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SEPTEMBER 23 - 26, 2019 // ABUJA, FEDERAL CAPITAL TERRITORY, NIGERIA

6th African Conference of Agricultural Economists

Rising to meet new challenges: Africa's agricultural development beyond 2020 Vision



*Invited paper presented at the 6th African
Conference of Agricultural Economists,
September 23-26, 2019, Abuja, Nigeria*

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**Politics in fertilizer subsidy implementation and governance structure towards
agricultural and economic development in Nigeria: a review**

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Abstract

Fertilizer subsidy remain a key policy instrument used by Nigeria Government to boost productivity and small-scale farm holder household's income in ensuring pro poor growth and development. Despite, subsidy huge financial implication, government have been revitalizing and changing it policy approach to ensure greater impact and target. Yet, the actualization of the policy objective still remains more or less a mirage. Against this backdrop, this paper reviews the politics of fertilizer subsidy implementation and governance structure towards agricultural development in Nigeria. Specifically, the paper sought to examine fertilizer subsidy in Nigeria. It then highlights the political situation of fertilizer policy implementation. Further, it presents a snapshot of the world governance indicators (WGI) and its implication on agricultural production in Nigeria. Lastly, the paper presents the development consequences in terms of agriculture contribution to GDP and the status of governance in Nigeria. The study finds that, first, fertilizer subsidy policy in Nigeria have been changing in volume, structure and approach over time as power changes in the seat of government. Second, unhealthy politics observed among fertilizer policy stakeholders, subsidized fertilizer distribution and marketing as well as in the target and un intended beneficiaries. Third governance structure in Nigeria is poor given that all her governance indicators were negative. However, the impact and effectiveness of a policy implementation depend more on the governance structure of the country rather than the quality and policy implementation strategies. Finally, it is concluded that, fertilizer subsidy implementation strategies with absence of unhealthy politics and in combination with good governance structure will drive sustainable agricultural development in Nigeria and any other Africa country that has similar characteristics. Thus, we suggest that Nigeria government should dissociate any economic

policy from patrician politics practices and strengthens her governance structure to ensure proper monitoring and evaluation of her policy.

Key word: Fertilizer, Policy, Politics, Governance, and Development

Introduction

The situation of agriculture and economic development in Nigeria is describe as a paradox. In, Nigeria, there is a huge potential to diversify the country mono culture oil reliance economy through development of her agricultural sector. Although, the sector still remains one of the pillars of her economy, given that it accounted for about 40% of the GDP and 90% of non-oil exports (FAO, 2008; AFDB, 2018). It is a key contributor to poverty alleviation, as a larger percentage of the population derives their income from agriculture and related activities most especially the rural farm families (Ayinde, et al., 2009; Azhi, 2008; NEEDS, 2004), since more than 70% of the 182 million populations are employed in agriculture which are mostly small farm holders (FAOSTAT, 2015; Fuentes et al, 2012; FAO, 2011; Kolawale and Ojo, 2007). Despite these, Nigeria is faced with a looming food security crisis with a growing population as the country increasingly dependent on imported foods (FMARD, 2016).

Considering the proposition that Nigerian population is expected to double 2006 estimate by year 2030, the sector will need to supply more food to a growing and increasingly urbanized population as well as for export (Grow Africa, 2016; Fuentes et al., 2012). Insecure land tenure, scarcity of funds and credit, labour scarcity despite overall high unemployment and stagnant technology have hampered the nation development. Given the limit to land expansion, optimal use of science based agricultural inputs is necessary to increase agricultural production (Ismaila et al 2010; Ayinde *et al*, 2009). Also, it has been estimated that Nigeria is experiencing deteriorating annual nutrient depletion in soil fertility (Stoorvogel and Smaling 1990; Sheldrick and Lingard 2004), and this risking its ability to sustain the modest gains achieved from recent agricultural growth (Liverpool-Taise et al., 2010). Soil degradation due to inappropriate agricultural practices; soil erosion, deforestation and climate change are on the increase in Nigeria (FMARD, 2016). Thus, the once dominant subsistence-oriented farm economy is at risk of gradual marginalization.

The inherent lack of fertility, along with widespread soil nutrient mining, has led to expansion of the agricultural frontier in Africa and the opening up of less favorable soils for cultivation (Morris et al., 2007). Also, low level of fertilizer use in Africa as compared to West Europe and Asian countries is one of the factors explaining the lagging agricultural productivity growth

(Liverpool-Tasie, 2010, Liverpool-Tasie and Takeshima, 2013; Takeshima and Liverpool-Tasie, 2015; Agbahey et al., 2015). Given that fertilizer use in Africa is generally low and specifically Nigeria with 13kg/ha of fertilizer use, there is no doubt that fertilizer use must increase if her agricultural growth targets, poverty reduction goals, and environmental sustainability objectives are to be met (Jayne, et al. 2018b; Morris et al., 2007). Additionally, Yamano & Kijima, (2010) reported that fertilizer use in sub Saharan Africa is too low and grossly inadequate to replenish the nutrients loss through harvested crops. However, the Nigeria governments have used different policies and programs to encourage fertilizer use in ways. Until today, a wide range of policies, programmes and projects have had limited impact in ameliorating these problems.

According to Jenkins, (1978) a policy simply refers to as a set of interrelated decisions concerning the selection of goals and the means of achieving these goals or objectives within a specified situation or time. Policies may constitute the foundations of a broader strategy, which can be defined as the determination of the basic long-term goals and objectives of a group or society, the adoption of courses of action and the allocation of resources necessary for carrying out these goals and objectives (Chandler 1962, Resnick et al., 2015) However, policy to stimulate increased agricultural productivity in any of the Sub-Saharan African countries requires a wide range of measures which embrace innovations and improved crop production techniques, but also the optimal use of fertilizer and improved seeds (Vanlauwe *et al.*, 2014). Although, none of these is likely to be effective if implemented in isolation, but fertilizer is a critical input (Zerfu & Larson, 2010; Jayne & Rashid, 2013). An efficient use of fertilizer in crop production has great strength to increase crop yields and improve productivity (Agbahey et al., 2015; Barbier, 2000). Thus, the striking contrast between the limited use of fertilizer in Africa and the much more extensive use of fertilizer in other developing regions has stimulated not only considerable discussion about the role of fertilizer in the agricultural development process but also debate about what types of policies and programs are needed to realize the potential benefits of fertilizer in African agriculture (Morris et al., 2007).

Effective and efficient implemented instruments of fertilizer policy could thus provide a means for achieving higher agricultural productivity, improved food security and, through lower food prices, pro-poor economic growth (Dorwards et al., 2014; Mason and Jayne 2013; Jayne et al. 2013; Ricker-Gilbert et al. 2011). According to Morris et al., (2007), the most significant changes in fertilizer policy over years include the privatization or dissolution of government input supply agencies and liberalization of the fertilizer sector (for example, removal of price

controls, elimination of subsidies, and dismantling of state fertilizer distribution agencies). Government seek to maximise the multiple benefits of fertilizer policies instrument especially subsidy to different stakeholders and agricultural development (Morris et al., 2007). Therefore, the main interest in fertilizer policy was therefore, the result of a need to boost food security in the short-term while also implementing longer-term investments to raise productivity.

Presently, a majority of small holder farmers are still confronted by increasingly nutrient depleted soils, low agricultural productivity and declining land par capital, coupled with increasing populations putting pressure on natural resources and threatening the environment (IFDC, 2013). Fertilizer use can alleviate these challenges, but its consumption is still far below the FAO and 2006 Abuja Declaration 200kg per hectarage recommendation. Increase in population and economic growth are key forces driving the demand for increased food production and fertilizer use (Senker, 2011; FAO, 2011; Nani and Bishal, 2012).

Boserup (1965) opined that as population pressure increases, we must at the same time find ways to increase the supply of food through the increased use of modern technology. Therefore, to meet the demanadd of the growing population, we need to use more of new technology and intensified agricultural farming systems (Nani and Bishal, 2012). Globally, the importance of new technologies and innovations in addressing food security challenges cannot be disputed. Thus, Over the years, government has seen the need to boast agricultural production a necessary condition for economic growth and development as a viable option through policy that stimulate improve inputs most especially in developing countries.

For example, in Nigeria, both past and present governments have used different policy tools to stimulate increase in fertilizer use and productivity simultaneously. More to this, the structures her fertilizer policy and market have witnessed changes over time invariably. However, given that efforts to promote fertilizer use in Nigeria have a long and varied history. Direct government expenditures through intervention in fertilizer market environment using various entry points to stimulate fertilizer demand and ensure supply cannot be overemphasized. According to Morris et al., (2007), direct subsidies that reduced fertilizer prices paid by farmers and centralized control of fertilizer procurement and distribution activities are the major interventions of government in fertilizer market. Given the fact that, Nigeria government have been using various policy approaches to increase fertilizer use among small scale farmers, low fertilizer use still remain and problem of low productivity as well as poor farm income yet unaddressed despite all efforts of the government. It is on this note, that this paper reviews the

Politics of Fertilizer Subsidy Implementation and Governance Structure towards Agricultural Development in Nigeria. Specifically, this paper, sought to first present fertilizer subsidy issues in Nigeria. Second, it highlights the political situation of fertilizer policy implementation. Third, in a snap shot reveals how the fertilizer policy reforms improved agricultural production in Nigeria. Lastly, the paper presents the development consequences in terms of agriculture contribution to GDP and the status of governance in Nigeria.

2.0 MATERIALS AND METHODS

The study reviewed secondary information from published scholarly articles in the form of journals, conference proceedings, annual reports of national, states agencies and other international organisations, newspaper articles, and secondary data from the Federal Ministry of Agriculture and rural Development and National Bureau of Statistics annual report in Nigeria.

3.0 Result and Discussion

This section presents the information and discussion on fertilizer subsidy in Nigeria, politics of its implementation, governance structure and situation of Nigeria agriculture and economic development.

3.1 Fertilizer subsidy in Nigeria

From the time past, agricultural input subsidies have been used by government to boost adoption of new technologies and thus increase agricultural productivity of the small holder farmers in developing countries (Ellis, 1992). In Nigeria, the proponents for fertilizer subsidy faced out during the liberation policy era in the late 80's owing to huge government expenditure and some inherent problem of government policy structures. However, the failure of the private sector rising up to the challenge of meeting up with the demand for fertilizer led to the stabilization policy of the government in 2001, where the fertilizer subsidy was reintroduced.

The experience with universal subsidies in SSA was largely negative: it resulted in inefficiencies, such as adverse selection of programme beneficiaries (capture by influential/well-off farmers) and displacement of commercial sales, and had disproportionate fiscal costs against their benefits (Morris *et al.*, 2007). This failure, together with a shift of development paradigms towards structural adjustment, eventually led to the dismantling of fertilizer subsidies, the liberalization of most fertilizer markets and a switch of fertilizer policy

towards supporting the development of private-sector-led markets (Minot, 2009). However, even during that period voices claiming a role for limited subsidies remained (Reardon *et al.*, 1996). Many observers note that the removal of subsidies coincided with a reduction in food production and in fertilizer use (Banful, 2011).

Therefore, large-scale agricultural input subsidies across has been a resurgent interest of the government in Sub-Saharan Africa (Dorward, 2009; Hansen and Baltzer, 2011; Dorward and Chirwa, 2014). This was due to the rising evidence that access to subsidised farm inputs increases farmers' productivity significantly through increase in the farm size and reduced transition cost in the adoption of new technologies (Chibwana *et al.* 2012; Aloyce *et al.* 2014).

Lowering of input prices, as a result of the subsidy, provide incentives for farmers to use more of the inputs, which in turn translates into increased output (Seck, 2016) and higher farm profit (Liverpool-Taise *et al.*, 2017). According to Hansen and Baltzer (2011), subsidized agricultural inputs may include improved seeds, fertilizers and crop protection chemicals to machinery, irrigation and knowledge. However, centred to the Nigeria agricultural policy is the input subsidy instrument (Amurtiya *et al.* 2018). Fertilizer subsidy alone accounted for about 68 % of government agricultural expenditure in Nigeria in recent past (Takeshima and Liverpool-Tasie 2013). Over the years, In Nigeria, fertilizer subsidy policy has been changing in volume, structure and approach over time as power changes in the seat of government. Table 1 shows the cost of fertilizer under market stabilization scheme and growth enhancement scheme. However, it is worthy of note that the country experienced three eras of changes in the seat of government and they are differently earmarked with different structure and approach. Currently, under the present regime of government in Nigeria, the aim is to build on the success of the growth enhancement scheme in the agricultural Transformation Agenda (FMARD, 2016), yet the structure and approach of fertilizer subsidy implementation differs in all ramifications. For example, the rate of fertilizer subsidy across each regimes of government varies in magnitude and the approach of their deliveries also differs. In the growth enhancement scheme of the ATA, we see the emergence of the use of input voucher using mobile phone technology. Most of this change and modification arise as result of political power play in government and system.

Table 1: Cost of Fertilizer Subsidy under Market Stabilization Scheme (2001 – 2010) and Growth Enhancement Support Scheme (2011 – 2015)

| Year | Qty of Fertilizer Supplied To Fg (Mt) | Cost of Quantity Supplied (₦) | Subsidy Cost (₦) | Rate of Subsidy (₦ / Mt) | Rate of Subsidy (%) |
|-------------|--|--------------------------------------|-------------------------|---------------------------------|----------------------------|
| 2001 | 164,012 | 4,876,554,998 | 1,683,000,000 | 10,261 | 35 |
| 2002 | 163,700 | 3,605,662,509 | 1,485,000,000 | 9,071. | 41 |
| 2003 | 511,841 | 4,620,418,025 | 1,188,000,000 | 2,321 | 26 |
| 2004 | 560,150 | 11,024,019,200 | 2,459,160,000 | 4,390 | 22 |
| 2005 | 600,000 | 8,341,772,360 | 1,750,432,213 | 2,917 | 21 |
| 2006 | 09,000 | 16,258,649,932 | 3,507,200,000 | 4,946 | 22 |
| 2007 | 990,000 | 19,422,363,970 | 4,855,590,994 | 4,904 | 25 |
| 2008 | 691,153 | 57,055,503,960 | 14,263,875,990 | 20,637 | 25 |
| 2009 | 371,062 | 38,050,847,750 | 11,000,000,000 | 10,261 | 34 |
| 2010 | 586,145 | 58,429,230,250 | 22,327,500,000 | 38,092 | 38 |
| 2011 | Na | Na | Na | Na | Na |
| 2012 | 120,097 | 13,210,670,000 | 6,605,335,000 | 55,000 | 50 |
| 2013 | 536,095 | 58,970,450,000 | 29,485,225,000 | 55,000 | 50 |
| 2014 | 1,381,818 | 152,000,000,000 | 76,000,000,000 | 55,000 | 50 |
| 2015 | Na | Na | Na | Na | Na |

Source: Amurtiya et al. 2018; Ayoola and Ayoola, 2016

Nevertheless, reports have shown that late delivery of inputs in Nigeria is a major challenge farmer faced (FMADR, 2016; Fertilizer Suppliers Association of Nigeria, 2012). Low education, ICT skills among most Nigerian farmers as well as poor network facilities in rural communities has affected the implementation of fertilizer policies (Fertilizer Suppliers Association of Nigeria, 2012).

Further, the structure of deliveries of fertilizer subsidy create room for corruption on the part of government (Grow Africa, 2016). The low-density coverage of agro-dealers in the country has been an impediment causing farmers to travel relatively long distance. The inadequacy of manpower and non-commitment of some of the staff ADPs and ministry of agriculture has affected the efficiency of the deliveries of fertilizer policy (Fadairo et al., 2015).

The successful implementation of any public policy or scheme is also hinged on the adequacy of information provided to its targeted beneficiaries which are mostly small-scale farm holders (National Agricultural Extension and Research Liaison Services, 2012). Competition between suppliers of fertilizer is subdued because the Federal Government has granted regional

monopolies to certain suppliers (Amurtiya et al. 2018). Elite and politically inclined large-scale farmer were capture in some locations due party affiliation (Amurtiya et al. 2018; Fadaïro et al., 2015) and sometimes rightful beneficiaries were excluded from the fertilizer subsidy programmes (Federal Ministry of Agriculture and Rural Development, 2016). This has a very negative influence on the faith of the farmers towards government programmes and may affect other future innovations of this nature (Amurtiya et al. 2018). Additionally, fraudulent behaviours may constrain beneficiaries' access to inputs, when those controlling inputs request payments/tips or when "leakages" happen in the form of diversion across products or diversion away from the intended beneficiaries or even countries (Dorward and Chirwa 2011).

Nevertheless, given that subsidized fertilizer was meant to benefit small-scale farmers, the quantity of inputs being disbursed is considered grossly inadequate to meet their needs (Fertilizer Suppliers Association of Nigeria, 2012; National Agricultural Extension and Research Liaison Services, 2012) and the types of input supplied were inappropriate and low inputs quality delivered in some locations (FMARD, 2016; Fertilizer Suppliers Association of Nigeria, 2012; Liverpool-Taise et al, 2010).

Oxford Business Group (2016) reported that, fertilizer subsidy in Nigeria has brought certain level of improvements in farm outputs but, it has failed to transform productivity as expected. The government is still faced with heavy financial implication of inputs subsidy which conversely has serious implication on the effectiveness and sustenance of the fertilizer input subsidy policy. Although, Takeshima and Liverpool-Tasie (2015) reported that, fertilizer subsidy had no significant effect on local maize and rice prices in Nigeria, despite the huge financial implication of the policy on government expenditure. Therefore, there is need for government to readdress and strengthens the governance structures of various institutions involved in fertilizer subsidy programs implementation for smooth delivery and effectiveness. The understanding of politics or political power play in distribution and market of subsidized fertilizer needs better clarity.

Politics of Fertilizer Policy Implementation

The political economy surrounding fertilizer and agricultural input demand and supply structure have been changing from time to time as changes occur in the seat of power, thus, this is challenging. The constant effort of the government to boost and improve small holder farmers productivity through policy to aid the adoption and increase use of fertilizer is yet to translate into increase in sustainable agricultural production, rural household income and

livelihood (Liverpool-Taise et al, 2010, 2015, 2017). Most of the small-scale holder farmers fail to benefit from the most of these government efforts and policies due to poor implementation and wrong targeting of some of these policies such as seen in the case of fertilizer policy (Liverpool et al., 2017, 2015). Many past scholars have reported that government expenditure on fertilizer subsidy is too costly for the government (Kherallah et al., 2002; Morris et al., 2007; World Bank, 2008) despite most of the subsidized fertilizer falls in the hand of the private sector who sell it at a higher price while some of it were been exported through back doors to the neighbouring countries where they were sold at higher prices. Hence, it is reported that only few of the subsidized fertilizer that finally get into the hand of the small-scale farm holders (Obi-Egbedi and Bankole, 2017; Liverpool-Tasie, 2014a, 2014b; Liverpool Taise et al. 2010). This made them to concludes that, the implementation of fertilizer policy in Nigeria is ineffective and inefficient.

The politics behind the implementation of fertilizer policy in Nigeria still remain issue that needs a better reconsideration. The participation of the state and private sectors jointly in fertilizer market remain a topic of concern (Liverpool-taise and Tekshima, 2013; Fuentes et al. 2012; IFDC, 2001). Figure 1 shows the flow of fertilizer in the market among stakeholders. According to the supply chain presented in figure 1, the movements of subsidize fertilizer from public to private sector are issues that can sabotage the efforts of the government. However, on the average, fertilizer subsidy policy tends to have the greater impact on total fertilizer use when administered in areas where the private sector has been inactive and when they target small scale farming households that cannot pay for fertilizer at fertilizer landing market prices, *ceteris paribus* (Xu et al. 2009a, b; Ricker-Gilbert et al. 2011; Mason and Jayne, 2013; Jayne et al. 2013; Mather and Jayne, 2015).

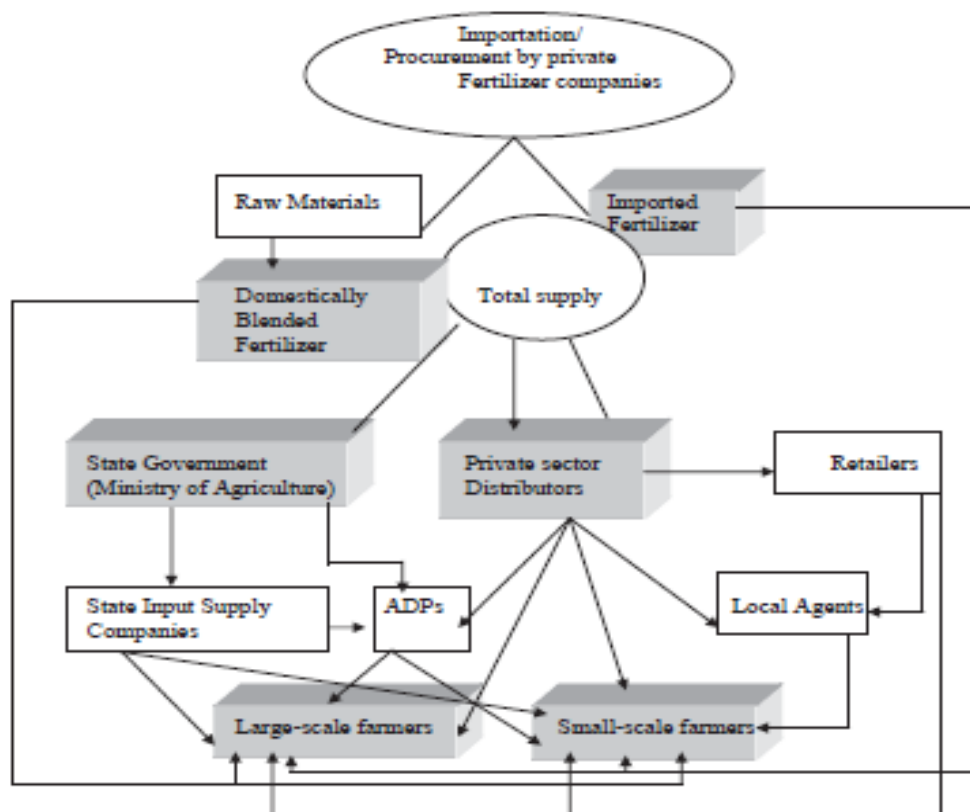
In addition, considering the era of fertilizer policy in Nigeria, Nagy and Edun (2002) reported that fertilizer policy started with states solely involved in procurement and distribution of subsidize fertilizer before it was change to central control of both its procurement and distribution in the early period of 1980's. In the previous fertilizer policy system (Federal Market Stabilization Program, FMSP), the Nigerian government directly procured and distributed subsidized fertilizer via state government and the role of the private sector was minor (Liverpool-taise et al. 2010; Liverpool-Tasie and Takeshima 2013). However, the implementation of the structural adjustment program of the late 1980's led to the private control of the ownership, procurement and distribution of fertilizer in Nigeria in the 1990's. The failure of the private sector to step up the supply to meet the demand for fertilizer in Nigeria resulted

in government re introduced fertilizer subsidy and government participation in the country fertilizer market. Since the year 2001, government started with the introduction of about 35-41% subsidy of fertilizer landing cost which later falls to about 21-23% before it rises to about 50% in the agricultural transformation agenda through the growth enhancement scheme of 2011-2015 (Amurtiya et al. 2018; Ayoola and Ayoola, 2016).

Recently, among the policy and programmes which encapsulate fertilizer policy were the Agricultural Transformation Agenda (ATA) and Agricultural Promotion Policy (APP). According to FRMRD (2016), ATA (2011-2015) used the growth enhancement scheme using mobile phone technology voucher in implement the fertilizer subsidy policy while the APP (2016- till date) is just trying to build on the success of the ATA using the agribusiness and agripreneurship approach to boost the performance of the ATA scheme. However, the politics driving the changes in this policy structure is important because this go a long way in determining the success or failure of the program. The roles and the power play between fertilizer policy stakeholders; (Federal and state government, international donors and NGOs, Minister of agriculture, relevant institutions, ADPs and fertilizer companies and importer) as well as the synergy between them remain political issues that need better understanding in conducting accurate scientific monitoring and evaluation for effective and efficient implementation. Therefore, the effectiveness and efficiency of monitoring and evaluation function is highly important toward effective distribution of subsidized fertilizer. However, figure 1 shows the fertilizer supply or distribution chain in Nigeria. It revealed the flow of fertilizer from importing and blending companies to the state ministries, private sectors, ADPs and the sales agents till it gets to both the large- and small-scale farmers.

The flow of fertilizer from the state ministry, private sector, and input supply companies to the ADPs is worrisome and questionable as the fertilizer from each outlet come with different prices and costs. In addition to this, both large-scale and small-scale farmers are open to fertilizer from different sources with different prices. This could result in farmers most especially small-scale farmers selling their subsidized fertilizer to agents at higher price to make a short time profit instead of waiting till the end of production season as reported in the work of Liverpool-Taise et al. (2015). Although, since 1960s fertilizer subsidy programs has been implemented in Nigeria where both Federal and State governments procured fertilizer directly from importing companies and distributed subsidized fertilizers to farmers (Liverpool-Tasie & Takeshima, 2013). Yet, commercial marketing of fertilizer has not been banned in Nigeria and the quantity of fertilizer intended for subsidy has been large relative to the actual

consumption. Hence, there is substantial leakage of subsidized fertilizer into commercial “unsubsidized” market (Takeshima & Liverpool-Tasie, 2013). Also, Tekeshima & Liverpool-Tasie, reported that substantial leakages of subsidized fertilizer and governors and other political office holders provide subsidized fertilizer by patronising elite and their local government of origin. Therefore, unhealthy politics observed among fertilizer policy stakeholders, subsidized fertilizer distribution and marketing as well as in the target and unintended beneficiaries, given that small-scale farmers are the intended beneficiaries remain issues that needs to be address for future fertilizer policy and system development.



Source: IFDC et al. (2001); Liverpool-Tasie & Takeshima (2013)
 Fig. 1. Fertilizer supply chain in Nigeria.

Situation of Governance in Nigeria

In recent time, governance have been a topical issue among development policy experts and research scholars globally (Xuehui et al.2014; Fosu, 2017). Its an instrument to better evaluate development performance, yet its emergence is considerable recent but there is increasing body of literatures on its concept and indicators (Rodrik 2008, Acemoglu and Robinson 2012). Although, there is a perception that governance is a major factor limiting economic growth and

development most especially in developing countries, Africa inclusive (Fosu, 2004; Bates, 2008). However, poor governance resulted in poor growth due to ineffective policy implementation by the while good governance enhance growth and development through effective and efficient policy implementation (Ndulu et al., 2008; Fosu, 2017). This implies that, whether a governmental implement one policy or the other, success depend more on the governance structure of the country than the policy itself. Therefore, here we investigate the situation of the six-governance indicator (voice and accountability, political Stability and absence of violence/terrorism, government effectiveness, regulatory quality, rule of law, and control of corruption) in Nigeria quality using the world governance indicators (WGI) data. We further explained the implications of the governance situation in Nigeria of fertilizer policy, monitoring and evaluation as well as agricultural development. Figure 2 show the graph of the six-governance indicator for Nigeria between 1996 – 2016. It however, revealed that the situation of governance in Nigeria is poor since all the indicators are negative, given that, the indicators are measure on scale with scores ranging from -2.5 to +2.5 representing poor and good governance respectively. Most of the indicators are fluctuating except the government effectiveness that is a bit relatively stable but still negative while the political stability, violence and terrorism situation in Nigeria is worse as well as adherence to the rule of law. The implication of this situation cannot be separated from the poor implementation of fertilizer policy and other economic program in Nigeria which has affected policy impact on farmers output and rural income negatively. In addition to this, there is higher need for Nigeria as a nation to improve her governance structure because this goes a long way to revitalizing her dwindling economics situation and agricultural value added as it will be revealed in this next section of this paper.

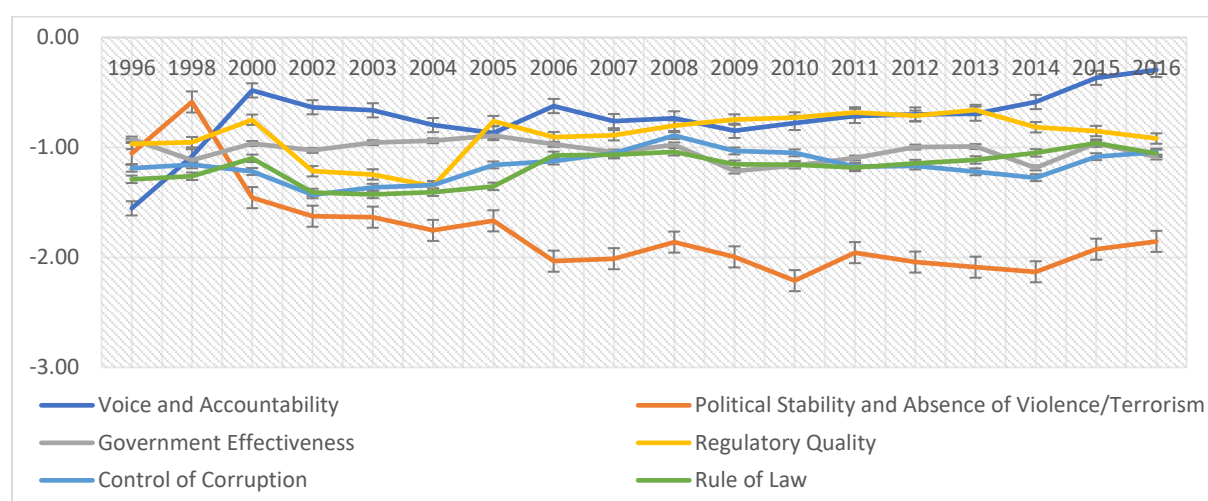


Figure 2: Governance Indicator for Nigeria (1996 -2016)

Source: Authors' Construct using the World Bank, Worldwide Governance Indicators online database (accessed October, 2018)

Snapshot of Agricultural production and Economic Development in Nigeria

Agricultural production alongside non-farm or off-farm activities constitutes a major source of income for most rural households. Generally, human depend directly or indirectly on agriculture for food and livelihood. In Nigeria, agriculture plays a key role and even has a potent potential to be a dominant force in achieving a sustainable food security and nation economy in the future. Presently, a majority of small holder farmers are still confronted by increasingly nutrient depleted soils, low agricultural productivity and declining land par capital, coupled with increasing populations putting pressure on natural resources and threatening the environment (IFDC, 2013). Despite this the contribution the contribution of agriculture to the nation economy cannot be underestimated. In assessing the situation of agricultural production in Nigeria, emphasis will be placed on cereal production given the context of this discussion. Since, cereal remain the most common group of crops that farmer applied fertilizer during planting period. According to Ismaila et al. (2010), major cereals produced in Nigeria include rice, sorghum, maize, and pear millet. Thus, figure 3 shows the total production of maize, rice sorghum and millet in tonnes as well as area of land under cereal production in '000 hectares from 1980-2014. It is observed that the area of land under cereal cultivation increased sharply in 1990 and it became relatively stable afterwards although, it drops little around year 2000 and 2010 before it starts galloping. On the other hand, cereal production most especially sorghum, maize and rice increase but relatively low compared with the size of land under cereal production. However, the increase in cereal production could be as a result of the increase in area of land under cultivation and little in the impact of the use of improve inputs such as fertilizer. Therefore, factors identified that are militating cereal productivity in Nigeria include climatic factors, soil factors, migration, government policies, use of local varieties, predominance of weeds, pest and diseases and failure to intensify the use of improve technology such as fertilizer, seed and pesticides (Ismaila, et al. 2010). Therefore, for government to ensure inputs (fertilizer, improve seed) subsidy program achieved the desire aim, there is need to addressed the governance situation of the institutions and individuals involved in implementing the policy. More to early discussion, by considering a snapshot of agricultural value added and economic development in figure 4, the time series graphs show that all the economic indicator of the country is poor and even worse in the recent time. The

inflation of consumer price is increasing since 2014 till date, real per capital income and the real GDP income are both dropping since the period while the agricultural value added is stagnating at the minimum point since 2011 till date. Thus, it is high time Nigerian government address problems of governance structure in terms of effectiveness, accountability and other world governance indicators to put the country on the right track of sustainable agricultural and economic growth and development.

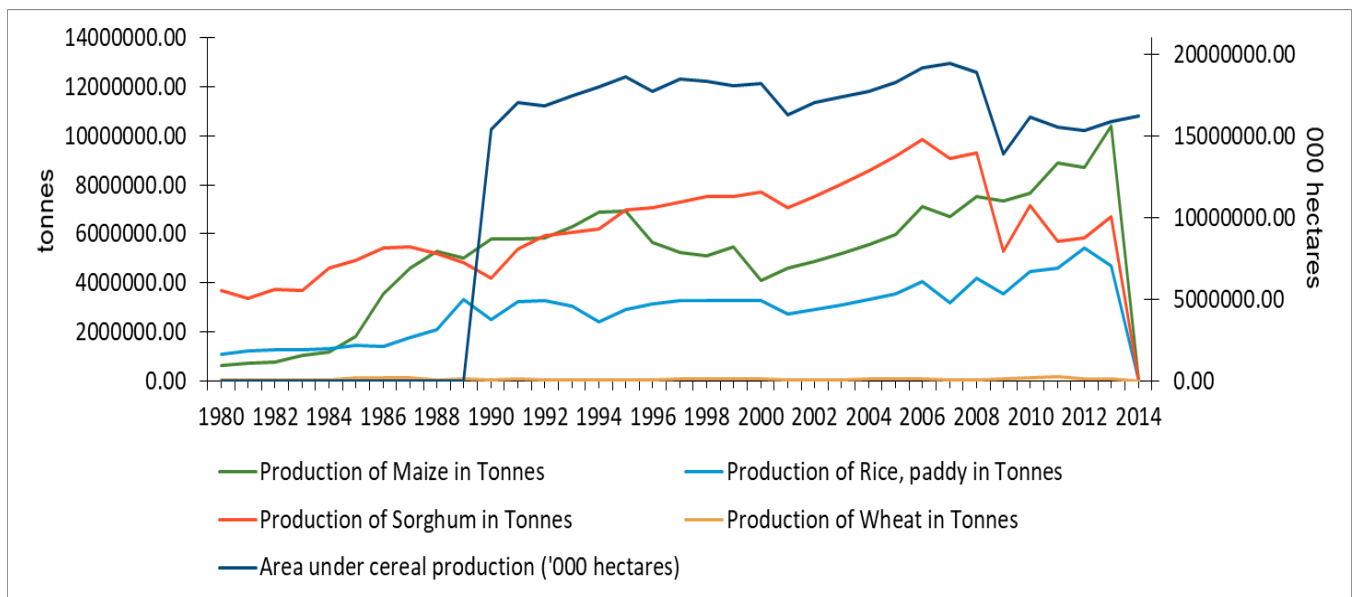


Figure 3: Cereal production in Nigeria

Source: <http://dataportal.opendataforafrica.org/bbkawjf/afdb-socio-economic-database-1960-2019?country=1000590-nigeria>

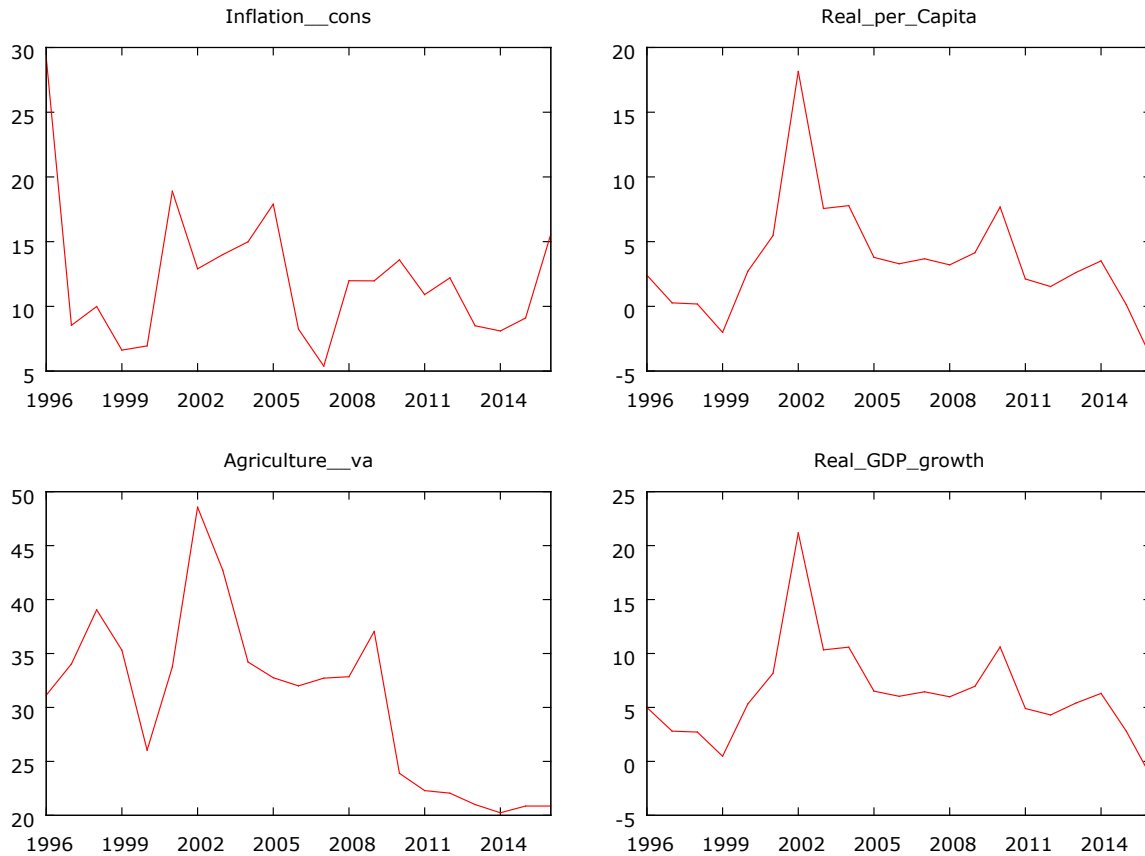


Figure 4: Indicators of Nigeria Economics situation and Agricultural

Source: <http://dataportal.opendataforafrica.org/bbkawjf/afdb-socio-economic-database-1960-2019?country=1000590-nigeria> (computed using Gretl)

Conclusion and Recommendation

Given our review of the politics of fertilizer subsidy implementation and governance structure towards agricultural development in Nigeria, we conclude that fertilizer subsidy still remains a major policy instrument that will be use by Nigeria Government to boost productivity and small-scale farm holder household's income in ensuring pro poor growth and development. Finally, fertilizer subsidy implementation strategies with absence of unhealthy politics and in combination with good governance structure will drive sustainable agricultural development in Nigeria and any other Africa countries that similar characteristics. Thus, we suggest that Nigeria government should dissociate any economic policy from patrician politics and strengthens her governance structure to ensure proper monitoring and evaluation of her policy, programs and activities. Hence, a more holistic approach will be required in most cases to sustainably increase agricultural productivity in Nigeria and in a more sustainable way. No

much emphasis is placed on providing small holder farmers with an enabling environment and not only fertilizer input subsidy to use fertilizer in a profitable, efficient and effective way. Small scale farming households should be encouraged and sensitized to explore more and better innovative means to stimulate use of complementary improved inputs and climate smart management practices.

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