Access to Agricultural Land in Delta, Edo and Ondo States Final Report

November, 2020

PIND

FOUNDATION FOR PARTNERSHIP INITIATIVES IN THE NIGER DELTA

Access To Agricultural Land In Delta, Edo And Ondo States Final Report

FOUNDATION FOR PARTNERSHIP INITIATIVES IN THE NIGER DELTA

N O V E M B E R , 2 0 2 0

Table of Content

List of Acronyms 4

Executive Summary 5

1.0 Background of the study 7
- 1.1 Objective of the Study 7
- 1.2 Scope of Work 8
- 1.3 Limitation of the study 8

2.0 Literature Review 9
- 2.1 Land Administration, Agricultural Programmes and Agricultural Value Chains 9
- 2.2 Land Administration in Edo State 12
- 2.3 Land Administration in Delta State 13
- 2.4 Land administration in Ondo State 15
- 2.5 Cocoa, Oil Palm, and Cassava Value Chains 18

3.0 Methodological Approach 23
- 3.1 Pre-engagement Discussion with the PIND Officials 23
- 3.2 Desk Review 23
- 3.3 Study Area 23
- 3.4 Sample Size and Sampling 23
- 3.5 Data Collection 24
- 3.6 Data Analysis 24

4.0 Findings 25
- 4.1 Edo State 25
- 4.2 Delta State 28
- 4.3 Ondo State 31

5.0 Summary 39
- 5.1 Identified pitfalls and gaps in policies being implemented 39
- 5.2 Demand and supply situation based on analysis 39
- 5.3 Challenges facing landowners and governments 40
- 5.4 Challenges facing small-scale farmers 40
- 5.5 Boundary conflicts 41

6.0 Conclusion and Recommendations 42
- 6.1 Lessons learned 42
- 6.2 The way forward 43

References 44

List of Acronyms

- **FOA** Food and Agriculture Organization
- **CSO** Civil Society Organization
- **OFN** Operation Feed the Nation
- **RBDA** River Basin Development Authorities
- **DFFRI** Directorate for Food Roads and Rural Infrastructure
- **SDA** Social Dimension of Adjustment
- **UNDP** United Nations Development Program
- **NALDA** National Agricultural Land Development Authority
- **NFDP** National Fadama Development Project
- **CDD** Community-Driven Development
- **ADP** Agricultural Development Project
- **CCAECS** Consultative Committee on Agricultural Export Commodity Statistics
- **EAP** Edo Agropreneurs Programme
- **EDOGIS** Edo State Geographic Information Service
- **C of O** Certificate of Occupancy
- **DSMTDP** Delta State Medium-Term Development Plan
- **WECA** Wealth Creation Agency
- **ABC** Agro Business Cities
- **IITA** International Institute of Tropical Agriculture
- **NAEC** Nigerian Agricultural Entrepreneurship Curriculum
- **PASS** Pro-farmers & Agropreneurs Sustainable Scheme
- **GIS** Graduate Internship Scheme
- **WIA** Women in Agriculture
- **LAPDO** Life and Peace Development Organization
- **USAID** United States Agency for International Development
- **NGO** Non-Governmental Organization
- **CBN** Central Bank of Nigeria
- **NEC** National Economic Council
- **UNIDO** United Nations Industrial Development Organization
- **LBA** Licensed Buying Agents
- **CDU** Cocoa Development Unit
- **CRIN** Cocoa Research Institute of Nigeria
- **BDS** Business Development Services
- **VBA** Village Buying Agents
- **FADU** Farmers Development Union
- **NIFOR** NIFOR Nigeria Institute for Oil Palm Research
- **TCU** Tree Crop Unit
- **FFB** Fresh Fruit Bunch
- **FFA** Free Fatty Acid
- **LO** Liaison Officer
- **KII** Key Informant Interview
- **FGD** Focus Group Discussion
- **CFAN** Cassava Farmers' Association Nigeria
- **SSA** Senior Special Assistant
- **GIS** Geographical Information System
- **MoU** Memorandum of Understanding
- **LG** Local Government
- **GM** Gross Margin
- **NIRSAL** Nigeria Incentive-Based Risk Sharing System for Agricultural Lending

Executive Summary

This study was informed by the need to understand the public policies of the three focal states (Delta, Edo, and Ondo) with respect to access to agricultural land and how such policies are being implemented. Starting with the national policies and efforts at alleviating the problems of access to agricultural land some past and present policies and programmes of the federal government were reviewed. To get a proper handle on these issues, it is important to adopt a value chain approach since it affords the opportunity to comprehensively study the factors influencing such issues. As part of the methodological approach, government officials were interviewed not only to gain an insight into the policies of the government but also to understand the extent of compliance and challenges of implementation of such policies. While many government officials felt free to discuss, they were extremely reluctant to part with concrete data as empirical evidence to support their claims. To achieve representativeness a two-stage purposive sampling approach was adopted wherein the first stage is to divide each state into senatorial districts, after which one community was chosen in each senatorial district in each state. In the chosen communities, focus group discussions were held to discuss the issues of access to agricultural land and gain some understanding of the supply side. At the end of the exercise, there were in total ninety (90) farmers (10 per community) as respondents, forty-five (45) respondents each of the following categories; marketers (5 per community), inputs dealers (5 per community), marketers (5 per community), processors (5 per community), and transporters (5 per community), across the three states.

After the collection of primary data from the respective states, responses from the sample survey were analyzed using parametric statistical tools. The results of the analysis have been presented and discussed in detail. For example, there was no out-grower scheme in any of the communities sampled. The farmers and other value chain actors were very cooperative and transparent in their responses. It was discovered that access to farmland is not considered the biggest challenge of small farmers. Working capital as a source of access to production inputs is considered by farmers as the top priority. For the so-called big investors, they ride on governments' goodwill to acquire large parcels of land which some of them cannot access the finance to carry out investment on the land. Governments, therefore, especially in Edo State, has had to revoke some rights of occupancy to pave the way for more serious investors that are ready to hit the ground running. The idea of the land bank committee and digitization in the states is worthy of emulation. Similarly, the practice in the three states of clearing and preparing farmland ready for occupation is highly desirable. This is so because of the exorbitant costs and land tenure issues that government can assist in overcoming through such interventions.

Access to agricultural land was discovered not to be as difficult as imagined for the small-scale farmers. This cannot be said to be true for the big investors that always need government as a broker (between investors and communities) in such agricultural land deals. It was also discovered that many of the agricultural land allocated in the past secured by certificates of occupancy remain undeveloped. This is partly because the investors had difficulty raising investible funds. As a result, states like Edo start by giving land for agriculture in installments of 500 hectares. One of the findings emanating from this study is that many unemployed youths allocated farmlands and even supplied with production inputs abandoned the farms. This is due to the faulty process of recruitment. Appropriate screening rather than political patronage has been recommended. Agricultural land is difficult to buy or lease (on a long-term basis) in Delta State because of scarcity given the fact that the man: land ratio is very high in the maritime state unlike in Edo and Ondo States.

Digitization of available land in all the states and the land bank committee will, to a large extent, help in the appropriate allocation of land. At a glance, it will be possible to know vacant lands as well as allocated land whenever approached by prospective investors.

In conclusion, this study has revealed the state of affairs in access to agricultural land in the three states covered. It is particularly revealing that many of the states are not doing enough to assist real farmers in expanding their farming businesses. They are also helpless in assisting some vulnerable groups such as unemployed youths and women in their quest to access agricultural land for productive ventures. In many cases, they are left to sort themselves out. As for the big investors with sufficient resources, the story is different as they can access significant land with the assistance of the State governors. In general, the three states acknowledge the fact that access to land is a big problem and binding constraint in agricultural production.

1.0 Background of the study

Access to land is a fundamental means whereby the poor can ensure household food supplies are met and generate income through production and processing. This applies both to societies in which subsistence agriculture is prevalent, where access to land is the sine qua non of household food security; and to societies where agriculture is more market-oriented, in which family farming provides a principal source of employment-generating the income with which to buy food (FAO, 2006; Garner, 2015).

Access to arable land is a major constraint to the increased productivity of smallholder farming in Nigeria. Lesser farmland has consequences for productivity, income, and the wellbeing of the vulnerable smallholder farmers and the rural population where these farmers are clustered (FOA, 2006). There has been some anecdotal evidence that smallholder farmers in the crop value chain in the South-South region of Nigeria do not have adequate access to arable land for increased production. The evidence shows that differences in land access of smallholders are large, resulting in significant differences in production, income, and wealth. In many instances where smallholders are allowed to expand their farms, then they are allocated land in virgin forests and are consequently faced with the challenge of the high cost of clearing and preparing the land for cultivation.

PIND's Cassava Value Chain Analysis, Palm Oil Value Chain Analysis, and Cocoa Value Chain Assessment (PIND, 2011) identified limited access to farmlands for expansion as a major infrastructural constraint for increased crop production in the Niger Delta. This coupled with low yield and productivity (due to poor farming practices) has limited the capacity of farmers to take advantage of the potential that exists in the agricultural sector. PIND's interventions in the cassava, cocoa, and oil palm sector have focused on improving the productivity of farmers through training and demonstrations of improved practices as well as increasing access to quality agro-input that will guarantee increased yield and productivity of farmers to meet the demands of a growing industrial sector and the needs of a large food market. Taking these interventions to scale would require access to additional lands for new and existing farmers across the region to implement improved practices.

Hence, the purpose of this study is to understand the underlying issues and guiding principles of land availability and allocation for the cultivation of arable and cash crops – with a focus on cassava, cocoa, and oil palm. This assessment would also provide evidence-based data of the economic value of increased production with which to engage government and communities to increase access to agricultural land to smallholder farmers.

1.1 Objective of the Study

The specific objectives of this assessment are divided into three broad categories:

i. Government – policies and programs

This assessment would review past and ongoing government crop programs and explore the impact on smallholder farmers. It would try to understand why the government's interventions do not make provisions for land allocation despite the land tenure system. It would examine why such programs have not worked in the past and the lessons learned. The study would analyze government land policies and the guiding principles of government reserved land for agriculture. It would seek to identify existing government reserved agriculture land in the focal States and particular communities where this is prevalent within the states.
The study would identify factors that affect the proper implementation of agricultural land programs and policies for smallholder farmers and the limitations of out-grower schemes designed to feed both the local and industrial markets.

ii. Community – land management and allocation

The assessment would attempt to select and profile three communities per focal State to understand the dynamics of the communal land management structure. It would seek to understand the systems adopted for land sharing in the profiled communities

and identify possible constraints to availability and access to farmers.
The assessment would also investigate the land fallow systems practiced in communities and explore alternatives methods of farming that would increase productivity with maximum utilization of land. The assessment would investigate how these practices affect women and measures that can be explored to improve access.

iii. Value chain actors – farmers associations, large agro companies

The study would attempt to identify and garner lessons from farmers associations and agro companies that had done out-growers' schemes. The study would try to understand the interactions amongst the different actors in such a scheme and related to the issue. The assessment should answer the questions of what is the type of relationship that exists between the actors. How can it improve? What are the constraints and where does the opportunity exist to make an impact.

1.2 Scope of Work

The scope and focus of the assessment are first to source data, analyze the data, and recommend an advocacy strategy with which to engage both government and community leadership structures to make land available for smallholder farmers. The Consultant shall review relevant policy documents, programs, and strategies in the agriculture and other relevant ministries from the focal States. There shall also be an extensive review of agriculture programs and the priority commodities that they support.

The use of participatory processes is mandatory for this engagement. Critical reflection of how this issue impacts the different demography in the agriculture sector: civil society, youth, women, business community, and other stakeholders is integral to developing an effective advocacy strategy that can result in a meaningful change. As such, the Consultant will be expected to liaise with the State officials, communities, CSOs, market development service providers, and co-facilitators.

A desk review of successful land policies that supports smallholder farming like the Cross-River cocoa cultivation model, the Ogun State agriculture land allocation program, and similar programs within Nigeria and other parts of the world

1.3 Limitation of the study

There are three limitations to this study. First, the smallness of the sample size concerning the number of communities studied which compromises representativeness. One community sampled in each of the three senatorial districts in a state leading to a total of nine communities in all the three states.

The second limitation is the limited time allowed for the study. The field trips and surveys were rushed while data analysis and report-writing were not given enough time. It is however understood that resource constraints must have been responsible for both the first and second limitations.

The third limitation is the reluctance on the part of state government officials (civil servants) to release official documents even where those data are already stale and already available in the public domain. This dearth of empirical evidence constitutes a limitation to this study.

2.0 Literature Review

2.1 Land Administration, Agricultural Programmes and Agricultural Value Chains

Land Administration in Nigeria

The land is an authentic factor of development in the agricultural sector of any economy. The total landmass of Nigeria is 924,768 sq. km while the estimated population as of 2018 was 200 million; the annual population growth rate is 2.8% (National Population Commission, 2018). Given the Land Use Act (1978), land accessibility and title ownership are expected to be determined by the state (Udoekanem et al., 2014). The land tenure system is characterized by many actors such as the government, community leaders, families, lawyers, middlemen, and estate agents, among others. The activities of all these actors are regulated and controlled by the government via policies and programs (Oluwatayo et al., 2019). The land tenure system in Nigeria has changed over the years as grouped into pre-colonial, colonial, postcolonial periods, the 1978 Land Use Act era, and the 2009 National Land Reform Program (Babalola, 2015; Ghebru and Okumo, 2016).

The Land Use Act of 1978 in Nigeria specifies that all land belongs to the government which holds the same in trust for the public (Alarima et al., 2012). This suggests that the government allots land to individuals and corporate entities based on the objectives of interested parties (Oloyede et al., 2014). This is however not the case as the allocation of land is usually primed by political considerations, corruption, and lobbyist tendencies. The land use act gives the opportunities to own lands without recourse to families and communal landholdings. The procedure involved in obtaining certificates of tenancy is full of bureaucratic bottlenecks, high registration fees, and payment of levies and taxes (Chikaire et al., 2014). The reality of ground now is that land tenure is administered by customary laws, especially in rural Nigeria. Hence, tenure security becomes poor as the businesses in the land market are mainly informal (Oluwatayo et al., 2019).

Rural Nigeria is mainly agricultural because 85% of its inhabitants depend on agriculture for their livelihood. However, land accessibility is restricted as families and community heads still control land thereby influencing access to land. Going by the Land Use Act 1978, it suggests that the recipients of the communal land distribution system are not formally recognized as the legal holders of the right to the land. Also, family and community heads depend on memory and reference to natural and artificial features to define plots of land that are being susceptible to uncertainty concerning the location of boundaries. This is because most communal land allocations are not documented (Twene, 2016).

Land availability influences food and livelihood security considering the level of agricultural development in Nigeria (Odoemelam et al., 2013). Farming processes will remain at subsistence level because of inadequate land accessibility. About 95% of agricultural lands in Nigeria are not titled. This weakens the farmers' capacity to use lands as collateral to access credit from financial institutions (Hull et al., 2016). Chart 1 shows the areas planted to selected arable crops in Nigeria between the years 2000 and 2015. Though the population of Nigeria has been increasing over time, the areas planted with the key arable crops have not experienced any significant increase. This is contrary to the expectation of more land being devoted to these crops as a result of the increasing population.

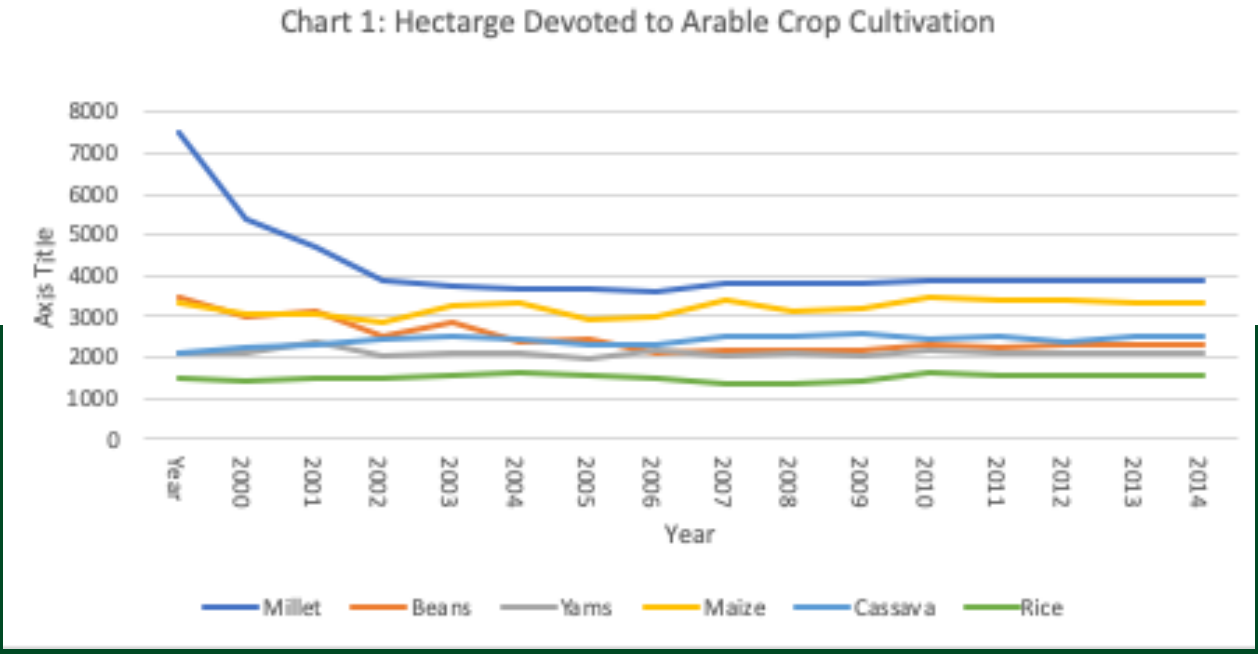

Figure 1: Chart based on Data from the National Bureau of Statistics, 2017

Agricultural Land Policy and Programmes in Nigeria

In the early '60s, Nigeria's agricultural sector was able to thrive on export crops with little support from the government. However, problems started to emerge when there were increasing food supply shortfalls, rising food prices, and declining foreign exchange earnings from agricultural exports. To address these serious problems, the government initiated several agricultural policies, programs, and projects, largely within the framework of three successive national development plans from 1970 to 1974, from 1975 to 1980, and from 1981 to 1985. Experience from these policies, programs, and projects have, however, convinced the government and all those concerned with agricultural development efforts in Nigeria that there is no alternative to well-designed and articulate agricultural policies as instruments for promoting agricultural growth and development in Nigeria. It is, therefore, in the realization of this fact that the government has adopted a comprehensive package of policy instruments to further develop and improve the performance of the country's agricultural sector (FMAWRD). Some of these policies and programs were directed at facilitating access to land by smallholder farmers. Some of these policies and programs are reviewed in the following section.

Farm Settlement Scheme (FSS)

This was initiated by some regional governments in Nigeria and was a critical element of the Western Nigeria Policy of Agricultural and Natural Resources of 1959. The main objective of this scheme was to settle young school leavers in a specified area of land, making farming their career thereby preventing them from moving to the urban areas in search of white-collar jobs. These settled farmers were also to serve as models in good farming systems for farmers residing in nearby villages to emulate. However, the program was faced with some challenges which include: the naivety of the settlers in farming resulting in a high level of dropout from the scheme, the assumption of the settlers of getting a paid job by mere participating in the scheme, withdrawal of the participants from the scheme as soon as their allowances were stopped, and the high cost of establishing a viable farm settlement in terms of cash and human capital requirement.

Operation Feed the Nation (OFN)

The program was launched in 1976 to bring about increased food production in the entire nation through the active involvement and participation of everybody in every discipline thereby making every person partly or wholly feed him or herself. Under this program, every available piece of land in urban, suburban, and rural areas was meant to be planted while government-provided inputs and subsidies (like agrochemicals, fertilizers, improved variety of seed/seedlings, day olds chicks, machetes, sickle, and hoes) freely to government establishments. Individuals received these inputs at a subsidized rate. Specific challenges that serve as impediments to the success of the program include:

- Giving of Preference to government establishments and individuals in authority over the poor farmers (real producer of food) in terms of input supply.
- The supply of food outweighed its demand because many people produced part or almost the whole food they consumed.
- There was an incidence of endemic poultry diseases especially the new castle disease that wiped out the birds due to lack of quarantine and necessary routine inoculation vaccination.

River Basin Development Authorities (RBDAs)

River Basin Development Decree was promulgated in 1976 to establish eleven River Basin Development Authorities (RBDAs) (Decree 25 of 1976) (Ayoola, 2001). The scheme became necessary because of persistent short rainy seasons in many parts of the country, which has continued to restrict cultivation to single cropping patterns the year-round. Thus, by providing irrigation facilities and enabling multiple cropping, the scheme indirectly increased the area devoted to the cultivation of arable crops in a year. Also, the scheme led to the acquisition and development of more land for agricultural production purposes.

The initial aim of the authorities was to boost the economic potentials of the existing water bodies particularly irrigation and fishery with hydroelectric power generation and domestic water supply as secondary objectives. The objective of the program was extended to other areas most important to production and rural infrastructural development. Due to the establishment of various large-scale irrigation facilities, the country witnessed unprecedented multiple cropping patterns. Also, larger areas were put into cultivation, while livestock and fisheries production were also intensified. Problems found in the program were: several RBDAs grew out of proportion and the operations of some suffered from intensive political interference. Besides substantial public funds were wasted in streamlining the sizes and functions of RBDAs through the disposal of their non-water assets.

Directorate for Food Roads and Rural Infrastructure (DFRRI)

The Directorate was initiated in Nigeria in January 1986. It was a kind of home-grown social dimension of adjustment (SDA) that was embarked upon in most- African countries by the World Bank, African Development Bank, and the United Nations Development Program (UNDP). The program was designed to improve the quality of life (improvement in nutrition, housing, health, employment, road, water, and industrialization) and standard/level of living of the rural dwellers using many resources that exist in the rural areas and mass participation of the rural people. The idea of opening up rural areas with feeder roads and integrating them with other parts of the country facilitates the transportation of food across the country. This enhances the quantity of food and raw materials consumption across the country. The poor quality of infrastructures provided by the directorate probably due to embezzlement/ mismanagement of funds made the impact of the program almost insignificant. The directorate was criticized in the past for lack of proper focus and program accountability (Idachaba, 1988).

National Agricultural Land Development Authority (NALDA)

This was established in 1992; the authority aims at giving strategic public support for land development, assisting and promoting better uses of Nigeria's rural land and their resources, boosting profitable employment opportunities for rural dwellers, raising the level/standard of living of rural people, targeting and assisting in achieving food security through self-reliance and sufficiency. The agency was able to develop 16,000 hectares of land. Out of this, 12,984 (81.1%) were cultivated with various crops. It also provided extension services to farmers at project sites. The major aim of the program is to move farming from subsistence to commercial level.

National Fadama Development Project (NFDP)

The first National Fadama Development Project (NFDP-1) was designed in the early 1990s to promote simple low-cost improved irrigation technology under World Bank financing. The main objective of NFDP- I was to sustainably increase the incomes of the Fadama users through the expansion of farm and non-farm activities with high value-added output. NFDP adopted a community-driven development (CDD) approach with extensive participation of the stakeholders at an early stage of the project. This approach is in line with the policies and development strategies for Nigeria, which emphasize poverty reduction, private sector leadership, and beneficiary participation. Phase one of the National Fadama Development Project was implemented in the 1993- 1999 period in some selected states ADPs to encourage and facilitate resource-poor farmers to embark on dry season farming to generate increased income and alleviate poverty. Fadama II was a follow up to the implementation of Fadama I, and sought to address the noted shortcomings of Fadama I.

Fadama II's strategy represents a shift from public sector domination to a community-driven development approach. After this, came Fadama III building on the objectives of Fadama I and II. At this third level, the World Bank has drastically reduced its support to a minimal level to enable the various stakeholders to consolidate on the precedents set by the World Bank. Overall appraisal of the first and second phases of the project show remarkable success, hence the invention of the current third phase. The problem associated with the project lies in the fact that unskilled handling of water application through irrigation can degrade and deplete the soil of its productive capacity (Afolayan, 1997) while environmental impact assessment conducted on behalf of the NFDP showed that the program did not pose a serious threat to the environment (Agriscope, 2001).

2.2 Land Administration in Edo State

Before the Land Use Act came into effect, Land in Oredo, Ovia, and Orhionmwon Local Government Areas of Old Bendel State (now Edo State) was vested in the traditional authorities. The functions of the traditional authorities were legislative, administrative, and judicial. These functions, concerning land, directly relate to the issue of ownership, control, and management of land. Within the ambit of these functions, new laws and guidelines were created, normally with the advice and consent of traditional councils. And, because the land was invariably the most important capital at the time, these laws and regulations invariably related to the use, control ownership of land within the different groups in the society. Before the enactment of the 1978 Land Use Decree, the supremacy of traditional rulers (the Oba of Benin) over land had been established. (Osemwota, 1989). According to Osemwota (1989), the majority of the sampled traditional rulers agreed that traditional rulers historically (i.e before the advent of colonialism and modern forms of government) owned, controlled, and managed land in the study area. Seventy (73.3%) of the respondents believed that traditional rulers, particularly the paramount executives, were the owners of the land in theory but held it in trust for the community in practice. Another 6.7% of the respondents stated that the traditional ruler had the power to appoint others to superintend over the land on his behalf. In terms of control of land, 77% stated that control of land rested with the paramount traditional ruler, while 22.6% believed that village heads and subordinate chiefs helped in the control of the land. The majority (56.2%) of the respondents perceived the traditional ruler as the one who grants land to persons and settles land disputes. It was perceived by 86.6% that the role of traditional rulers in land administration has since changed.

About 76% of the respondents indicated that all state land is now vested in the Governor while 9.3% grieved that traditional rulers no longer enjoy the right to make direct grants of land to individuals.

Land Policies and Programmes in Edo State.

In 2014, the Edo Government acquired 410,000 hectares of land in the state, for investments in agriculture by the private sector. Out of this land, 50,000 hectares of the land had been set aside for the cultivation of rice by the Dangote Group, while 60,000 hectares were acquired for the cultivation of oil palm by the United Food Industries Limited, makers of Indomie noodles. The remaining 300,000 hectares had been kept for other investors interested in farming activities, also, the land was allocated to youths interested in agricultural activities and measures have been put in place to ensure proper use of such land (Oroh, 2014). The estimated areas and outputs for cocoa, oil palm, and rubber in Edo State during the 2004/2005 season and estimated area and outputs for cocoa, oil palm, cassava, maize, yam, and plantain in Edo State during the 2010/2011 season are presented in Tables below.

Table 2.0.1: Sample size in each community

S/N	Crop	Area ('000 hectares)	Production ('000 tonnes)
1	Cocoa	55.92	12.10
2	Rubber	10.05	6.03
3	Oil Palm	90.17	67.63

Source: Consultative Committee on Agricultural Export Commodity Statistics (CCAECS) (2007)

Table 2.0.2: Estimated Area and Production of selected cash and arable crops for Edo State in 2010/2011

S/N	Crop	Area ('000 hectares)	Production ('000 tonnes)
1	Cocoa	102.49	26.04
2	Oil Palm	93.13	66.98
3	Cassava	50.21	504.43
4	Maize	74.83	151.69
5	Yam	35.03	563.56
6	Plantain	23.61	108.29

Source: National Bureau of Statistics/ Federal Ministry of Agriculture and Rural Development (2012).

Recent efforts to improve the narratives on agricultural production in Edo State has led the Government to take some actions which include the cultivation of 2,500 hectares of rubber plantation at Urhonigbe in Orhionmwon Local Government Area by the State Government (Edo State Government, 2018); the donation of 51 ha of land to start the Edo Oil Palm Initiative (Edo Invest, 2019) and a total of 500 hectares of land being set aside for the cultivation of cassava in Edo State with youths cultivating 200 hectares and the remaining 300 hectares for other cassava farmers (Business Day, 2017). As part of the efforts to boost cassava production in the Niger Delta and enhance local processing capacity, PIND partnered with Ere-Egwa Farms, Edo State Government, and Edo State Farmers' Cooperative Agency to establish a cassava farmers out-growers' scheme on 3,000 hectares of land in Edo State and establish a factory which will use the feedstock of the cassava as raw materials to produce industrial starch (PIND, 2020). Another program called Edo Agropreneurs Programme (EAP) will use 4,400 hectares of land across the 18 Local Government Areas of the state for agricultural related activities in the State (Edo Invest, 2019).

Edo State Geographic Information Service (EDOGIS)

Edo State has a law that regulates land administration which is called Edo State Lands Administration and Geographic Information Service Law, 2018. The Law came into operation on the 3rd day of April 2018. Based on the law, the State Government established the Edo State Geographic Information Service (EDOGIS) to establish and maintains State Geographic Information System to be known as the Edo Geographic Information System to enhance land use, management, and administration in the State; compile and collate information and data about land in the state and provide products and services derived therefrom and other related information to the Government and the general public; establish and regulate the standards to be applied in the compilation of data relating to land and its administration in the state; maintain and manage all copyrights and patents over all such data generated in the course of its duties on behalf of the State Government; and notwithstanding any provision in any other law, have responsibility for all land administration matters and enforcement in the state. The duties of the Agency were specified as: to introduce, implement and sustain best practices for land administration services in the state; ensure that the system of land administration supports

the development of social and economic rights in the state; ensure that the state's geospatial data conforms to National Standards; and undertake registration of all land titles and instruments in the State including but not limited to the issuance of certificates and recertification of land instruments in cases where certification had been carried out before the coming into force of the Edo State Lands Administration and Geographic Information Service Law, 2018.

2.3 Land Administration in Delta State

Before the introduction of the Land Use Act, 1978, land was largely owned and administered by the community, village, or family in most of the present Delta State. With the introduction of the Land Use Act, 1978, ownership of land in the urban areas became vested in the Governor while the non-urban land was vested in the chairman of the Local Government Council (Ajabor and Uwagboi, 2015)
Though the State Government now has a major role to play courtesy of the Land Use Act, 1978, the Land Administration System in the state is focused on parcels titling and land ownership for residential and commercial purposes. Certificate of Occupancy (C of O) for farmlands is restricted and uncommon particularly within the low-income group of farmers. The administration of agricultural lands is still largely within the purview of native land law and custom for the peasant farmers and individual plantation ownerships (Dabiri, Oluseye, Thomas, 2015). The current configuration of land administration in Delta State has not made it easy for potential farmers to easily access land for agricultural purposes. This was confirmed by the Delta State Medium-Term Development Plan (DSMTDP) 2016 – 2019 (Delta State, Ministry of Economic Planning, 2020) which states that lack of access to land for intending youth farmers due to land tenure system is a constraint worthy of note in the plan.

Land Policies and Programmes in Delta State

The Farm Settlement Scheme
The farm settlement scheme in Delta State was aimed at providing contiguous land for medium-scale agricultural production to boost food security and improve the economy, creating employment, and encouraging trained youth to live in settlements. Available data indicate that during 1999-2003, N21.6 million was spent on projects in three settlements, Mbiri, Utagbo-Uno, and Okunigbo, and 85 ha. of oil palm plantations were established at Mbiri and Utagbo-Uno. The full attainment of the objectives of the farm settlement schemes is rated as 'unlikely', especially considering that other programs initiated after 1991 are competing with the schemes for the attainment of similar objectives (Delta State Ministry of Agriculture and Natural Resources, 2016). Despite this conclusion, the farm settlement scheme is, conceptually, still a veritable tool to support start-ups in agriculture; it has the potential to make it easy for new entrants into agricultural production to start in that it provides easy access to land and other basic infrastructures.

Communal Farms
The objective of the communal farms is to assist youths in communities to establish farms as business ventures, to provide employment, curb youth restiveness, and reduce poverty. During 1999-2003, more than 2,000 ha of land was cultivated by 223 participant farmers in three communal farms (Ogwashi Uku, Irri/Aviara, and Deghele). Based on the interaction with beneficiaries, the achievement of the objectives of the communal farms is rated as 'likely'. However, there is a need for better communication with the participants and more efficient and timely government facilitation of access to inputs and financial resources (Delta State Ministry of Agriculture and Natural Resources, 2016). While communal farm as a model for gainfully engaging youth is good and in line with some age-long traditional practices, it is not a model that can enable individual youths to grow on their own and be self-sustaining over time. The model will keep relying on government support for organization and input supply even if the inputs are given on credit. However, like the farm settlement, the scheme guarantees easy access to land for agricultural purposes.

Cassava Development Scheme
The goal of the cassava value chain development scheme is to upscale cassava production by enhancing yields on already existing farms and expanding cassava cultivation to unused suitable lands. Towards this goal, the government will take an integrated set of measures in the designated production clusters as follows:

- Facilitate access to land for the expanded cultivation of cassava.
- Support land clearing and preparation as well as land development to ease the cultivation of cassava.
- Scale-up the use of high-yielding cassava varieties by increasing the access of farmers to improved planting materials and promoting the use of efficient production inputs such as fertilizer and agrochemicals.
- Provide support for the training and enlightenment of farmers in improved crop

and soil management practices to enhance productivity.
- Promote cassava marketing arrangements to create price and demand incentives for farmers (Delta State, Ministry of Economic Planning, 2016).

One of the actions Government planned to take under the scheme involves the use of its powers under the Land Use Act of 1978 to facilitate access to land by cassava farmers. This has the potential to make increase the land available for agricultural production in the state.

Oil Palm Development Scheme
Under the oil palm value chain development scheme, the government will undertake an integrated set of measures as follows:
- Support the rehabilitation of oil palm estates, expansion of existing oil palm plantations, and/or establishment of new plantations using improved seedlings and providing subsidies to farmers.
- Support the development of nurseries for raising oil palm seedlings by encouraging private nursery operators, for example, to raise improved tenera seedlings for distribution to smallholder oil palm farmers.
- Promotion of improved methods of bunch harvesting and handling through the provision of subsidized motorized harvesters to ease fresh fruit harvest and enhance yields.
- Provide subsidy for the use of yield-increasing oil palm production inputs such as fertilizer, herbicides, and wire collar.
- Support the establishment of cottage oil palm processing mills situated within designated clusters of smallholder producers. The oil palm processing mills will be established in partnership with local communities with the proper management structure in place.
- Facilitate the flow of private sector investments to oil palm processing and value addition to stimulate the establishment of oil palm estates as well as the maintenance of existing ones (Delta State, Ministry of Economic Planning, 2016).

Oil palm development, whether on a small, medium or large scale requires dedicated land for new plantation development. It is hence to be assumed that the Government of Delta State will facilitate access to land especially for largescale and corporate investors who may wish to invest in the oil palm sector of the state.

2.4 Land administration in Ondo State

The land is a stable and viable asset. It can serve as a store of value that generally appreciates. Those who appreciate this have made their wealth from buying and selling land. Over recent decades, explicit land transactions – sales, cash rentals, sharecropping – have become more common.

Before the introduction of the Land Use Act in 1978, ownership and use rights in land were vested in the family, kinship groups, and traditional authorities; the governance of which is summed in the customary land tenure systems. Studies carried out in Ondo State showed that the agricultural land market can operate efficiently under customary land tenure systems. It can be used to allocate land from land-surplus landowners to land-deficient migrant farmers. However, it can also lead to the conversion of good agricultural lands to non-agricultural uses with its attendant implications for household and national food security.

The responsibility for controlling and managing land in Ondo State rests on the Ministry of Works Lands and Housing. Three departments of land services, Urban and Regional Planning and Surveying undertake the task. Within the ministry, there was a land use and allocation committee created by the land use act for allocating lands to desiring members of the public. Currently, the Commissioner for Works on behalf of the Governor is now discharging the responsibility of allocating land. The allocation of land by the departments is restricted to government land, although they are responsible for the issuance of a certificate of occupancy to all landowners and users. To date, land use policy in Ondo state has been bedeviled with myriads of challenges ranging from; outdated land-use planning policies, laws, and regulations; inadequate manpower, the inadequate institutional framework for land management, inadequate funding amongst others (Aribigbola, 2008).

Land Policies and Programmes in Ondo State
The Ondo State Wealth Creation Agency (WECA)
WECA was established in 2009 to promote economic diversification and the creation of jobs in areas relating to agriculture and food security. It was designed to develop policies and programs that foster youth participation in agricultural entrepreneurship in Ondo State. The WECA program consists of the Livestock Unit, the Arable Cultivation Unit, the Aquaculture, and Fisheries Program, which had employed 100,000 youths in Ondo State. The Apiculture unit, which is responsible for the training of IT students from tertiary institutions on beekeeping and honey production, the Sericulture Section, which produces

silk used in the state's production of lawyers' wigs, and the Agro Business Cities Section. WECA exercises supervisory control over the Ondo State Agro Business Cities by facilitating financial aid for agribusinesses from the state government and training youths on modern agricultural methods while exposing the trainees to the entire value chain of agriculture through the initiatives.

The Agro Business Cities (ABCs) initiative was adapted from the farm settlement scheme introduced by Obafemi Awolowo under the old Western region. Four modern farm settlements called Agro Business Cities (ABCs) were established at

- Ore, in Odigbo Local Government area in the South Senatorial District
- Epe, in Ondo East Local Government Area in the Central Senatorial District
- Isuada in Owo Local Government Area in the North Senatorial District
- Auga, in Akoko North-East Local

Government Area, in the North Senatorial District
The Ore ABC spans over 3,500 hectares of land and was upgraded to international standards through its partnership with the International Institute of Tropical Agriculture (IITA). The farming activities carried out at the ABCs include; poultry, fishery, cattle rearing, arable farming, sericulture, and apiculture. The crop production section covers over 400ha of farmland. On cassava production alone, over 40 young people benefited from the training, many of whom had no previous experience in farming or were unemployed. The 40 graduates were equipped with improved business and management skills in commercial agriculture through the Nigerian Agricultural Entrepreneurship Curriculum (NAEC) training; and technical and practical training on agricultural mechanization through demonstration farms. Each farmer was provided with two hectares of land for cassava, resulting in the creation of 40 jobs. It should be noted that with an output of 3.8 million tonnes in 2016, Ondo State is one of the largest producers of cassava in Nigeria. The State claims to be the most efficient cassava producing state in Nigeria with an average yield of 17.8 ton/Ha (country average is 11 ton/Ha).

The Profarmers & Agropreneurs Sustainable Scheme (P.A.S.S)

The Profarmers & Agropreneurs Sustainable Scheme (P.A.S.S.) was launched on 19 May 2014. Young graduates are assigned and trained between 18 -24 months at the agro-business cities in the business of agriculture through the entire value chain of agricultural finance, the supply of input, production, preservation, and processing, packaging, marketing, distribution, and other services, including export. The Ondo State government provides all the agricultural inputs and basic facilities such as land, accommodation, electricity, and training under the scheme. With the support of the Federal government through the Graduate Internship Scheme (GIS), the graduates are paid a monthly stipend as upkeep. Aside from this, the scheme is also a participation-ownership scheme where participants (trainees) sell their produce to the Ondo State Government at competitive prices. The capital is re-invested into the business after sales, while the participants keep the profit.

Agro Women Initiative

WIA program is a national program, which is aimed at boosting women farmers' access to agricultural extension services, such as business training and education on new techniques. Many states in Nigeria adopted this program to increase food production and farm incomes, part of which includes providing for women farmers through the Women in Agriculture (WIA) program. However, the WIA program has not been successful in many states, with little evidence that smallholder women farmers are benefiting from it. WIA suffers from a lack of funding and because it has a rigid budget line within the ADPs, it cannot be adapted to meet the needs of the women farmers. However, in 2018, the Ondo State Government created a new budget line specifically targeting smallholder women farmers by allocating 2 million Nigerian naira ($5,560) to the initiative (Women Advance Deeply,2018). The goal of the Agro Women Initiative is to improve the agricultural productivity of women farmers in the state by providing them with funding and capacity building. Women farmers in the state working with the non-profit NGO, Life and Peace Development Organization (LAPDO) approved the new budget line after an advocacy campaign. Through a project that was funded and supported by the United States Agency for International Development (USAID) and the Foundation for Partnership Initiatives in the Niger Delta (PIND), LAPDO encourages women farmers in the state to have a voice in the sector, especially cassava women producers and fish farmers. The program has trained sixty women from the 18 local governments in the state in fish farming. Many women farmers in the state have an idea of how to farm fish. The initiative has armed the women farmers with updated techniques and practical information to help them earn a living from the activity. Women farmers are to be trained on how to tap into the cassava value chain. The initiative plans to educate women on how to use cassava flour to bake and how to store the flour to reduce its moisture content and increase its shelf life.

LAPDO also facilitated meetings with the rural women farmers in Ondo State due to the myriads of challenges the organization observed after conducting training (Making Markets Work for the Poor (M4P)) for the women farmers. These meetings led to the formation of a Cooperative Association of about 4,000 members. After the meeting, farmers were linked with service providers including an agricultural input dealer. The women provided land for Cassava demonstration after the linkage. The organization facilitated their relationship with an Engineering firm that would help them in constructing farming and processing equipment. They also facilitated their contact with FCMB bank for access to farmers' funds (PIND, 2016).

Cash Crop Farmers Credit Grants

Ondo State Government in 2019 secured an N200 billion facility from the Central Bank of Nigeria (CBN) for farmers of five major cash crops at a single-digit interest rate. The cash crops are cocoa, cashew, oil palm, shea butter, and sesame seeds. The State Government took the battle for the inclusion of the Cocoa and Oil palm sector to the highest level of the National Economic Council (NEC) where the breakthrough was achieved for the farmers. The conviction of CBN to advance the facility to the cocoa and oil palm sector as it did to rice farmers becomes imperative because Ondo State is a leading producer of cocoa and major producers of oil palm. This is important to ensure improvement in cocoa production which is the surest way to maximize the country's comparative advantages in cocoa production.

Cocoa Revolution Project

Ondo State Government has embarked on a Cocoa Revolution Project that is targeted at rehabilitating moribund cocoa plantations established on a 2,000-hectare land. The project is ultimately aimed at boosting cocoa production and introducing new premium hybrid cocoa seedlings that are disease resistant and harvestable in 18 months as opposed to 5-6 years. There are vast opportunities for cocoa production and processing for local and foreign consumption. The Cocoa Revolution Project coupled with the short gestation time of the improved seedlings would allow investors to make profits from cocoa within a shorter period.

Oil Palm Revolution

Ondo State is currently in partnership with Agro Bayu, a Malaysian firm to revolutionize all oil plantations located within the state. The targeted annual oil palm produce is 320,000 metric tonnes. There are three major players in the oil palm industry in State: Okitipupa Oil Palm Company Plc., Ore-Irele Oil Palm Company Limited, and Araromi-Ayesan Oil Palm Limited. The state is looking for opportunities to collaborate with private or institutional investors to resuscitate moribund companies and invest in large-scale production and processing.

Rubber Revolution

The state has a targeted annual production volume of 60,000 metric tonnes of rubber. This industry has one key player: Rubber Estates Company Nigeria Limited located on a 4,500-hectare plantation in the Araromi area of Ilaje Local Government in the State. There are huge investment prospects within the rubber industry and an avenue for investors to get a quick return on investment through the production and processing of rubber.

Forestry

The state is a major source of timber for construction and furniture making in Nigeria. It is endowed with rich forest reserves that have exotic and varied economic trees such as teak, gmelina, and indigenous tree species amongst others. To make industry entry easy, the government gives out licenses to participants in that industry to cut and process timber. The state has a volume target of 6 million cubic meters per annum. There are existing players in this industry such as Premier Timber industries and Wanwood Nigeria Limited. There are opportunities for local and foreign investors to set up timber processing plants and furniture factories in Ondo State because of the abundant presence of raw materials used in furniture making within the state.

Tax Incentives

Ondo State Government provides incentives for investors with interests in agro production and processing as compliant with the Nigerian Investment Promotion Commission. The incentives include tax credit for five years for all production and processing businesses (as provided under the Pioneer Status section). Zero tax on agriculture loans with a moratorium period of over 18 months and the repayment period of over 7 years; Zero import duty on machines and equipment; no capital allowance restrictions and no payment of minimum tax. Up to 75 percent guarantee for loans granted by commercial banks for agro-processing and production as stipulated under the Agricultural Credit Guarantee Scheme Fund.

2.5 Cocoa, Oil Palm, and Cassava Value Chains

The value chain describes the full range of activities that firms and workers do to bring a product from its conception to its end use and beyond. This includes activities such as planning/design, production, marketing, distribution, and support to the final consumer (Oguntade, 2013). The value chain is a progression of value-adding activities; it starts with the raw material and ends with the sale of the finished product or service. It describes the full range of activities which are required to bring a product or service from conception, through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers, and final disposal after use (Carter & Barret, 2006; Jansen, 2007). Value chain approaches have been utilized by development practitioners and researchers to capture the interactions of increasingly dynamic markets in developing countries and to examine the inter-relationships between diverse actors involved in all stages of the marketing channel (Karl, et. al., 2009). Value chain approaches can be used to intervene in value chains, in which there is a large number of poor households, intending to promote economic growth and reduce poverty.

The analysis of agricultural value chains provides an understanding of the chains' structure and the way they function by showing the various chain actors and their intricate relationships as well as the synergies between the actors.
There is this understanding that value chain approaches provide a good basis for planning and carrying out development interventions (UNIDO, 2009).

Photo Credit: https://unsplash.com/photos/opno2uWx0iE

Cocoa Value Chain

Functional analysis of the cocoa value chain in Nigeria is provided in Table 3. The table shows that several players are involved in supplying inputs in the cocoa economy. The LBAs provide credit in cash and kind, agrochemicals companies' representatives, dealers, and retailers; and state institutions (CDUs & ADPs) supply all kinds of agrochemicals. Cocoa pods and seedlings are supplied by the Cocoa Research Institute of Nigeria (CRIN) and state institutions (CDUs & ADPs). The cocoa farmers and sharecroppers are the main agents responsible for the establishment, maintenance, and management of cocoa farms as well as harvesting and processing of cocoa pod into cocoa beans. The marketing and transportation functions concerning graded cocoa beans are being performed by Village Buying Agents, Licensed Buying Agents, Cooperative Societies, Business Development Services (BDS) providers, and Produce Inspectors. Some of the cocoa beans that are not exported are processed into the cocoa cake, powder, and butter by cocoa processing firms (Oguntade, 2013).

Table 2.1.1: Nigeria's Cocoa Value Chain: A Functional Approach

S/N	State of Chain	Function	Agent	Output
1	Inputs Supply	Marketing, Transportation, Research, Extension.	Credit providers (Licensed Buying Agents), agrochemicals companies' representatives and dealers, state institutions (Cocoa Development Units, Tree Crop Units, ADPs), fertilizer companies, Cocoa Research Institute of Nigeria, etc	Inputs delivered to farmers Training and support services to farmers and their organizations
2	On-farm production	Establishment, Maintenance & Management,	Farmers, Sharecroppers	Cocoa tree stocks, Cocoa-pods, and beans
3	Off-farm/Post-harvest handling	Harvesting & Selling Primary processing	Farmers, Sharecroppers	Cocoa beans
4	Product Management Intermediate trade	Marketing, Transportation	Licensed Buying Agents (LBAs), Cooperative Societies, Village Buying Agents (VBAs), Business Development Services (BDS) providers, Produce Inspectors	Graded cocoa beans delivered to exporters or crushers in good condition.
5	Product Transformation	Processing	Cocoa processing firms	Cocoa cake, powder, and butter
6	Export trade	Handling, Financing, Marketing	Produce Inspectors, Cocoa bean Exporters, Cocoa processor, Banks	Primary and processed products exported

Source: Oguntade (2013). Cocoa Value Chain Governance in Nigeria, paper presented at the First Stakeholders' Meeting of the Kokodola Project, Continaf and Farmers Development Union (FADU), 17th October 2013

An analysis of Nigeria's cocoa value chain reveals some constraints in different aspects of the chain. A holistic intervention along the entire value chain will be more effective in addressing these constraints given the fact that activities of different players in the chain impact on each other. Studies have shown that the Nigerian cocoa value chain is characterized by inadequate information on cocoa farm assets, low income and limited level of diversification, unstructured trade, weak and poorly coordinated farmer organizations, inadequate support service system, need to improve R&D infrastructure, and threats to local processors (Oguntade and Folayan, 2006; Gilbert, 1997).

Photo credit: https://www.britannica.com/topic/cocoa-food

Cassava Value Chain

The functional analysis of the cassava value chain is presented in Table 4. The table indicates the existence of six functional stages in the value chain, some of which have several actors (agents). The critical input suppliers for cassava are farmers, research institutions (such as IITA), and ADPs). They all provide stem cuttings which is the most critical input after labor. Cassava cultivation is dominated by smallholder farmers and household members that are engaged in both upstream (production) and downstream (homestead processing & marketing) activities. Different levels of processing can be observed. There are homestead processing by farmers' wives, commercial processing by women who buy tubers for processing and sale of products, and toll processing in which "professionals" provide services for peeling, milling (grating), pressing, and frying. Few industrial processors buy cassava on a large scale for processing into starch and other derivatives for use in other industries as well as gari and fufu for the domestic market. In between these players are middlemen and women who perform different marketing functions (Oguntade, 2013).

Table 2.1.2: Nigeria's Cassava Value Chain: A Functional Approach

S/N	State of Chain	Function	Agent	Output
1	Inputs supply	Marketing, Transportation	Farmers, research institutions (IITA), public institutions (ADPs), extension agents, agrochemicals dealers, credit providers, equipment dealers, laborers.	Inputs delivered to farmers (cuttings, credit, chemicals, advice, implements, and fertilizers)
2	On-farm production	Cultivation, Maintenance/ Management, Harvesting	Farmers	Cassava tubers, stem
3	Post-harvest handling	Marketing, Transportation	Middlemen/women, processors	Tubers delivered to markets, and processors
4	Primary product transformation	Primary processing,	Farmers, cottage entrepreneurs, industrial processors	Gari, chips, flour, starch, etc.
5	Product Trading	Marketing, Transportation	Middlemen/women	Products delivered to end-users and consumers
6	Secondary product transformation	Secondary processing	Flour millers, textile manufacturer, a pharmaceutical company, livestock feed millers, pulp, paper, and packaging.	Composite flour, textiles, glucose, livestock feeds, drugs delivered to end-users, etc

The analysis of the cassava value chain shows that some of the constraints in the value chain include:

- Little or no use of purchased inputs by smallholder farmers because of the belief that it is a food security crop; it is resilient and therefore planted in poor soils with little fertilizer.
- Inefficiencies in the marketing chain vis – a – vis the high perishability of fresh cassava.
- The bulkiness and low value of fresh cassava which makes transportation costs to be a large share of the final price.
- The perishability and high water content of fresh cassava requires that processing plants be located close to production centers for fresh cassava
- The reliance on sun-drying for the processing of chips and flour which creates serious scale issues.
- The high labor intensity of processing operations, especially peeling, tends to constraint operational scale to small and medium levels.
- Other commercialized ventures (industrial starch users and animal feed manufacturers) have not been able to offer a high enough price to farmers to make cassava production sustainable.
- There is poor coordination among value chain actors leading to cycles of glut and scarcity. (Meridian Institute, -)

Oil Palm Value Chain

An overview of the oil palm value chain in Nigeria is provided in Table 5. The table shows that Public institutions (ADPs, NIFOR, TCUs), extension agents, agrochemicals dealers, credit providers, implement traders are the sources of inputs for oil palm production. Sprouted seeds and seedlings of oil palm are supplied by the Nigeria Institute for Oil Palm Research (NIFOR) while TCUs and ADPs supply seedlings.

The farmers and sharecroppers are the main agents responsible for the establishment, maintenance, and management of oil palm plantations as well as harvesting and processing of fresh fruit bunches into palm oil and palm kernel. There are toll millers who mill boiled palm nuts for processors (farmers, women, etc). There are also large-scale plantations with industrial processing capacities that are owned by oil palm companies. They process their FFBs into palm oil and cracked palm kernel to obtain the nuts. Processors process palm kernel into crude and refined vegetable oil. Of course, some middlemen are performing various marketing functions concerning these commodities. Some of these middlemen include VBAs, LBAs, Cooperative Societies, and Produce Inspectors (Oguntade, Daramola, and Akinola, 2010).

The analysis of the oil palm value chain indicates that some of the challenges facing the value chain are:

- Lack of quality parameters for local oil palm trade.
- High FFA level of palm oil produced by most FFB processors
- High iron content (residues from oil mills) due to non-utilization of food-grade steel in the fabrication of micro mills which might endanger the consumers' health/
- Low extraction rate
- Widespread presence of low oil yielding semi-wild varieties among oil palm trees at the grove/ farm level.
- Inadequate public support infrastructure
- The proliferation of adulterated seeds and seedlings
- Increasingly limited access to land for new plantations
- The continuous destruction of the wild grove:
- High Cost of transportation
- Inappropriate milling technology
- Under-capacity utilization

Table 2.1.3: Nigeria's Oil Palm Value Chain: A Functional Approach

S/N	State of Chain	Function	Agent	Output
1	Inputs Supply	Marketing, Transportation	Public institutions (ADPs, NIFOR, TCU), extension agents, agrochemicals dealers, credit providers, implement traders.	Inputs delivered to farmers
2	On-farm production	Establishment, Maintenance/ Management, Harvesting	Farmers	Oil palm trees, Fresh fruit bunches
3	Post-harvest handling	Primary processing, Marketing, Transportation	Middlemen, farmers, wives, drivers, and transport owners	Palm nuts and free bunches, palm kernel nuts delivered to markets, and processors
4	Product Transformation	Secondary processing	Oil millers, farmers, wives, palm kernel crushers, cooperative societies, and oil refineries.	Palm oil and kernels. Crude palm kernel oil, palm kernel cake, refined and bleach palm oil.
5	Product Trading	Marketing, Branding, Packaging, Transportation	Middlemen, Oil millers, oil refiners, cooperative societies.	Products delivered to end-users

Source: Oguntade, A.E., Daramola, G.A, and Akinola, A. (2010).

3.0 Methodological Approach

3.1 Pre-engagement Discussion with the PIND Officials

The Engagement Officer organized a pre-engagement discussion on the study in which the Liaison Officer (LO) and six PIND staff participated in on-board the Consultant into PIND. The discussion afforded both parties to seek clarifications as necessary before the commencement of activities.

3.2 Desk Review

Some documents on a similar study were provided to the Consultant to provide him an overview of the program. These documents were reviewed, and notes were taken of the existing structure of a similar study conducted by the PIND organization. The information provided was on the value chain actors of cocoa, cassava, and oil palm.

3.3 Study Area

The study area was determined by the client (PIND) and the Edo, Delta, and Ondo State.

3.4 Sample Size and Sampling

The sample for the study was determined using a multistage sampling technique. Edo, Delta, and Ondo States were purposively selected because of a similar study done by the client in the states. In each, one community per senatorial district was selected based on information obtained during the Key Informant Interview (KII) and client guide. As shown in Table 6, in each community, ten farmers, three processors, three input dealers, three transporters, and three marketers were selected for the study. Hence, two hundred and seventeen respondents were used for the study.

Table 3: Sample size in each community

S/N	State of Chain	Function	Agent	Output
1	Edo	North	Farmers Processors Input dealers Transporters Marketers	10 3 3 3 3
		Central	Farmers Processors Input dealers Transporters Marketers	10 3 3 3 3
		South	Farmers Processors Input dealers Transporters Marketers	10 3 3 3 3
2	Delta	North	Farmers Processors Input dealers	10 3 3

			Transporters Marketers	3 3
		Central	Farmers Processors Input dealers Transporters Marketers	10 3 3 3 3
		South	Farmers Processors Input dealers Transporters Marketers	10 3 3 3 3
3	Ondo	North	Farmers Processors Input dealers Transporters Marketers	10 3 3 3 3
		Central	Farmers Processors Input dealers Transporters Marketers	10 3 3 3 3
		South	Farmers Processors Input dealers Transporters Marketers	10 3 3 3 3
4	KII	Edo Delta Ondo	Senior staff of Ministry, relevance agencies, and farmers' ass. Senior staff of Ministry, relevance agencies, and farmers ass Senior staff of Ministry, relevance agencies, and farmers ass	7 6 6
			Total	**217**

3.5 Data Collection

The data collection instruments (structure questionnaire) were administered by a moderator with the support of a note-taker. A tape recorder was used for recording the sessions for quality control and back up purposes. This enhanced the reliability and quality of the process. Respondents for data collection were farmers, processors, input dealers, transporters, and marketers (Value chain actors). Focus Group Discussion (GGD) and Key Informant Interview (KII) were used to back up and ascertain the veracity of the data collected via the structured questionnaire.

3.6 Data Analysis

Descriptive statistics were used in analyzing the data collected. Descriptive statistics utilized include mean, standard deviation, frequency distribution, cross-tabulation and bar chart, histogram, pie chart.

4.0 Findings

4.1 Edo State

4.1.1 Land

Edo State government invested in the development of land for farming purposes. For example, the Edo State government established 100 hectares of farm settlement in Sobe, 800 hectares farm settlement in Ekpoma, 180 hectares farm settlement in Usugbemu near Irrua even though the plan was for 400 hectares. All these farm settlements were established to encourage the youths and existing farmers to have access to land for farming. Furthermore, 500 hectares farm settlement was established in Wareke in Edo North Senatorial District, 300 hectares were cleared in Iguokhiiari which was set aside as farm settlement, but the project was not completed because of communal clash. Again, 1000 hectares were cleared for farming in Oria, Isan South East for 500 women to be allocated at the rate of two hectares per woman for farming, but currently, 150 hectares of land were cleared and planning is ongoing to clear the remaining 750 hectares. 1,000 hectares of farmland have been approved for clearing in Ozalla. Another 1000 hectares approved by the state government for clearing in Emoora close to Ozalla, 400 hectares of farmland have been approved for clearing in Iddo near Ubiaja. Another 530 hectares of farmland have been approved in Uze close to Okada, but there has been no development on the land to date. In Eewu, 400 hectares of farmland have been approved for clearing. In Evbonogbeon and Udo, 427 and 400 hectares, respectively, have been approved for clearing. Again, 14,000 hectares of farmland were approved for Duffil for the planting of oil palm in Ogbomudeh. They have not started production.

Also, on the oil palm initiative, the Edo State government is developing 250,000 hectares of land for planting oil palm in the state. However, 55,000 hectares of ground-breaking was done. It has been allocated to farmers on five hectares per farmer. The project is Central Bank of Nigeria (CBN) supported and CBN is supporting the project with N69 billion. On acquisition of land, the state government set up a forest acquisition committee and the committee worked on a degraded reserved forest in the state. Hence, for every five hectares allocated for a farmer, four hectares are for farming and one hectare to plant a tree (reforestation). For the program, the Edo State government used degraded reserved forests. Sarro, NOSAL, etc have shown a commitment to the project and applied to CBN for assistance. Before now, the Edo State government gave out 2,000 hectares for farming, but people were not using the land. The government is now planning to revoke such land after three or four years if they refuse to use the land. Okomu is planting oil palm up to Owoude and Asaba. Oil palm is big in Edo State. For cassava, some companies are beginning to show interest, but most off-takers are not in the state but Ondo State. However, a company by the name of Asinata is planning to establish 40,000 litres of ethanol per day factory in the state. The company is partnering with the Cassava Farmers' Association Nigeria (CFAN) in Edo State to mop up their cassava production.

On cassava, 97,000 bundles of an improved species of cassava stem are to be distributed to the farmers by the IFA and the government is supporting a complete starter pack (cassava stems and other inputs), the focus of the program is cassava, maize, and sorghum. Cocoa is big business in Ovia, Akoko Edo, and parts of Edo South Senatorial District. Planting cocoa is like a business that such a Yoruba speaking area of the state have learned over the years. This year, Edo State distributed 97,200 cassava stems. The State plans to give each of the farmers a full package of the stem, fertilizer, and other inputs.

The Director of Land Service, Edo State Ministry of Agriculture and Natural Resources oversees agricultural land issue in the state. According to him, some land is vested in the family, community, and state government. Conflict issues on land are usually handled by the Ministry, example is the encroachment of 3,000 hectares of land owned by the Christ Embassy Church. The church initially allowed some people to use the land for farming and others are now trying to encroach into the land which is a common phenomenon in the state because the land is fixed (not easily accessible). The office has been working on how to broker peace. Again, what the Ministry does for investors is to help them verify any land they intend to buy or lease from the community for the authenticity of such land, and the Ministry of Justice is also involved in the process. Now, every interested user of land should

apply to the Governor directly. The Governor will then minute to the ministry for merit consideration. Presently, the ministry is geo-referencing all the land in the state. Once the exercise is completed, from the ministry, one can know the available land in the state. An example is the 2,000 hectares of the land application by Presco Ltd. A lot of forests has been released for development and Presco has paid compensation for the land up to Abraka. When a request is made to the Governor, the Governor will send it to the Commissioner. Governor will approve the 5,000 hectares in the first instance and if it is properly utilized, then such an organization can come back for more land allocation. This is done to avoid the problem of land being procured by persons/entities for speculative purposes.

Currently, in the state, there is no Ministry of the land but there is a Geographical Information System (GIS) unit. There used to be a state land allocation committee but not again. If a young graduate needs land for farming, such youths can come to the commissioner in a group and the commissioner will write to the director of forestry to allocate land for them in the forest reserved. In such a situation, one hectare per individual youth can be allocated for farming in the clustering of ten youths per cluster. This serves as a safety net for the youths and women in the state. According to the director, there is pressure on land in the government forest reserved by the cocoa farmers.

4.1.2 Cassava Value Chains

Even though oil palm is a major crop in Edo State especially Edo Central, cassava dominated the sample captured in the study. The reason for this could be attributed to the fact that Presco has taken over most of their land for oil palm production which made them go into cassava production. Therefore, the crop under consideration in Edo State was Cassava.

4.1.2.1 Farmers

The cassava farmers in the state explained that indigenes and non-indigenes can access agricultural land through family allocation and inheritance (for indigenes only), outright purchase, rent, or lease. The land is rented at the rate ranging from N10, 000 to N25, 000 per hectare per year while government reserve is rented out to the farmers at the rate of N 6,000 per hectare per year. Very few of the sampled farmers stated that the community experienced land conflicts which were caused by either disagreement within the family or herdsmen invasion. The majority of the respondents revealed that land was available for sale and the price is dependent on the location and acquisition of the Certificate of Occupancy (C of O). Land could be sold at the rate of N150, 000 per hectare in some locations while the rate could be N 1,500,000 per hectare for land with C of O and N 500,000 for land without C of O in some other locations. A majority (90%) of the respondents stated that land being used for farming was rented while 10% explained that the land being used for agriculture was purchased. The average farm size of the respondents was 6.02 hectares indicating that the farmers were operating on a small scale.

The identified constraints to access of agricultural land are financial problems, high cost of land, herdsmen attack, scarcity of land, and community problems. The means cassava output realized by the farmers in 2019 was 30,711kg. This is still buttressing the fact that the farmers operate on a small scale. About 40% of the respondents said they hired a tractor to clear their cassava farm in 2019, while all the respondents did manual harvesting in 2019. All the respondents said they bought their farm inputs from the community market and sold all their outputs within the community market. The major constraints to increased production as identified by the respondents are financial problems, pests and diseases, herdsmen invasion, storage problem, high cost of land preparation, weather problem, lack of extension services, and transportation problem. About 30% of the respondents claimed they had access to credit facilities in 2019 and the source was their various cooperative societies, LAPO Microfinance Bank, and money lenders. They were able to access above 88% of the loan they requested for. The respondents' other source of finance for farming activities was personal savings. Only 13% of the respondents said they were visited by the extension agents from the Edo State Ministry of Agriculture and Go ahead Farm in 2019. Cassava production was a profitable venture in the community with an average Gross Margin of N1, 835,545 per mean farm size of 1.214 hectares.

4.1.2.2 Processors

Processor Output

The sampled processors processed mean output of 75,184.3kg of garri in 2019. About 66% of the

respondents said their equipment was locally fabricated. All the respondents stated that they never received any assistance from the State Government or International Organizations. A majority (77.8%) of the respondents reported that their sources of raw material were their farms and other farms within the community. The mean processing capacity of the respondents' machine was 3,831.7kg of cassava per day, while 2,143.3 kg per day was the mean actual processing of cassava. This is an indication that there was a gross underutilization of the respondents' capacity. The majority of the respondents claimed that the time their equipment is most utilized was between July and November, while they all went into farming when their equipment was not busy. The respondents identified epileptic power supply, lack of finance, insufficient water, lack of firewood, and non-availability of waste disposal site as the major challenges limiting processing operations. They suggested that the government should assist with credit facilities and a stable power supply. About 77.8% of the respondents said they had an adequate supply of raw materials for processing in the year 2019 and 22.2% said they did not have an adequate supply of raw materials for processing in the year 2019. All the respondents stated that they had adequate demand for their products. The majority (66.7%) of the respondents sold their products to marketers within and outside the community. About 55.6% of the respondents sold to the middlemen within and outside the state. The land being used for the processing factory was purchased by the majority (66.7%) of the respondents. Land scarcity was the major constraint to access land for processing according to the respondents. The gross margin value of N2, 235,277.8 per annum indicates that the processing business is profitable.

4.1.2.3 Input Dealers

All the sampled input dealers were marketing agrochemicals, cutlasses, hoes, and other farm implements which they bought from Onitsha and Benin. About 55.6% of the respondents claimed they were wholesalers while 44.4% of them claimed they were retailers. The major customers of the respondents were farmers within the community. All the respondents sold right in their shop in the community market with a mean distance of 28km to the main market. All the respondents claimed that they got their supply directly from the factory and wholesalers, indicating that they were into large scale input marketing. All the respondents said the source of their working capital was either loan from Banks, Cooperative Societies, Families, and Friends, or Personal Savings. About 44.5% of the respondents said they got a loan in 2019 from their Cooperative Societies, Banks, or Friends, while 55.5% said they never accessed any loan in the same year. Those who got the loan in 2019 said they got between 75% and 100% of the amount they applied for. All the respondents stated that financial problem was the major challenge in the input supply business, and they all requested for financial assistance from the government and developmental organizations. A majority (88.9%) of the respondents said they belong to an association/union and claimed to have benefitted from loan and Information sharing from the association/union. The gross margin value of N2, 843, 999.8 per annum indicates that input marketing is a profitable business in the State.

4.1.2.4 Marketers

The agricultural produce being marketed by the respondents are cassava, watermelon, potato, cucumber, garri, plantain ad pineapple with the majority of them selling as wholesalers.

They all got their supply from farm gate and processors, while 66.7% sold to the customers within the communities in the State. All the respondents said they usually hire vehicles (Toyota Hilux, truck-like Dyna, Passat, Toyota Hiace, etc) to transport their agricultural produce to the market. The source of working capital of all the respondents varied from loan from Banks, Cooperative Societies to Personal Savings. Only about 33.3% of the respondents took a loan from either Cooperative Societies or Banks and claimed to have received between 50% and 100% of the amount applied for. The major challenges to marketing activities as identified by the respondents are financial problems, poor road network, and price instability. They suggested financial assistance, rehabilitation of roads, and making price stable as the solutions to the identified challenges in the State. The majority of the respondents said they belong to an association/union and claimed to have benefitted from loans from their respective associations. The gross margin value of N983, 868.7 shows that the marketing of agricultural produce is profitable.

4.1.2.5 Transporters

The agricultural produce being transported by the respondents are cassava, watermelon, cucumber, garri, oil palm, plantain, yam, pawpaw, cocoyam, rice, and fertilizer. The majority (77.8%) of the respondents said they belong to one association or the other. The respondents were using Ford bus, Dyna truck, Toyota Siena, and Pickup for their transport business. Some of the respondents said they were just the drivers while some were the owners of the vehicles used for transportation business. The average distance covered by the respondents per trip was 99.8km. The major

challenges facing the transport business were a bad road network, lack of security on the highway, and extortion from Union leaders. They all suggested that the government should assist in the construction of good roads, ensure maximum security on the highways, stoppage of extortion at the park, and with financial assistance. The gross margin value of N24, 111.70 per day shows that the transport business is profitable.

4.2 Delta State

4.2.1 Land

Subsistence farming and shifting cultivation were the predominant systems in the Agricultural system of the state in the past years. Thus, farmers were cultivating crops they need most to meet household food needs and moving from one parcel of land to another once they believed the soil nutrient status has been depleted. However, with the increasing population, shifting cultivation became inappropriate while production for the market increasingly became the vogue. The increasing population also changed the value people place on land hence the concept of individual land ownership came into play. Also, after the civil war, the inheritance system changed, the oldest son started to share inherited land with the younger brothers; the land became an inheritance and farmland became personalized. However, there are still community lands that are not owned by an individual. The community land is however reducing gradually because of the increasing population. Presently in Delta State, few communities have a community land and the king has ownership of community land.

There was a paradigm shift in the community land ownership because of the developmental projects and programs which led to land hunting. As a result of this, the government is now serving as an intermediary between the communities and private organizations. The parties involved are mandated to sign a Memorandum of Understanding (MoU) detailing the relationship between the community and the private entity. However, there are "enumerated" land in the state that private organizations can use for developmental purposes.

Access to Land for Farming

The land is not easy to access for farming in Delta State. This is because if a potential investor (farmer) secures (purchases) family land from a landowning family member of the community (aside from the landowning family) will always make trouble with the potential investor. Hence, the community members still have a strong say when it comes to accessing land in the state. Though land can be bought, the process is very difficult with various obstacles. Again, the land is sold (leased) usually for 99 years in the state. There is a land development committee and land bank in the State. There is always advocacy in any community where the government intends to solicit for land. Land conflict is common in the State.

Creation of Land Bank

The Delta State Government has adopted the land bank concept and has set up a land bank to serve as an intermediary between the landowners and the investors. Currently, the land bank has the following tracts of land.

i. 37,700 hectares of land was donated to the State government.
ii. 1,700 hectares of land were donated by the Abraka community for the cassava star program, Federal government cassava revolution program.[1]
iii. 1,500 hectares of land in Mosogah, but it is a secondary forest.
iv. 602,000 hectares in Oguwhaku, Delta North senatorial district out of which 200 hectares were given to Obasanjo Farms leaving 402 hectares. However, there are other investors on the land. They are planning to establish plantain and banana plantations on 30 hectares. Also, 100 hectares are being used for the cassava revolution program of the federal government and 130 hectares for cassava farming.
v. 612 hectares in Degele/Sapele, Central senatorial zone. The land is also good for rice and cassava. Governor planned to use the place for Polytechnic with some buildings there already but the plan failed.
vi. 513 hectares in Irrimede, Delta South senatorial zone. This is a swampy area that is prone to flooding. Therefore, cassava is being planted around November and harvested around August.

How Smallholder Farmers Can Access Land

Smallholder farmers in Delta State can access land for farming purposes through purchase from individuals, land-owning families, and communities through the heads of the communities, and government allocation. The smallholder farmer can

1 However, Presco is already laying claims on the land. The cause of the problem on the land in Abraka is lack of boundary between Edo and Delta State because the land was given to Presco by Edo State.

also lease the land, especially if it is for arable crops cultivation, rather than an outright purchase. If the smallholder farmer is an indigene, he could access land from his own family's or the community's land through allocation by the household head or community leaders. Which of the options will apply to a particular smallholder farmer will depend on which part of the state he wants to set up his farm, whether he is an indigene or not, and if he has the financial wherewithal to purchase the land or not.

Policy and Programs of Delta State Government on Agricultural Land

- In the State, the demand for land is more than the supply because the land is a limiting factor of production, and the price of land keeps increasing in the State. Again, the land is owned on trust for the family, hence, due to the loss of trust due to previous land-related developments, Delta state citizens are no longer willing to release their family and community land for developmental projects and programs. They have found out that when the government requested land from the communities for developmental projects and programs, such land is often shared among the politicians and the said projects and programs were not executed. For example, there is an on-going agro-park project, but the community in which the agro-park is being established is not supporting the project concerning land donation. Also, members of the communities are often factionalized because of local politics. Thus, if the government's request for the land is made through a contact that is considered to be in an opposing faction, the project becomes dead on arrival.

- Again, there is a herdsmen problem in the state concerning land and farming. Most time the herdsmen enter the state through the Mbirri forest reserve. This development made some communities resort to the use of traditional medicine to chase the herders away from their land. It got to a point when the Governor decided to appoint a Senior Special Assistant (SSA) on Hausa matters who was mediating between the Fulani Herders and the landowners in the state. The SSA played a significant role in making sure that the herders did not encroach on the land that was not given to them for grazing and there was peace in the land. Also, in some cases, most community lands are within two states. Therefore, it becomes difficult to use such land for developmental projects and programs. Some forests are also reserved for ancestral worship which makes such forests to be unfit for farming. It is difficult to change the social norms and cultural values of some community members of protecting their ancestral land.

- Of importance is the trust of non-indigene about land for farming. A serious problem may ensue if indigenes are not involved in the use of the land. Indigenes are not willing to give out their virgin forest for farming again to non-indigenes because of future ownership problem on such land. So, the indigenes do not trust the non-indigenes with their land for farming. Therefore, community land should be given to the indigenes to farm.

4.2.2 Cassava Value Chain

4.2.2.1 Farmers

The cassava farmers in the state said both indigenes and non-indigenes who want agricultural land for farming can buy, lease, or rent. The respondents said potential farmers can purchase land out rightly, depending on the location. The price ranges from N1, 000,000 to N1, 500,000 per five acres. While the common practice about farmland in the state is that families rent out their land for farming within a cycle of production which is one year and three months and is between N10, 000 and N15, 000 per acre depending on the location. Farmers can access land from the government forest reserve. Hence, in the state, there are various means of accessing agricultural land that can be exploited to the benefit of any organization or individual that want to go into large scale farming or out-grower scheme. In the state, conflict on farmland was not common, and buying farmland in the state does not require any recourse to the Local Government (LG) Chairman. The State Governor is only involved in the selling of land in the community by issuing a Certificate of Occupancy (C of O) to the buyer. Most of the farmers inherited the land they were using for farming, while some rented to their inherited farmland and very few buy part of their farmland. The mean farmland of the cassava farmers in Delta State was 4.98 hectares. The major constraint to access of agricultural land according to the farmers were insufficient funds to buy land, lease, or rent land, poor road networks and some claimed flood was the major constraint to access agricultural land in the state because the terrain of some communities in the state is prone to flooding. The mean cassava output was 29,707kg per annum and very few (17%) hired tractor to clear their cassava farm in 2019. Most (80%) of the farmers said they got their farm inputs mostly agrochemicals from the community markets and very few (20%) claimed they got theirs

from the government. Some of the respondents claimed that they usually sell their cassava output at the farm gate or the community market, while a few said they sell directly to the processors within their communities. According to the respondents, the constraints limiting the increase in cassava production include lack of finance, herdsmen invasion of their farm, bad road network, high cost of farmland, unpredictable weather, pest, and flood. Very few (17%) respondents said they accessed a loan to farm in 2019 and the source of the loan was their various cooperative societies. The amount applied for as loan ranges from N150,000 to N3,000,000 and the amount received ranges from N50,000 to N1,500,000 (33.3% to 50%). The other source of financing for their farming activities is personal savings. Very few (10%) respondents said they were visited by the extension agents three times in 2019. The extension agents were from the Delta State Ministry of Agriculture. In the state, cassava production is very profitable with an average Gross Margin (GM) of N5, 098,964.44 per mean farm size of 5.65 hectares.

4.2.2.2 Processors (Cassava)

The mean output of garri processed in 2019 was 54 (100kg) bags of garri. Most (80%) of the processors claimed that their equipment was locally fabricated and few (20%) claimed the equipment were imported. Few (33.3%) claimed they received assistance from the State Government through the FADAMA program to buy their equipment and the rest claimed they took a loan to buy their equipment. The respondents said their source of raw material is their farm and others within the community. The processing capacity mean value was 11.7 sack (50kg) of cassava per day and the mean actual process was 6.6 bags of 50kg per day. The most utilized period of the equipment according to the respondents was October to January and all of them said they went into farming when their equipment were not busy. The major challenge limiting operations was lack of finance, high cost of fuel (Diesel), and high cost of transportation. They all suggested that the government should assist them with credit facilities to mitigate all the mentioned challenges and assist them to fix the road. Some (67%) of the respondents claimed they have an adequate supply of raw materials for processing in the year 2019 and 33% claimed they did not have an adequate supply of cassava to process in the year. Very few (10%) claimed they usually support their raw material suppliers with the loan. All the respondents said they had adequate demand for their products. Most (90%) of the respondents sell their product within the state and very few (10%) sell outside the state. They mostly sell to the middlemen who sell within the community market or outside the community but within the state. While few who are wholesalers sell outside the state. The major constraints in the processing business according to the respondents was lack of finance and adequate power supply. Most (80%) of the respondents claimed they purchased the land being used for their factory while 20% of the respondents said they inherited the land. The cost of land ranges from N150, 000 per plot (100 by 60) to N500, 000 since their factory is within the community, unlike farmland that will be in the outskirt. The mean gross margin of N509, 416.85 per annum indicates that the cassava processing business was profitable.

4.2.2.3 Input Dealers

All the respondents were into agrochemicals marketing such as herbicides and pesticides and a few were into tractor hiring as well. Some of the respondents said their source was Onitsha, some claimed theirs was from the government and few (10%) claimed theirs was from the government at a subsidized rate. About 67% of the respondents said they were into wholesale marketing and about 33% of the respondents were into retailers marketing. All the respondents said their customers were farmers in their communities. Marketing directly to the customers in various shops within the community was the marketing system adopted by all the respondents. The mean distance of 8.7km shows that most of the respondents sell within the environs. Most (80%) of the respondents said the source of their working capital was personal saving and the remaining few claimed they got theirs through loans from cooperative societies, banks, and friends. About 67% of the respondents claimed they got loans from their cooperative societies and LAPO Microfinance Bank in 2019 and about 33% said they never accessed any loan in the same year. Those who got the loan in 2019 said they got between 50% and 100% of the amount they applied for. Challenges in the input supply business according to the respondents are lack of finance and transportation problems. They all requested financial assistance from the government and Non-Governmental Organizations (NGOs). About 90% of the respondents said they belong to an association and all those who belong to the association/union said they benefitted loan. The gross margin value of N3, 348,050.05 indicates that the input dealership is a profitable business in the area.

4.2.2.4 Marketers

The respondents said they were marketing garri, oil palm, maize, and palm kernel. About 67% said they were wholesalers and about 33% claimed they were retailers. According to the respondents, they

all claimed to get their supply from the farm gate mostly, processors and from the wholesalers. About 33% of the respondents said they market outside the state and about 67% said they market within the state. All the respondents said they usually hire vehicles (Toyota Hiace bus and pick up) to transport their agricultural produce to the market. About 50% of the respondents said their source of working capital was their savings and about 50% said they got loans from the bank, cooperative societies, families, and friends to start their marketing business. About 40% of the respondents claimed they did not receive any loan in 2019 and about 60% claimed they received a loan in the same year. Those who received the loan claimed they got the loan from their cooperative and LAPO microfinance and they got 90% to 100% of the loan they applied for. The major challenges to marketing activity according to the respondents were lack of adequate capital, bad road network, and high cost of transportation. The respondents said the government should assist them with credit facilities and assist in rehabilitating the bad roads. All the respondents said they belong to an association/union and they all claimed to have benefitted from loan and information sharing. The mean gross margin of N960, 577.76 indicates that the agricultural marketing was profitable.

4.2.2.5 Transporters

The respondents said they were transporting agricultural produce such as cassava, maize, plantain, and oil palm. All the respondents said they belong to an association. The respondents were using Dyna truck, Toyota Hiace bus, and pick up for their transport business. About 67% of the respondents said they were drivers and not the actual owners of the vehicle they were driving, while about 33% said they purchased their vehicle out-rightly (owner). The average distance of 91.7km per trip shows that most of the respondents do not travel far. The mean distance of about 135km per trip shows that most of the respondents travel within the state and the mean average trip per day was twice. All the respondents said poor road network, cost of maintaining their vehicle, high cost of fuel and lack of security on the road was the major challenge to their transport activity. They all suggested that the government should assist in the construction of good roads, ensure maximum security on the highways, and stabilize the price of fuel in Nigeria. The gross margin value of N22, 000 per day shows that the transport business was profitable.

4.3 Ondo State

4.3.1Cocoa Value Chain

Land

Access to farmland is a key factor in ensuring the expansion of the productive capacity of farmers. Ownership of land is a combination of inheritance, outright purchase, rent, and lease. About 90% of the cocoa farmers purchase their farmland, while 50% inherited their farmland. The farmers that own farmland through inheritance are usually indigenes who could lay claim to land within the communities. About 50% of the cocoa farmers obtained their farmland by buying, while the remaining 50% obtained theirs either through rent or lease. This clearly shows that farmers do have access to farmland. All the farmers claimed that individuals can have access to agricultural land by purchase, rent, or lease. The price of a hectare of land ranged from N7, 500 in the forest reserve to N500, 000 within the communities. Conflict is an occurrence that is prevalent either among farmers or between farmers and invaders such as herdsmen. Information obtained from the farmers reveals that 50% of the farmers have witnessed conflict on their farmlands. The sources of the conflict are usually in form of boundary disputes and invaders. The hectares of land cultivated by farmers tend to influence their output and level of commercialization. About 30% of cocoa farmers cultivated over 5 hectares of farmland. The mean hectares of land cultivated is 5.64, implying that the majority of the farmers are medium-scale farmers. As obtained from the cocoa farmers, the major constraints to accessing agricultural land are family disputes over land, boundary disputes, and the long-distance between forest reserves and the community.

Cocoa Farmers

The output of cocoa ranges from 0.5 tons to more than 2 tons. Most of the farmers (50%) produced 0.5 – 1 Mt of cocoa beans annually, while 30% produced more than 2 Mt. The average output of cocoa is 1.93 Mt per farmer. No cocoa farmers in Ondo State hired tractors for their farm operation in the last cropping season. Likewise, all of them made use of manual tools in harvesting their cocoa pods. The cocoa farmers purchase their inputs from the Bank of Agriculture, retailers, and directly from input markets. Cocoa farmers offer their produce for sale at their homestead and on-farm. Also, farmers do sell directly to cocoa processors.

Half of the farmers regarded lack of finance as the major constraint to increasing cocoa production, while 30% stressed unfavorable weather conditions. Bad road was a challenge identified by 20% of the farmers, while conflicts with herdsmen were highlighted by 10% of the farmers. Access to credit grant is a key factor in ensuring expansion and increasing agricultural output and productivity. However, none of the cocoa farmers had access to the loan. Access to extension services by farmers tend to enhance their agricultural knowledge base that could enhance their productive capacity and improve their welfare. Half of the cocoa farmers had access to extension services within the senatorial district. This area is worth improving on. The profitability analysis of cocoa production estimated revealed that the average cocoa farmer earned revenue of N1, 417,750 annually, while the variable costs incurred were N91, 228. The net profit less fixed cost is to the tune of N1, 326,522. This is an indication that cocoa farming is a profitable venture worth investing in.

Cocoa Processors

Photo credit: https://supaexport.ro/product/cocoa-powder

As obtained from the result, cocoa bean is processed into cocoa butter and cocoa cake. The output of cocoa butter processed in 2019 ranges from 1,330 to 5,800 Mt. The average output of cocoa butter processed is 3,256.667 Mt. The output of cocoa cake in 2019 ranges from 1,470 tons to 6,500 Mt, with an average output of 3,776.67 Mt. All the cocoa processors belong to at least one processing association. The most common association they belong to is the Cocoa Processors Association of Nigeria. The benefits derived from being a member of the association include training and Export Expansion Grant. However, the federal government no longer provides the Export Expansion Grant. All the processors interviewed revealed that they imported all their equipment into the country. None utilized locally manufactured processing machines. About 33% of the respondents obtained loans from Banks. A total of N5billion was applied for and the entire amount was granted, with a 9% interest rate spread over 6 years. Assistance is usually provided to the cocoa processors in form of Export Expansion Grants to allow the processors to be able to sell their products at international prices. However, the government has ceased giving the grant. The government also grants import duty waivers on the imported processing machines. Cocoa beans are mainly sourced from Licensed Buying gents (LBAs), while about 67% of the processors source small quantities of cocoa beans from trusted farmers. However, none of the processors engages in an out-growers' scheme. The installed capacity of the processing machines ranges from 25 to 83 Mt of cocoa beans per day. The average installed capacity is 54.33 Mt. Conversely, the actual quantity processed per day ranges between 20 Mt and 50 Mt. The average quantity of cocoa beans processed per day is 30.66 Mt. The implication of this is that there is a shortfall of 23.67 Mt per day. Based on the information obtained from the processors sampled, their processing facilities are very busy starting from September to January. They stock the cocoa beans purchased during this period to augment the quantity purchased during the light season. Major processing challenges highlighted by the respondents include an epileptic supply of electricity, inadequate funds, and double taxation by the government. The suggested measures that could mitigate these challenges are adequate power supply, granting of single-digit loan, checkmating double taxation, and prevention of corruption. The processors affirmed that they have an adequate supply of raw materials, which are mainly obtained from Licensed Buying Agents and occasionally from trusted farmers. The processors claimed they have adequate demand for their products both locally and outside the shores of Nigeria. All the processors affirmed that their products are purchased both locally and internationally. However, over 90% of their product is exported directly from the factory to European countries and U.S.A while less than 10% is sold to companies (Nestle, Cadbury, and Fan milk) within Nigeria. About two-thirds of the processors sampled obtained their land from private owners, while 33% obtained their land from the government. The cost of land could not be provided during the period of the interview. The profitability analysis of the cocoa processing activities revealed that an average income made in 2019 was N4.67 billion, while the average expenditure was N4.9 billion. The processors in Nigeria incurred a net loss of 230 million naira. The reason given for this shortfall is

unstable naira value, which makes the processors to unable to sell their products at the international market price.

Cocoa Marketers

All the respondents affirmed that they market cocoa beans only. However, 67% of the marketers sell at the wholesale levels, while 33% sell at the retail level. About 67% obtained the cocoa beans at the farm gate level, while 33% purchased beans from wholesalers. As relayed by the respondents, their major customers are companies such as Sunny Oro. Buyers do come from Auchi to purchase cocoa beans from the markets. The marketers stressed that some of the respondents transport their products to the markets using their vehicles, while some hired vehicles to convey their products to buyers. Also, some buyers do come with their vehicles to convey the products. About one-third of the respondents transport their product inside Cabster vehicle, likewise, Dyna and pick-ups are other vehicles the respondents highlighted. The entire respondents confirmed that their source of working capital is personal savings and none of the respondents received loans to finance their business in 2019. The major challenges confronting the operations of markets in the state were inadequate funding and cocoa beans' price fluctuations. The measures to curb the challenges as suggested by the respondents include granting of single-digit interest rate loan and ensuring the price stability of cocoa beans. About two-thirds of the total respondents did not belong to the marketing association. However, 33% were members of one marketing association or the other. Those that were members of the association affirmed that they collectively negotiated the tax to be paid on their products. The average revenue made by the processors in 2019 was N8.08 million, while about 76% of the revenue value went to operating costs. A profit of about N1.96 million was realized in 2019, an indication that cocoa marketing is profitable.

Cocoa Input Dealers

The types of inputs the respondents market include farm implements such as hoes, cutlasses, shovels, and others. Aside from these, they sell agrochemicals and fertilizers. Based on the information obtained from the input dealers, they purchased their input from the Agrotech Company and wholesalers. About 67% of the respondents sell in bulk (wholesalers), while 33% were retailers. The input dealers affirmed that they sell their produce to farmers only. Moreover, they stressed that they offered their products for sale inside shops and through their cooperative society.

The distance of their outlet to the main market was between the range of 0.1km and one. The mean distance was 0.4km. The input dealers all asserted that they use their saving to fund their business. They reiterated that they did not have access to loans. Lack of access to loans could adversely affect the expansion of their enterprise since personal savings are inadequate to fund a business. The entire sample of the respondents agreed that inadequate finance was the main challenge confronting their business as this has prevented them from expanding the scope of their enterprise. However, they solicited for loan from the government to assist them in expanding their business and improving their welfare. Being a member of a cooperative society avails one the opportunity to derive the benefits accrued to the society. Based on the information garnered, 33% of the respondents belonged to the cooperative society, while 67% did not. About 33% of the respondents affirmed the provision of credit as the benefit they derive from being a member of the society. The profitability analysis of input dealing enterprise is a pointer to ascertaining whether the business is worth investing in. The income that accrued to the enterprise in 2019 was N966.66.7, while about 43% of the income was the operating cost. On average over N550, 500 represents the profit. This shows that agricultural input marketing is a profitable venture.

Cocoa Transporters

About 66.7% of the respondents stated that they transported pawpaw, vegetable, cocoa, and yam, while 33.3% stated that they transported plantain and cassava. The mean year of transport business experience was 17.3. All the respondents had 15-20 years of transport business experience. All the respondents said they belonged to one association or the other. 66.7% of the respondents said they were using 18 passenger buses for transport business while about 33.3% of the respondents were using Toyota Picnic for their transport business. Moreover, 33.3% of the respondents said they were drivers and not the actual owner of the vehicle they were driving, while 66.7% said they purchased their vehicle out-rightly. The average distance of 20.4km per trip shows that most of the respondents do not travel far. They probably cover within the state. About 66.7% of the respondents claimed that their average distance per trip was between 15 and 16.10km, while 33.3% claimed 30km as the average distance covered per trip. The average number of trips of the respondents per day was three. All the respondents said poor road network was the major challenge to their transport activity. They all suggested that the government should assist in the construction of good roads. The average gross margin of N31, 166.7 per day indicates that the transport business is profitable.

4.3.2 Cassava Value Chain

Land

Cassava farmers (both indigenes and non-indigenes) accessed agricultural lands through outright purchase, rent, or lease. However, outright purchase (90%) was the most prominent way of accessing land in the state. This is an indication that there was access to farmland so long the individuals were ready to buy. All the farmers agreed that land could be purchased for agricultural purposes in the state by both indigenes and non-indigenes. The price of land ranged from N25, 000 per hectare in the forest to N150, 000 per hectare within the communities. All the cassava farmers own land by outright purchase, while some of them (10%) acquired other farmlands through inheritance. This implies that the outright purchase of farmland was the most prevalent type of land ownership in the state. No conflict was recorded, either among the farmers or between the farmers and herdsmen. This is an indication of mutual and peaceful coexistence between and among members of the communities, either indigenes or non-indigenes. The hectares of land cultivated by a farmer would determine his output, which in turn would enhance his level of commercialization of his produce. As x-rayed in the study, 60% of the farmers cultivated less than 5 hectares of land, while 30% cultivated over 10 hectares. On average, a cassava farmer cultivated 14.2 hectares of farmland, indicating that they operated at medium to large-scale level. Cassava farmers in Ondo State reiterated that the major constraints to accessing agricultural land were the high cost of acquiring the land and inadequate capital to acquire the farmland. They stressed farmland was available so far individuals were willing and ready to pay for it.

Cassava Farmers

The output of cassava is a function of the size of the farm cultivated and how efficient a farmer is in combining his resources. Half of the cassava farmers harvested 5 Mt or less in 2019. However, 40% harvested more than 10 Mt in 2019. On the average, a farmer harvested 10.4 Mt of cassava roots in the 2019 cropping season. No single farmer hired a tractor for his farm operations in 2019, while harvesting was done manually. The majority of the farmers used local implements for their farm operations. Farmers obtained their planting materials and other inputs from Tulip, CRIN, and main markets, while they sell their produce at the main market, through cooperative and on the farm. Inadequate finance was the most important factor limiting production as identified by the farmers. Likewise, 50% of the farmers identified bad roads as a factor limiting cassava production in the district. Pests and diseases; and unfavorable weather conditions were the other factors mentioned by the farmers. Few of the cassava farmers in the state had access to credit. This is not encouraging as an expansion of their productive capacity would be an impossible task if there were no external financial support. All the cassava farmers enjoyed extension support in the last cropping season. This was in form of capacity building. The profitability analysis of cassava production shows that the average cassava farmer made revenue of N1, 104,000 in the last cropping, while the cost of operations was N485, 860.8. Thus, the average farmer realized a profit of N618, 139.2. This shows that cassava production was a profitable venture.

Cassava Processors

The output of garri processed ranges from 5 Mt to 9.4 Mt. The mean output of processed garri is 7.9 Mt. This is an indication that respondents processed about 8 Mt of garri yearly. The cassava processors affirmed that they did not belong to any processors' association. This could be detrimental as they would not be able to enjoy the benefits derivable from being a member of the processors' association. The equipment used by the processors for their operations were locally fabricated. This tends to reduce their processing capacity and the quality of the products they processed. The entire cassava processors sampled reiterated that they did not obtain any loan from financial institutions. The provision of loans tends to ensure the expansion of processing operations and increase the output of the processed products. The processors affirmed that they have not received any form of assistance from the government, neither have they received from non-governmental organizations. All the sampled respondents submitted that they obtained their raw materials from their farm and did not outsource their raw materials. The processors claimed that they could process five bags of garri per day. However, they were unable to process more than three bags per day. This was mainly due to the primitive processing facilities the processors were still using in carrying out their processing operations. The busy periods for cassava processors within a year is between July and September. This is the period their operation is at its peak. They engage in other non-farm activities during the off-season period. The cassava processors listed the major challenges confronting them with their processing operations. These include lack of finance, use of primitive equipment for their processing operations, and bad roads. Suggested measures highlighted by the processors to tackle these challenges are granting of credits, supply of modern processing equipment, and rehabilitation of bad roads. The processors emphasized that there was an adequate

supply of raw materials for their processing operations. They also affirmed that there were readily available markets for their processed products. Their major customers were marketers and consumers. As obtained from the processors, 66.7% of the respondents owned the land they used for processing operations, while 33.33% used community land. No value was quoted for the land use for processing activities. The profitability analysis of cassava processing revealed that a processor makes average revenue of N416, 666.7 annually, while about 87% of the total revenue was the operating cost. In all, a cassava processor made a profit of N53, 333.4 in a year. This shows that cassava processing is a profitable venture.

Cassava Marketers

The marketers relayed that they market cassava products mainly garri. Furthermore, the entire sampled respondent sold at the wholesale level. As obtained from the marketers, 100% of the respondents obtain their input from the farm gate, while they offer the products for sale to the middlemen in the markets. All the respondents affirmed that they usually hire a vehicle to convey their products to the buyers. The types of vehicles they normally hire were pick-up and motorcycle. All the respondents emphasized that they fund their business mainly with personal servings and none of the respondents financed their business with the loan in 2019. The major challenges confronting the respondents were inadequate finance to support their business and bad roads. The suggested credit grants and road rehabilitation as measures to curb the challenges. About 33% of the total respondents sampled belonged to a marketing cooperative society. The benefit derived from society was financial assistance to registered members. The profitability analysis shows that an average income of N633, 333 was made in 2019, while the operating cost was about 65% of the income. The annual profit of N225, 000 was realized in 2019. This shows that cassava marketing was profitable.

Cassava Input Dealers

The respondents indicated that they sold farm equipment such as hoes, cutlasses, files, and sprayers. In addition to this, they also marketed agrochemicals. As relayed by the respondents, they purchased their inputs from Agrotech, WACOT, Jubaili, and other wholesalers. About 33% of the respondents sold their products in bulk, while 67% were retailers. All the input dealers reiterated that farmers were their main customers. All the respondents affirmed that they have shops where they offered their products for sale. The distance of their shop to the main market ranged from 1km to 2km. The average distance covered by the respondents to get their produce to the main market was 1.43km. The respondents highlighted their different sources from which they obtained their working capital as personal savings, loans from family and friends, and cooperative society. About 33% of the respondents received credit to fund their business in 2019. The loan was provided by their cooperative societies and the whole amount applied for was granted. As highlighted by the respondents, the major challenges confronting their business were financial constraints, unfavorable weather conditions, and bad roads. The suggested measure to curb these challenges includes the provision of credit and rehabilitation of bad roads. All the respondents belonged to one association or another. The benefits they derived from being a member of an association include loan, bulk purchase, and market information sharing. The profitability analysis shows that an input dealer made an average of N2.4 million in 2019, while the cost incurred was about 87% of the accrued income. A profit of N413, 332.3 was realized in 2019. This shows that agricultural inputs marketing was profitable in 2019.

Cassava Transporters

About 66.7% of the respondents said they belonged to one association/union or the other, while 33.3% did not belong to any association. Likewise, 33.3% of the respondents said they were using Nissan pick-up for transport business and 66.7% of the respondents were using Dyna truck for their transport business. All the respondents said they purchased their vehicle out-rightly. The average distance of 50km per trip shows that most of the respondents travel far within the senatorial district. About 33.3% of the respondents claimed their average distance per trip was 20km, while 66.7% claimed that they covered between 60 and 70km per trip. The average number of trips was two per day. All the respondents said poor road network was the major challenge to their transport activity. They all suggested that the government should assist in the construction of good roads. The average gross margin of N40, 000 per day indicates that the transport business was profitable.

4.3.3 Oil palm Value Chain

Land

As obtained from the farmers, both indigenes and non-indigenes could have access to agricultural land in Ondo State. About 70% of the respondents obtained their farmlands through purchase. A sizable

percentage obtained land via rent and lease, while 20% percent cropped in forest reserves. About 90% of the farmers agreed that farmland could be accessed through purchase, rent, or lease. The implication of this is that there was access to agricultural land in the state. The cost of a hectare of land ranged from N265, 000 to N600, 000. About 80 % of the farmers obtained their farmlands through inheritance and purchase, while 10 percent obtained theirs by rent. The obvious forms of land ownership in the state were through inheritance and purchase. About 70% of the farmers cultivated less than 20 hectares, 10% cultivated more than 40 hectares. The mean value of hectares cultivated (20.6) implies that the farmers operate at the commercial level. Conflicts on farmland have been a significant factor in hindering productivity and welfare among farmers. About 50% of the farmers affirmed that there were conflicts on agricultural land in the state. The sources of conflicts include sales of farmland by unauthorized individuals and invaders. The farmers agreed that there were some challenges in accessing farmland within the district. These challenges include scarcity of farmland outside forest reserve and the high prices charged by individuals that were willing to sell land.

Oil palm Farmers

About 40% of the farmers produced 5 Mt or less of oil palm per annum on their farm, while four out of 10 farmers produced more than 40 Mt. The mean output was 44.8mt of FFB. None of the sampled farmers hired tractors in carrying out their farm operations. Harvesting of farm produce was also carried out with the aid of hand tools. The farmers explained that they obtained their farm inputs from Harvest feeds, markets and ADPs, while they offer their farm produce for sale to processors, sell at the main market, and on-farm. As obtained from the farmers, major constraints limiting their farm operations were lack of finance, lack of modern farming and processing equipment; and bad roads. In total, 80% of the farmers identified inadequate capital as the major challenge, while 20% emphasized a lack of modern farming equipment and bad roads. About 90% of the farmers did not have access to credit. This challenge may serve as a hindrance to farmers expanding their production capacity. It was noted that 10% of the farmers utilized credit facility, which was obtained from the oil palm processor. The sum of N100, 000 was applied for while N50, 000 was granted with an interest rate of 3% per month charged on the capital. Five out of every 10 farmers had access to extended support. This group of farmers is likely to be more productive than those without access to extension support because extension services tend to open the farmers to new ideas about farm operations and market information. The Gross Margin analysis revealed that the average oil palm farmer made revenue of N731, 450, while the cost of operation was N123, 266.5k. The profit made by an average oil palm farmer in the senatorial district was 608,183.5k. This is an indication that oil palm production was a profitable venture.

Oil Palm Processors

The quantity of the output of oil palm processed is between the ranges of 15 Mt to 400 Mt per annum. The average output produced was 158.2 Mt. All the oil pam processors sampled confirmed that they utilized locally fabricated machines for their processing operations. This could reduce their level of efficiency in oil palm processing. None of the oil processors sampled had access to loan facilities. The inability to access loans may prevent the processors from achieving their optimum processing capacity.

Assistance from the government in the form of loans or input subsidies will go a long way in enhancing the productive capacity of the processors, which in turn will improve their welfare status. However, none of the respondents had received any form of assistance from the government. As obtained from the respondents, 66.67% of the processors sourced their raw materials from their farm and other farms, while 33.3% obtained their raw materials from their own farms only. On average, the processors' installed capacity per day is 7 Mt, while the actual processing capacity is 3.53 Mt per day. The implication of this is that the processors were able to process about 50% of the installed capacity. Based on the information obtained from the processors sampled, their processing facilities were usually very busy from February to May. They however take up other non-farm jobs during the off-season period. Major processing challenges highlighted by the respondents include lack of finance and lack of modern equipment. The measures suggested by the processors to checkmate these challenges include the provision of credit facilities and modern processing facilities that could enhance their processing operations. The processors claimed that they have an adequate supply of raw materials, which they obtained from, own farms and other farmers. The processors confirmed that they have adequate demand for their products and the buyers of their products were marketers. They emphasized that their products were conveyed from the factory to the middlemen who are mainly palm oil marketers. The land used for processing of oil palm by the respondents was either inherited or belonged to the community. About 50% of the sampled oil palm processors obtained their land from each of the two sources. No cost was attached to the land used by all the processors. The profitability analysis revealed that the revenue that accrued to oil palm processing activities was N5, 711,000, while the cost incurred was about 75% of the revenue value. The profit made was N1, 424,333. This is a confirmation that oil palm processing was a profitable enterprise.

Oil Palm Marketers

About 67% of the respondents, marketed palm oil, while 33% sold oil palm fruits. The palm oil marketers operate at the retail level, while the oil palm marketers sell at the wholesale level. The majority of the respondents (67%) obtained their raw materials at the farm gate, while 33% purchased their products from the wholesalers. The major customers of the marketers were the retail outlet owners and companies. Most of the marketers (67%) utilized motorcycles as a mode of transportation, while 33% used their private vehicles to transport the oil palm products.

The types of vehicles used in transporting oil palm products are motorcycles and cabsters. According to all the respondents, the oil palm marketing business is financed solely through personal savings. None of the respondents had access to a loan to finance their business in 2019. The major challenge highlighted by the oil palm marketers was inadequate capital to finance their business. They suggested a way of combating the challenge was the provision of single-digit loans to expand their business. As obtained from the respondents, 67% did not belong to the marketing association, while 33% were members of the oil palm marketing association. The benefit derived from being a member of the association is the provision of a credit facility with a reasonable repayment plan. In the year 2019, an oil palm marketer realized N13.8 million as income on the sale of oil palm, while the profit realized was N6.3 million. Thus, the oil palm marketing business was a profitable venture.

Oil Palm Input Dealers

The types of inputs offered for sale by the dealers were agrochemicals and fertilizers. Also, they sold farm impiements such as hoes, fiies, and knapsack sprayers. The respondents stressed that they obtained their inputs from Akure. They also went as far as Ibadan and Onitsha to purchase their inputs. As reiterated by the input dealers, they all sell at the retail level and their major customers are farmers. The respondents affirm that they sell their products from shops, while about 33% submitted that they supply their products to individual customers. The respondents confirm that the distance of their outlet to the main market ranges between 0.8km and 2km. On average, a distance of about 1.2k would be covered to get to the main market. The respondents stressed that they obtained their working capital from personal savings, loans from friends and family, and cooperative society. About 33% accessed credit in 2019 from their cooperative society. An average credit of N2 million was applied for and all the amount was granted. Major challenges confronting inputs dealers in the district were financial challenges and security issues. The suggested measure to curb the challenges includes the provision of loans at single-digit interest rate and provision of adequate security to protect lives and property. All the input dealers claimed they belonged to a cooperative society or union. The benefits derived from being a member of the group were credit support and collective tax payment. They also shared current market information among members.

As obtained from the profitability analysis, on the average, an input dealer in Ondo State made a revenue of N6.07million, while the operating cost

was about 89% of the accrued revenue. The profit realized in 2019 was N678, 000. This shows that agricultural input marketing was a profitable venture.

Oil Palm Transporters

Based on the information obtained from the respondents, they transported FFB, palm oil, and palm kernel. All the respondents had 20-25 years of transport business experience. All the respondents said they belonged to an association. The respondents were using Cabstar for their transport business. All the sampled transporters stated that they purchased their vehicle out-rightly. The average distance of 13.05km per trip shows that most of the respondents did not travel far. About 33.3% of the respondents claimed that their average distance per trip was 8.05km, while 66.7% claimed 15-16km as their average distance covered per trip. The average number of trips per day was three. All the respondents said poor road network was the major challenge to their transport activity. They all suggested that the government should assist in the construction of good roads. The average gross margin of N30, 333.3 per day indicates that the transport business was profitable.

5.0 Summary

In this section major findings from the field survey about the agricultural value chains, the actors, and access to land have been provided. Specifically, the land use act is still in operation. However, the implementation of the act and the involvement of the state governments vary from state to state. Some of the actions of governments and attitudes towards land allocation policies have to a large extent been shaped by the experiences of the governments. For example, it was discovered that many corporate bodies just applied for very large parcels of land under the guise of investing in agricultural enterprise only to either keep them undeveloped or convert it to real estate. This was an obvious distortion.

At the federal level, there is an on-going effort at reforming the Land Use Act to make it more responsive to the developmental challenges of the Nigerian economy. The study was able to expose some of those operational difficulties at the state and community levels. By far the most creative state is Edo State that has been able to acquire agricultural land at many locations within the state and gradually opening them up for the benefit of smallholder farmers in a well-structured manner. As for Delta State, the challenge of not having a lot of land exists given two major challenges. Land is scarce due to high population density, waterlogging, and high oil exploration activities especially in Delta South and Central Senatorial Districts. In Ondo State successive governments since the return of democracy in 1999 have been clearing and preparing land for agricultural activities in different parts of the state but the political will and commitment have not been consistent nor high enough to achieve any tangible result for the agricultural sector and the economy.

5.1 Identified pitfalls and gaps in policies being implemented

In each of the communities and states, it was discovered that different parcels of land are being held by families. The small-scale farmers did not have the resources and wherewithal to develop the arable land within their control. As a result, they restricted their activities to their smallholdings, lease, or rent out the land to whoever wants to cultivate part of their family land. In some cases, the key members of the family agree they can sell and share the financial proceeds. This outright sale is only common in Edo and Ondo States. In Delta State, the annual renting out of land is more favored possibly due to the paucity of agricultural land. This is a pitfall because no meaningful agricultural development can take place where land renting or short-term leasing is the norm.

The idea of the land bank committee in Delta State is a very lofty one with the way it is being implemented. The purpose is to collate all available parcels of land as a basis for agricultural planning. This idea is also being implemented in the remaining two states but under different nomenclatures and arrangements. Many land speculators have used their connections with the politicians and governors to get large parcels of land allocated to them backed up by certificates of occupancy for more than ten years without any agricultural development on such land. These corrupt tendencies can be found across the three states and is being addressed by successive governments through the revocation of such rights of occupancy. The new twist in Edo and Delta States is that government acquires the land, clears it, and gives it out to smallholder farmers in the neighborhood or young school leavers. There are three noticeable pitfalls. First, the communities resist the idea of bringing beneficiaries from outside their communities. Second, the allocation is usually done in a partisan manner such that only members of the ruling party within the state corner such allocations. Third, the majority of the young school leavers allocated such land collect the inputs, sell them off at a discount and return to the cities. This was reported in Delta State as prevalent. The process of screening needs to be more thorough to ensure that only passionate prospective farmers get into such schemes.

5.2 Demand and supply situation based on analysis

The land is a fixed resource and has many alternative uses. With increasing urbanization and development there is stiff competition for available land everywhere. Housing, schools, infrastructure, industry, etc are some of the strong competitors for arable land in the three states studied. Many erstwhile rural communities with a lot of agricultural

lands are witnessing the dwindling availability of such land due to increasing urbanization and population growth. The pressure on land generally is growing at an alarming and unsustainable rate.
On the supply side, the role of government and families cannot be over-emphasized in the supply of arable land within the three states studied. While the Land Use Act vests the official allocation and issuance of rights of occupancy on the government, the actual ownership lies with the families and communities. In essence, a prospective investor can hold the title and still find it impossible to access the land. The government needs to serve as a broker by getting involved in not only sourcing the land but facilitating the process of access. Compensations need to be paid to farmers and communities before land can be released. This is a role that must be played by the government on the supply side of land availability. Merely signing the title paper for the prospective investors cannot work and has never worked. In addition to paying compensations through enumeration of economic crops on the land, there are usually negotiations on other non-monetary benefits such as employment opportunities and some other corporate social responsibility projects and initiatives to be undertaken by such prospective investors. A creative one found on the field is where Edo State acquired and cleared a large parcel of land, give half of it to a big agricultural investor and the other half is shared among the local farmers who will later supply their produce to the big investor serving as off-taker. This is a "win-win" model that is acceptable to many communities and can be replicated everywhere.

On the demand side, prospective investors are in different categories. We have big investors looking for agricultural land. We have the retired people returning from the cities and willing to invest in agriculture also looking for moderate sizes of farmland. The last categories are unemployed youth, women, and small-scale farmers that need farmland for their productive engagements. While the big investors have deep pockets and can afford to go through the governments to serve as middlemen, the majority of the retired people have modest resources to approach land-owners and acquire the land before formalizing it through their application for rights of occupancy. The last category is the vulnerable group that is usually resource-poor. This category will only get access through their family-owned land, rent small plots of land or depend on the land to be provided and allocated by the government. This scenario is common to all the three states studied.

5.3 Challenges facing landowners and governments

The land is a non-renewable resource with the implication that the more of it is used, the less we have available for other purposes. Besides, the land is a resource that is being held in trust by the present generation on behalf of the future generation. Therefore, a high sense of responsibility is expected in order not to compromise the future generation. A serious challenge facing landowners generally is the lack of official title at the community level. This challenge makes it impossible to utilize such land as collateral for bankable investments within the agricultural sector. Delta State is trying to solve this problem through its land bank committee whereby an inventory of available agricultural land is being developed. Another challenge is the scarcity of resources to invest in available agricultural land. Many of the land available is in the rainforest that requires a lot of money to clear. Therefore, the idea of the government acting on behalf of prospective small farmers by assisting with clearing is a lofty one. Edo State is currently performing excellently well in this direction. Again, the family sizes are growing phenomenally thus leading to reduced individual holdings due to population and several development pressure.
The increasing awareness about land as a valuable resource has led to even government land coming under serious threat. Many forest reserves in all three states are increasingly being converted to agricultural land by their original family and community owners. It started initially through encroachment but gaining momentum with time. In some states, the government has been proactive by allocating the forest reserves or parts thereof to small farmers or big investors. This is a threat to forestry revenues of the state government and biodiversity conservation.

5.4 - Challenges facing small-scale farmers

Many of the small farmers have challenges of land acquisition through purchase, lease, and/or rent. Even where there was no problem of acquisition, exorbitant costs of land clearing and preparation inhibit the growth of small-scale farmers. There is also the problem of access to finance to acquire production inputs. Unlike in the past where marketing used to be a big problem for farmers, it appears the problems have been narrowed down to road infrastructure and access to finance.

Farmers believe that with access to finance removed they can always hire tractors to work on their farms and even pay hired labour where tractors are unavailable. These are some of the other considerations limiting their growth. While out-grower schemes may be a desirable idea, many of the farmers are only interested in it to the extent that the off-takers will supply them with production inputs and thereby eliminate their working capital challenge. So, the out-grower scheme is a creative way of solving both product marketing and input supply challenges facing the small farmers.

Many state governments and even the federal government have come to appreciate this problem. The Central Bank of Nigeria working with the state governments and commercial banks has many agricultural credit schemes including NIRSAL which are currently operational to help small-scale farmers. Although many of the farmers interviewed claimed not to have benefited from such schemes.

The linkages between the value chain actors appear to be very strong on the ground but highly informal. They are not usually formal but effective to the extent that all parties are involved in sustainable business operations.

5.5 Boundary conflicts

From the empirical evidence made available during this study, there were no conflicts on land. This is not to rule out the fact that there may be inter-community skirmishes over farmland and boundaries. Literature is rich in the existence of such clashes up till this present day because of high values attached to land both culturally and economically. The only reported case is between Edo and Delta States around the Abraka area. Please recall that the two States were together in the defunct Bendel State before their creation. A large oil palm investor active in Edo State (Okomu or Presco) had acquired a large parcel of land whose area of land extends to Abraka in the Delta State. The company has the title to the land under the Bendel State according to information gathered during the fieldwork. This can always be resolved by the government of Delta State giving the company the title for the portion that falls within their jurisdiction.

6.0 Conclusion and Recommendations

This study has revealed the state of affairs in access to agricultural land in the three states covered. It is particularly revealing that many of the states are not doing enough to assist the real farmers in expanding their farming businesses. They are not doing enough in assisting some vulnerable groups such as unemployed youths and women in their quest to access agricultural land for productive ventures. As for the big investors with enough resources, the story is different as they can access significant land with the assistance of the state governors. In general, the three states acknowledge the fact that access to land is a big problem and binding constraint in agricultural production.

The following recommendations were suggested for government to act on.
Government should:

- encourage the communities to donate land to the government for agricultural and other uses.
- directly acquire land for public interest as enshrined in the constitution.
- open up primary and secondary forests for agricultural purposes.
- build access road to farmland.
- determine the fertility of the soil to provide farmers with appropriate recommendations on fertilizer application.
- provide improved agricultural inputs at subsidized rate
- train farmers to acquire the required skills for agricultural production.
- make policies that are favorable to the farmers.
- protect farmers against herdsmen/cattle rearers who sometimes graze their livestock on farmers' fields destroying crops and losses to farmers.
- provide a conducive atmosphere for farming.
- facilitate the acquisition of agricultural loans at a 5% interest rate.
- facilitate the acquisition of C of O for agricultural land at an affordable price.
- create agricultural land use database with geo-referencing as well as validation of land by government (Proper land banking system).
- strengthen farmers' associations and reconnect them to the appropriate agencies of government to create a synergy between their activities and; policies and interventions of government.
- trust-building between government agencies (MDA's), investors/host communities/ landowners.
- strengthen the synergy between relevant government agencies (MDAs, investors, and the community in the process of accessing/ acquiring land.

Also, on the part of the communities, the following recommendations were suggested.
Community should:

- come out with a guideline on land acquisition which should be witnessed by all the approved structural representatives.
- encourage people to form a cooperative society.
- set up a committee to deal with all land issues where offenders should be appropriately sanctioned

While the following were suggested on the part of the farmers.
Farmers should:

- form cooperative societies/farmers' associations.
- make themselves readily available for training
- make sure they adhered to government policy on land issues

6.1 Lessons learned

There a few lessons learned in the course of undertaking this study. A major lesson learned by the state governments is that many capitalists and prospective investors are not serious about investing in agriculture but are only interested in "land grabbing". So, the governors now give such investors about 500 hectares asking them to fully develop it before asking for additional land. This is Edo State's approach to a problem that cuts

across all the states of the federation. The other states should learn from the Edo State's land policy review.

Another lesson from this study is the policy of allocating substantial land to corporate investors for agriculture. After clearing and preparing the land for cultivation, half of the entire allocated land will be shared out to the small-scale farmers within the neighborhood while the big investor cultivates the remaining half. The half shared to small-scale farmers is still considered as part of the big investor's land as the small-scale farmers are organized into the out-growers scheme with the big investor being the off-taker. In addition to providing a guaranteed market outlet, the big investor also supplies inputs such as seeds, fertilizers, agro-chemicals (such as herbicides and pesticides), tractor services, etc on a credit basis. The value of the production inputs supplied will be deducted from the proceeds accruable to the farmers.

Many agricultural lands under cultivation in the three states have no official title whatsoever. Therefore, the assets without official or formal documents make those assets "dead" as they cannot be used as collateral to secure bank credit. This absence of ownership title is a disadvantage to the small farmers because they are unable to access credit from formal sources. Whereas, such credit is necessary for boosting the economic activities of the small-scale farmers and the nation at large.

It was observed that in all the three states unemployed youth recruited hardly stay on the farm for a single growing season. There were reported cases in Delta and Ondo States where the production inputs supplied to the unemployed farmers were sold at a discount before abandoning the farms. The reason for this abandonment can be traced to the fact that some of the "young farmers" were not interested in farming in the first place. Many of them made it to the list either because they were relatives or supporters of the politicians. They were not interested in farming nor passionate about agriculture. The recruitment process needs to be thorough and objective rather than using political patronage.

Finally, the practice whereby investors will secure land allocation first before "shopping" around for funds to invest has proved a complete failure. Instead of allocating land-based on proposals, the allocation should be contingent upon documentation of the investor's equity contribution based on evidence from the bank account statement and banker's guarantee; this will make such land allocation to corporate entities more effective and realistic.

6.2 The way forward

There is a need for the three state governments to peruse this document as it affords them the opportunity of peer review for access to agricultural land in the respective states. From this report, the lessons can be learned. Although some of these will still come out of the stakeholders' validation exercise to be undertaken very soon. The justification for the validation exercise is to confirm the positions taken by this report concerning the various issues presented herein.

After the stakeholders' validation exercise, there will be a need to develop policy papers for each of the states on how the access to land policy reforms is to proceed in the respective states to make them more effective and responsive.

References

Alarima C, Fabusoro E, Kolawole A, Uzoma K, Aromolaran A, Masunaga T, et al. (2012). Agricultural Research and Extension Delivery systems in Sub-Saharan Africa: Calabar: University of Calabar Press. An Appraisal of the Land Use Act, 1978 and the Customary System of Tenure in Ika South Local Government Area of Delta State, Nigeria

Babalola S, Abdulrahman A, Choon L, Van Oostorom P. (2015). Possibilities of the Land Administration Domain Model (LADM) Implementation in Nigeria. In: Joint International Geoinformation Conference. Kuala Lumpur, Malaysia: ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences; pp. 1-9.

Carter, M.R., Barrett, C.B. (2006). The economics of poverty traps and persistent poverty: An asset-based approach. Journal of Development Studies, 42 (2), pp. 178-199

Chikaire, J.U., Anyoha, N., Ani, A, Atoma C. (2014). Land tenure reform: A vehicle for achieving agricultural transformation agenda in Nigeria. Merit Research Journal of Agricultural Science and Soil Sciences, 2(9):114-122.

Ghebru, H., and Okumo, A. (2016). Land Administration Service Delivery and its Challenges in Nigeria: A case study of eight States. Nigeria Strategy Support Program, Working Paper 39.

Hull, S., Sehume, T., Sothafile, L. (2016). Land allocation, boundary demarcation, and tenure security in tribal areas of South Africa. South African Journal of Geomatics, 5(1):68-81. DOI: 10.4314/sajg.v5il.5.

Jansen, A. (2007). Value Chain Finance: Understanding & Increasing Access; A Concept Paper, USAID Draft for comment

Karl M., Baker R. D, Negassa A .and Ross R.B. (2009). Concepts, applications, and extensions of value chain analysis to livestock systems in developing countries. Contributed Paper prepared for presentation at the International Association of Agricultural Economists Conference, Beijing, China, August 16-22,

Odoemelam L, Osahon E, Nechedo E. (2013). Effect of tenure security on livelihood activities of women farmers in Anambra State, Nigeria. Journal of Agriculture & Social Sciences, 13(2):94-100.

Oguntade A. E and Folayan J. A., (2006). Assessment of price information transmission between the central market and source market for cocoa in south-western Nigeria: A cointegration analysis. Agricultural Journal 1(4): 198-204

Oguntade A. E. (2013). Cocoa Value Chain Governance in Nigeria, paper presented at the First Stakeholders' Meeting of the Kokodola Project, Continaf and Farmers Development Union (FADU), 17th October 2013

Oguntade, A.E., Daramola, G.A, and Akinola, A. (2010). Market Opportunity Study for Nigeria, Cocoa Livelihood Program, IITA-STCP, Nigeria, 126 pp
Oloyede S, Ayedun C, Oni AS, Oluwatobi A. (2014). Land market challenges: The case of Ifo/Ota

Oluwatayo I. B., Timothy, O., and Ojo, A.O. (2019). Land Acquisition and Use in Nigeria: Implications for Sustainable Food and Livelihood Security. In: Land Use - Assessing the Past, Envisioning the Future, IntechOpen.

National Population Commission (2018). Nigeria's Population Hits 198 Million People.

PIND (2011). Palm Oil Value Chain Analysis in the Niger Delta, Foundation for Partnership Initiatives in the Niger Delta (PIND)

Twene SK. (2016). Land Grabbing and rural livelihood sustainability: experiences from the Bui dam construction in Ghana. A Master of Philosophy Thesis submitted to the Department of Geography and Rural Development, Kwame Nkrumah University of Science and Technology for the award of Master of Philosophy Degree, pp. 1-147.

Udoekanem N, Adoga D, Onwumare V. (2014). Land ownership in Nigeria: Historical development, current issues, and future expectations. Journal of Environment and Earth Science, 4(2):182-187.

United Nations Industrial Development Organization, (2009). Agro-Value Chain Analysis and Development, The UNIDO Approach: A staff working paper, Vienna.

Contact

ABUJA

25 JIMMY CATER CRESCENT, ASOKORO
+234 (09)2910454

WARRI

1 PIND-EDC DRIVE, EGBOKODO-ITSEKIRI
+234 (0)817 240 1598
+234 (0)903 080 8794

PH

50 B/C, OMERELU STREET, G.R.A PHASE 1, PORT HARCOURT, RIVERS STATE, NIGERIA.
+234 (0)811 052 1802, +234 (0)903 457 7987

Engage

Twitter

@PINDfoundation

Instagram

@PINDfoundation

Facebook

@PINDfoundation

YouTube

@PINDfoundation

WWW.PINDFOUNDATION.ORG

PIND

FOUNDATION FOR PARTNERSHIP INITIATIVES IN THE NIGER DELTA