

REVIVING NIGERIA ECONOMY THROUGH AGRICULTURAL TECHNOLOGY: A REVIEW

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Abstract

This study looked at ways of reviving the Nigeria economy through Agricultural Technology. Presently Nigeria is battling with serious fiscal problems, such as debts that are shrinking its revenue, with consist rising of budget deficit. Nigeria's fiscal position got worst within the year 2022 as the country's revenue could no longer pay their debts to other countries of the world. The situation has resulted to: serious poverty, higher unemployment, collapse of education, violence at home and outside homes, poor health condition, lower wages and incomes, lost of jobs, low private investments and others. Several factors have been identified to be the cause of the poor state of the Nigeria economy and its effects on Nigerians. Among the factors are: climate-change issues, corruption, income inequality, prolonged over dependence on oil, graduate unemployment, poor technological development in the different fields of life especially in Agricultural area, which ought to be the mainstay of a country. This therefore calls for the need of reviving the Nigeria economy through Agricultural technological measures such as; the use of areal image technology, automated irrigation infrastructures, weather forecasting technological devices, hermetic technological instrument, vertical system of farming and others. The author is of the opinion that if these measures are adopted, they will actually help in revamping the agricultural sector which is one of the sectors that can boost the Nigeria economy. Actually, there are limitations towards these measures but if the limitations to the use of agricultural technological devices for increase in yield of plants and animals are properly handled, these measures will surely create wealth and meaningful development of the Nigeria economy.

Keywords: *Reviving, Economy, Agricultural Technology*

Introduction

This paper assessed ways of reviewing the Nigeria economy through agricultural technology. Agricultural technology involves the use of technology in all fields of agriculture (soil, plant, animal science and others) to increase, yield and profitability. Agricultural technology has played important roles in expansion and production of crops and animals as seen in improvement of livestock genetics and animal breeding (as in development of new vaccines for use in animals), decrease in the use of chemical fertilizers and corrosive pesticides, production of faster machines that gives

rooms for more efficient farming, and development of more industries, easier, faster and more effective communication devices to information, less wastage of food products and others (Ayobami, 2021).

Examples of agricultural technological instruments and measures that could be used in agricultural activities include: automated irrigation infrastructures, hermetic technology, vertical farming technology, sensor technology, weather forecast technology (that aids in forecasting weather updates to farmers), air borne technology and others (Inez, 2021). Presently in 2022, the inflation rate has been rated to be at 21.5%

and Nigeria being the 13th among the poorest countries of the world, this is quite alarming. Looking at the present political situation in Nigeria coupled with increased corruption level, unemployment rate among youths have forced most Nigerian youths to go into evil ventures or businesses, and if nothing is done quickly Nigeria will soon be identified as the poorest country of the world, the country that has in the past been regarded as the giant of Africa. This paper therefore is of the opinion that something must be done to divert the dwindling economic level of Nigeria to greater heights. One of the identified procedures is the adoption of Agricultural technologies in the production of animals and plants. Through this study, it has been found out that this is one of the major ways through which the Nigerian economy can be resuscitated (Abubaka, 2022 and Gabriel, 2022).

Methodology

The methods used for collection of information in this study were: Review from related literatures, magazines, internet materials, conference papers, proceeding, bulletins, and newspapers.

An Overview of State of Economy in Nigeria

The word “economy” has been defined by various authors. “Economy” comprises of all activity that involves manufacturing, distribution, marketing and consumption of goods and services in a zone (Will, 2022 and Wikipedia, 2022). It is a system that involves serious decision making by numerous set of people that usually follows a hierarchy in which the government, firms, communities and families are involved in the process of decision making. Most often economy of any particular area are always ruled by the

existing laws, geography, history and culture found in such an area (United Nation and Rule of Law, 2017; Will, 2022). According to Will, Michael and Timothy (2022), economy deals with how resources are allocated in a country or for a period of time. In the past years economic activity was attributed to be an issues concerning capital, natural resources and labour, without any value on technology and creativity which helps in intellectual development of personnel found in a system. But today all about economy of a nation for example Nigeria is now heading towards economic development through technology. Agricultural technology is being included in this new system of economic development as well as other fields of life.

A given economy has been observed to be the outcome of a set of procedures that involves education, culture, values, legal systems, history, political structure, geography, social organization and technological evolution (Wikipedia, 2022). These factors form the parameters, content and conditions for functioning of the economy. Thus, for one to know how the economy works, he has to mark out the major working parts of the economy and how to relate and work with each part. It was because of this that Kenton (2022) in his study of economics and factors affecting economies stated that factors affecting economics can be divided into two major areas of focus viz: micro economics and macro economics. Microeconomics, look at the behaviour of individuals and firms in order to understand why they make the economic decisions and how these decisions affect the larger economic system. While macroeconomics looks at the entire economy of a country and makes large-scale decisions and issues for it. It looks at the rate of economic growth or gross domestic product

(GDP) that portrays the total amount of goods and services produced in a country. Poor economic occurs in any country once the country does not have enough resources to produce all the things its citizens want. From literature, the recent macroeconomic of Nigeria's economy has risen from 1.8% in 2020 to 3.6% in 2021. The non oil sector (e.g Agriculture) having 4.4% expansion, while the oil sector accounts for 8.3% of GDP (Francis, 2022). The annual average inflation in Nigeria now stands at 17.0% in 2021 as against 13.2% in 2020. This was above the central bank target of 6-9% as the prices of food and exchange rate of goods and services in rising on daily bases, presently, it is at 21.5%, in the year 2022.

According to some authors, Nigeria had over the last three decades earned large amount of income from crude oil alone, which ought to have led to the growth of the socio-economic status of the Nigerian nation. Apart from this, there has been an increasing growth of Nigeria in its GDP in the past decades but presently, the country is witnessing a fall in its GDP (Gross Domestic Products). According to African Development Bank (AFDB) study, Nigeria has declined from being a low middle income country and amongst the fifty richest countries in the world, to be the 30th poorest country in the world (Blench, 2004), with very poor economy. However, no matter the state of the Nigerian economy presently it is believed that with the emerging technologies in Agriculture, the economy of the Nigeria nation can easily be revitalized through agricultural technology alone.

Implications of Poor Economy in Nigeria

There are several effects and deficiencies associated with poor economic condition of a state or nation. Among them are:

Poor Health: Poor health of citizens is one of the major effects of poor economy found in a nation, as seen in Nigeria where high infant mortality and low life expectancy is rising daily (Ucha, 2010). According to Ucha (2010), it has been observed that poor people in Nigeria face several health issues as they lack basic health amenities, competent medical practitioners and poor immunization programs. This is why some children are seen with physical defects in some communities of Nigeria. Most people both adults and children die these days like birds.

High Rate of Inflation: Inflation has been observed to be one of the greatest problem a country could encounter due to poor economic condition that exist in it. In Nigeria, presently, the inflation rated is becoming high on daily bases to the extent that Francais (2022), in his study on Nigeria Economic output stated that "inflation is projected to remain elevated at 16.9% in 2022 and above pre-pandemic levels in 2023". Francais (2022), goes on to state that inflation are fuelled mainly by rising food, diesel and gas prices. Thus, the projected marginal current account surplus of 0.15 of GDP in 2022 could turn into deficit of 0.25 in 2023.

Poverty Through this study, it has been observed that, due to poor economy of Nigerian, poverty has become a national issue. Once a state is poor in its economy, people living in it are always found to be poor and unable to meet on with their basic needs, such as feeding, clothing and shelter among other necessities; people become unable to meet up with the standard of living. This may be the reason why Ajakemo (2015), in one of her articles stated that, due to poor economic

condition of the Nigerian nation presently large number of people leaving in it does not have enough income to meet up with their needs. Their cash income was insufficient to over minimal standard of food, water, fuel, shelter, medical care and schooling (BBC, 2012). Poverty still remains significant despite the fact that Nigeria is said to have plenty natural resources such as oil and human resources, yet Nigeria still ranked as one of the poorest country in the world today and its inmate are still living in a poor condition. All this has been attributed to the poor economic condition existing in Nigeria presently.

Deprivation of Basic Infrastructure and Necessities of Life: One of the identified effects of poor economic state found in Nigeria is the inability of the government to provide the populace the basic infrastructure and other necessities needed by them (Adedokun and Abiodun, 2013). Presently, in South Eastern Nigeria, you hardly see any standard good road. In the Northern part of Nigeria, Nigerian citizens are still found drinking water from contaminated streams, ponds and rivers. Electric supply has been found to be poor. Some institution do not receive electric light from year to year, some cannot even buy plants for supply of lights to their various department for office work. Most communities cannot see electric light from year to year. All these have come to stay due to poor economic state of our nation – Nigeria.

Collapse of Education in Nigeria: This study has made it possible for Nigerian to know the effects of the present poor economic condition found in it, especially within the educational system. The poor economy of the nation has damaged the

educational system as well as its quality (Ismaili, 2010). Low income earning by most parents have made some children to be unable to attend school. Most children often do some work to provide income for their family. Some of them at times cannot meet up with payment of their school fees and silently drop out from school forever. All these have been attributed to the dwindling economic state of our nation, Nigeria.

Violence at Homes and Outside Homes: Presently in Nigeria, violence is seen at all corner of this nation (Buvinic and Morrism, 1999). The youths are demanding for better governance that will save life and properties of inmates leaving in it. Workers in all the institutions in Nigeria are also demanding for increment in their wages and salaries, in order to meet up with rising prices of goods and services. Once more, as at this year, 2022, the Academic Staff of Universities (ASUU) has been on strike since February to present, demanding for increment and payment of their salaries as promised by the Nigerian government. This is just few examples of problems existing in the Nigerian society today due to poor economic situation existing in it, these days. Different homes are now seen fighting among themselves due to unpaid debts by one family or another. This entails that most people now borrow money and are unable to pay back the money they have borrowed. Apart from these, ethnic unrest due to struggles over lands, and oil trade in some places has made it impossible for farmers to use land for agriculture and other production ventures. All these have contributed to the poor economic condition seen in Nigeria presently.

Sudden Death: It has been observed that the citizens of Nigeria now die on daily basis like

poultry birds. Some people now slaughter their fellow human beings and use them for one evil practice or another, almost on daily basis (Buvinic and Morrison, 1999). People are being announced to be missing in radio and television often and on. In some cases able bodied men and women have been shown on television where they confess how they have killed their fellow human beings and how they kidnap people and ask their relations to pay ransom before they are released. All these they do in order to make a leaving in this era of horrible economic condition found within our society recently.

Causes of Poor Economic Condition in Nigeria

Among the factors that have been identified to be a cause for the poor economic condition of Nigeria are:

Climate Change Issues: Changes in temperature have been observed to be a strong issue affecting agricultural productivity, which have increased water stress for animals, plants and man. This has already been observed in the yield of crops, (Franscais, 2022). Franscais (2022), in his work stipulated that crop yield may decline by 7% within 2006 – 2035 and 25% in the long term of 2006 – 2050. Apart from this other climatic changes have resulted to frequent natural disasters such as earthquake, volcanic eruption, high solar radiations, and human activities and others. All these have been observed to affect the habitat of animals both wild and domestic ones. Thus, because of the disruption of their ecosystem by man, most of them go beyond boundaries to invade crops plants and animals kept by man. Climatic change transforms the way animals live (BBC, 2017). It hampers the productivity of pasture land and range land

used in feeding the livestock animals (Ajakemo, 2021). Looking at these factors vividly, one can see that climate change is the biggest issues facing people, animal species, plants and our entire environment as at present. It has an important role to play in the economic condition of any state.

Corruption: The study revealed that corruption is one of the major problems affecting the socio-economic development in Nigeria; corruption has been identified as a factor that have hindered the growth of most agricultural programmes established by the various Nigerian governments for reduction of poverty and to increase the economy level of the nation, to be fruitful. This scenario might, continue, if the resources/(especially in agricultural project which could pay for or help to increase the national revenue yearly) are misappropriated. The study noted that corruption may cost up to 37% of GDP by 2030, if the Nigerian government fails to look into this issue critically in all its areas of life (PWC, 2017-2022).

Corruption among political leaders has contributed to the destabilization of the political system drastically. According to Ucha (2010), “Corruption has become a common phenomenon and an accepted act in Nigeria, as government funds are now being misappropriated on daily basis by the leaders who only put the interest of their families and friends at heart while ignoring the masses. Corruption has eaten deep into the government and economy that everyone seems to be blinded by it. This finding however agreed with the report made by Farida (2016) that corruption has eaten deep into every fabric of the Nigerian society in the Vanguard news.

Income Inequality: Results obtained from this study have shown that inequality in Nigeria is increasing especially in the rural and urban areas of Nigeria and this can be linked to the poor economic state of the nation (Nigeria). Studies have shown that presently, in Nigeria, the rich are getting richer, while the poor are getting poorer and the poor are deprived from getting the basic needs of life. This may be the reason why Hauwa et. al. (2020), stated that governments indifference to inequality in the country (Nigeria) portends a serious challenge. Adverse income inequality is detrimental to the achievement of an efficient economic growth in our nation, Nigeria. Income inequality are usually analyzed through various segmentations such as, male vs female, geographical location, occupation, ethnicity, historical income and so on. Once there is any income disparity among any of these groups, a large gap normally occurs between the wealth of one population segment in comparison to another. Income inequality affects the Nigerian economy by hiding the capabilities of human being leaving in it. Apart from lower level of economic growth, it also causes social problems, and other ill vices in any nation.

Prolonged Over Dependence on Oil: The oil industry has expanded in Nigeria at the expense of other previously important production sectors such as agriculture. This persistent trend has accounted largely for Nigeria woes, as the attention of the government is focused on oil wealth rather than on ways of improving its economy through agricultural technological means, and other projects that will help to yield money to the nation. This finding however, goes in line with the report of Yakub (2008) that oil dependence exposed Nigeria to oil

price volatility which threw the country's public finance into disarray.

Graduate Unemployment: The state of Nigeria economy has led to the high rate of graduate unemployment due to poor establishment and development of existing industries and firms. According to Fikayo (2021) the National Bureau, statistics (NBS) unemployment rate in Nigeria is estimated to be 33.3% as at 2020. Most companies in Nigeria e.g. Textile industries and others have closed. These are the industries that ought to absorb most of the graduates from universities, polytechnic and colleges of Education into their firm. Since most firms are unable to fuel, put diesel and gas in their plant and unable to produce other materials and human resources, needed for effective production of goods and services, the only alternative they have is to close down their firms, the already existing staff members promptly loss their jobs, what will then be the faith of our young graduates from various educational institutions in Nigeria? This however is a question for all to answer.

Once more, most school children in Nigeria are now dropping out of school and are joining street traders, yahoo business, human killer and thieves. Even when you want to encourage them to go back to school, they normally ask you question such as this: those candidates that have graduated from universities, where are they? Have they gotten any job and so on? The mind of our youths has been demoralized so much to the extent that they are now ready to do any dirty job to earn a leaving. All these have come to stay in Nigeria due to its poor economic state.

Poor Educational System: Through studies, education has been found out to be central to economic development in most countries of

the world (World Bank, 2007). It promotes the economy, national productivity and innovation, values of democracy and social cohesion (Ucha, 2010). In Nigeria, most rural people in the northern state of Nigeria (for instance) have refused to obtain the western education, that will help them to read and write and be informed of changes or innovations in the different areas of life (Agriculture being involved). This factor has made such people to live without development in every area of their life, especially in industrial developments that plays important role in economic growth of a nation.

Ethnic Conflicts: Ethnic unrest due to struggles over lands, and oil trade in some places has made it impossible for rural farmers to use some land for agriculture and other production ventures. This has helped to reduce the production rate of farmers, which however affects the economic standard of the nation Nigeria.

Other factors that have been identified to be responsible for poor economic situation in Nigeria includes

- Laziness especially among children who comes from wealthy homes (Aruosa, 2022)
- Inadequate infrastructure for venture establishment
- Limited foreign exchange capacity
- Lack of proper implementation of various government policies in Nigeria.
- And others.

Concept of Agricultural Technology

Agricultural technology refers to the use of technology in agriculture in order to improve yield, make profit and maintain efficiency in production. It can also be defined as the use

of modern machinery and other equipment in agriculture, natural resources, in research and development of standard projects and products. Technology in agriculture came into being in order to make advances in agricultural engineering, agricultural science and agronomy. That's why it is defined as the production of machineries for use on farm (Diane, 2022). Such machines that have been designed to be used on farms includes: planters, tractors, tilling machinery, cultivator, spraying machines, livestock feed crushers, harvesters, packaging machines and so on. These machines are designed and produced by agricultural engineers. Presently, unlike in the previous years, farms are managed in a completely different ways, in that investment and innovations in agricultural projects have resulted to the development of indoor livestock technology, use of Drones, robotics, satellites imaging, vertical indoor farming, green house practices and others (NIFA, 2022 and Ayobami, 2021). So one can see that agricultural technology involves the use of machineries that helps farmers to manage their farms. This may be the reason why Inez (2021), made this comment that "agricultural innovations are digitalized methods that support the growth control and harvesting of vegetables and animal products". As earlier state an example of agricultural technology is satellite imagine that helps farmers to track the conditions of their crops and animals in the field without visiting a certain location (Inez, 2021).

Importance of Agricultural Technology

- Agricultural technology has helped to provide new aid of diagnosing animal and plant diseases for instance; bio-information computers are now being used to detect various diseases like

cancer, in animals and man, diabetics and so on.

- It has helped to provide improved type of feeds, improvement in reproduction, growth and yield in animals and plants; for example, in horticulture the technology involved in production of certified seeds has helped to increase yield and efficiency in production of different types of crop. In the field of animal production, it has helped in production of new hybrids with superior traits as required by different breeders. Not only this, it has given better understanding and better application of genetic make up of plants and animals (Ayobami, 2021).
- It has led to the discovery of new ways of producing new products using existing products.
- It has helped to provide new vaccines to prevent diseases in man, plants and animals.
- Agricultural technology helps in the development of tools that help scientists to probe the molecules of life e.g the use of computers (Bio information), generate data (DNA, RNA), amino acid and protein of various organisms being generated world wide. All these are now stored in computer data.
- Has created room for less waste of product through the new technological facilities for storage of products.
- It has also helped in production of resistant species of plants and animals that are resistant to various predators, pests and diseases (Ajakemo, 2021), and climatic conditions.

- It has led to the use of DNA finger printings: which is now used to diagnose inherent disorders in both pre-natal and new born babies in hospitals around the world.
- Once more, it has helped farmers in production of more nutritious and taster foods.
- It has led to reduction in use of pesticides and fertilizers through the adoption and use of the integrated pest and fertilizer management technology (NIFA, 2002 and Ayobami, 2021).
- It has helped in productivity of more, faster farm equipment that helped in more efficient farming.
- It has led to the development of more industries.

Ways of Reviving Nigeria Economy through Agricultural Technology

The following are ways by which Nigerian Economy can be reviewed through agricultural technology.

Weather Forecasting: Weather updates can be transmitted to rural farmers through text messages and this can save farmers from the amount of losses they may incur due to inefficient farming. Apart from this, it helps them too to have expert information on a particular crop or animal specie and ways of raising them; it also helps them to know ways of maximizing their land for production of any crop (Victor, 2022).

Automated Irrigation Infrastructure: Large scale production of plants requires adequate rainfall or irrigation always. Thus involving automated irrigational system and experts ensures that different crops are produced at seasonal and non-seasonal

periods of the year. This enhances farmers to practice farming all the year round and get reasonable products for use and for export, thereby increases both their family and national income on yearly bases (Emmanuel and Maranatha, 2018; Nan, 2018).

Hermetic Technology: This is a measure used for storage of post harvest products. It involves the use of air and moisture tight facilities in storing agricultural commodities rather than in polypropylene bag which do not give enough protection to the commodities against high temperature, moisture and insects infestation. This measure provides a good means of protecting and preserving the shelf life of some agricultural products such as seeds, grains, beans and others for a long time, up to the time farmers want to use them or export them for money making. Such measure help the nation in revenue collection, thereby helps to increase the economic condition of the state on yearly basis (GrainPro, 2022 and Josaphat et. al., 2020).

Vertical Farming Technology: This involves the system of cultivating crops indoor, in a controlled environment, where every parameter needed for the growth of the plants are provided and monitored for appropriate yield of plant. Through vertical farmers can grow fresh and pest free crops all year round (Arul, 2022). In vertical farms, farmers normally use smart sensors to monitor variables such as temperature, oxygen, sensor technologies include the use of cameras and thermal imaging to check plant growth, temperature and other factors.

This measure has been found to be effective in growing of crops such as green leafy plants, tomatoes sweet corns and melons. Apart from these, controlled

environments also include hydroponic, aquatic and aeroponic cultivation. Once more, in vertical farming, artificial lights are normally used. Compact fluorescent grow lights are mostly used to grow plants such as leafy green and vegetables. Vertical ways of farming gives farmers room to produce more crops in a small area of land. Plants can be grown in rack with support of some growing media, such as day pellets, coconut coir, Rockwool and oasis cube, pumps, tubes, pipes are used to deliver water and nutrient directly to the plant roots.

Use of Sensors Technology: Sensors are used to control the environment under which crops are planted. It is among the new technological appliances that are used to monitor crops at any time. It is also used to measure the humidity, heat and pH level of plants cultivated in a controlled environment. That is why it is said that sensors are the back bones of internet of Things (IOT) (Opfer, 2022)

Aerial Image Technology: This simply means the use of air borne crafts to take images. It involves the use of drones, balloons, satellites, unmanned aerial vehicles, aircraft to take photographs and video of the growth and health of crops cultivated in the field and to trace the movement and health being of animals on the land, making use of highly accurate camera. For instance, unmanned aerial vehicles (UAVs) are used by farmers to control small field, satellite based systems are used to map out the countries land, by using the remote sensing satellite, drones are used in for spraying, planting, transportation of perishable crops and goods, fumigation to control insect pests and diseases (Deere, 2018). It has been observe that Aerial image

technology based systems works as data collection and decision support system for various agricultural activities (Sharma, Goap and Shukla, 2016). Sharma et al., (2016) goes to state that it also solves a variety of problem from irrigation and soil variation to pest and fungal infestation.

Government Support to Agricultural Institutions and Farmers: The Nigerian government needs to support the various agricultural institution and interested farmers. That are ready to use technological devices in the production of crops, and animals, by providing them with the above mentioned instruments, train most of them on the use of the new agricultural technological devices. Government through provision of finance, dams, irrigation and other agricultural technology infrastructures and devices, can help farmers to practice farming all year round and get a reasonable income and this in turn will help to make the Nigerian Economy to be revived.

Precision Soil Sampling: This involves the use of Auto probe machines to pickup soil samples automatically instead of the old school soil sampling that involved the use of a shovel, and some back bracing work (Opfer, 2022). Opfer (2022) stated that, Auto probe machine are used by farmers to take soil samples within 6 inches (15 centimeters) below the soil surface in a matter of seconds, while being pulled by the tractor. Soil sampling is important to farmers as it gives them information on what kind of nutrients their soil will need for maximum crop production (Opfer, 2022).

Robots. Robots are machines that look like human beings that are used to carry out complex series of actions automatically that

are programmed by computers. Robots are used in milking cows, as stated by Opfer (2022). It is also used in driving tractors or various types (Deere, 2018).

Other Agricultural Technology instrument used or farming includes:

- Driveless tractors
- Combines that help farmers collect hay for livestock. It is used for harvesting of crops.
- Minichromosomal Technology
- RFID Technology
- Ultrasounds for livestock
- IOTS in farming (IOTs means Internet of Things)
- Agricultural sprayers (2 stoke sprayer pumps)
- And others

Findings and Conclusion

In this study, various ways by which the Nigerian economy can be revived through agricultural technology have been identified, explained and projected to Nigerians for better and sustainable economic development. Apart from this, the causes of poor economic condition of Nigeria and its implication, the populace and the nation have been enumerated in this study too. Among the identified Agricultural technologies that can help resuscitate the Nigeria economy includes weather forecasting update transmission methods to the rural farmers, use of automated irrigation, infrastructure to produce plants in large scale, use of hermetic technology for storage of poor harvest products, by adoption of the vertical farming system in production of crops indoors, use sensor and Arial image technology to control the plants and track the animals, use of robots as to milking of cows, driveless tractors in land cultivation and others. It is believed that

through these medium, together with the government support to farmers in getting them, the agricultural sector in Nigeria will drastically help to improve the present state of the Nigerian economy in greater heights.

Recommendations

Looking at the information obtained in this study, the following factors have been recommended.

- i. Investing in clean energy smart agriculture and climate proofing facts have been recommended.
- ii. Establishment and revitalization of previous poverty reduction programme (that have previously failed whole fully) with recent agricultural technological devices. These programmes should be made to be measurable and realistic. The capacity building of persons employed should be supervised before and after establishment of any of the program.

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This measure will help to address the issue of unemployment in Nigeria.

- iii. Once more, the Nigerian government should try to establish social Agricultural Technological programs that can capture more unemployed youth in the different communities found in Nigeria.
- iv. To make use of Agricultural Technology to increase the level of Nigeria economic standard, the system has to be made attractive to the young farmers. There is also the need for cost reduction and to make the system users friendly with minimal technical knowledge to operate and get good results or information.
- v. Robotic type of technology in agriculture should also be developed to the level of using them to destroy some of the vertebrate pest of agriculture (such as memory, birds, rodents, squirrels and others) that damage various crops planted by the farmer in the field.

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