Barriers to Increasing Agricultural Production in Nigeria

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Citation

Abstract
The Nigerian agricultural production has witnessed protracted neglect since the discovery of crude oil. Despite huge investment and increased budgetary allocation to the sector and several strategies adopted by various administrations to improve the sector, the story is still unchanged and the sector is incapable of meeting food needs of the Nigerian populace. Various restraints have hindered the growth of agricultural production. This paper presents some challenges facing the sector. Climate change, backward agricultural practices, trade liberalization, weak infrastructure and inconsistent policies, poor funding of research and technological development are some barriers to increasing agricultural production in Nigeria highlighted in this paper. To ensure sustainability and increased flow of investment in agriculture, agricultural policies must endure and outlive the government or administration that formulated them. The culture and practice of changing macro-economic policies with successive administrations in Nigeria is inimical to the growth and development of agriculture.

1. Introduction

Africa has experienced continuous agricultural growth during the last few years. However, much of the growth has emanated from area expansion rather than increases in land productivity (Asenso – Okyere and Jemaneh, 2012). Poverty is largely a rural phenomenon, and most people who reside in rural areas work in agriculture (Etim 2007; Etim and Edet 2013) and agriculture employs nearly three quarters of Nigeria’s work force in Sub-Saharan Africa (Etim and Edet, 2013). Across the globe, food accounts for more than half of household expenditure and rising food price has seriously impeded food accessibility. According to Asenso-Okyere and Jemaneh (2012), this increasing food prices have driven about 44 million people into poverty in developing countries since June 2010. The world food crisis is rising astronomically and various countries, international organizations and development stakeholders globally have responded with pragmatic approaches aimed at curbing the global imbalance. CSIS (2008), and Aye and Mungatana (2010), Etim and Okon (2013) reported that the current food crisis is caused by a web of interconnected forces involving agriculture, energy, climate change, trade, and new market demands from emerging markets. Since the agricultural sub-sector is the largest employer of labour and the principal source of food and livelihood making it a critical component of programs that seek to reduce poverty and attain food security. Etim and Edet (2013) noted that its growth therefore impacts significantly on poverty reduction and opportunities for the poorest of the poor. This will not only ensure food security but improves nutrition and increases productivity. Like in many
developing countries, poverty in Nigeria is essentially a rural phenomenon as most of the poor live in the rural areas where they derive their livelihood from farming (Etim, 2007). Despite increased budgetary allocation to the agricultural sector and the involvement of the poor in various farming activities, the generality of food produced and incomes has remained low. Consequently, for rural farmers to increase agricultural production which will stimulate economic growth, and in order to meet the food requirements of the increasing population, the restraints to increasing food production should be curbed. This however requires formulating policies aimed at increasing agricultural production and improving welfare. It is pertinent to mention that measures aimed at reducing poverty must pay great attention to the agricultural sector. This informed the study of barriers impeding food production in the agricultural sector.

2. Barriers to the Growth of Nigeria Agricultural Sector

2.1. Climate Change

Climate change is one of the most serious environmental threats facing mankind worldwide and it affects agriculture in several ways, including its direct impact on food production. Climate change which is attributed to the natural climate cycle and human activities, has adversely affected agricultural productivity (Ziervogel et al., 2006). Available evidence shows that climate change is global, likewise its impacts, but the most adverse effects will be felt mainly by developing countries, especially those in Africa, due to their low level of coping capacities (Nwafor, 2007; Jagtap, 2007) and Nigeria is one of these developing countries (Odjugo, 2010). In the world of climate change, food production systems that rely heavily on rainfall are increasingly experiencing the squeeze of rising unpredictability of onset, intensity and protracted precipitation. As the planet warms, rainfall patterns shift and extreme events such as droughts, floods and forest fires become more frequent (Zoelllick, 2009) which results in poor and unpredictable yields, thereby making farmers more vulnerable, particularly in Africa (UNFCCC, 2007). Farmers (who constitute the bulk of the poor in Africa), face prospects of tragic crop failures, reduced agricultural productivity, increased hunger, malnutrition and diseases (Zoelllick, 2009).

2.2. Traditional Agricultural Practices

In Nigeria, the traditional and predominant method of clearing farm land is through bush burning. In addition, the use of firewood as cooking energy source has recently gained prominence, because of high cost and non-availability of other cleaner sources such as natural gas. These activities increase the concentration of greenhouse gases (GHGs) in the atmosphere trapping heat and causing global warming, climate change and sea level rise (Medungu, 2009). Further, there is a problem of deforestation. Currently, forest covers approximately 400 million ha. (almost 17 percent of land area). The current annual deforestation rate is, however, 0.7 percent and the decline in forest area is expected to continue. Garba (2006) noted that one of the major causes of poverty is destruction of natural resources, leading to environmental degradation, high temperature, drought and consequently reduces productivity. Nigeria forest being depleted because of rising population, migration, and hunger, poverty and starvation (Akah and Odjugo, 2010).

2.3. Trade Liberalization and Market Development

As a consequence of the IMF and World Bank induced Structural Adjustment Programmes (SAP), there was a liberalization of exchange rates, drastic reduction of agricultural subsidies in Nigeria. SAP contained agricultural specific reforms such as; end to marketing monopolies, reduced parastatal involvement in supply of inputs, marketing and processing, reduced subsidies, price controls and impediments to private sector activities, no restraints on foreign trade, and promotion of the private sector. Markets are very important for agricultural development, because they help to link the farm, rural and urban economies which are critical factors in the development processes. Because of the reduction of obstacles to international trade, trade liberalization was expected to generate changes in the patterns and structure of production at all level including small holder-farming systems in Nigeria. This is because the rapid growth of market development consequent upon trade liberalization should be accompanied by changes in the patterns of production and natural resources usage. All over the world producer prices are normally an incentive for farmers to produce more. However, one consequence of the liberal trade policy has been an influx of cheap imports of products such as textiles, sugar, vegetable oil, wheat, rice etc, to the detriment of Nigerian farmers. At the same time, Nigeria’s exports have not benefited significantly from the governments liberal trade policy as a result of large share of petroleum in its exports and because most of the non-oil exportable are not competitive internationally. In addition, the prices of most agricultural export commodities have been falling in recent times as a result of decline in international prices (Bigman, 2002). The farmers’ incomes (producers prices) from export will therefore be static at best, if not dropping, hence, it becomes fairly difficult to sustain production (World Bank, 2006). The World Economic Forum (WEF) 2006 report ranks Nigeria 88 out of 117 countries on the global competitiveness indicators (GCI). Despite the large domestic market, only one small proportion of producers have been able to develop into sizeable businesses able to compete internationally. In agriculture, yields have been falling and, in manufacturing, there is considerable unused capacity (World Bank, 2006). In order words, trade liberalization has had generally negative implications for the Nigerian farmers as their poverty increased (Nwafor, 2007), essentially because of their unfavourable competitive position in comparison with...
their developed country counterparts.

2.4. Policies, Institutions and Public Goods

Atser (2007) stated that weak infrastructure and consistency in government policies have always been major snags in the development of agriculture in Nigeria. Some of the problems that could result from in consistent agricultural policies in Nigeria included; high apathy on the part of the farmers regarding anything from government because nobody knows how long such may last, erratic import policies characterized by frequent changes in both import tariffs and quantitative import restrictions, thus creating much uncertainty for producers, and failure to set up a satisfactory credit system for farming and agro-processing (Pinto, 1987 and Benvanet et al., 1999). The World Bank (2006) reported the existence of inadequate storage facilities and dilapidating the only small portions of the national grain storage system that were constructed in the country are not properly managed and the entire network is far from being completed (Mogues et al., 2008). The paucity of storage facilities poses serious threat to farmers in food preservation, most especially during harvest periods. As a result, most crop farmers are often in a rush to send farm produce to market immediately after harvest, not minding the associated low prices. This could act as a disincentive to investment in agriculture.

While the economic restructuring being implemented in Nigeria has generally conferred some macro-economic stability, farmers have continued to face unfavourable terms of trade and poorer access to many agricultural inputs such as improved seed and agro-chemicals, as well as lower and more uncertain food prices. As part of the structural adjustment process, governments have focused on the core facilitation roles of Ministries of Agriculture (MOA). Despite the clarion call from several quarters for power to be decentralized from the centre in Nigeria, the federal government has continue to monopolize power, with the result that state and local government structures have suffered progressively reduced budgets, resulting in cuts of staff and service delivery capacity, and in most cases the private sector has not yet filled the vacuum. Mogues et al. (2008) and FAO (1996) recognized the concentration of efforts in the agricultural sector in Nigeria at the federal level and stated that agricultural funding at states and private sector has been so weak and negligible, as is the case throughout most of sub-Saharan African countries.

2.5. Poor Agricultural Funding, Low Investment in Research and Technology Development

Technical change in agriculture has played a major role in a leading engine of growth and poverty reduction in many developing countries over the past four decades. Agricultural research has been shown to be one of the most effective forms of public investment (Hazell and Haddad, 2011; Fan, 2000, and Rao, 2003). In Nigeria, compared to the recommendations that agricultural research spending should not be less than 2% of agricultural GDP, Nigerian government’s funding of agricultural research has been well below the average for Africa as a whole (0.85 percent of GDP). Allocation for agricultural research as a percentage of the total budget for agriculture for the period 1996 – 1998, 1998 – 2000, and 1999 – 2001 were 13.41 percent, 14.82 percent and 12.42 percent respectively, which are considered inadequate as reported by (Nigeria’s House Committee on Agriculture, 2005) and therefore hampers the ability of the research institutes to respond to poor farmers’ needs. The national Bureau of Statistics for instance estimated that 70 percent of fruits and vegetables produced in the country we wasted, basically due to poor infrastructure and inadequate research efforts in preservation techniques (Atser, 2007). Private sector activities in agricultural research in Nigeria is also negligible, as is the case throughout most of Sub-Saharan Africa (Mogues et al., 2008).

The Department of Agricultural Sciences (DAS) of the Federal Ministry of Agriculture is responsible for all aspects of agricultural research in Nigeria. DAS oversees the funding and management of 15 National agricultural research institutes located throughout the country. Those institutes are tasked with farmers and agro-allied industries. However, DAS funding of agricultural science research and technology have been generally sluggish as governments and even the private sector are yet to accord it the needed priority attention. Beintema and Ayoola (2004), assessed agricultural research capacity in Nigeria and found that it is highly dispersed such that the country currently does not have a well-defined national agricultural research strategy.

In addition, the funding of agricultural research from the federal government budget, which is always the main and now virtually the sole source of funds, has been in regression since the collapse of oil prices in the early 1980s (Agbam, 2000 and FAO, 1996). In Nigeria, all the agricultural research institutes are owned and managed by the federal government, state government and local governments which are closer to the rural farmers who have no research institutes. Etim and Edet (2013) reported that Agricultural Research in Nigeria has been primarily funded by the federal government and has become unstable since the early 1980s. This means that all decisions on the funding, direction and implementation of research activities are taken from Abuja (Agbam, 2000). The consequence of this is not only over centralization of agricultural administration, but also that those involved are hardly in touch with the reality on ground. As a result, much greater range of new technologies are available for production systems and crops interest to developed countries than for small holder production system in Nigeria. This could pose serious challenge for Nigeria agricultural system.

3. Development Barriers to Nigerian Agricultural Production

According to Oni (2013) identification of the development constraints in the agricultural sector is a necessary step to
unlock the factors inhibiting performance of the sector towards designing policy strategies that would created conducive climate for promoting accelerated commercialization and growth of the sector.

3.1. Marketing Barriers

In Nigeria, the crop marketing process takes place primarily at the farm gate or in periodic rural markets (Akande, 1993; Etim and Edet, 2013) and women are mostly involved in food crop and fish marketing (Shaib et al, 1997). Marketing involves getting the agricultural products from the farmers to the consumers. It helps to enlarge production by stimulating consumption, expanding the agro-industry and facilitating industrial growth. For marketing to play an essential role in increasing agricultural production, the following five basic elements are necessary. Transportation for moving the products from where they are produced to where they are consumed is imperative. Shaib et al (1997) reported that inadequate physical infrastructural and storage facilities as well as low returns to farmers from agricultural enterprises, are the major marketing constraints confronting the farmers in Nigeria. The majority of Nigerian rural roads are in very deplorable conditions; safe and efficient storage system to ensure continuous supply of agricultural commodities in the market. This is very adequate and ineffective as financing for the marketing to ensure prompt payment to the farmers as they deliver goods for sale; processing system that stimulates production by furnishing a continuous outlet for the farmers to produced over a long period of time; the marketing system also requires a functioning and dynamic information system in which both the buyers and sellers are linked together. Regrettably, the state of development of market information in the country is still primitive. Improved storage techniques that have been developed by relevant research institute have remained unadopted and sometimes unknown to farmers. Heavy post harvest losses occur due to inadequate storage facilities, especially in time of bumper harvests (Oni, 2013).

3.2. Storage and Processing Barriers

The lack of adequate and processing facilities accounts for divergence between national food security and household food security. Even if the total production of food seems adequate at the aggregate level, it will not lead to significant improvement in food security. Unless the food is available for consumption at the right time and in the right form. Whereas food must be consumed on a daily basis, production has a different specific time profile. Storage and processing are critical in ensuring that the commodities produced at a particular period are available for consumption whenever they are required. A significant quantity of products harvested in Nigeria perishes due to lack of storage and processing facilities. Simple, efficient, and cost effective technologies for perishables, such as roots, tubers, fruits and vegetables, are not as highly developed in the country compared to the storage technologies for cereal grains and legumes. Consequently, post-harvest food storage losses are very high, approximately 40 percent for perishables, compared to cereal grains and pulses at about 15 percent. Traditionally storage facilities have certain deficiencies, including a low elevated base giving easy access to rodents, wooden floors, that termites could attack, weak supporting structures that are not moisture-proof, and adequate loading and unloading facilities. Across geo-ecological zones, most farmers store only a portion of their crops early to get cash to pay for their immediate financial obligations, including, in some instances, repaying the production loan to the middlemen (Oni, 2013).

3.3. Infrastructural Inadequacies

Infrastructure in this instance is construed to include physical infrastructure, such as roads and railway system, educational and health facilities, social services such as potable water and electricity and communication systems. Agricultural performance in Nigeria is greatly impaired by the low level of development of infrastructure. In the rural areas where majority of the small holders operate, adequate infrastructure constitute a major constraint to agricultural investment, production and trade. Poverty is a consequence of low access to agricultural technologies, compounded by poor rural infrastructure that blocks easy inflow of inputs and outflow of farm produce (AFDB, 2002). In many parts of the country physical and marketing infrastructure is poorly developed, storage facilities are rudimentary and access to information and markets is highly restricted. The situation represents the urban bias in the pattern of development in the country. Infrastructure inadequacy is mirrored by restricted access to the markets, which limit the availability of agricultural products in many areas and reduces farmers’ income. The infrastructure constraint has persisted due to government neglect, poor governance, poor political leadership, poor maintenance culture and poor funding. In terms of road facilities, the efforts of the agricultural development programmes, the Directorate of Foods, Roads, and Rural infrastructure, the National Agricultural Land Development Authority and the Petroleum Trust Fund have not been sustained to ensure good road networks in the rural areas where the bulk of agricultural activities take place. In addition, the railway system that is expected to provide relieve has been comatose for years thereby restricting the movement of agricultural inputs and output to the road transport system. The constructed roads do not often last for more than three to five years before they start to crumble due partly to poor maintenance culture. As regards educational and health facilities, these are largely urban-biased. Supply of potable water has not been adequate for a majority of rural dwellers. Electricity supply is often epileptic and communication system is still poor. Although recent expansion of the Global System of Mobile Communication (GSM) infrastructure and internet services has improved the communication situation somewhat, the services are urban-biased and too expensive for the average people (Oni, 2013).
3.4. Unstable Input and Output Prices

Generally, a major problem inhibiting investment in agricultural production is the escalating cost of major farm inputs. Average prices of major farm inputs such as hoe, matchet, sprayer, tractor, and agrochemicals have been rising over the years. The rising prices of inputs are the results of instability in the factor markets arising from instability in macro economic policy actions leading to inflationary pressures, high interest rates, and volatile exchange rate. Invariably, the deficiency in macro economic policy environment constituted a major constraint to the growth of investment in production of agricultural products. According to Oni (2013), this has a tendency to cause high factor cost to the farmers cultivating agricultural crops. Moreover, the rising prices of fuel have led to rising cost of transportation of farm inputs thus aggravating the rising cost of production. The rising cost of farm inputs combined with deearth of investible funds pose a serious constraint to investment in agriculture. This could lead to reduction in production and domestic supplies of agricultural products. The high interest charges on loans for agricultural production have resulted in escalation of production cost. The situation not only made procurement different but again resulted in cost escalation arising from the depreciated naira exchange rate. The prices of many commodities also increased although due to wide fluctuations it has not resulted in persistent rise in profitability of farm enterprises. The cassava experience provides an illustrations of the possible effect of price fluctuations on output of commodities.

3.5. Agricultural Labour

Labour shortages constitute a major constraint to agricultural production in Nigeria; labour shortage of varying degrees occur in different regions due to the unequal population distribution in the country and cultural preference (Shaib et al., 2010). Availability of labour affects the use of farmland in the traditional farming system. Since agriculture in Nigeria is virtually unmechanised, human labour becomes vital in all production system, accounting for about 90 percent of all farm operations. Under semi-mechanized systems, including animals traction use, human labour use is as high as 70 percent of all operations (NISER, 2001). Although farming is largely labour-intensive, farmers, generally often experience seasonal labour shortages. The supply of labour is affected by unending migration of able-bodied youths from the rural to urban areas creating labour shortages especially at peak periods when labour is required for land preparation, weeding and harvesting. Hired labour shortages have driven up the cost of labour making such labour unprofitable to the average small holder. Exacerbating the migration problem has been the poor agricultural productivity small holder farmers and the perception among young adults in farm families that the farm cannot support them and their livelihood (Chemonics, 2003).

3.6. Technical Constraint

Technical constraint in Nigeria affects both the upstream and the downstream segments of agriculture. The constraint manifests in poor technology, poor quality of raw materials and inadequate supply of modern inputs. The main causes of the constraint include low support from government, poor government policy, poverty, low level of awareness, lack of adequate research and increases in the prices of inputs. Poor government support and poor government policy prevent the emergence of innovations from research institutes thereby curtailing the level of available technical feasible and efficient agricultural practices. Even when they are available, there seem to be communication gaps between farmers (end-users of research efforts) and the researchers. The existence of unified agricultural extension system notwithstanding there is still poor coordination between researchers, extension agents and farmers. This situation is worsened by the how extension-farmers ratio, which hovers around 1 to 1000. The poverty incidence among farmers, which is the highest in the economy, also contributes to the persistence of technical constraint in Nigeria. Thus, farmers are unable to take up new innovations aimed at boosting their productivity and by extension, their output. The low level productivity translates to a various cycle of poverty, thereby leading to low level of production. The technical constraint is further sustained by high input prices, which is a consequence of inflation in the economy as well as the dependence of the agricultural economy on foreign inputs (Oni, 2013).

4. Conclusion

The government of Nigeria has invested huge capital in the Agricultural sector over the years. This should be evident in terms of strong linkages with the rest of the economy. Although the agricultural sector has received increased budgetary allocation over the years, the sector is still creeping and unable to meet the food security challenges of the growing population. This paper highlighted some barriers to increasing production in the agricultural sector to include traditional agricultural practices, trade liberalization and market development, climate change; policies, institutions and public goods, poverty funding of research and development, marketing barriers, poor storage facilities, infrastructural inadequacies and paucity of agricultural labour. However, with the involvement of private sector in the production, processing and marketing of farm products; and consistency in implementing government policies and programmes, agricultural output is likely to rise and food sufficiency guaranteed.

References


