

Review

Improving agriculture in Nigeria through public-private partnerships

George Nwangwu

Federal Ministry of Finance, Abuja, Nigeria.

Received 17 October, 2018; Accepted 17 January, 2019

The agriculture sector in Nigeria has remained largely undeveloped. The reason for this is due to the limited public sector funding in the different agricultural value chains including research and development. On the other hand, there has also been very minimal private sector investment in the sector. The cause of this is a lack of incentive for the private sector in Nigeria to invest in sectors like agriculture with very informal market structures and therefore without clear paths to profitability. It is believed that these problems can be resolved with better collaboration between the private and public sector actors through the instrumentality of public-private partnerships (PPPs). This will increase investment in the sector by pooling both public and private sector resources and also create realizable and foreseeable income streams for investors. This fact seems to be finally catching on in Nigeria, where the government has initiated a number of PPP programmes to address some of these underlining problems. This paper looks at some of the PPP programmes that have been initiated by the government with particular focus on the provision of services, infrastructure, sustainable land use systems and the development of structured markets. This paper aims to evaluate the impact of these programmes and also suggest improvements that will ensure that agriculture PPPs are further enhanced in Nigeria.

Key words: Agricultural Markets, Sustainable Development, Public-Private Partnerships.

INTRODUCTION

Despite the fact that the agricultural sector affects the lives of most people in Nigeria, it has hardly enjoyed the attention it deserves from successive governments. Prior to the country's independence in 1960 and the decade following independence, agriculture was truly the most important economic sector in the country accounting for the highest number of employment, highest contributor to gross domestic product and foreign exchange earnings (Ajetomobi, 2010) The oil boom in the 1970's changed this narrative, as successive governments paid less attention to the agricultural sector, leading to a decline in the contribution of agriculture to the Nigerian economy.

Nevertheless, the sector continues to be the highest employer of labour in the country and contributor of a significant portion of the GDP. (Punch Newspaper, 2016). Due to the indifference of past governments to the agriculture sector, it is not surprising that the sector continues to face significant challenges. According to the Food and Agriculture Organisation (FAO), of the United Nations, some of the challenges being faced by the sector include: the outdated land tenure system that constrains access to land, a very low level of irrigation development, limited access to research findings and technologies, high cost of farm inputs, poor access to

E-mail: bumialasi@gmail.com.

Author(s) agree that this article remain permanently open access under the terms of the [Creative Commons Attribution License 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

credit, inefficient fertilizer procurement and distribution, inadequate storage facilities and poor access to markets (Nwangwu, 2018). The consequence is that after so many years, the sector is still characterized by small farm holding, a very little food processing industry and lack of structured markets.

The overriding reason for this state of affairs is a lack of investment in the sector. For instance, there is limited public sector investment in the different agricultural value chains including research and development that is required to catalyse the sector. The paucity of funds constrains the government which is the largest investor in agricultural infrastructure in Nigeria. The private sector could have filled the financing gap left by the government. However, there has also been a minimal structured investment by the private sector. The apathy of the private sector is precipitated by a lack of incentive to invest in sectors like agriculture with very informal market structures, without clear paths to profitability for businesses. Agriculture is just not being treated as a business by policymakers, and rather it is seen more as a social service. It is believed that since these problems centre primarily around the issue of a lack of investment in the sector, that it can be resolved with better collaboration between the private and public sectors through public-private partnerships (PPPs) which will allow the parties pull their resources together for the good of the sector.

It is not surprising also that the recent drop in oil prices and the slip of the economy into recession has redirected the focus of the Nigerian government back towards agriculture. The present government administration believes that the agriculture sector provides sufficient opportunity for the country to diversify its economy, making it less susceptible to the volatility of oil prices. In pursuing its new agro-centric policy, the present government has intervened through several measures including provision of concessionary loans to farmers, training, improvement in input supplies, especially fertilizers under the anchor borrower's programme. Also, the government has commenced the concession of grain silos and River Basin Development Authorities to private sector investors. This paper evaluates the impact of these partnerships between the private and public sectors and suggests ways of improving their impact. It concludes that while these interventions have recorded some successes, a lot is still required to be done if agriculture is to compete with the oil sector as the lifeblood of the Nigerian economy. Also, as the government continues to be constrained by limited funds and insufficient technical and operational know-how, this paper argues that the best way to bridge the financing and management gap in the agriculture sector in Nigeria is through PPPs.

WHAT ARE PPPS?

PPPs can be defined as the relationship between public

sector agencies and private sector entities under which the responsibility for any or all of the combination of designing, financing, construction, management and operation of public infrastructure, utilities and other investments that were traditionally undertaken by the public sector are contractually shared and jointly undertaken by both the public and private sector, usually in proportion to the kind of risks each party can best carry (Nwangwu, 2013). Agriculture PPPs may specifically then be defined as a formalized partnership between public institutions and private partners designed to address sustainable agricultural development objectives, where the public benefits anticipated from the partnership are clearly defined, investment contributions and risks are shared, and active roles exist for all parties throughout the PPP lifecycle" (FAO, 2016).

The most critical success factor for agriculture PPPs is the allocation and mitigation of risks. Therefore, the use of PPPs in the sector will allow parties share the risks and rewards in agriculture projects and services. This will in effect enable the government to focus on those aspects of the agricultural service offerings that it can carry out conveniently while transferring the risks that it is uncomfortable to take to the private sector party. For instance, the government can provide land and assume the regulatory risk in a farming project, while the private sector assumes financing and market risks. However, structured, the basic rule is that a party to a PPP transaction should only be made to assume risks which it is most suited for and willing to shoulder at the most acceptable price (Abrahamson, 1973).

Despite being in extensive use in Nigeria, in several infrastructure sectors, most notably in the transport and electric power sectors, there has however been very minimal use of PPPs in the agriculture sector. The reason for this may be attributable to the difficulty in convincing the private sector investors on the viability of the agriculture sector. Government policies have spectacularly failed to address the unbalanced risk and reward structure in most agriculture projects, therefore alienating the private sector. However, it is a fact that PPPs, if well designed are suited for solving the problems bedevilling the agriculture sector. It can unlock private sector investment and its superior managerial capabilities to augment the resources of the public sector. It also ensures the sustainability of agriculture projects by ensuring the timely completion and execution of projects by eliminating the reliance on the very unreliable government budgetary systems. Indeed, for these reasons, some countries have adopted PPP like structures to develop their agriculture sector (Ponnusamy, 2013).

In recent time, however, the Nigerian government has begun to deploy PPPs to develop the agriculture sector. These attempts at the use of PPPs in the agriculture space are still new, and a few projects have been started recently. While some of these initiatives are still at their

procurement stage, others have commenced operations. Using a case study methodology, this paper evaluates some of these projects to understand whether they are making the required impacts and suggest ways in which the government's PPP programme in the agriculture sector may be improved. The discussion on the impact of agriculture PPPs in Nigeria in this paper is divided into three major categories. The first is the provision of services to farmers, which include input supplies, training, credit facilities and insurance under the Federal Government of Nigeria's Anchor borrowers programme. The second is the provision of agriculture infrastructure which includes storage, logistics and irrigation to farmers through the concessions of the River Basin Development Authorities (RBDAs) and the grain silos. The final category is the discussion of the development of agricultural markets.

PROVISION OF SERVICES

The activities that would fall under this heading include the so-called "soft" activities like providing knowledge and skill transfer through trainings and other capacity-building initiatives and also business networking (FAO, 2018). Services will also include hard activities like the supply of inputs and finance (FAO, 2018). In developing countries, the provision of these services is crucial for the transmission of smallholder farmers from subsistence to commercial agriculture (FAO, 2018). The provision of services also helps enhance the competitiveness of the agriculture sector by contributing to the improvement of the economic and social conditions of farmers.

One of the key programmes of the Federal Government of Nigeria, the Anchor Borrowers Programme is a perfect example of the provision of services to farmers through PPPs.

Anchor borrowers programme

The Central Bank of Nigeria (CBN) in line with its development objectives established the Anchor Borrowers Programme (ABP) in November 2015. According to the CBN, the objective of the programme is "to create a linkage between anchor companies involved in processing and smallholder farmers of the required key agricultural commodities" (CBN, 2016). The essence of the programme is the provision of critical inputs in kind or cash to smallholder farmers to boost production of agricultural commodities, stabilize input supplies to agro-processors and address the country's negative balance of payments on food (CBN, 2016). At harvest, the smallholder farmer supplies his/her produce to the Agro Processors (Anchor) who pays the cash equivalent to the farmer's account (CBN, 2016). According to the CBN, other notable objectives of the programme is to increase financing to the agriculture sector, reduce agriculture

commodity importation thereby conserving much need foreign reserve, increase capacity utilization of agriculture firms, create new generation of farmers/entrepreneurs and employment, deepen the government's cashless policy and financial inclusion, reduce the level of poverty among smallholder farmers and assist rural smallholder farmers grow from subsistence to commercial production levels (CBN, 2016).

Under the programme, the targeted commodities are those that are likely to give a competitive advantage to the country. These include, cereals (rice, maize, wheat), cotton, roots and tubers (cassava, potatoes, yam, ginger), sugarcane, tree crops (oil palm, cocoa, rubber), legumes (soya bean, sesame seed, cowpea), tomatoes, livestock, and any other commodity that may be introduced to the list by CBN.

Under the Anchor borrowers programme, CBN provided funds (about ₦40 billion out of the ₦220 billion Micro, Small and Medium Enterprises Development Fund) to certain participating financial institutions to on-lend to smallholder farmers. The financial institutions, mostly banks obtained the loans at 2% from the CBN and were directed to lend at a maximum of 9%. The tenor of the loan was fixed depending on the gestation period of the identified commodities. The collaterals provided by the farmers under the scheme were:

- (a) Cross and several guarantees by farmers in cooperatives;
- (b) Tripartite agreements signed by the parties
- (c) Cross and several guarantees by farmers in cooperatives registered in the National Collateral registry
- (d) 5% minimum equity contribution.

Bearing in mind the risk appetite of banks to lend to farmers with little or no collateral, CBN agreed to absorb 50% of any amount in default after satisfactory evidence that every means of loan recovery has been exhausted by the bank. This was one of the ways used to encourage the banks and other lending institutions to participate in the scheme. Under the scheme, small farm holders are entitled to loans ranging between ₦150,000 and ₦250,000 to assist them in procuring necessary agricultural inputs such as seedlings, fertilizers, pesticides to help agricultural outputs and productivity.

As at 31st of December, 2017, it was estimated that about 218,000 farmers from across the federation benefitted from the programme and about ₦45.5 billion was disbursed. President Buhari in a broadcast to mark the country's 57th Independence Anniversary described the programme as a success. Also, according to CBN, the programme has been able to generate almost 3.5 million direct and indirect jobs (The Guardian, 2017). The programme is also reputed to help increase the popularity of locally grown rice, and this has prompted the CBN to expand the programme to other crops (Evbunwan and Okoye, 2017).

However, several reports, otherwise, the major problem

being the recovery of the loans that were given out to the smallholder farmers. It has been reported that most of the beneficiaries have bluntly refused to repay the loans. Some of the reasons proffered were that some of the conditions for repayment were quite onerous and that there were insufficient enlightenment campaigns to intimate farmers that loans were repayable hence most of them saw it as a reward for voting President Buhari into power in 2015 (Evbuomwan and Okoye, 2017).

Kano State and some other states have disclosed plans to set up mobile courts to try over 45,000 farmers that defaulted. Another tactic that has been employed by some states of the federation is to elicit the support of local clerics to help cajole errant farmers to repay the loans (Evbuomwan and Okoye, 2017). This is similar to what was done in Kebbi State where about 78,000 farmers benefitted from the loan, already 5,968 farmers have been sentenced to various prison terms by mobile magistrates set up to try them (Evbuomwan and Okoye, 2017). The story of default is the same across various states of the federation. For instance, in Kaduna State it was reported that the recovery effort could only yield about 22% of the loan in commodity value as agreed by the farmers before the facility was recovered. In Kano State, from a total sum of ₦950 million released by CBN to rice farmers, only ₦6m was paid back as at December 2017 (Evbuomwan and Okoye, 2017).

It is clear from the preceding that a lot still needs to be done in creating awareness and structuring of the programme if it is going to be sustainable. It appears that the smallholder farmers involved in the programme do not entirely understand its objectives and modalities. Therefore, there ought to be a better stakeholder awareness campaign. There was also the insufficient transfer of commercial risk to the smallholder farmers. The smallholder farmers and cooperatives should be made to assume a lot more of the financial risk or the risk of loan defaults than they presently do. Farmers should be made to secure the loans with their lands. This would in the first place ensure that there will be a reduction in defaults and also provide a means for recovery of the loans in the event of default as security can be sold and the proceeds used to repay the loans. This, of course, is only possible where lands have transferrable title documents.

It appears from the preceding also that the significant risk facing the ABP is the possibility of loan defaults. The participating banks refused to shoulder this risk alone, and CBN agreed to absorb 50% of the loans, provided the banks can show that they had done everything possible to recover the loans. While it is not clear what standards would be required from the banks to prove that everything has been done to recover the loans, it appears that this would include the threat of prosecuting defaulters as has been the case across the different states. This approach has not been very successful judging from the very high numbers of cases that have

progressed to trial in the affected states.

From the preceding, it is evident that the programme as presently structured by CBN will continue to run into the problems of default by smallholder farmers until the underlining issue of title to farmland is addressed. State governments should be encouraged to put structures in place that will ensure that Certificates of Occupancy are issued to smallholder farmers which will make it easier for credit to be granted to them as these lands can serve as valid collaterals since their alienability is improved. If these title documents had been available, there would have been a far lower number of farmers defaulting on their loans as the shame and economic consequences of losing their lands would be sufficient deterrent.

CBN has undertaken to introduce technology to help ensure better compliance by farmers. Under the new system, biometric information of farmers will be taken, their farms mapped and biometric cards produced for each farmer. This would go a long way in helping to reduce loan defaults. However, the best solution as in most PPP projects is to ensure the proper allocation of risks in a way that aligns with the incentives of the parties in the project.

Provision of infrastructure

Most traditional PPP projects are focused on the provision of infrastructure. The provision of agriculture infrastructures like irrigation, agro-processing and storage facilities are essential components of the agriculture value chain. In most cases, private sector farmers are unable to build this infrastructure themselves due to their high capital expenditure that is required and the unlikelihood that the investors would be able to recover the investment throughout the lifespan of the infrastructure. The government may subsidize the infrastructure.

Grain silos

Nigeria suffers from periodic spikes in the prices of foodstuff generally due to the cyclical nature of its weather. Food is abundant during the raining season and then as the country transitions into the dry season; food prices rise as production slows down. Post-harvest losses are also a perennial occurrence in Nigeria. This situation applies to most products as well as grains. This situation is easily solved by storing the product including the grains during the harvest season when they are susceptible to waste, ensuring that they are now available all year round.

The Federal Government of Nigeria under its strategic grains reserve programme, constructed some silo complexes across the country to solve the problems of post-harvest losses. However, most of the silo complexes

were never operational due to a wide range of reasons. This includes a lack of budgetary allocations to operationalize the assets, erratic power supply and non-maintenance of backup generator sets, absence of environmental management plans to guide the mitigation of environmental impact and the absence of a competitive market for grain storage resulting in non-market determined tariffs for storage (Infrastructure Concession Regulatory Commission, 2018). The few assets that were being operated by government suffered from a complete lack of maintenance. The situation across most states in Nigeria is that grains are now mostly stored in warehouses and even in other open structures leading to the loss of a large amount of produce. For these reasons, despite the large volume of grains produced within the country, Nigeria still suffers a high volume of shortages during the offseason.

The government turned to PPPs to concession the existing silo complexes to private sector operators who will rehabilitate and operate the complexes. Accordingly, it is hoped that PPPs would allow large and smallholder farmers store and process their grains in modern vertical silos with the aid of modern technology. It is believed that the silo complexes would be better utilized for efficient grain reserve services in the hands of private sector operators. Also, the silos will serve to increase storage utilization and efficiency of grain trading and post-harvest services.

The concession of the silos whilst not having been completed is a good development for the country. Just like in some countries where PPPs have been utilized for grain storage, the concession of the silos will provide some advantages, which include the following:

- (a) Scarce public funds will no longer be employed for the completion of the construction of the assets as private sector partners would now invest their funds for that purpose. This would allow the government to focus their resources elsewhere in the provision of other much needed social infrastructure.
- (b) The private sector party is also able to upgrade and optimize the silo complexes employing the use of very modern technology and know-how.
- (c) Private sector partners would be able to bring their expertise into the management and operation of the facilities, thereby relieving the government agencies from the day to day management of the assets. The government agencies may now transform from the role of managers of the assets to owners and regulators since the transaction is structured along the line of the landlord-tenant model.
- (d) Ownership in the asset remains in the hands of government and operations reverts to the government at the end of the concession period. The PPP option also ensures that the government receives an improved asset at the end of the concession period. Also, there is usually the transfer of technology from the private sector

operators to the public sector.

However, the transaction process for the concession of the silos have been relatively slow and have still not reached financial close despite having commenced over three years ago. The slow pace of the transaction leads to further deterioration of the assets and delays the impact the transaction would have had on the economy. Also, the concessions are designed to last fourteen years. The short-term nature of this concession would not provide the private sector partners with sufficient incentives to invest much money into improving the asset as there might be an insufficient amount of time for them to recover such investments (Iganiga and Unemhilin, 2011)

Optimization of land use

The next area where PPPs are useful is in the optimization of land use. To illustrate this, this paper looks at the concession or commercialisation of the River Basin Development Authority assets scattered around the country.

Concession/Commercialisation of river basins

Following the severe drought that occurred in Nigeria between 1972 and 1974, the military government in Nigeria at the time, promulgated Decree 25 of 1976 to develop Nigeria's water resources. It is the enactment of this law that gave birth to the creation of 11 River Basin Development Authorities.

According to S.4 of the RDDA Act, the functions of each authority shall be:

- (a) to undertake comprehensive development of both surface and underground water resources for multipurpose use with particular emphasis on the provision of irrigation infrastructure and the control of floods and erosion and for watershed management;
- (b) to construct, operate and maintain dams, dykes, polders, wells, boreholes, irrigation and drainage systems, and other works necessary for the achievement of the authority's functions and hand over all lands to be cultivated under the irrigation scheme to the farmers;
- (c) to supply water from the authority's completed storage schemes to all users for a fee to be determined by the authority concerned, with the approval of the minister;
- (d) to construct, operate and maintain infrastructural services such as roads and bridges linking project sites: provided that such infrastructural services are included and form an integral part of the list of approved projects;
- (e) to develop and keep up-to-date a comprehensive water resources master plan identifying all water resources requirements in the authority's area of

operation, through adequate collection and collation of water resources, water use, socio-economic and environmental data of the River Basin.

Therefore, the RBDAs was primarily established to provide water for irrigation and domestic supply, improvement of navigation, hydroelectric power generation, recreational facilities and fisheries. The RBDAs were also supposed to perform more comprehensive economic and social functions like bridging the gap between rural and urban centres and discourage migration from rural areas to urban centres. These objectives were to be achieved through surface impoundment of water by constructing dams which would enable all year round farming activities in the country.

However, after nearly four decades of its establishment, the RBDAs have not lived up to its expectations. The RBDAs have merely failed to harness the country's water resources to boost agricultural development through irrigation farming within the country. Presently only one million hectares of land is under irrigation on Nigeria. Due to this, the government of Nigeria has been promoting the use of PPPs to overcome this challenge. The process has however been slow with the government seemingly undecided on whether to outright concession to the irrigation facilities or commercialise them (Anyanwu et al., 2010).

It is important to note that PPPs in irrigation are not easy to execute as private sector investors will only invest if they are sure that they would be able to recoup their investment. Irrigated agricultural projects are difficult to fund on a commercial basis because it is difficult for them to deliver short-term expected financial returns. This is because they are dependent on some factors outside the control of the investor. For instance, investments in irrigation projects are self-contained because they are solely linked to local offtake. Therefore, infrastructure providers have been exposed to the same type of market and commodity risks that the farmers are exposed to (World Bank Group, 2017). Additionally, since water is only one of the cost elements that a farmer faces, the viability of the investment in the irrigation infrastructure is also linked to other costs to the farmers like credit, fertilizer and access to the market. Therefore, the ability and willingness to pay off the farmer are critical. The private sector irrigation provider is also concerned that there exists a mechanism for receiving payments from the farmers.

From the foregoing, it is evident that PPPs in the irrigation sector would not be easy to deliver. However, the sector is crying out for investment, and it is imperative that the government finds a way to conclude the ongoing commercialisation or concession process to attract private capital into the sector. It is suggested that perhaps the concession of the irrigation facilities should be made in conjunction with the hydroelectric power dams so that it would be viable.

AGRICULTURAL MARKETS

The development of markets for agriculture produce is essential to the growth of the agriculture sector. It provides incentives for private sector investors to devote their resources to agriculture projects knowing that there is a clear path to returns for such investments. Another role that markets play in a sector with seasonal production like agriculture, is to help manage risks associated with demand and supply shocks by helping adjust supply when needed thereby reducing the price variability faced by consumers and producers (Barreti and Mutambatsere, 2008)

Like in most developing countries, the history of the development of an agriculture market reveal first direct intervention by government in the 1960s and 1970s to resolve failures in market structures and then the adoption of a more liberalised market-oriented approach to ensure that farmers get value for their produce (Eigege and Cooke, 2016; Barreti and Mutambatsere, 2008). Trade in agriculture in Nigeria also went through the same historical trajectory. The Federal Commodity Marketing Boards were established in 1977 by the then Federal Military Government to take care of crops like cocoa, groundnuts rubber and tubers. The Commodity Marketing Boards themselves devolved from the old regional West African Produce Control Board of 1942. In 1947 this local board then evolved into national monopsonistic single commodity marketing boards (Ojowu and Mensah, 1988). There were four marketing boards in Nigeria; these were the Nigerian Cocoa Marketing Board which was set up in 1947, followed by the boards for oil-palm produce, groundnuts and cotton. In 1954 when Nigeria assumed a federal status, these boards became regional multi-commodity boards and then as states were created, control of the boards became the responsibility of the states. The role of the boards was basically to interface with farmers and bring stability to their operations by ensuring that their products were purchased by the government. Government also assisted by providing them with necessary tools like tractors, scales and pest control implements. From inception, the Marketing Boards were exploitative, and farmers never benefitted from the arrangement. According to Gavin Williams:

"Since their inception, Nigerian Marketing boards have been used to serve various interests and purposes, hardly any of which have benefitted the producers. They originated in the second world war and were perpetrated after the war by a labour government so that they might play their part in meeting British needs...Nigerian politicians found them a ready-made instrument for taxing farmers, enriching themselves and financing their political activities. Their pricing policies from producing export crops rendering the boards redundant." (Williams, 1985).

Indeed, this system of exploitation was perpetuated even

after the price-fixing functions of the regional boards were taken over by the Federal Government in 1974 and after the state marketing boards were finally dissolved in 1977 in favour of a centralized Federal Commodity Marketing Board. The system was generally characterized by corruption, bureaucratic red tape, smuggling and discriminatory tax regimes by state governments (Kolawole, 1974). Indeed the decline in agriculture as a major export in Nigeria was not only a function of the increase in the price of oil but could also be traced to the marketing boards which denied farmers the incentive to continue to produce export commodities (Mgbenka et al., 2015).

All these led to the liberalisation of the sector in 1986 with the dissolution of the marketing boards and the introduction of a free market pricing regime for agricultural produce (Williams, 1985; Omorogiuwa et al., 2014). This led to the deregulation of product marketing with a concomitant increase in prices and farmers received more for their products at prices that were formerly fixed at low prices by the technical department of the marketing board were now purely market-driven (Williams, 1985). However, the liberalization of the sector had not resolved all the issues afflicting the market for agricultural produce in Nigeria. The sector is still constrained by issues like poor quality control and grading of produce which adversely affects export trade and lack of a conventional method of determining prices. The current Minister of Agriculture, Mr. Audu Ogbeh has proposed the reintroduction of marketing boards to tackle these issues (Vanguard Newspaper, 2017).

The reintroduction of the marketing boards is not likely to solve the present issues with the market for agriculture produce in Nigeria. The reintroduction of these boards is not only outdated but also out of step with the country's present liberalised economic outlook. Therefore, it appears that whilst the country is liberalising and encouraging private sector investment and operation of most of its economic sector; the government is looking at nationalizing an aspect of the agriculture sector.

Speaking against the clamour for the reintroduction of marketing boards, Gavin had this to say as far back as 1985:

'Against all the evidence, it (marketing boards) maintains a strong appeal for bureaucrats, technocrats and regrettably many socialists. Socialists have no business defending or reforming such exploitative institutions. De jure state monopolies on the marketing of crops impose high costs on producers, on government budgets and consumers. They create de facto monopolies for favoured and protected traders and the opportunities for profitable collusion between people in business and officials, civil police and military. Against such institutions and monopolistic arrangements, socialists should support free trade (Williams, 1985).

While this statement from Gavin remains true even today,

it is still very doubtful that the government would have the capacity or budgetary discipline required to operate a marketing board structure effectively. Instead of this very backwards looking policy, it is better to introduce PPPs to resolve the problems that are apparent in the current arrangement. The government should concentrate on de-risking the sector to allow for additional private sector investments across the entire agriculture value chain and should also be responsible for setting policies and standards through its various organs in the sector. The government should leave the fixing of prices to market forces. Finally, efforts should be intensified to privatise the ineffectual commodities exchange to make it more efficient.

CONCLUSION

It is essential that Nigeria should look towards the greater use of PPPs to develop the agriculture sector. This is because agriculture PPPs allow for the proper allocation of risks ensuring that the different parties can carry the kind of risks which they are best able to manage. Agriculture PPPs if also done properly promote value for money for the public sector. This paper evaluated the few agriculture projects that are being currently procured through PPPs like the grain silos and the RBDA commercialisations and concludes that if they are properly executed they can turn around public assets that were hitherto lying waste. It is the case that the intervention of the private sector parties would put the assets into better use. The Anchor borrowers programme is a good project that requires better allocation of risks between the parties to ensure its sustainability. Finally, the creation of an agriculture market in Nigeria is essential to the growth and sustainability of the sector. It is therefore essential that the country puts PPP structures in place that would help resolve some of the problems presently constraining the market instead of resorting to the old centralised marketing board structures that had been earlier jettisoned due to its ineffectiveness.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

REFERENCES

- Abrahamson M (1973). Contractual risks in tunnelling: how they should be shared. *Tunnels and Tunnelling*. pp. 587-598.
- Ajetomobi JO (2010). Supply response, risk and institutional change in Nigerian Agriculture. Available at: <https://www.africaportal.org/publications/supply-response-risk-and-institutional-change-in-nigerian-agriculture/>
- Anyanwu CN, Anyadike CC, Nwoke OO, Chukwuma GO (2010). Present and Prospective Roles of Irrigation in National Food Security in Nigeria. *International Journal of Applied* 5(4):455-466.
- Barreti CB, Mutambatsere E (2008). Agricultural markets in developing countries. *The New Palgrave Dictionary of Economics* pp. 91-95.

- Central Bank of Nigeria (2016). Central Bank of Nigeria Annual Report—2016 Available at: https://www.cbn.gov.ng/Out/2018/RSD/CBN%202016%20ANNUAL%20REPORT_WEB.pdf
- Eigege J, Cooke J (2016). Tracing the Roots of Nigeria's Agricultural Decline' Paper Produced by the Centre for Strategic and International Studies (CSIS) 2016, Washington Dc. Available at: <https://www.csis.org/analysis/tracing-roots-nigerias-agricultural-decline>
- Evbuomwan GO, Okoye LU (2017). Evaluating The Prospects Of The Anchor Borrowers' programme For Small Scale Farmers In Nigeria. Available at: <http://eprints.covenantuniversity.edu.ng/10124/#.XKyeBDBKiM8>
- Food and Agriculture Organization (FAO) (2016). Public-Private Partnerships for Agribusiness Development - A review of international experiences Rankin M, Gálvez Nogales E, Santacoloma P, Mhlanga N, Rizzo C (eds.), Rome, Italy. Available at: <http://www.fao.org/sustainable-food-value-chains/library/details/en/c/417048/>
- Food and Agriculture Organization (FAO) (2018). Food and Agriculture Organization in Nigeria. Nigeria at a Glance. Available at: <http://www.fao.org/nigeria/fao-in-nigeria/nigeria-at-a-glance/en/>
- Iganiga BO, Unemhilin DO (2011). The impact of federal government agricultural expenditure on agricultural output in Nigeria. *Journal of Economics* 2(2):81-88.
- Kolawole MI (1974). The reform of commodity marketing boards in Nigeria: An analysis of new producer price policy. *The Developing Economies* 12(2):155-168.
- Mgbenka RN, Mbah EN, Ezeano CI (2015). A review of small holder farming in Nigeria: Need for transformation. *Agricultural Engineering Research Journal* 5(2):19-26.
- Nwangwu G (2018). Managing contingent liabilities arising from public private partnership projects. *Journal of Sustainable Development Law and Policy* 9(2):66-83.
- Nwangwu GA (2013). A risk based approach to enhancing public-private partnership (PPP) projects in Nigeria (Doctoral dissertation, University of Hull).
- Ojowu O, Mensah SA (1988). Agricultural commodity marketing in Nigeria without the Marketing Boards. *Agricultural Administration and Extension* 29(4):281-292.
- Omorogiuwa O, Zivkovic J, Ademoh F (2014). The role of agriculture in the economic development of Nigeria. *European Scientific Journal* 10(4):133-147.
- Ponnusamy K (2013). Impact of public private partnership in agriculture: A review. *Indian Journal of Agricultural Sciences* 83(8):803-808.
- Punch Newspaper (2016). Agriculture is Nigeria's biggest employer of labour – World Bank. *Nigerian Punch Newspaper* December 13, 2016. Available at: <https://punchng.com/agriculture-nigerias-biggest-employer-labour-world-bank/>
- The Guardian (2017). Anchor borrowers programme as another government bonanza. *The Guardian* 31st December, 2017. Available at: <https://guardian.ng/saturday-magazine/cover/anchor-borrowers-programme-as-another-government-bonanza/>
- Vanguard Newspaper (2017). FG to hold national dialogue on revival of marketing boards. *Vanguard Newspaper* October 1, 2017. Available at: <https://www.vanguardngr.com/2017/10/fg-hold-national-dialogue-revival-marketing-boards/>
- Williams G (1985). Marketing without and with marketing boards: the origins of state marketing boards in Nigeria. *Review of African Political Economy* 12(34):4-15.
- World Bank Group (2017). PPPs in Irrigation. Available at: <https://ppp.worldbank.org/public-private-partnership/ppp-sector/water-sanitation/ppps-irrigation>