thereby making Nigeria a consumer nation.

Poverty according to Olaitan (2000) is divided into rural and urban poverty. The rural poverty is symptomized by under serviced social and basic amenities such as electricity, pipe borne water and basic medical care. The absence of these makes the rural people prone to poverty. The major source of water in the rural areas is unprotected stream where the people fetch water. The rural people travels long distances on foot, they live in mud houses with thatched roofs in an environment with his domestic animals. Although the rural dwellers have been classified economically as poor, yet they seem to be productive and sustain themselves through agricultural production Olaitan (2000). Olaitan further explained that in the urban areas, there are some amenities like roads, pipe-borne water, electricity supply and educational facilities, yet many Nigerians live in slumps without access to these modern facilities and amenities. In areas where these exist, their supplies are epileptic. Poverty is a big threat to the national development.

Indicators/Indices of Poverty Situation in Nigeria

One of the indicators of poverty in Nigeria is the minimum wage of a worker which is eighteen thousand naira per month. Such a worker who receives this amount of money finds it difficult to purchase the basic needs of the family with such a meager income. Also a consumer country like Nigeria earns low foreign exchange because the country is not exporting much. All these are indicators of poverty.

Secondly, large family size without birth control is an indicator of poverty. In Nigeria, it is still common to see a peasant farmer having up to ten children and living in one room with all the children. This also is an indicator of poverty. Furthermore, Olaitan (2000) observed that there is low level of productivity in Nigerian agricultural sector and areas of industrialization. Importation of essential commodities is still the order of the day. This, according to him is a sign of poverty. Political instabilities is one of the indices of poverty. In Nigeria, it is an evident that elections are still characterized with thugery, violence and

rigging as well as snatching of ballot boxes, killing and burning of houses. Worst is that there is a striking evidence of unequal distribution of the income and earning, all these give rise to poverty. Additionally, Insecurity is prevalent in the Nigerian society, Reports from mass media daily shows tremendous havocs being caused by terrorists who called themselves Boko-Harram. Other cases of Kidnapping, hired assassins, massive attack of individuals, communities worshipping places, government offices and military offices.



FIGURE 1: Poverty Chain (Olaitan, 2000)

The poverty situation in Nigeria is in chain which could be referred to as poverty chain as illustrated in the figure 1 above. The poverty chain can be broken with appropriate mechanisms such as increase in productivity, establishment of industries, capacity buildings, skill development, sound and functional vocational education, population control, mechanized agriculture, positive attitude.

Innovations in Agricultural Education

There are numerous innovations in agricultural education for poverty alleviation and wealth creation, these include;

Knowledge and skills in processing of agricultural products, processing is act of removing the unwanted parts of the farm products, such as removal of sand, particles in products like crops. Removal of husks, peeling and crushing. In animal product, processing involves removal of bones, fins, scales and intestines in fish. According to Ndem (2010) many individual are engaged in the processing of agricultural products for a living, this processing business has created employment opportunities too many, thereby reducing poverty among the individuals involved. Agricultural education prepares individuals the skills of dry season vegetable gardening. Dry season

gardening in the city is a lucrative venture that has created job for many Nigerians. Lots of people who are engaged in dry season vegetable gardening are self employed. Such people are self-sufficient and self reliant. The business of dry season vegetable gardening has helped many people who are engaged in it to earn money and as such reduce poverty among the individuals and the society (Ndem, 2010). The knowledge and skills in snail rearing is an innovation in agricultural education. Snail is a common name which is applied to most of the members of the molluscan class of gastropoda. There are different types of snail, the water snail and the land snail. Wikipedia (2012) reported that snail belongs to gastropoda families with soft body and protected by a hard shell. Snails contain lots of protein required for human consumption. Consumption of snails helps the consumers to get enough animal protein which helps to prevent lack of protein in the body (Wikipedia, 2012). The business of snail rearing has provided income and protein to many families who are involved in the business. This has helped tremendously to reduce poverty and creation wealth. Equally, agricultural education has innovated fish rearing or fish farming and production using plastic containers as ponds. Nowadays, one can grow fish in one's backyard or compound using plastic containers as ponds to rear different kinds of fish. This innovation is not labour intensive, does not require large parcel of land and can be established with little amount of funds. Robeto and Vantherine (1998) reported that fishery or fish farming provides employment opportunity to people. Fish provides food, protein and other minerals required for the proper functioning of the body. Fish farmers make money from the sales of fish which they use to solve other problems; thereby reducing poverty.

In a commercial level, fishery yields foreign exchange and as well creates wealth. Other innovations in agricultural education are apiculture: Apiculture is the act of rearing or producing honey bee. It is an innovation which has helped to create wealth and reduce poverty in many households. Adekola and Aderounmu (2004) reported that the domestication of honey bees (apiculture) for honey production has become a world-wide initiative in recent years. He further explained that products from bee keeping such as honey, beewax, propolis, royal jelly, bee renom and bee pollen are of economic importance which has been used to reduce poverty.

Apiculture involves production of bees on a large scale. The venture does not need large hectares of land. It is less labour intensive and can be established with little capital. Honey bee provides protein in the body. The honey also is medicinal and can be used to cure many diseases. Apiculture is one of the attractive means of poverty reduction and wealth creation.

Okorie (2000) reported that agricultural education develops skills and competencies for production of different crops, ranging from arable to cash crops. The innovation in the use of fertilizer to boost crop yield has helped to increase food production to feed the teeming population to reduce hunger and poverty. Apart from the consumption of the food produced, he further explained that millions of naira is being made from the sales of food items thereby creating wealth from the producer and

foreign exchange to the country. Small scale keeping of poultry is the domesticated births such duck, pigeon, chicken, geese, guineas, bantams, turkey.

Poultry production according to china (2005) is a lucrative business which yields income to the producers. poultry meat provides animal protein. He added that poultry production in a small scale has helped in poverty reduction in the society as well as job creation. Another innovation in agricultural education is marketing and distribution of farm product. The marketing of agricultural products involves movement of the commodity from the point of production to various places where they are needed. It involves all activities associated with the distribution of the farm products. It creates job, wealth and reduces poverty in individuals and the society.

CONCLUSION

Nigerian after fifty years of independence is still striving to be economically and politically stable. The poverty level in Nigeria is still alarming. This is symptomized by decayed in infrastructures, hunger, diseases, high rate of maternal mortality, instability in the polity as well as insecurity in the society. Various programme and policies have been put in place by different regimes in Nigeria, some of these programmes have to some extent achieved their objectives but many of them failed and could not achieve their objectives. One of the attractive options for poverty reduction and wealth creation in Nigeria is agricultural education innovations.

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