



Review Article

Improved Agriculture: A Mechanism to Attaining Food Security in Nigeria

Ibrahim Muhammad Shamsuddin^{1, *}, Sadiq Abdurrahman Abubakar Shawai², Ibrahim Aminu³, Sani Shmasuddeen⁴, Sabo Ado Abdullahi⁵

¹Science Department, Maude International Schools, Zaria, Nigeria

²Department of Chemistry, School of Science, Sa'adatu Rimi College of Education, Kumbotso, Nigeria

³Science Department, Infinity School, Zaria, Nigeria

⁴Science Department, Little Angels School, G. R. A Katsina, Nigeria

⁵Department of Biology, School of Science, Sa'adatu Rimi College of Education, Kumbotso, Nigeria

Email address:

mshamsuddin68@yahoo.com (I. M. Shamsuddin)

*Corresponding author

To cite this article:

Ibrahim Muhammad Shamsuddin, Sadiq Abdurrahman Abubakar Shawai, Ibrahim Aminu, Sani Shamsuddeen, Sabo Ado Abdullahi. Improved Agriculture: A Mechanism to Attaining Food Security in Nigeria. *International Journal of Photochemistry and Photobiology*.

Vol. 1, No. 2, 2017 pp. 49-56. doi: 10.11648/j.ijpp.20170102.13

Received: June 17, 2017; **Accepted:** July 5, 2017; **Published:** August 16, 2017

Abstract: Food is one of the most basic needs necessary for human survival and is achieved through qualitative feeding practices. Achieving food security in its totality continues to be a challenge not only to the developing nations, but also to the developed world. Nigeria is becoming more dependent on external sources to feed her citizens epitomized in the level of importation of foreign food items into the nation. Poverty, in conjunction with inadequate state action mitigating the effects of poverty, is the primary cause of hunger and food insecurity. How the nation could extricate itself from food insecurity was suggested as the improvement of agricultural practices. Nigeria possesses the capacity to be food secured if the enabling environment is created for the peasant farmers to operate in their farming activities through the following strategies via rural development, easy access to basic farm inputs, adequate budgetary allocations, appropriate policies for food sub-sector, political stability, reduction in poverty rural level and peasant farmers education and raising of embargo on food produce that the nation has comparative advantages to produce and introduction of post-harvest storing techniques that will minimize wastages that have hitherto, exacerbated food security in the country.

Keywords: Food, Food Security, Food Insecurity, Agriculture, Nigeria

1. Introduction

Food is one of the most basic needs necessary for human survival and is achieved through qualitative feeding practices. The feeding practices and access to appropriate quality and quantity of foods are essential components of optimal nutrition for young children [1, 2]. According to the U. S department of agriculture [3] food security is defined as having dependable access to enough food for active and healthy living. Conversely, food insecurity or lack of consistence access to adequate food means that the food intake of one or more household members was reduced and their

eating pattern were disrupted at times during the year because the household lack money and other resources for food. The USDA classifies households by the level of food insecurity they have experienced. For example, low or very low food security. The food insecurity status of household with children is further classified by whether it affects only adult or children, and by the level of food insecurity among children.

Food insecurity is generally defined as chronic condition which is a consequence of over or under-consumption of any or several essential of micronutrients relative to the individual psychological and pathological requirements [4]. Children who do not consume adequate amounts of key nutrients such

as calcium, potassium and vitamin C may be unable to work to their full potential at school [5]. Shrestha and Pathak, [6] concur that poor feeding in childhood hinder mental development solely by producing permanent structural damage to the brain. A child's brain during the first three years of life is rapidly developing through generation of neurons synaptogenesis, axonal and dendric growth and synapthic pruning of which build upon each other. Any interruption in this process such trauma, stress, under nutrition or lack of nutrient can have long term effects on the brain structure and on the child's social development, emotional development and academic performance. Thus, research has established that poor nutrition in early life can limit long term intellectual development [7]. Implicit to the above children should not be exposed to malnutrition even at an early age for it has to do with academic performance and socio-religious development.

Food insecurity continues to be a problem of public health importance in Nigeria despite the various interventions in the past two decades [8]. Scientific study has reported that high morbidity and mortality in children is attributed to large proportion of Nigerian families who are food insecure [8]. Hence, high prevalence of protein-energy malnutrition (PEM) and micro nutrient deficiencies [9, 10, 11]. Diet in populations are frequently efficient in macro-nutrient (protein, carbohydrate and fat leading to protein malnutrition), micro nutrient deficiencies) or both and these have diverse effects on the health, academic achievement and the general growth of children [12, 13].

2. Food Insecurity in Nigeria

Food insecurity exists when people are undernourished as a result of the physical unavailability of food, their lack of social or economic access to adequate food. Food insecure people are those whose food intake falls below their minimum energy requirements as well as those who exhibit physical symptoms caused by energy and nutrient deficiencies resulting from an inadequate or unbalanced diet or from the body's inability to use food effectively because of infection or disease.

According to FAO [14] food insecurity refers to the consequences of inadequate consumption of nutritious food, considering the physiological use of food by the body as being within the domain of nutrition and health. Malnourishment also leads to poor health; hence individuals fail to provide for their families. If left unaddressed, hunger sets in motion an array of outcomes that perpetuate malnutrition, reduce ability of adults to work and give birth to healthy children and erode children's ability to learn and lead productive healthy and happy lives. This truncation of human development undermines a country's potential for economic development for generations to come.

Food security is the accessibility of all people, at all times, to enough food for an active and healthy life [15]. Food security has two aspects; ensuring that adequate food supplies are available, and that households whose members suffer from under nutrition have the ability to acquire food, either by producing it themselves or by being able to purchase it [16].

Food insecurity on the other hand, refers to deficits or shortfalls in actual per capita daily calorie intake below the minimum per calorie intake recommended by FAO and WHO for maintaining the human body-2450 kcal/day [16, 17].

3. Status of Agriculture in Nigeria

Agriculture in Nigeria has been the most important sector of the economy from history and the standpoint of rural employment, food production and fibre, and export earning prior to the discovery of oil. The above assertion is based on the fact that as at independence in 1960, little was known of petroleum as a source of revenue for the Nigerian economy. There was sustained emphasis on agriculture to the extent that Nigeria was a major exporter of such agricultural products as palm produce, cocoa, groundnut, cotton and rubber. In addition to these cash crops, the national agricultural system was able to produce enough of food crops like yam, cassava, maize, millet, sorghum and soya beans to the extent that there was almost no need for food importation. Hitherto, agriculture accounted for over 60% of the Nation's Gross Domestic Product (GDP). However, with the advent of petroleum in the early 1970s, petroleum became the country's major foreign exchange earner and agriculture became grossly neglected. [18].

Agriculture has remained the largest sector of the Nigerian economy. It generates employment for about 70% of Nigeria's population and contributes about 40% to the Gross Domestic Product (GDP) with crops accounting for 80%, livestock 13%, forestry 3% and fishery 4%. (International Conference on Agrarian Reform and Rural Development: Porto Alegre, 7-10 march 2006 *Nigeria - National Report*). The roles of agricultural sector in the Nigerian economy therefore include:

- i) A major contributor to the country's gross domestic product;
- ii) Source of income for a large proportion of the population engaged in the sector;
- iii) Provision of adequate food for the people;
- iv) Supply of raw materials required by the industrial sector;
- v) A major foreign exchange earner through export;
- vi) Provision of employment opportunities for the teeming population.

To say that Nigeria's economy is agrarian does not mean that Nigeria is agriculturally advanced. Peasant farming characterizes agricultural practice in Nigeria. Farming families engage in subsistence farming in which family needs determine the scale of production and wherein small plots of land are cultivated by individual owners or sub-owners following age-old methods without much control on the yields. Family farming uses mainly family labour which could be augmented with minor hiring of labour and labour exchanges with other farmers at peak seasons. The essential factors of production – land, labour, and capital are provided within the family. This system does not make adequate use of modern farming techniques, capital input, advisory services and market information. The technology of production is not

modern and involves a lot of drudgery. Also there is the problem of lack of or inadequate infrastructural facilities. Peasant agriculture takes care mainly of the food needs of the farm family and produces little surplus for sale. This type of peasant agriculture involves about 95% of Nigerian farmers, while farmers employed on corporate and government supported large-scale farms account for only about 5 percent. It is this 5% that has continued to receive priority attention in governments' efforts to promote agriculture in Nigeria. Nigerian agriculture has been dominated by small-scale farming on small farms, family-owned, rented, or leased. The major staple foods produced by the farmers are sorghum, yam, millet, cassava, and maize, as well as live stocks which give a majority of Nigerians the amount of calorie and protein they need.

With the advent of Colonial administration in Nigeria, there was a radical change in orientation in the economy as the activities in the economy were tilted to favour the objectives of the colonial masters. Colonial disorientation of the Nigerian economy and in particular, the Nigerian agriculture, is the primary cause of food insecurity in Nigeria. As rightly observed by Abbas [19], the Nigerian economy was distorted and integrated into the world capitalist system long before Britain asserted its formal hegemony. This initial distortion and integration of the economy could be traced back to the period of slave raiding, slave trading, commercial relations and other forms of imperial plunder. These events subsequently led to the distortion of the peasant economy followed by the forceful introduction of the colonial economy. The primary objective was to affect and perpetuate colonial cohesion with a view to effectively breaking the reproduction cycle by the penetration of commodity relations. It should be noted that the peasant system of production in Nigeria based entirely on simple tools and family labour, constituted the predominant way of life of the majority of the people.

The primary function of the colonial state was therefore, to supervise the initial and necessary penetration of pre-capitalist formation to organize the conditions of exploitation as determined by the operation of capital and the state. During the colonial era, different types and patterns of exploitation took place. For instance, land was alienated and appropriated for the production of the desired agricultural commodities. Peasant commodity production was disrupted and hence directed and regimented towards cash crop production for extraction and export. This therefore produced a very fundamental turn of the economy and could be traced back to the period of slave raiding, slave trading, commercial relations and other forms of imperial plunder. These events subsequently led to the distortion of the peasant economy followed by the forceful introduction of the colonial economy. The primary objective was to affect and perpetuate colonial cohesion with a view to effectively breaking the reproduction cycle by the penetration of commodity point in social change as well as the conditions of production and exchange.

The economy was therefore gradually entrenched into the capitalist system. The initial monetization of the economy involved forceful imposition of taxes on all the necessary

sources or items of cash incomes, preponderant use of forced labour in public works, forced cultivation of the preferred cash crops, —exchanged for the new currencies introduced. Ake [20] explicitly observed that the colonial monetary system should be perceived and crucially understood both as a cause and an effect of the integration of the Nigerian economy into the circuit of the world capitalist production. The above explains why policies and programmes of governments for agriculture have always been in favour of capitalist system of production in the form of capital-intensive mechanized farming, cash crop production, large-scale farming among others at the expense of food crops production.

Be that as it may, the sector has continued to feed the nation and its people. However, the neglect of the agricultural sector as a result of the total dependency of the economy on the oil sector, the sustenance of the colonial system of agriculture and the rising population sufficient food production problematic. This has created disillusionment in agricultural activities that has manifested in massive rural-urban migration. The consequence of which is depletion of labour force required for agricultural sector to play its roles of providing food for the teeming population of Nigeria, and providing raw materials to feed the country's dwindling agro-industries among others. As a result of this, food insecurity emerged and the agro-industries in both the rural and urban centres were unable to sustain production. This has reduced in no small measure the output of food per capita, thus making Nigeria the least in the sub-Saharan Africa. There is therefore the threat of hunger and poverty as 70% of the population lives on less than N100 (US\$0.7) per day and youth unemployment is very high [18].

Small holder farmers constitute a significant proportion of all farm holdings in the country but their production system has not been supported through government programmes and policies to produce more farm produce over time. The capitalist system of production which is not meant for domestic food supply but for exports has always been encouraged. Thus, there has been substantial reduction in national domestic food production which, most of the time, is abridged by massive food import. This massive importation of food continued unabated at the detriment of domestic production since local farmers' contributions did not matter anymore. Thus, the peasant farmers' initiatives were killed. The food import bills were easily borne through the huge revenue that was accruing from the oil sector. However, the reality met with Nigeria when there was a downturn in the oil revenue following the oil glut in the world market in the 1970s. Governments' response to this reality were introduction of various capitalist agricultural programmes like Green Revolution, Operation Feed the Nation, School to Land, Agricultural Development Projects, among others. The evidence of failure of these programmes is the persistent food crisis being experienced in the recent time.

In an attempt to tackle the problems facing the Agricultural Sector in Nigeria, Government has put in place the National Agricultural Policy, which was jointly formulated by the national stakeholders and International Development Partners and approved by the Federal Government in 2002. The major

components of the National Agricultural Policy feed the National Economic Empowerment and Development Strategy (NEEDS) document. The National Economic Empowerment and Development Strategy (NEEDS) document was a response to the demands and strategies of the Millennium Development Goals (MDG).

Specifically, the National Agricultural Policy assigns supportive roles to the government, while investments in the sector are left to the private sector initiative. The broad objectives of the National Agricultural Policy include:

Promotion of self-sufficiency in food and raw materials for industries; recognition that agriculture is business, hence a private sector concern where the role of government is to facilitate and support private sector initiatives; promoting reliance on local resources; diversification of the sources of foreign exchange earnings through increased agricultural exports arising from adoption of appropriate technologies in food production and distribution, which specifically responds to the needs of women, bearing in mind that they constitute over 50% of the labour force in agriculture.

The National Agricultural Policy again, does not seem to address the food crisis as there is no deliberate attempt to properly reposition the peasant farmers to facilitate their production activities. As it is observable, what is obvious is the emphasis on the private sector participation, the usual capitalist approach.

4. The Consequences of Food Insecurity

Most researchers, whether working within the context of the United States or developing countries like Nigeria, have concluded that poverty, in conjunction with inadequate state action mitigating the effects of poverty, is the primary cause of hunger and food insecurity [21, 22, 23, 24]. Given this emphasis on poverty as the primary cause of food insecurity, policy proposals have focused on addressing poverty and economic issues such as unemployment, underemployment, and housing, in addition to food assistance programs [25]. Despite widespread agreement about the strong relationship between poverty and food insecurity, Mayer and Jencks [26] argue that poverty statistics cannot provide accurate information about the distribution of material hardship, such as food insecurity. Many of the early estimates of the incidence of U.S. food insecurity were based on poverty statistics. Based on a study of Chicago, Mayer and Jencks report that direct measures of material hardship are better indicators of hardship than estimates based on income or poverty.

While many are skeptical of the validity of self-reports of material hardship, Rose and Oliveira [27] conducted an analysis comparing self-report measures of food insecurity with nutrient intake data. The researchers found that on the average, households reporting food insecurity had significantly lower intakes of energy than other households, as well as a significantly decreased intake of thirteen other nutrients. Thus, there is evidence to support the accuracy of self-report measures of food insecurity.

In 1985, the Physicians Task Force reported that some 20 million people in the United States were going hungry at least part of each month. The task force also reported that hunger in America was growing worse, rather than improving. The task force had collected its own data and conducted field investigations to reach this conclusion. In addition, the task force utilized reports from a large number of local programs and pointed out that local food banks and soup kitchens across the country experienced a tremendous growth in the number of individuals and families who seeking food assistance beginning in the early 1980's. Thus, many activists and a few researchers began to piece together information derived from local food assistance programs and determined that hunger was becoming a worsening problem throughout the 1980's. However, much disagreement remained about the extent and severity of the hunger problem in the United States.

More recently, researchers have begun to develop indicators of food insecurity in an attempt to more accurately gauge the scope of food insecurity in developing countries. The Food Security Measurement Project, a supplement to the CPS, reports that 11.9 percent of Nigeria households are food insecure [28]. This overall prevalence rate can be broken down into three more detailed categories. The prevalence among Nigeria households of food insecurity with no hunger is 7.8 percent, the prevalence of food insecurity with moderate hunger is 3.3 percent, while that for food insecurity with severe hunger is 9.8 percent. Combining the two most severe levels of food insecurity provides an estimate of the prevalence of food insecurity that involves reducing the amount of food eaten, 4.1 percent of Nigeria households experience a level of food insecurity that involves adults or children who are hungry because they do not have enough to eat.

Despite the knowledge about food insecurity in developing countries like Nigeria, it remains unclear what consequences we should expect as a result of these levels of food insecurity on students' academic achievement. Research on the effects of malnutrition in developing countries has clarified the devastating effects of hunger and malnutrition on the health of children [29, 30]. Hunger and nutrient malnutrition in developing countries have been linked to growth failure, delayed maturation, mental retardation, child mortality, increased severity of infections, impaired learning, low birth weight, and increased maternal mortality.

While the consequences of hunger in developing countries are clear, the extent and severity of hunger in the United States are significantly less than that in developing countries making the link between food insecurity and health more difficult to pinpoint. Brown [24] lists a number of potential outcomes of hunger and malnutrition including premature births, low birth weight, impaired cognitive functioning, decreased energy levels, reduced productivity, increased vulnerability to environmental toxins, and weakened resistance to infection and other illnesses. However, the question remains as to whether the food insecurity experienced in the United States is severe or prolonged enough to effect outcomes. The Physician Task Force on Hunger in America (1985) concludes that food

insecurity in the United States has negative consequences for child, maternal, and adult health. However, the organization is forced to rely on indirect evidence in drawing such conclusions. Rather than looking directly at health outcomes for individuals who experience food insecurity, they are forced to use indirect measures of the health status of low-income groups relative to high-income groups. Thus, the evidence we have to date linking food insecurity in the United States to detrimental health outcomes is indirect.

There are a number of potential mechanisms for explaining why food insecurity affects child well-being. The mechanism for the effect of food insecurity on child health seems straightforward. Children who experience food insecurity to an extent that they are lacking in particular nutritional substances (such as protein or iron), or who simply are not getting enough food to provide them with an adequate level of food energy may experience a variety of health problems as a result of these deficiencies. Health problems may be provoked by food insecurity of a severe nature, or by food insecurity of a mild or moderate nature that occurs for such a prolonged period of time that it leads to health problems. The mechanism for the effect of food insecurity on academic achievement is less straightforward. Certainly, food insecurity that affects child health is also likely to affect academic achievement. Children who are experiencing health problems are likely to miss more schooling, and may also find it more difficult to fully participate in the learning process while at school, depending on the nature of the health problem. For instance, children suffering an iron deficiency are likely to be tired at school and may consequently not learn as much as other students. Another possibility is that food insecurity may affect the level of energy that children have, even though they have no health problems. Again, if these children have less energy than other children they may not learn as much at school. A third possibility is that, regardless of whether children who experience food insecurity have less energy than other children, the feelings of hunger that result from food insecurity may distract these children from learning in school. A fourth possibility is that children who experience food insecurity also experience a significant amount of psychological and emotional distress in their household surrounding the concerns of the caregivers to provide adequate food. This level of emotional distress and worry may affect the emotional well-being of the child to an extent that interferes with cognitive and behavioral functioning. Any of these mechanisms alone, or some combination of them, could explain an effect of food insecurity on the academic achievement of children.

Furthermore, poverty, hunger and malnutrition have been identified as some of the principal causes of increasing and accelerated migration from rural to urban areas in developing countries. Unless these problems are addressed in an appropriate and timely manner, the political, economic and social stability of many countries and regions may well be seriously affected, perhaps even compromising world peace [14]. This is because hunger and poverty can provide a fertile ground for conflict, especially when combined with factors

such as unequal difficulty in coping with disasters [37]. Hunger and malnutrition are the major causes of deprivation and suffering targeted by some of the Millennium Development Goals (MDGs). This is illustrated by Diouf [31] in his analysis as follows:

- (a) Hungry children start school later, if at all, drop out sooner and learn less while they do attend, stalling progress towards universal primary and secondary education (MDG 2).
- (b) Poor nutrition for women is one of the most damaging outcomes of gender inequality. It undermines women's health, stunts their opportunities for education and employment and impedes progress towards gender equality and empowerment of women (MDG 3).
- (c) As the underlying causes of more than half of all child deaths, hunger and malnutrition are the greatest obstacles to reducing child mortality (MDG 4).
- (d) Hunger and malnutrition increase both the incidence and the fatality rate of conditions that cause a majority of maternal deaths during pregnancy and childbirth (MDG 5).
- (e) Hunger and poverty compromise people's immune systems, force them to adopt risky survival strategies, and greatly increase the risk of infection and death from HIV/AIDS, malaria and other infectious diseases (MDG 6).
- (f) Under the burden of chronic poverty and hunger, livestock herders, subsistence farmers, forest dwellers and fisher folk may use their natural environment in unsustainable ways, leading to further deterioration of their livelihood conditions. Empowering the poor and hungry as custodians of land, waters, forests and biodiversity can advance both food security and environmental sustainability (MDG 7).

Going by the growing number of food stuff, livestock markets, and sales points in the urban and sub-urban areas in Nigeria (with large quantity of food items offered for sale, though at prohibitive prices), as well as the regular agricultural product shows on television, it is hard to suggest that there is food shortage in the country. In addition, apart from the 1973-74 Sahelian drought, major disasters of short or long duration that could cause transitory food insecurity has not been a recurrent event in Nigeria, which would have made the country to be a recipient of food aid from the international community as it was the case in the 1973-74 Sahelian drought, [32]. What has turned out to be food insecurity problem in Nigeria in the recent time is a consequence of the persistent neglect of the peasant farmers and of the food crop sub-sector. Nigeria possesses the capacity to be food secured if the enabling environment is created for the peasant farmers to operate in their farming activities through the following strategies.

4.1. Rural Development

Rural development is the quantitative change or improvement in the standard of living of people in the rural areas, brought about through integrated approach, by both

governmental and non-governmental agencies and the people. However, the integrated approach to Rural Development suggests some multi-sector efforts by the state which involves the provision of infrastructural facilities like roads, dams, schools, electricity etc., introduction of new techniques, establishment of banks and other service agencies as well as organizing and mobilizing people for productive activities.

4.2. Easy Access to Basic Farm Inputs

As noted by IFAD in its country evaluation 2007, agriculture and rural development are crucial to the Nigerian economy. Around 45 per cent of GDP is generated from agriculture and almost 70 per cent of the poor live in rural areas and derive their livelihoods primarily from small-scale agriculture and rural activities. Small farmers account for 90 per cent of national food production. Limited accessibility to inputs, equipment, new technology, and markets has kept agricultural productivity low. Small farmers are also more acutely affected by climate change and commodity price volatility.

Provision of infrastructures, such as linking up the rural areas through new access road sand grading the old ones, supplying energy through rural electrification, distributing farm inputs like seedlings, fertilizers, insecticides, herbicides, and providing improved storage facilities to reduce post-harvest loss of agricultural products, easy access to markets for the sale of farm produce when desirable and procurement of farm inputs, would go a long way in encouraging farmers to produce more beyond their own needs. The excess of their needs could then be for those who are not engaged in farming. The evaluation report of the IFAD assessment of Nigeria 2007 supports this strategy.

The evaluation recommends that the future IFAD strategy and activities in Nigeria should pay critical attention to addressing the main challenges related to the low productivity of smallholder farmers. This would serve as the main vehicle for improving small farmer competitiveness, including enhancing their incomes and promoting better livelihoods. The heterogeneity of small farmers would require different approaches that cater to the needs of both subsistence and market-oriented individuals and groups. The prime importance of a value chain-based and commercialized approach to enhancing small farm livelihoods is acknowledged.

As such, particular attention should be given to ensuring more systematic access to markets by adopting a value-chain approach, as well as linkages with the private sector, for example, for the provision of sustainable rural financial services and agro-processing. It is also recognized that, where required, rural finance and micro-enterprise development, adaptive research and extension, environmental management, and improvement of livestock production and marketing are key elements of small farm development. If an International partner in food issue in Nigeria should have this recommendation for itself, then, the country concerned must take a clue from it and act appropriately and timely too.

4.3. Adequate Budgetary Allocations

Governments at all levels should ensure that budgetary allocations reflect the central importance that food and nutrition security have for the welfare of all people, as well as the immense economic benefits they provide for relatively little cost. It would be recalled that Nigeria was among the nations that declared to allocate 10% of their annual budgets to Agriculture in Maputo. In this regard, donor funding should be viewed as a secondary resource, and used to complement the resources allocated by governments.

4.4. Appropriate Policies for Food Sub-Sector

While an expansive agricultural program is being pursued, there is also the need for a national food policy which seeks to assure all citizens access to food supply that is reasonably priced, relatively safe, adequate in quantity, and nutrition. There is no food policy in Nigeria at present, probably because there is little appreciation of its complementary role to agricultural system and practices to promote relative self-sufficiency in food production [33]. Food policy properly formulated will encompass diet policy that shows, for example, the relationship of good diet with good living, as well as the causal link between inappropriate or insufficient diet with major and common debilitating diseases. With the current knowledge of human nutrition, a food policy will be guided by what the human body requires and which particular food items provide it, all of which are pre-requisites for effective food choices by the people. Agricultural policy-makers and planners will also be guided by food policies to factor good nutrition that leads to healthy food consumption into the food production programs [34].

4.5. Political Stability

For any economic activity to take place, political stability is a necessity. That is why The 1996 World Food Summit reaffirmed that a peaceful, stable and enabling political, social and economic environment is the essential foundation which will enable states to give adequate priority to food security and poverty eradication. Democracy, promotion and protection of all human rights and fundamental freedoms, including the right to development and the full and equal participation of men and women are essential for achieving sustainable food security for all [14]. Attaining food security is therefore a primary responsibility which rests with individual governments.

4.6. Reduction in Poverty Rural Level

It has been well established in the copious literature on economic development that the problem of hunger and malnutrition is closely linked with poverty and lack of jobs because access to food is contingent on having the means to acquire it [35]. This means, in essence, that any government that is desirous of making the country to be food-secure must also strive to create employment opportunities in both the rural and urban areas. This is by no means an easy task

because employment creation has always been government's Achilles heel [36].

The most intractable economic and social problem in Nigeria today is unemployment. The situation is getting worse by the day as many more young people are entering the labour market; few are even ready to take up farming. Job opportunities in the commercial, manufacturing, and service sectors are also constricting rapidly; while rural-urban drift is growing at an alarming proportion. Sadly, too, the expectation of economic planners that agriculture would become the largest employer of labour and a key contributor to wealth creation and poverty alleviation has remained largely unfulfilled. The potentials of the agro-business sector as a major employer of the growing labour force and earner of foreign exchange have, therefore, been seriously undermined [33].

The trend above needs to be reversed if the aim of food security is to be realized. And to do so, there is a more compelling need for the government to initiate and implement macro-economic, fiscal, and monetary policies that will expand employment opportunities and promote overall economic growth with equitable distribution of the benefits of growth [33].

4.7. Peasant Farmers Education

Peasants as the farmers are and rural as their environment may be, there is the need to educate them on how to use the farm inputs that are available to them. They need to be properly informed of the introduction of new improved crops and seedlings, different kinds of fertilizers and their uses as well as timeliness of use, the storage systems under which different post-harvest farm produce can survive over a relatively long period of time, the basic technology that can enhance their farming activities, and the marketing system that they can adopt to dispose their produce at reasonable prices when they want to do so. These would not only boost their farm yields but also boost their income, which could be an attraction for unemployed urban dwellers to return to the rural environment.

5. Conclusion/Recommendation

Achieving sustainable food security will not be easy. It will require a breakaway from business as usual. It will require much more dedication on the part of those with the ability to contribute and the power to move Nigeria close to its attainment. Apart from the tremendous human misery they create, widespread poverty, disease processes, malnutrition and natural resource degradation make for tremendous economic waste, which if eliminated and cater for improved agricultural practices would provide the foundation for enhanced food security and well-being for all.

Therefore, it is hereby recommended that to minimize the increasing reliance on food import, it is essential that productivity enhancing measures be implemented in the agricultural sector such that food production can expand at a rate that is commensurate with food deficit caused by

increasing population. This could be achieved through increased budgetary allocation to the agricultural sector, raising of embargo on food produce that the nation has comparative advantages to produce and introduction of post-harvest storing techniques that will minimize wastages that have hitherto, worsen food security in the country.

References

- [1] Lutter C (2003). Meeting the challenge to improve complementary feeding. In: Moreira (ed). Meeting the challenge to improve complementary feeding. SCN News. UN Systems Standing Committee on Nutrition, Lavenham Press, UK. pp. 4-10.
- [2] Lutter CK, Rivera JA (2003). Nutritional Status of Infants and Young children and characteristics of Their Diets. *J. Nutr.* 133: 2941s- 2949s. Martorell R, editors. Anthropometric Standardization Reference Manual. Champaign, IL: Human Kinetics Books. 3-8.
- [3] USDA. (2003). Food Insecurity. United States Department of Agriculture Economic Research Service. Retrieved from <http://www.ers.usda.gov/topics/food-nutritionassistance/food-security-in-the-us.aspx#Up6hqNJDuSo>
- [4] Ecker, O. & Nene, M. 2012. Nutrition policies in developing countries: Challenges and highlights. Policy Note 1. Washington DC, International Food Policy Research Institute.
- [5] Nabarro, D., Menon, P., Ruel, M. & Yosef, S. 2012. Scaling Up Nutrition: A global movement to accelerate progress in reducing maternal and child under-nutrition. Brief 9. In: J. Linn. (ed.).
- [6] Shrestha, I. & Pathak, L. 2012. A Review of the National Health Policy 1991. Katmandu: Ministry of Health and Population.
- [7] Lacour, M. & Tissington, LD. 2011. Educational research and reviews. *Academic Journal*, 7 (9): 522-527.
- [8] Ijarotimi OS, Oyenehin OO (2005). Effect of economic restructuring on household food security and nutritional status of Nigerian children. *J. Food Agric. Environ.* 3 (3&4): 27-32.
- [9] UNICEF/Federal Government of Nigeria (1994). Nutritional Status of Women and Children. Participatory Information Collection Study. Lagos, Nigeria: UNICEF.
- [10] Ewetan, O. O. (2011). Fiscal Federalism and Macroeconomic Performance in Nigeria. Ph. D Thesis, Covenant University, Department of Economics and Development Studies.
- [11] Maziya-Dixon B, Akinyele IO, Oguntona EB, Nokoe S, Sanusi RA, Harris E (2003). Nigeria Food Consumption and Nutrition Survey 2001-2003. International Institute of Tropical Agriculture (IITA).
- [12] Crawley, P. (2004). Economic Security and Regional Integration in Southeast Asia. Address to the National Economic Outlook 2005 Conference held by the Malaysian Institute of Economic Research (MIER) in Kuala Lumpur, December 7, 2004. Asian Development Bank Institute.
- [13] Keikhaei B, Zandian K, Ghasemi A, Tabibi R (2007). Iron-deficiency anemia among children in southwest Iran. *Food Nutr. Bull.*, 28 (4): 406-411.

- [14] FAO, (2006). Socio-Political and Economic Environment for Food Security, Food and Agriculture Organization of the United Nations, World Food Summit, 1 (14).
- [15] Reutlinger, S. (2007), "Food Insecurity and Poverty in Developing Countries". In, Food Policy. J. P. Gittinger, J. Leslie and D. Hoisington, (eds). The Johns Hopkins University Press.
- [16] Riscopoulos, S. J., Mukanyanye and O. Guyaux (2008), Agriculture in the Year 2000, The Case of the African, Caribbean and Pacific Countries. International Forum, Athens, November.
- [17] Shapouri, S. & Rosen, S. (2004). U. S Trade and Investment with Sub-saharan Africa. Retrieved from <http://www.fao.org>, July 26, 2004
- [18] Oni, K. C. (2008). Transforming Agricultural Potentials to Wealth in Northern Nigeria. Invited Paper Presented at the Northern Nigerian Economic and Investment Summit (NEIS), Abuja, October, 2008.
- [19] Abbas, H 2003. Nutrition and Student Performance at School. *Journal of School Health* 75, 6: 199 - 213.
- [20] Ake, C. (2001). A Political Economy of Africa. Longman, Nigeria.
- [21] Cohen, Barbara E. 2000. "Food Security and Hunger Policy for the 1990's." *Nutrition Today*, 23-27.
- [22] Nestle, L. A., & Guttmacher, N. D. (2002). Food insecurity in university students receiving financial aid. *Canadian Journal of Dietetic Practice & Research*, 67 (1), 43-46.
- [23] Martorell, D. (2006). Economic determinants and dietary consequences of food insecurity in the United States *J. Nutr.* 129: 517S-20S.
- [24] Brown, L 2007. Food: Will There be Enough? In Mazur, L (ed): A Pivotal Moment: Population Justice and the Environmental Challenge. California: Island Press.
- [25] Brown, J. Larry. 2009. "When Violence Has a Benevolent Face: The Paradox of Hunger in the World's Wealthiest Democracy." *International Journal of Health Services*, 19: 257-277.
- [26] Mayer, N. & Jencks, S. (2008). Food security in Southern Africa: review of lessons learnt on responses to chronic and transitory hunger and vulnerability. *Natural Resource Perspective* no. 106. London: Overseas Development Institute.
- [27] Rose, S. L. & Oliveira, E. M. (2007). Reflecting on the FIVIMS. ZA pilot and food insecurity and vulnerability: Modelling approaches to advise on future directions. Paper prepared for the World Food Programme. Pietermaritzburg: African Centre for Food Security.
- [28] Hamilton, A, Frankob D, Thompsonc D, Tuttle C, Holschuha N (2005). Ready-to-Eat Cereal Intake is Associated with an Improved Nutrient Intake Profile among Food Insecure Children in the United States. *J of Hun & Enviro Nutr.* 8 (2), 200-2020.
- [29] Boivin, J., Magerengec R, Youngd S, Ogutac S, Weisere S, Cohenf C (2006). Social determinants, lived experiences, and consequences of household food insecurity among persons living with HIV/AIDS on the shore of Lake Victoria, Kenya. *AIDS Care-Psy and Socio-Med Asp of AIDS/HIV*, 24 (6): 728-36.
- [30] Schroeder, S. and Martorell, S. (2007), Food Security and the role of Food aid. In; International agriculture and Trade Reports: Food Aid Needs assessment. Situation and Outlook series, United States department of Agriculture, Economic research service, GFA-5, November.
- [31] Diouf, J. (2005), Towards the World Food Summit and Millennium Development Goal Targets: Food Comes First! Foreword The State of Food Insecurity in the World 2005, FAO. pp. 4-5.
- [32] Idachaba, F. (2004). Food security in Nigeria: challenges under democratic dispensation. Paper presented at ARMTI Lecture, Ilorin, March 24, 2004, pp 1-23.
- [33] Adeoti, J. (2009). Economic crisis in developing countries: the food dimension Ilorin *Journal of Business and Social Sciences* 1, 115-134.
- [34] Hadwiger, D. (2002). Nutrition, food safety, and farm policy in Hadwiger, D. and Talbot, R. (eds), Food Policy and Farm Programs. New York: The Academy of Political Science.
- [35] The World Bank. (2001). Strategy for Food and Nutrition Security. World Bank Report No. 9040. Washington D. C.
- [36] Sinha, R. (2006). Food and Poverty. London: Croom Helm.
- [37] United Nations (2005), Millennium Development Goals, United Nations Department of Public Information.