

**HIGH  
CARBON  
STOCK +**

# Consulting Study 13:

Nigeria: A smallholder case study

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# Author



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This report has been independently prepared by the author for the High Carbon Stock (HCS) Science Study. It is part of a series of consulting studies on high carbon stock, in the areas of biomass estimation, soil carbon dynamics, remote sensing and socio-economics. Together, these consulting studies provide background information for the HCS Science Study's synthesis report, but also they constitute stand-alone research that aims to shed light on this critical area of enquiry.

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# Executive Summary

Nigeria is the world's third-largest palm oil producer. It has the world's largest percentage of smallholder oil palm farmers – around 90 per cent. Smallholder oil palm farmers typically earn higher incomes from oil palm than from other crops. Smallholders generally operate on wild groves. While these groves have relatively poor yields they require lower agricultural inputs. The smallholder sector supplies local markets generally aimed at domestic use. The value chain for smallholders extends to locally based traders and traditional or small-scale processors.

Larger plantations, while relatively few, are not undergoing the level of expansion seen in other countries in Africa or across Southeast Asia. Subsequently the problems that have been associated with palm oil in high-growth countries are considerably smaller in Nigeria.

In many ways this situation in relation to palm oil could be regarded as positive. Palm oil should, in theory, provide a significant boon to local livelihoods through a well-established value chain that has existed since the 1960s.

However, this seemingly positive situation is overshadowed by broader problems in both Nigerian agriculture and the Nigerian economy more broadly. More than two-thirds of the country's rural population lives below the poverty line. Despite having significant agricultural potential, the country is a net importer of food. Nigerian palm oil production – and agriculture more broadly – suffers from low levels of productivity, high costs and most significantly, low investment. By way of illustration, Nigeria is a net importer of palm oil; its exports are close to non-existent.

The potential for oil palm as a crop for export and local use is, however, significant. The crop provides exceptional returns to land and labour for smallholders, of which there are around 4 million. The introduction of large-scale investments would bring significant expertise, infrastructure improvements and extension services that would improve the sector significantly.

Nigeria in this regard is unique compared with other palm oil producing nations in the region; it is not a matter of the establishment of a new industry – the industry is established, its plantation footprint is significant (in excess of 2.5 million ha) and many people already understand its benefits. It is more a matter of how the existing industry can be improved – and therefore generate better socio-economic outcomes.

The success of oil palm as a crop is hamstrung by:

*Poor and ineffective land tenure laws:* Legal land tenure often clashes with communal land tenure. The instability of legal land rights provides a risk to investors. The nature of communal land rights based on kinship and community ties prevents the consolidation of investment in property, which would otherwise provide efficiency gains through economies of scale or permit the use of land as collateral for agricultural credit.

*Poorly implemented government policy:* A range of government policies that have targeted the palm oil sector have been ineffective and poorly implemented. Change of government tends to lead to reversals of policy; relationships between different levels of government are poor and uncoordinated.

*High costs:* Poor transport infrastructure and inefficient traditional processing techniques mean that domestically produced palm oil is relatively expensive and of low quality. This means that palm oil produced in Nigeria can be more expensive than imported palm oil when it is transported to, say, northern parts of the country. End-users of the processed oil that use it for high-end applications such as processed food are equally likely to purchase oil that has been imported from Southeast Asia.

*Lack of investment:* Public investment in agriculture has generally been declining in Nigeria. Private investment in agriculture in Nigeria is for the most part considered risky by international investors, despite there being considerable incentives for investment such as tax breaks and high tariffs on competing imported products.

Environmental management in Nigeria is hamstrung by lack of enforcement capacity, lack of coordination between state and federal authorities and a general disregard by local communities of federal laws relating to land tenure.

From this perspective, the question of the impact of environmental regulations on palm oil – whether through private sector (e.g. RSPO) or state or national laws – on smallholders is and has to this point been a non-issue.

Arguably the most relevant policy risk relating to palm oil (and agricultural development more broadly) in Nigeria is that of free, prior and informed consent as it relates to private sector policy rather than public sector regulations. Disputes are most likely to arise when the legal tenure (for example agreed between an investor and federal government) clashes with communal tenure.

This is not a problem that is unique to Nigeria; indeed, there are more acute incidences of this in countries such as Indonesia. In this regard, existing best practice approaches to mitigating risks are likely to be as effective in Nigeria as they are in other jurisdictions.

The question, then, is twofold:

- whether and how a HCS methodology may limit investment in palm oil in the Nigerian context and therefore impact smallholders;
- whether and how a HCS methodology may limit the acceptability of smallholder output in the Nigerian context and therefore impact livelihoods.

The two are closely related. Due to the segmented nature of the palm oil market in Nigeria (in which independent smallholders supply a 'traditional' market) smallholders immediately affected by a HCS policy are likely to be supported by smallholders that are part of a larger investment. This investment is most likely to be targeted at the domestic rather than export market.

Realistically, introducing a HCS methodology to new plantations in Nigeria is not likely to deter investment and therefore expansion of the sector – and therefore impact livelihoods. There are two reasons for this.

First, Nigeria is densely populated; forests are largely degraded; most of the country has already been earmarked for agricultural development. The areas of land likely to be impacted by HCS methodologies will in all probability be small.

Second, agricultural investment in Nigeria is best described as anaemic. Investors already consider Nigeria to be a high-risk environment, unless it involves the purchase of a pre-existing plantation area (as is the case with Wilmar's current development in Nigeria). The imposition of a HCS methodology – or any environmental regulatory regime – presents relatively small risks in relation to risks from other factors, e.g. high costs, land tenure and FPIC – which were risks before they were included in a HCS framework.

This conclusion leads to a parallel question: will the imposition of HCS requirements for palm oil end up having a positive environmental impact? Consider a scenario in which HCS deters palm oil investment of a tract of available land. Nigeria is a net food importer and it is attempting to attract investment in other crops including staples, e.g. rice, cassava. Federal and state governments are also likely to receive a windfall from any investment, not just palm oil. If investors

are prepared to wear the risk, this land, depending on suitability, is therefore likely to be used for another crop. The question that we are considering is not simply a matter of oil palm development versus no oil palm development, but oil palm development versus other agricultural developments.

The longer term impacts that such a policy might have are less direct. Large-scale investments in agriculture are likely to improve extension services, infrastructure, knowledge and productivity. It is these gains to the existing smallholder sector – rather than the generation of new opportunities – that are at risk from any deterrent to investment, even if that risk is small.

Conclusions to this report are broadly as follows:

*There are much more significant deterrents to investment than environmental regulations.* The incentives to invest in agriculture in Nigeria are low. Costs are high; risks from poor governance are also high. The domestic market can often be serviced more competitively from other locations in the region or even outside of it.

*The risks associated with free, prior and informed consent and land tenure are well recognised in the African context.* Those with the financial means to invest in Nigeria are likely to be well aware of the risks from land tenure problems in Africa; it is for this reason that investment in these environments is considered risky – in other words, the risks are well understood and accounted for. If anything, a framework such as HCS or RSPO is likely to provide some level of assurance in this context.

*It is not only oil palm that is facing these risks.* There is considerable demand for other staples such as rice and bananas in Nigeria and there have also been calls for greater investment in these crops.

*Environmental thresholds on oil palm will not necessarily result in environmental protection.* They may simply prompt development of another crop. Oil palm is not a key driver of deforestation in Nigeria; this is because the area for oil palm – although suffering low productivity – is large.

*Consultation with community is essential.* The experience of investors in Nigeria in dealing with communities has mostly been productive. Companies that have undertaken extensive community consultation have generally achieved positive results. However, there will always be levels of dissatisfaction in any community that will lead to some level of conflict; constructive management of these conflicts is essential.

In the event that HCS did deter investment, then, what would be the impact?

*The key positive impact from greater palm oil investment will be improved productivity and greater support for out-growers.* In other words, the likely gains are to be within the existing industry. Improved investment in cultivation, harvesting and processing will provide significant gains for many smallholders in Nigeria who are already supplying the domestic market and/or seek to expand their crops. This is also because the existing smallholder market does not supply a product that is competitive with imported palm oil or palm oil from integrated operations or used in high-end applications.

In other words, the trade-off would be the choice between an industry that remains stagnant and dominated by independent smallholders that supply the domestic market or significant productivity gains for the 4 million smallholders in Nigeria.

# Introduction

## About this case study

This study attempts to provide a comprehensive picture of the trade-offs associated with increased levels of regulation that might limit the production of palm oil in Nigeria. In doing so, the African and Nigerian context – outlined above – cannot be ignored. It is difficult to assess whether and how a relatively small regulatory regime may impact upon two things: a decision by the private sector to invest and the outcomes of that investment.

This study examines the legislative and regulatory environment that already impacts agricultural investment in Nigeria in answer to the first question. The study then provides a benchmark picture of the benefits that the industry provides and subsequent recommendations to answer the second.

This report was undertaken with a combination of desk work and field surveys of stakeholders in the Nigerian supply chain.

## The Nigerian context

Agriculture is a fundamental part of Africa's economy. It supports the livelihoods of around 80 per cent of Africa's people and employs about 60 per cent of the population. It provides around 70 per cent of Africa's poor population with employment.<sup>1</sup> It is therefore a critical part of economic development on the continent, hence the emphasis placed upon African agriculture by many development economists.

It has been noted in the literature that growth in agriculture is twice as effective reducing poverty than in other sectors. However, this is lower than in the other regions. In China, agricultural growth is 3.5 times more effective in reducing poverty; in Latin America it is around 2.7 times. Over the past 20 years, agricultural GDP per farmer has risen less than 1 per cent per annum in Africa. This compares with 2 per cent in Asia and 3 per cent in Latin America.<sup>2</sup>

Agriculture in Sub-Saharan Africa (SSA) accounts for over half of total employment and 20 per cent of GDP. Economic growth in Sub-Saharan Africa has averaged around 3 per cent over the past two decades; however, growth per farmers has similarly been less than 1 per cent. It has also been noted that while agricultural output has been increasing, most of these increases are due to increased areas of land under cultivation rather than increased productivity.

Output per worker in the Sub-Saharan agriculture sector was found to be lower than the non-agriculture in GDP per worker in a global sample of 86 countries considered by the IMF. The difference in average labour productivity between the agricultural sector and the rest of the economy is greater among low-income countries, including the subsample of 23 SSA countries than among high-income countries. Consequently the IMF has noted that that increasing agricultural productivity is an essential element of structural transformation in sub-Saharan Africa.<sup>3</sup>

The vast majority of farms in Africa are below 2 hectares, with median farm size near 1 hectare in most countries.<sup>4</sup> Very few large farms are above 5 hectares, let alone those approaching the size of large scale commercial farms in Brazil. Increasing the productivity of smallholder farmers in Africa is therefore considered by many as the 'best bet' of African economic and agricultural development.<sup>5</sup> While numerous commentators have stated that this would be 'relatively easy'<sup>6</sup>, the practicalities of this are less than certain. The problems associated with attempts to increase smallholder productivity have been documented in relation to Jeffrey Sachs' 'Millennium Villages' projects.<sup>7</sup>

While problems associated with soil and climatic conditions have been noted, other equally significant problems include access to markets – caused by poor infrastructure, lack of information and lack of or inadequate support institutions. By way of illustration, in some areas poor roads and high transport costs literally limit the ability of producers to get their produce to sellers.

Unsurprisingly, this lack of increased productivity combined with high population growth – particularly in SSA – have led to net increases in food imports for many staples in parts of Africa. For example, cereal imports into Africa have steadily increased from 2.5 million tons in the 1960s to more than 15 million tons in 2000 and 2001.<sup>8</sup> This pattern is expected to continue with imports expected to increase 500 per cent to 2050.

In 2013 agriculture made up around 22 per cent of Nigeria's GDP, falling from around 33 per cent in 2009.<sup>9</sup> The main crops produced in Nigeria are yam, maize, millet, groundnut, rice, sorghum, poultry, leafy vegetables and cowpea.

In 2004 agriculture employed around 44 per cent of Nigeria's workforce; current estimates put the figure at around 70 per cent. It should be noted that most agriculture in Nigeria is for small-scale farming and subsistence needs; there is little commercial-scale agriculture in Nigeria. Average farm size in Nigeria is between 0.7 and 2.2 hectares. The agricultural export sector is small, with most production destined for domestic consumption.

The incidence of poverty in Nigeria is high, at around 60 per cent by an absolute poverty measure. In rural areas, this figure is higher at around 66 per cent.<sup>10</sup>

According to FAO datasets, around 84 per cent of Nigeria is agricultural area; of this, approximately 47 per cent is arable land, less than 5 per cent is permanent cropland.<sup>11</sup>

Approximately 10 per cent of Nigeria's land mass (Around 9 million ha) is forested. Nigeria has been considered to have a particularly high rate of deforestation for the region, however, new data appears to indicate that the country's net deforestation levels are not atypical for the region.

The proximate drivers of forest loss appear to be agricultural expansion, fuel wood removal, over-grazing and forest fires. The indirect drivers of deforestation include high population growth, forest governance and lack of capacity with government administration.<sup>12</sup>

# Section 1: The Institutional Framework: Legislation and Regulations Impacting Palm Oil

Laws, regulations and policies impacting the palm oil sector in Nigeria are largely ineffective. Tenure and land-use laws are ineffective to a point where the dominant system of tenure is community-based, despite having no legal basis. Environmental regulations for the most part do not apply to agriculture, particularly smallholder agriculture. International treaties and private certification systems in Nigeria have no bearing on land-use decisions.

## 1.1 National land use legislation

Land use in Nigeria is legislated under the Land Use Act (LUA) of 1978.<sup>13</sup> The Act effectively vests control of all land in the state. The law places upper limits of on landholdings by citizens. These are: 0.5 ha of undeveloped urban land, 500 ha of non-urban land and 5,000 ha of grazing land.

The LUA gives state governors power over the issuance of certificates of occupancy (COO) across Nigeria's 37 states. The law appears to not prescribe the necessity for governors to formalise or gazette laws or regulations around COOs, meaning there is a high degree of opacity around their issuance. This also means that the rules governing issuance of COOs is highly fragmented across the 36 states.

Under the LUA, there are two types of occupancy:

- Statutory occupancy rights, which can be granted to individuals or entities for both urban and non-urban land;
- Customary occupancy rights, which may be granted in non-urban areas for terms of 50 years, which are renewable.

While these laws are in place, a vast majority of the land in Nigeria (more than 80 per cent)<sup>14</sup> is occupied under community-based customary laws, which is best described as an un-codified system of norms and principles that vary widely between states and communities. According to recent surveys most of the country's citizens are unaware of either the Land Use Act or its requirements.<sup>15</sup>

The Land Use Act has been broadly criticised for its ability to override customary tenure in place at the state and community level and the inability of customary landholders to challenge the Land Use Act.<sup>16</sup> The Act therefore offers people very little protection against formal title holders. This is exacerbated by the levels of bureaucracy and expense required to register land under the Land Use Act. Consequently there have been occasionally violent disputes over land.<sup>17</sup>

## 1.2 National forest legislation

The Nigerian Constitution states that the Federal Government has responsibility for the country's forests and their protection. The forest law was drafted in 1956 and has not been updated; it is considered by some as being legally irrelevant.<sup>18</sup>

Although Nigeria's forest reserves are theoretically protected by law, considerable amounts of forest area have been cleared for agriculture with the authorisation of forest officials. State forestry departments are authorised to enforce state forestry laws and regulations, but as with land tenure, these are disparate and fragmented across Nigeria's 36 states.<sup>19</sup>

The Federal Department of Forestry (FDF) was created in 1970 to co-ordinate forestry activities throughout the country has passed from the Ministry of Agriculture to the Ministry of Environment in 1999. The FDF has 37 field offices one in each of the 36 states and the Federal Capital Territory. The FDF is mandated to propose policies, to oversee forestry administration nationwide and to coordinate forestry development; it is not, however, an executing agency which is the responsibility of the States. It thus plays an advisory role to the State Forest Departments (SFDs), which are the bodies dealing with the management, development, protection and conservation of forest resources.

### 1.3 Grasslands law

There is national legislation that requires states to set aside 10 per cent of land for pastoralist and nomadic communities. According to the World Bank very few states have complied with the national legislation.<sup>20</sup>

### 1.4 Environmental regulation and enforcement

The *Environmental Impact Assessment Act* was introduced in 1992 in order to mandate environmental impact assessments (EIAs) for large-scale development projects.<sup>21</sup>

The Act establishes guidelines for the content of EIAs and for federal or state assessment of EIAs.

In relation to agriculture and forestry, EIAs are necessary for the following:

- Land development schemes covering an area of 500 hectares or more to bring forest and into agricultural production.
- Agricultural programmes necessitating the re settlement of 100 families or more.
- Development of agricultural estates covering an area of 500 hectares or more involving change in type of agricultural use.
- Conversion of hill forest land to other land use covering an area of 50 hectares or more.
- Logging or conversion of forest land to other land use within the catchment area of reservoirs used for municipal water supply, irrigation or hydro power generation or in areas adjacent to state and national parks and national marine parks.
- Logging covering an area of 500 hectares or more.
- Conversion of mangrove swamps for industrial, housing or agricultural use covering an area of 50 hectares or more.
- Clearing of mangrove swamps on islands adjacent to national marine parks.

There has been a high level of approvals for projects submitting an EIA. EIAs from the agricultural sector have been low in number. Between 1995 and 2003, for example, just two were submitted.<sup>22</sup> While it is possible – and highly likely – that this is a function of the small number of large-scale agricultural projects in Nigeria, it also indicates that there is limited oversight of agricultural activities in the country.

The National Environmental Standards and Regulations Enforcement Agency Act (NESREA) establishes and gives regulatory authority to NESREA to introduce regulations for particular activities. It has not introduced regulations relating directly to agricultural practices or to forestry practices.<sup>23</sup>

NESREA has been given the regulatory authority to enforce multilateral environmental agreements (MEA). However, Nigeria's level of commitment under such treaties such as the United Nations Framework Convention on Climate Change (UNFCCC) and Convention on Biological Diversity (CBD) remain relatively low.

### 1.5 State and community level land use laws

#### State land-use regulation

As stated above, the Land Use Act vests significant discretion in relation to the issuance of COOs (Certificate of Occupancy). At the state level, this can result in a high level of bureaucracy and a lack of transparency.

Obtaining a COO can require up to a total of 29 different steps at the state level and can involve a significant waiting period and considerable cost. It has been pointed out that the cost of having land formally titled generally exceeds the maximum return from small plots of land for most farmers and by a considerable margin.<sup>24</sup>

Processes vary from state to state, as explained below.

#### Akwa Ibom<sup>25</sup>

Akwa Ibom has an overly bureaucratic and outmoded land use planning and titling system. Its processes are incredibly time consuming with waiting periods of up to 32 months. The stages of the process include:

- Geometric description of the boundary by the surveyor – survey plans.
- Registration and Processing of certificates of deposits, certificates of occupancy in the office of the state surveyor general.
- Registering of interest and title in the state ministry of lands i.e. state land registry.
- Refer to Akwa Ibom state laws backing the establishment of Akwa Ibom state land registry and processes of registration.

- Examination of interest by state land use and allocation committee to ensure Government interest is protected and no conflicts exists between individual interest and existing land-use patterns.
- Urban and town planning considerations.

### **Cross River State**

Cross River State has streamlined its titling and registration procedures.<sup>26</sup> Titling or access to land can be approved within 14 days. There are no specific regulations regarding land clearance or requirements for environmental impact assessments for agricultural activities.

Cross River State is participating in the United Nations Reduced Emissions from Deforestation and Degradation (UN REDD) program with a number of United Nations agencies and is operating as Nigeria's pilot area for the program.<sup>27</sup> Cross River State has subsequently introduced a number of measures relating to forest management in the state.

In 2008, the state supported a process to finally get the draft law debated by the State House of Representatives and the Senate and in 2010 the new Law on the Management and Sustainable Use of the Forest Resources of Cross River State was finally approved. This Law provides provisions for all of the different types of forests within the state. This Law also defines the roles and responsibilities of all the potential stakeholders and beneficiaries of forest resources in the state.<sup>28</sup>

### **Anambra**

Anambra state has a relatively complicated system for title registration, involving 14 steps and 11 fees for the issuance of a COO.<sup>29</sup> None of the steps require any environmental assessment or impact assessment around agricultural activity or otherwise.

### **Oyo State**

Oyo state has streamlined its application system for COOs. However, the process is still highly bureaucratised.<sup>30</sup> In Oyo State, the application for COO must be accompanied by applicant's receipts of development levy for three years, a three year tax clearance certificate, a photocopy of deed of conveyance (evidence of title) original copy of survey plan and original land agreement. As with other states, there does not appear to an environmental approval required for agricultural activity.

## **State Forest Laws and Regulations**

The state-level forest Laws currently in place in the 36 states were for the most part drafted prior to the creation of the states themselves, when Nigeria comprised four regions. The applicability – and even constitutionality of these laws – is therefore questionable, but they are in the main obsolete.

State Forestry Departments (SFDs) SFDs manage forest resources at the state level and supervise revenue collection from the forestry sector in the various states. In 19 states, the SFD is the State Ministry of the Environment and in 17 others it is in the State Ministry of Agriculture (SMA) or Ministry of Natural Resources like in Ondo State; while Ogun State has a separate Ministry of Forestry. The other exception to is Cross River State, which has an independent Forestry Commission with a Chairman and a Permanent Secretary with the enormous advantage of financial independence and responsibility.<sup>31</sup>

## **1.6 Informal customary tenure**

Although there are formal laws and regulations governing land tenure at the state and federal level, the reality is that informal customary tenure – based on the customs of local communities – remains the most common tenure system. These vary significantly across Nigeria's 36 states and communities and go beyond the necessity and scope of this report.

Customary tenure revolves around the ownership of land by individuals or families. Members of communities have possession and usage rights within a community group such as a clan. Local authorities that effectively exercise control over land can take the form of an emir, chief or district head.<sup>32</sup>

The regional differences between these systems have been informed to a certain extent by Nigeria's colonial laws. Northern states rely on sharia law for authority, mostly as a result of being exempted from colonial tenure powers in 1916 and consequently this still dominates tenure laws today.

The lack of legal precedent for the introduction of the Land Use Act means that the tenure system across Nigeria is essentially pluralistic, accommodating both formal government and informal community systems. However, this can cause problems when the federal government authorises the appropriation of land.<sup>33</sup>

## 1.7 Policies impacting agricultural development

### Agricultural policy

Nigeria has a long history of agricultural policies that have, for the most part, failed across a number of decades. A critical evaluation of the failure of these many policies is beyond the scope of this project, however, it is adequate to say that the reasons for these failures are myriad and cannot be attributed to a single cause and there is little agreement between scholars and practitioners on the failure of these policies.

The Presidential Initiative for Vegetable Oil Development (VODEP) was introduced in 2002 and is the most directly relevant policy to oil palm cultivation.<sup>34</sup> The policy set out the following targets:

**Chart 1.1:** Targets for the Presidential Initiative for Vegetable Oil Development

Replanting of plantations above 30 years	1 million ha
Rehabilitation of existing plantings below 30 years	125,000 ha
New plantings	203,000 ha
Massive production of seedlings	58.5 million
Production and procurement of breeder/foundation seeds 5 ha seed garden at NIFOR	25 mt
Target outputs	15 million fresh fruit bunches (FFB)
Capacity building for	Small farmers and processors, Institutional framework FDA/ FMARD; NIFOR; private producers & processors; outgrowers

### Forest policy

The current National Forest Policy was approved by government in 2006.<sup>35</sup> The forest policy reviews and formulation was carried out through an inclusive stakeholder's consultation nationwide between 1999 and 2004. The guiding principles for the policy were based on the government reform agenda of poverty reduction and good governance. The implementation of the policy was supposed to be supported by a revised forest law in 2006. This law is yet to be passed by the government.

The overall objectives is to achieve sustainable forest management that would ensure sustainable increase in the economic, social and environmental benefits from forests and trees for the present and future generation including the poor and the vulnerable groups

Specifically, some of the objectives include:

- Increase, maintain and enhance the national forest estate through sound forest management practices;
- Address the underlying causes of deforestation, forest degradation and desertification;
- Promote and regulate private sector involvement in forestry development and create a positive investment climate in the sector;
- Support schemes that would facilitate access to carbon markets; and
- Encourage forest dependent people, farmers and local communities to improve their livelihood through new approaches to forestry.

Some of the strategies for the implementation of the policy elements include:

Promotion of partnership with all stakeholders including the Private sector, Communities, Civil Society Organisations (CSOs), Non-governmental Organisations (NGOs) and Community Based Organisations (CBOs);

- Decentralisation;
- Promotion of community participation in forest resources management; and
- Encouraging the active participation of women, youth and the vulnerable group in forest resources development.

## 1.8 International commitments

Nigeria is a party to the United Nations Framework Convention on Climate Change (UNFCCC) and a signatory to the Kyoto Protocol under the Convention. As an Annex II (developing) country under the Convention, it has no commitments to reduce emissions from land-use change or otherwise.

Nigeria is also participating in the United Nations' Reduced Emissions from Deforestation and Forest Degradation (UN-REDD) program, which is currently administered by the Food and Agriculture Organization (FAO) and by the United Nations Development Program (UNDP). The broad aim of this project is reduce emissions within the agriculture, forest and land-use sectors (AFOLU). The program requires governments

to submit Readiness Project Plans (R-PPs) in order to secure funding to develop related emissions reduction programs. Nigeria completed its R-PP at the end of 2014. No specific commitments were made in relation to palm oil nor to smallholder agriculture.<sup>36</sup>

However, the preliminary work on Nigerian land use in Nigeria identified the key proximate drivers of deforestation:<sup>37</sup>

- Conversion to agriculturally cultivated land, primarily for subsistence needs, though also for commercial production. This also includes expansion for pasture.
- The removal of timber in Nigeria is occurring at an uncontrolled rate, without strict adherence to laws or payment of appropriate fees and levies, contributing to increasing rates of forest loss. Also it is evident that fuel-wood contributes significantly to deforestation and degradation too, with around two thirds of the country relying on wood as a primary source of fuel, particularly for cooking.
- Infrastructure extension involving construction of roads, settlements, pipelines, open pit mines, hydroelectric dams, are also recognised as an important driver of deforestation, both directly and through the process of opening up areas for better access.
- Finally, forest fires through the annual bush burning are also viewed as a significant contributing factor in deforestation and degradation.

Further, the study also identified the underlying causes of deforestation in Nigeria:

*Policy and market failures:* Outdated forest laws, Sector-specific forest polices encourage deforestation, development policies and Nigeria's tenure policies

*Governance:* Lack of integration with other ministries, forest land tenure; weak capacity at federal level, weak capacity at state level, absence of forest management planning and de-reservation by state governments.

*Demographics:* a growing rural population and migration to the rural areas and forest frontiers increases the pressure on forests.

*Poverty:* Lack of access to basic services, land tenure: a lack of tenure security discourages long-term investment, low technology and exploitation.

*Macroeconomic factors:* these include external debt, foreign exchange rate policy and trade policies governing the sector. For example, policies supporting export-orientated agriculture production.

## 1.9 Private governance systems - RSPO

RSPO inaugurated its Nigerian National Interpretation Working Group (NIWG) in mid-2014. Work to complete the National Interpretation for Nigeria is ongoing. There is no RSPO-compliant palm oil produced in Nigeria, nor palm oil that complies with any other standards, such as organic standards.<sup>38</sup>

## 1.10 Assessing the mechanisms

Land use, forest and related policy mechanisms in Nigeria are best described as inadequate. Their formulation during times of significant political transformation has resulted in laws that lack implementation, enforcement capacity and ongoing monitoring.

### National land use legislation

The Land Use Law, which effectively underpins the legal basis of land use across the country and was effectively designed to formalise or replace customary rights, was introduced at a time of political instability, which was followed by 16 consecutive years of military rule. The capacity and mechanisms to implement such a wholesale political and cultural change simply did not – and arguably still do not – exist. The lack of coordination between federal and state levels of government only exacerbate this problem.

### State land use regulations

State-level land-use regulations – related to titling and access – are by all accounts ineffectual and costly. The cost of these regulations impose an unnecessary burden on landholders that exceeds any returns from the land itself. This high cost and associated uncertainty of tenure, provides a disincentive for them using land as collateral for loans and other capital improvements. Further, it prevents the functioning of a land market more broadly, which means that larger investments in agricultural production carry a higher risk.

The lack of capacity within state land administrations are exemplified within states such as Akwa Ibom, where it has been noted that:<sup>39</sup>

- There is no documentary evidence of title for up to 80 per cent of the parcels in Akwa Ibom state, with an estimate that less than 10 per cent of the state is covered by any kind of detailed cadastral survey.

- Akwa Ibom State does not have a land information management (LIM) system using Land information system (LIS) and GIS as a management tool. These systems are still at the proposal stage and are yet to be implemented.
- Cumbersome, lengthy, time-consuming legal and administrative procedures e.g. processing for certificate of occupancy and lengthy approval processes and bureaucratic delays.
- Cadastral records are generally in manual form (i.e. hard copies) and are incomplete. No alternative source of comprehensive information for land management has been developed.
- The process of land registration takes an average of 15 to 18 months and that a period of 2 to 7 years is common for certificate of occupancy. This lengthy and costly procedure means that tens of thousands of land titles are pending.
- The record system is centralised, which means that district and local decision makers have virtually no access to information held on the cadastral system. This has an impact on the sustainability of land management decisions. Available information relates only to the metropolis or rural areas where formal legal procedures were used for planning. Yet most decisions need to be made about the non-formal, customary parts of the state, which are not covered by the cadastre.
- Many of the parcels in the cadastral systems are in hard copy form, stored in archives, it is cloudy and information on them is ambiguous.
- There is a great shortage of urban mapping. The last mapping in Akwa Ibom state was done in 2000.

While the problems with land use law are well recognised, there is little political will to replace the current system and, given current political instability in the Northern part of the country, it is not a likely prospect in the immediate future. Forest Law – Federal and State.

The Forest Law was drafted in a period that is irrelevant to post-independence Nigeria. The derogation of authority to state forest agencies to ‘protect’ state forest reserves has meant there is effectively no protection for forests from either over-exploitation or conversion to other uses, which are permitted under these state-based regulatory regimes. There is little or no incentive for state authorities to either retain reserves or maintain national parks, for example, in the face of lack of federal funding allocations.

At the implementation level, although there is a Forest Management Division at State level, this activity is not practiced. Regeneration is a general activity specified

under law, but the departments lack the necessary funds, technical support, infrastructure and logistics to support that activity. Log Control is practically not existent and is done by staff with vocational or no formal grade qualification. With the exception of registration, the departments virtually have no control activities on the forest industry, such as monitoring of wood flow from sawmills, log grading and mill product inspection.<sup>40</sup>

While there is an exception to this in the form of Cross River State, there are still problems that beset what is arguably the role model for state forestry administrations. These include the ability of applicants (though not always successful) to ‘de-reserve’ state forest reserves in order to undertake farming practices.

Despite this, Cross River has Nigeria’s most effective state forest administration. However, the circumstances of this need to be carefully considered before considering it as a role model for other states. The administration is particularly well resourced, which is a function of the state’s use of its oil revenues. This has given the state what is best described as a cumulative advantage; it has further been able to advocate for international funding under United Nations and other aid programs and become the ‘poster child’ for forest reform in Nigeria. The key takeout from the success of Cross River’s forest administration is that when forest administrations are well resourced enough to function and function independently they can achieve their objectives.

### Environmental regulations

Regulations related to environmental impact assessments and environmental guidelines have the ability to function. Regulations and guidelines that were specifically introduced to mitigate environmental damage associated with the mining and petroleum sectors have been effective in this regard. However, there are no specific guidelines associated with agricultural or forestry projects.<sup>41</sup>

Environmental impact assessments are required by law for certain agricultural and forestry projects. The effectiveness of these assessments is limited specifically by the monitoring and enforcement capacity of relevant departments.

### Informal customary tenure

Informal customary tenure remains in many parts of Nigeria an effective and decentralised means of exercising authority in relation to land tenure. However, its underlying problem is its lack of integration or harmonisation with the legal formalised land tenure systems administered by the government.

There are no means of recognising customary tenure via existing regulatory mechanisms (as there is in a number of other countries such as Indonesia and Malaysia) the prospects for resolving the tension between the two systems remain unlikely.

It should also be noted that while customary tenure can (and does) undertake sustainable land management, this does not prevent competition between management systems – and communities – from producing negative outcomes, such as degraded land and forest. This is particularly acute in relation to competing crop and pastoralist systems. In the North of Nigeria, for example, competition has become more intense, leading to higher levels of degradation.<sup>42</sup> This is significantly different from the situation in countries such as Indonesia where farming is predominantly crop-based.

### **Agricultural policy**

As stated above, Nigerian agricultural policy has for the most part failed to tackle the problems associated with Nigerian agriculture.

The single policy targeted towards palm oil (and other vegetable oils) was the Presidential Initiative on Vegetable Oil Development (VODEP). The estimated cost of the VODEP programs was N50.8 billion across 3 -5 years or approximately N10 billion annually. However, in 2003, just N100 million was allocated and N31 million in 2004. While finding allocations spending be considered a strong measure of outcomes or, indeed, the effectiveness of the spending, it does indicate that at the very least the capacity of the Nigerian government to implement such a program was severely lacking.

### **Forest policy**

The National Forest Policy of 2006 was to be supported by a revised National Forest Act, also drafted in the same year. The Act has not been passed by the legislature. Without this crucial support – including budgetary allocations – the policy in effect cannot be implemented.

**Chart 1.2:** Assessing the Mechanisms

A table below summarises the institutions, relevant legislation (if any) and commentary on institutional capacity alongside the source of the commentary.

LEGISLATION/ REGULATION/ POLICY	INSTITUTION(S)	COMMENTARY	SOURCE
Land Use Act 1978	Ministry of Lands	Excessive power to local government and governors  Confusion defining ownership  Lack of clarity of duration of rights  Lack on institutional capacity  Severe impacts in rural areas, occasionally leading to violent conflicts	IFPRI
	Lands Department, State Planning and Development Authorities and Committees	Committees 'not functioning' by some accounts  Farmers are largely unaware of the LUA and most farmers do not make choices based upon the policy mechanisms  Processes are overly bureaucratic and expensive providing disincentive to register  Reduces incentives to make long-term investments in land	USAID, World Bank
Forestry Act	Federal Department for Forestry and State Departments of Forestry	Law is considered to be irrelevant;  State planning authorities tend to issue certificates without regard for forestry management  Forest management considered non-existent  Current revenues in the Nigerian forest sector are minimal  Low timber prices and low fees, coupled with protectionist policies, such as the import tax and the log export ban, mean that the wood industry is inefficient, resulting in more demand for wood which is met through illegal and other channels.  No relationship between forest planning, forest management and the revenue system.  Knowledge gaps on appropriate fiscal policies for Nigerian forestry  SDFs lack funding and resources, resulting in no incentives for programs associated with monitoring and compliance, let alone conservation	World Bank Nigeria: Strengthening the Nigerian Forestry Sector to Enable Sustainable Forestry Revenue Generation in Nigeria's Productive Forests  Femi Ogundare, Federal Department of Forestry, Federal Ministry of Environment, Abuja, Nigeria. Report Submitted To The Office Of The Coordinator Of THE JOINT PROJECT OF THE AFRICAN TIMBER ORGANIZATION/ INTERNATIONAL TROPICAL TIMBER ORGANIZATION (ATO/ ITTO) (PD 124/01 Rev.2(M) December, 2012

Cross River State Forestry Commission Law of 1999	CR State Forestry Commissions	Provides permission for individuals to farm land in forest reserves for a fee of N2500/ha.  Permits 'dereservation' of forest reserves with application	Enuoh (2015)
Grasslands Law	State Planning Departments	Lack of implementation at state level	World Bank
EIA Act	FEPA and NESREA	High levels of approval, lack of monitoring and oversight	Yusuf, Agarry, et. al.
NESREA Act, NESREA Guidelines	NESREA	Agency is considered effective; however there are no guidelines relating to agricultural management or forest management	
VODEP	MARD	These VODEP implementation constraints were cited by FDA/FMARD (2006):  Aging and inefficient processing equipment, inability to install new processing equipment due to high offshore costs, high costs of production inputs and farm machinery, inability of local vegetable oil to compete with cheaper imported products, inadequate and untimely funding of the program and delay in the certification of projects.  The recurrence of funding as one of the key implementation constraints of VODEP and other presidential initiatives	MARD

## 1.11 Assessment conclusions

Land use and forest administration in Nigeria can be placed into three categories: official policies; official federal or state-based laws and regulations; customary practices.

Official policies rely on laws and regulations for effectiveness.

Official federal or state-based laws and regulations, however, suffer similar problems that confront most government administration in Nigeria.

They include a rapid turnover of governments, lack of continuity in programs, lack of oversight and management capacity in administration and programmed activities.

Some observers note that the key obstacle to improved land and forest administration is the national coordination with state-level agencies. It is also arguable that this problem is not confined to forestry and agricultural policy, but to federal-state relations more broadly and the entire Nigerian federalist system. The problem can be summarised relatively simply:

- The Federal Government is responsible for collecting and distributing the majority of revenue;
- Federal institutions derogate responsibility for a range of land-use policy areas to state governments or introduce new policies;
- Federal institutions fail to allocate financing and resources to the relevant state institutions and policy implementation fails.

The exception to this is the sweeping reforms undertaken by Cross River State in relation to both land and forest administration.

That said, it is also arguable that Cross River State's circumstances are exceptional in that the reforms undertaken relied upon a large-scale intervention from a development agency, a large resources base (i.e. oil revenue) to maintain revenue support for agencies and a relatively diversified state economy. Assuming a one-size fits all approach would work in other states would be a mistake; it can be reasonably argued that Cross River's administrative reforms are dependent upon the management of its oil revenues, specifically through its state reserve system.

But it appears that superior administrative practice is one of the reasons that a number of international firms (e.g. Wilmar) have invested and established operations in Cross River State. This result would appear at first glance to be counterintuitive; a conventional campaign narrative is that large companies will look for jurisdictions with the least stringent regime. However, the Wilmar example would appear to support a competing narrative, which is that stable tenure regimes encourage longer-term investment in land and

environmental management. Whether this regime is based on community, state or federal authority is in fact irrelevant.

The conclusions that can be drawn from this section of the study are as follows:

- Nigeria's current formal forest and land laws and regulations are inconsistent and outdated for the country's development needs;
- The federal and state agencies responsible for implementing policies or enforce compliance lack funding, resources and coordination between different levels of government;
- Uncertainty created by this administration serves as a hindrance to long-term investments;
- Environmental regulatory frameworks and agencies that are effective have not been extended to land and forest administration;
- Customary land tenure systems provide some level of stability for subsistence farming practices, but they are not policy mechanisms that are compatible with national-level policies aimed at making wholesale improvements to the agricultural sector or encouraging large-scale investments in infrastructure;
- Nigerian land and forest administration is in need of broad reforms and this has been the case for a number of years;
- The political appetite for these reforms is lacking and the current status quo would appear to lend itself to political cronyism;
- The areas where land and forest administration have been successful have required significant financial investments in developing and implementing new administrative arrangements;
- At the same time, these successes have generated some level of opposition among existing stakeholders;
- In terms of recommendations to the broader study in relation to implementing a HCS methodology, there are several elements to consider both here and in the following chapters. It should also be underlined that the problems around land tenure in Nigeria are, from this perspective, unique and close to intractable. They pose considerable constraints on the Nigerian economy, particularly in the agricultural sector. Despite the magnitude of these problems, our recommendations are:
- Customary tenure is an informal but nonetheless functioning form of land administration in Nigeria that respects the rights of smallholders to undertake what are relatively small-scale farming activities. Any large-scale developments or HCS methodology should consider and adapt to these existing structures;

- Given that 90 per cent of existing oil palm cultivated area is in wild groves and is unlikely to have formal tenure associated with it, the HCS methodology should consider a methodology for exempting wild-sourced palm fruit from HCS environmental requirements;
- Given that 5 per cent of existing oil palm cultivated area – a relatively small magnitude – is held by smallholders operating on very small farm sizes that are unlikely to be subject to formal tenure, the HCS should consider a methodology that exempts smallholder farmers under a recognised threshold from: a) legal tenure requirements; b) environmental requirements;
- Agricultural policies and development objectives that have been designed to boost Nigerian agricultural output have not been supported by adequate administrative capacity; any HCS methodology should attempt to harmonise with and support these broader development goals, rather than create an environment that imposes a greater regulatory burden on the agricultural sector.

### **BOX: CROSS RIVER STATE**

Cross River State has found itself at the forefront of land-use policy in Nigeria. The state has undertaken large-scale reforms of its titling regime, which is likely to have long-term social, economic and environmental dividends.

There appear to have been two main drivers for this. The first is as a measure to prevent fraud. Titling in Nigeria is notoriously weak. While this can create the social and environmental problems discussed elsewhere in this case study in rural and agricultural contexts, it also creates significant problems in urban contexts. Property fraud, in which properties are sold to unknowing purchasers by fraudulent agents who have no authority to sell a property, is particularly common. This lack of security in land titling presents an economic drag.

Depleting and reduced oil revenue proceeds. Cross River State was previously listed by the Central government as a major oil-producing state, which provided it with revenue that allowed it to fund a range of social and environmental services and has left its bureaucratic structures relatively advanced.

However, the state recently lost some of its oil wells occasioning a reclassification of the state as an oil-producing state meant that it had to look for alternative revenue streams. One of the strategies was to increase levels of domestic or foreign direct investment. The administration acknowledged the overall weaknesses in Nigeria's state-level titling systems and subsequently overhauled its own state titling system, replacing a paper-based system with electronic records. Titling now uses GIS (geographical information system) information to prevent duplicate or overlapping titles. Applications for titling can be turned around quickly and with minimal cost.

This reform has reaped a substantial dividend in terms of encouraging both urban and rural investment. In a rural/agricultural context, Wilmar has invested heavily in the state managing approximately 50,000ha of plantations. The reform has meant that the state has become an ideal jurisdiction for conservation and environmental initiatives such as UN-REDD, in which both stable land tenure and comprehensive cadastral information are vital.

Ultimately what this information provides is a better basis for: overall land-use planning by the relevant administration, which should result in more balanced economic and environmental outcomes and; long-term investment by farmers whose title is secure enough to encourage better environmental management and capital improvements.

*Sources: Adeniyi (2013), Atilola (2013), Mabogunje (2010)*

# Section 2: Socio-economic Impacts of Palm Oil in Nigeria

Nigeria produces around 3 per cent of the world's palm oil, but has around 21 per cent of the world's planted oil palm area. Most of the palm oil produced is of low quality for domestic consumption. Nigeria is a net importer of palm oil due to growing domestic demand. It contributes around USD1.6 billion to the national economy and employs upwards of 4 million people. It is dominated by smallholders, who produce around 80 per cent of the country's palm oil.

## 2.1 Background

The oil palm is an indigenous plant across tropical Africa. Of all the principal export commodities during the colonial period, palm oil and palm-kernel was significant and was one of the first commodities to be exported from Nigeria. Palm production became important in the 19th century during the industrial revolution. Between 1865 and 1910, palm product exports doubled from West Africa; Nigeria was the leading exporter. By 1900, palm produce constituted 89 per cent of Nigeria's total exports<sup>43</sup> and in the 1920s, many West African countries began to export high quality palm oil.<sup>44</sup> Nigeria's leading position in palm produce export was further threatened with the growth of plantations in Sumatra, Malaya and the Belgian Congo.

There has however been a steady decline in palm oil production since 1965. This was occasioned by the commencement of crude oil exploitation which began in early 1970s which serves as Nigeria's main export product.<sup>45</sup> However, the Nigerian civil war between 1967 and 1970 arguably contributed most to the demise of the sector.

In many parts of Nigeria, there are three categories of palm plantation: small size holding, medium size plantation and large scale (estate) plantation. Smallholding farms cover a range of 0.7-5 hectares and are often characterised by mixed cropping in order to maximise the usage of the land. A significant proportion of oil palm exists in wild or semi-wild groves. But when this is added to those that were cultivated by smallholders, it shows that smallholders control over 90 per cent of the Nigeria palm oil production (Chart 2.1). State-owned companies and a small number of private companies own and operate fairly large plantations.

**Chart 2.1:** Oil Palm Area in Nigeria

Type	Hectareage
Wild grove	2,300,000
Smallholder	117,625
Estate	96,465
<b>Total</b>	<b>2,514,090</b>

Source: Raw Materials Research and Development Council (RMRDC) 200446

A broader classification of the palm plantation in Nigeria indicates that plantations can be grouped according to production systems:<sup>47</sup>

1. Large estate plantations
2. Medium and smallholder plantations with many of the smallholder systems intercropped with food crops and sometimes other cash crops
3. Semi/natural groves

Small/medium farms are those with areas of between 0.7 and 100 hectares. This can be subdivided into, small scale farms, medium scale farms and large scale farms.

In terms of farm size and yield, the systems can also be distinguished as follows:

1. Wild-groves: Owners of land lease out the trees to individuals to harvest the fruits. There is no investment by the owners and the variety of oil palm is Dura. The average yield is estimated at 1.5 tons of FFB/ha/year.
2. Small-scale farmers: Owners of between 1 and 10 ha of planted palm and mostly Tenera variety. Some are inherited and some are new and they have average yield is 3 tons of FFB/ha/year.
3. Medium-scale farmers: Owners of between 10 and 25 ha using manual production technology. The average yield is also 3 tons of FFB/ha/year.
4. Large-scale farmers: Owners of between 25 and 100 ha with adoption of small mechanisation and herbicide application. The average yield is 5 tons of FFB/ha/year.

Estate plantations are farms that are greater than 100 hectares. This category can also be further sub-divided into small estate, medium estate and large estate plantations. The qualities of small, medium and large estates are described in details in the Chart 2.2.

**Chart 2.2:** Classification of Oil Palm Estates

Small Estates	These have area between 100 and 1000 ha per holding and usually owned by individuals and cooperatives. The average yield is 5 tons FFB/ha/year.
Medium Estates	The area under cultivation in this group is between 1,000 and 5,000 ha per holding. These are owned by corporations or State governments and most of the corporations are linked to a medium sized mill. The average yield is 5 tons FFB/ha/year. Some of the functional holdings include A & Hartman (4,000 hectares), Aden Rivers (1,050 hectares), Ore-Irele Oil Palm Plc (3,103 hectares), Investment Holding Company Irele (1,220 hectares) and Investment Holding Araromi (1,271 hectares).
Large Estates	The area under cultivation per holding is greater than 5,000 ha and some are integrated into large scale processing. The average yield is 5 tons FFB/ha/year. Some of the functional holdings in this group include Okitipupa Oil Palm Plc (OOPC; 10,468 hectares), Okomu Oil (10,000 hectares), PRESCO (9,841 hectares) and Obasanjo Farms (8,670 hectares)

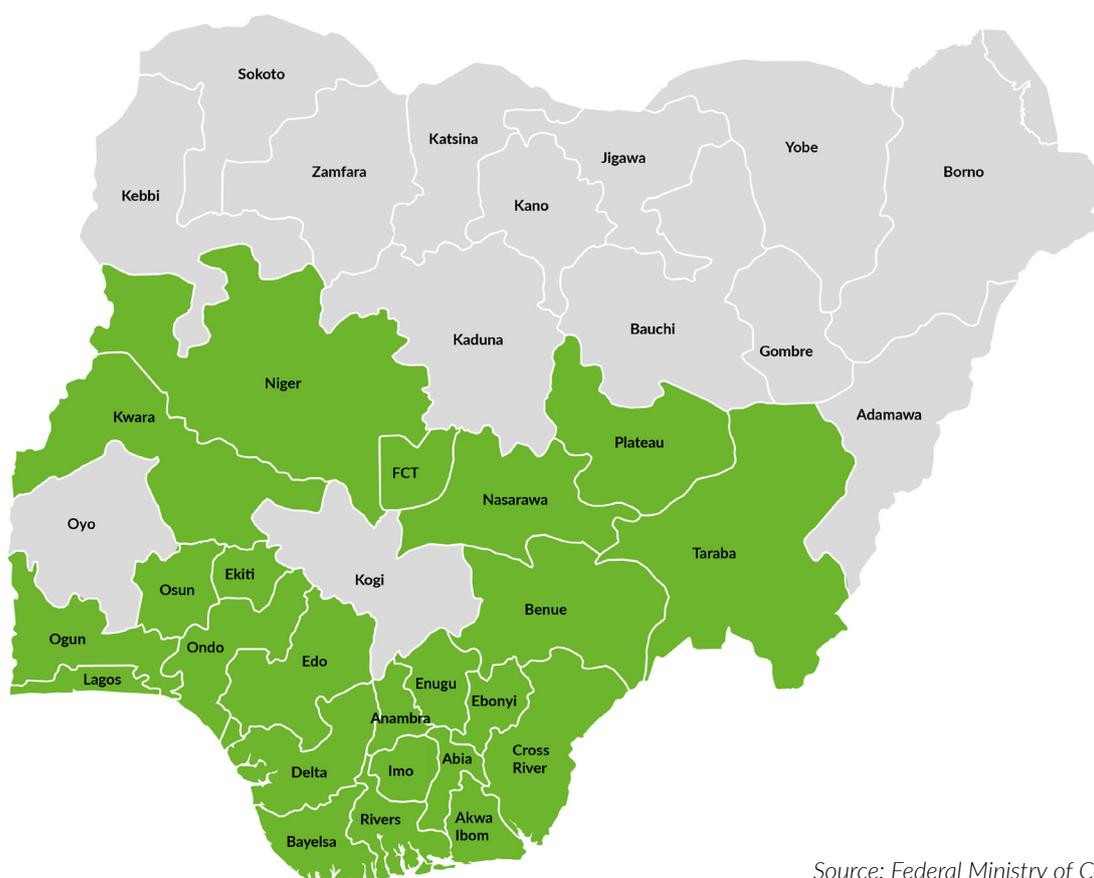
Of all these states, Akwa Ibom state has the largest area of wild-groves (about 300,000 hectares) while Kogi State has the smallest size of wild grove (about 50,000 hectares). Akwa Ibom also has the largest area of smallholdings (29,825 hectares). Cross River has the smallest area of smallholdings (15,800 hectares).<sup>49</sup> Chart 2.4 shows the distributions of the oil palm area for the dominant palm oil producing States.

Large size plantations (estates) are usually owned by state governments, Federal government and private investors. State-owned estates are 14 in number and the states in the Niger-Delta region have the largest hectareage compared to other parts of Nigeria. As of part of the drive to revitalise palm oil as a major earner most state governments have either privatised or substantially divested their estates.

While oil palm is grown in the rainforest and savannah belts, the indigenous Dura variety is estimated to cover over 2.3 million hectares. It provides over 50 per cent of national palm oil and palm kernel output. Plantings of the improved Tenera variety cover only about 200,000 hectares which are made up of mainly small size holdings.<sup>48</sup>

There are total of 14 states and the federal capital territory which climatic conditions are conducive to oil palm plantation. These states include Abia, Anambra, Bayelsa, Akwa-Ibom, Cross River, Delta, Ebonyi, Ekiti, Enugu, Ondo, Ogun, Osun, Oyo, Imo, Rivers, Kaduna, Kogi, Kwara, Benue, Niger, Plateau, Taraba and Nasarawa States as well as the Federal Capital Territory (FCT) as shown in Chart 2.3.

**Chart 2.3:** Geographical distribution of States with Oil Palm in Nigeria.



Source: Federal Ministry of Commerce

**Chart 2.4:** Oil Palm Area in Nigeria by State

STATE	Wild Grove (Ha)	Small holdings (Ha)	Estates (Ha)
Imo	450,000	27,000	6,000
Akwa Ibom	300,000	29,825	1,312
Cross River	250,000	15,800	20,149
Anambra	200,000	12,000	3,000
Oyo	200,000	-	-
Rivers	150,000	7,000	19,000
Abia	150,000	14,000	2,000
Osun	150,000	-	-
Ogun	120,000	-	4,500
Ondo	85,000	4,000	14,670
Benue	85,000	-	-
Delta	60,000	8,000	6,500
Edo	50,000	-	19,334
Kogi	50,000	-	-
<b>Total</b>	<b>2,300,000.00</b>	<b>117,625</b>	<b>96,465</b>
<b>Grand Total</b>			<b>2,514,090</b>

Source: RMRDC 2004

A recent study by Partnership for Niger-Delta Development (PIND) indicates that the areas cultivated by different states has either decreased or has not changed significantly when compared with the corresponding size in 2004 as presented in the Chart 2.4 above<sup>50</sup>. This indicates there are few entrants into the business or felling of aging trees without commensurate replacement.

## 2.2 Broader economic contribution

Oil palm is the most prominent oil bearing crop in Nigeria, in terms of quantity consumed directly or processed into oil and cake. Palm oil accounts for about 72 per cent of vegetable oil production in Nigeria. The development of the sub sector has continued to gain attention of successive governments. This is not only connected with its economic importance as a source of edible oil, but also the revenue earning potential of technical oil.

Today Nigeria is a net importer annually of around 300,000 – 500,000 tons of vegetable oil.<sup>51</sup> While local production of palm oil has stagnated at 930,000 MT since 2013, domestic consumption has risen to 1,430 million metric tons (MT) per annum, thus leaving a supply gap of 500,000 MT.<sup>52</sup> Domestic sales contribute around N241.8 billion (USD1.61 billion) to the national economy.<sup>53</sup>

Palm oil production is a major employer in many communities particularly in clusters within the states listed in Chart 2.3. The sector is estimated to employ up to 4 million people as well as providing incomes for many farmers and their dependents.

A survey carried out by Initiative for Public Policy Analysis (IPPA) in 2010 among rural oil palm farmers reported that the modal monthly income ranges between N35,000 and N40,000 (USD233 and USD267).<sup>54</sup> Despite the common tendency to under-declare income because of tax avoidance, the reported income shows that an average palm oil producer lives above the Nigerian poverty line of less than USD1.25/day. Many of these people also employ the services of members of their families in many operations involved in palm fruit processing and marketing. Thus it becomes a major source of living for the families.<sup>55 & 56</sup>

**Chart 2.5:** Summary information on Palm Oil in Nigeria

Production	930,000 MT
Land under cultivation	3 million (ha)
Share of Global Palm Oil production	2 per cent
Yield Per hectare	2 MT
Employment	4 million

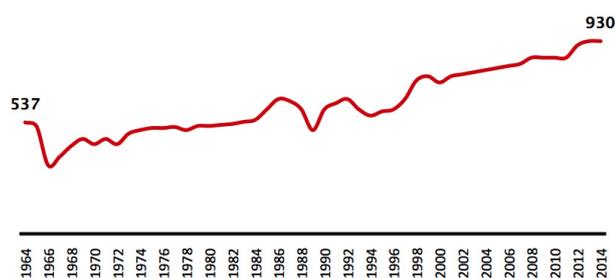
Source: Authors from Federal Ministry of Commerce Data

## 2.3 Production pattern and output

In the early 1960s, Nigeria was the world's largest producer of palm oil, contributing 40 per cent of global production and 27 per cent of global trade.<sup>57</sup> Chart 2.6 below shows the national output of palm oil from 1964 to 2014. However, due to inefficiency in processing methods and the discovery of crude oil in commercial quantities, Nigeria is currently a net importer of palm oil, with 525,000 MT valued at about USD388 million and export of 18,000MT valued at about USD13.3 million in 2014.

Potentially, the palm oil industry in Nigeria could play a significant role in improving balance of payments through the production of palm oil as exports substitutes as well as major export (Chart 2.7). There has been an increase in private sector investment in the development of new oil palm plantations and the expansion of existing ones. The functional plantations are few and are concentrated in just a few states while most of the other existing plantations are more than 30 years old without replanting plans.

**Chart 2.6:** Palm Oil Production Trend 1964-2014



Source: Federal Ministry of Commerce/United States Department of Agriculture

Chart 2.7 indicates that Nigeria has witnessed erratic growth rate in palm oil production until recently. This is not only because of the manifestation of the overwhelming effect of the oil exploration – i.e. ‘Dutch disease’ – but due to declining productivity of oil palm plantations due to old age, lack of appropriate technologies for palm fruit processors (notably small and medium scale), unfavourable government policies as regards agriculture in general and non-availability of effective extension communication profile.<sup>58</sup>

**Chart 2.7:** Trend of Palm oil Import and Export



Source: Federal Ministry of Commerce 2014

This is in contrast to world production of palm oil which has shown astonishing growth being that the commodity has assumed the world’s second most important vegetable oil after soybean. The key to this growth is found in Asia where output is more than 80 per cent of the world’s total production. Indonesia has displaced Malaysia to occupy the first position while Nigeria occupies fifth position despite the fact that the country has the climatic and edaphic factors that support the cultivation of palm trees.

**Chart 2.8:** Sector Comparison

	Indonesia	Malaysia	Nigeria
Cultivated area (Mha)	7	5	3
Production ('000 MT)	33,000	20,500	930
Consumption ('000 MT)	10,520	2,840	1,430
Imports ('000 MT)	0	275	525
Exports ('000 MT)	22,300	18,000	18
Employment (million)	20	0.9	4
% of world production	47%	39%	2%

Source: Federal Ministry of Commerce/United States Department of Agriculture

Harvests from wild groves are the largest source of palm oil, although there are an increasing number of plantations. For wild grove harvesters, one of the major constraints is that they are rarely the owners of the land. This is largely because of land tenure system which creates disincentives for plantation owners (see Chapter 1). In the absence of secure property rights many farmers are unwilling to make further investments by applying necessary inputs and engaging in weeding and pruning. This in turn has had overall effect on net yield and overall productivity.

The potential land available for oil palm development in Nigeria is estimated to be 24 million ha. From an area of about 2,500,000 ha under natural groves and plantations, only 11.4 per cent of potential land available is covered.<sup>59</sup> Of the total palm oil and palm kernel output, production from the natural groves and smallholder plantations account for about 81 per cent and 89 per cent respectively while production from the large estates account for about 19 per cent and 11 per cent respectively. Palm oil production is still very much dominated by the smallholder producers. Chart 2.9 also shows the palm oil and palm kernel oil production among production systems for the year 2008.

**Chart 2.9:** Estimated palm oil and palm kernel production 2008

Production System	Palm Oil (Tonnes)	%	Palm Kernel (Tonnes)	%
Natural Groves	274,918.00	52.67	152,883.09	65.30
Small & Medium Holders	148,236.11	28.40	55,268.09	23.60
Estates	98,782.94	18.93	25,981.84	11.10
<b>Total</b>	<b>521,937.05</b>		<b>234,133.02</b>	

Source: PIND (2011)

### 2.3 Returns to labour

It is estimated that palm oil sector in Nigeria employs about 4 million people at various levels including input supply, primary processing, secondary processing and retailers of both special palm oil (SPO) and technical palm oil (TPO) of which 35 percent is female (Federal Ministry of Commerce and Industry 2014, PIND 2012). This involves hundreds of thousands of small-scale producers and tens of thousands of small-scale processors. The prospects for job creation are high as palm oil production remains a major vocation in many communities. The Nigerian government is at present promoting an agriculture entrepreneurial scheme in which palm oil businesses at micro level are an essential component. This scheme is based on the idea that the palm oil industry represents one of the most effective avenues for poverty alleviation, food security, ensuring economic stability in Nigeria as well as providing incomes for many farmers and their dependents. The industry also has the prospects of providing employment for millions of unskilled and semi-skilled people.

There are numerous ways in which palm oil production could be deployed to boost employment opportunities for the people. In the domestic market, middlemen (traders) appear to have benefitted more from the palm oil business in Nigeria due to inefficiencies in the weak value chain system. Proper focus on palm oil will lead to the improvement in its production, which will effectively mitigate the poverty level in Nigeria, where there has been limited transformation and uses of the primary or secondary products from oil palm for either food or non-food applications.

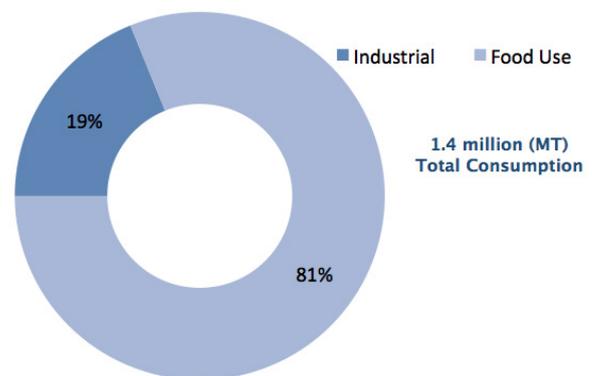
In Nigeria there has always been a gap in the production of palm oil (SPO, special palm oil and TPO, technical palm oil)<sup>60</sup>. For example a recent study by PIND reported that 94,860 MT is required to fill the demand gap of SPO in just four companies in Nigeria. A critical analysis indicates that about 400 small scale

processors will be adequate to bridge this gap. This translates to around N91 billion in revenue for the sector.<sup>61</sup>The implication is there will be expansion in the industry as more people will be engaged in oil palm cultivation, harvesting, processing and marketing thereby creating more jobs.

### 2.4 Consumption and trade patterns

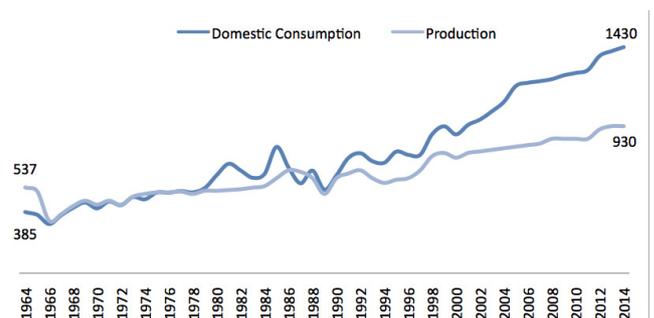
Palm oil consumption and trade patterns vary depending on the actual production and the volume that are imported. Since the lifting of ban on importation of SPO in 2008, production has remained flat at 930,000 MT, while demand has continued to grow moderately.<sup>62</sup>

**Chart 2.10:** End-use of palm oil in Nigeria, 2014



Source: Federal Ministry of Commerce

**Chart 2.11:** Changes in Production and Consumption ('000 MT)<sup>3</sup>



Source: Federal Ministry of commerce Nigeria

Nigeria today produces roughly 2 per cent of the world's palm oil which is insufficient to meet its domestic consumption alone which currently stands at 2.7 per cent of global consumption. According to official figures Nigeria imports about 45.29 per cent of its total consumption, though there are indications this is a conservative figure.

Major importers of crude palm oil (CPO) use both Nigeria and Benin Republic ports to import. But most of Benin Republic's CPO imports are intended for the Nigerian market through informal channels. The actual shortage of CPO could be as high as 940,000 MT if imports from Benin Republic are taken into consideration.<sup>63, 64</sup>

The lack of competitiveness of Nigeria's palm oil production against imported products has been well noted and it has been established that this lack of competitiveness is not exclusive to cultivation and production, but is present throughout the value chain. Successive governments have introduced a range of measures to protect the domestic industry against cheaper imports.

In 2001, the federal government imposed a ban on bulk imports of crude vegetable oil (including palm oil) to encourage the planting of palm trees and oil refineries in order to boost the production of palm oil.<sup>65</sup> The ban was in response to a significant increase in palm oil imports between 1997 and 2001, from 119,000 MT to 185,700 MT in 2001. The measure increased the price of palm oil imports and led to new domestic investments as well as production increases. The lifting of the ban in 2008 resulted in a spike in imports and falls in local palm oil prices.<sup>66</sup> This has triggered advocacy by key segments of the market for a re-introduction of total ban based on the argument that the present importation regime is being abused and creating disincentives for local production.<sup>67</sup>

In 2009 the government introduced a differential export tax on refined and crude palm oil and an export levy of 5 per cent on refined palm oil products. This measure aims to curb imports and encourage local production. This follows earlier measures with similar objectives. The effectiveness of fiscal measures is limited by the practice of importing from ECOWAS (Economic Community of West African States) countries, which attracts zero duties due to the broader ECOWAS agreement on trade liberalisation.<sup>68</sup>

Chart 2.12 shows an estimated sub-regional gap of 495,000 MT of palm oil between consumption and production in 2007 for selected West African countries. About 873,000 MT of palm oil was imported by these countries while 428,000 MT was exported in the same period. Nigeria imported 390,000 MT and exported 15,000 MT, resulting in a gap of 376,000 MT. Côte d'Ivoire was the only country that produced more than it consumed in 2007.

**Chart 2.12:** Sub-regional production and consumption of palm oil in 2007, selected countries (MT)

	Production	Import	Total Supply	Export	Food	Other Utility	Waste	Consumption	GAP
<b>Benin</b>	40	210	250	198	42	10	0	52	-12
<b>Cameroun</b>	172	28	200	0	95	99	6	200	-28
<b>Côte d'Ivoire</b>	289	6	295	121	180	5	0	185	104
<b>Ghana</b>	109	170	279	92	62	135	0	197	-88
<b>Guinea</b>	50	29	79	0	61	18	0	79	-29
<b>Liberia</b>	44	16	60	0	49	11	0	60	-16
<b>Nigeria</b>	1300	390	1690	15	736	890	50	1676	-376
<b>Sierra Leone</b>	36	9	45	0	44	5	0	49	-13
<b>Togo</b>	7	15	22	2	22	22	0	44	-37
<b>Total</b>	2047	873	2920	428	1291	1195	56	2542	(495)

Source: FAOSTAT, 2011<sup>69</sup>

Chart 2.13 shows that in 2008 countries in the sub-region spent more than USD818 million to import 841,000 tonnes of palm oil. Nigeria alone spent USD539 million to import oil, approximately 66 percent expenditure in the sub-region.

**Chart 2.13:** Importation of palm oil in the sub-region (2008)

Targeted countries	Quantity (1000 tonnes)	Value (million USD)	Unit value (\$/t)
<b>Benin</b>	225	202	900
<b>Nigeria</b>	464	539	1160
<b>Côte d'Ivoire</b>	0	0	0
<b>Cameroon</b>	43	25	579
<b>Liberia</b>	14	12	911
<b>Sierra Leone</b>	9	11	1258
<b>Guinea</b>	22	9	405
<b>Togo</b>	64	20	321
<b>Total</b>	841	818	

Source: FAOSTAT, 2011

## 2.5 Value addition

Palm oil processing is a major source of income and employment to a large proportion of the resource-poor rural population in Nigeria, particularly in cultivation areas. Despite the industry's low productivity, its production is a major vocation in many communities. It provides income for many farmers and their dependents. It is also a major source of revenue to some state and local governments. This connotes that an efficient and strong palm oil sector in Nigeria will enable the poor to be part of the solution to poverty challenge through provision of employment and a means of livelihood. The justification for this is the numerous ways in which oil palm can be used and many would be employed in the process.

While many products emanate from the trees themselves – palm oils, palm wine, wood products – the focus of this research is on the oil products and their direct by-products.

*TPO* – Palm oil with free fatty acid between 5 - 30 per cent is acceptable in the local market due to the varied requirements for Nigerian cuisine. The traditional market is served by small scale producers of palm oil which account for more than 81 per cent of local production (688,500 tons).

*High-quality SPO* – The minimum requirement for SPO is a free fatty acid (FFA) of less than 5 per cent, which can be further refined to Refine Bleach Deodorised Oil (RBDO) and other fractionated products such as olein and stearin.

*Palm kernel oil* – used in industrial applications. Palm kernel cake and sludge as significant by-products that can be utilised as an input for animal feed. The industry's productivity is, however, low with regards to processing. Reports of cases from some clusters from Osun, Ondo and Abia States indicate that about 80 per cent of the production comes from small-scale processors utilising intermediate technology, with oil extraction rates of less than 14 per cent by fresh fruit bunch.<sup>70</sup> However, modern mills are capable of extraction rates of 22 to 24 per cent and prompt processing of the fruit is guaranteed such that fruits do not deteriorate before processing.<sup>71</sup>

Increased output will likely result from modernised equipment, increasing supply for local industries, particularly those utilising TPO. Increased production of SPO will also be possible and meaning food and allied industries may not need to import SPO from countries like Indonesia and Malaysia. Modern small-scale palm fruit processing machines with higher extraction rate are already being fabricated locally. Elekwachi, et al (2012) shows that the local fabricators have a number of innovations that can be used to upgrade existing technology to suit small-scale SPO production. Key components of the technology are already being developed in some research institutes.<sup>72</sup>

## Section 3: Impacts on Smallholders

The Nigerian palm oil sector is dominated by independent smallholders, who mostly supply the domestic market with low-quality palm oil. Despite this, there are significant returns for smallholders able to supply palm oil to this market, who generally earn above the average farm income. Supported smallholders are likely to receive better financial benefits than smallholders.

### 3.1 Defining smallholders: definitions and key data

The World Bank's Rural Development Strategy defines as those with a low asset base, operating less than 2 ha of cropland. This is consistent with definitions used by IFAD and the FAO, which stipulate farm areas of less than 2ha and requiring significant input from familiar labour sources.

Most of Nigeria's farm holdings belong to smallholders. In 1974, there were approximately 29.8 million farm holdings in Nigeria; this increased to approximately 48.1 million in 2004. The distribution of these holdings is best described as follows:

1. Small: 0.10 -5.99ha (84.49 per cent)
2. Medium: 6.0-9.99ha (11.28 per cent) and,
3. Large: above 10ha (4.23 per cent)<sup>74</sup>

The oil palm sector, like the agricultural sector more broadly largely consists of smallholder farmers. They are responsible for around 80 percent of Nigerian output. They take up around 1.65 million ha of planted area in southern Nigeria. Many use intercrop systems of farming.

There are arguably only two kinds of smallholder growers in Nigeria – independent smallholders and supported smallholders. Collective smallholders (as defined by Vermeulen and Goad)<sup>75</sup> essentially do not exist in Nigeria.

### 3.2 The value chain for Nigerian palm oil

As stated in Chapter 2, there are three main types of palm oil produced in Nigeria:

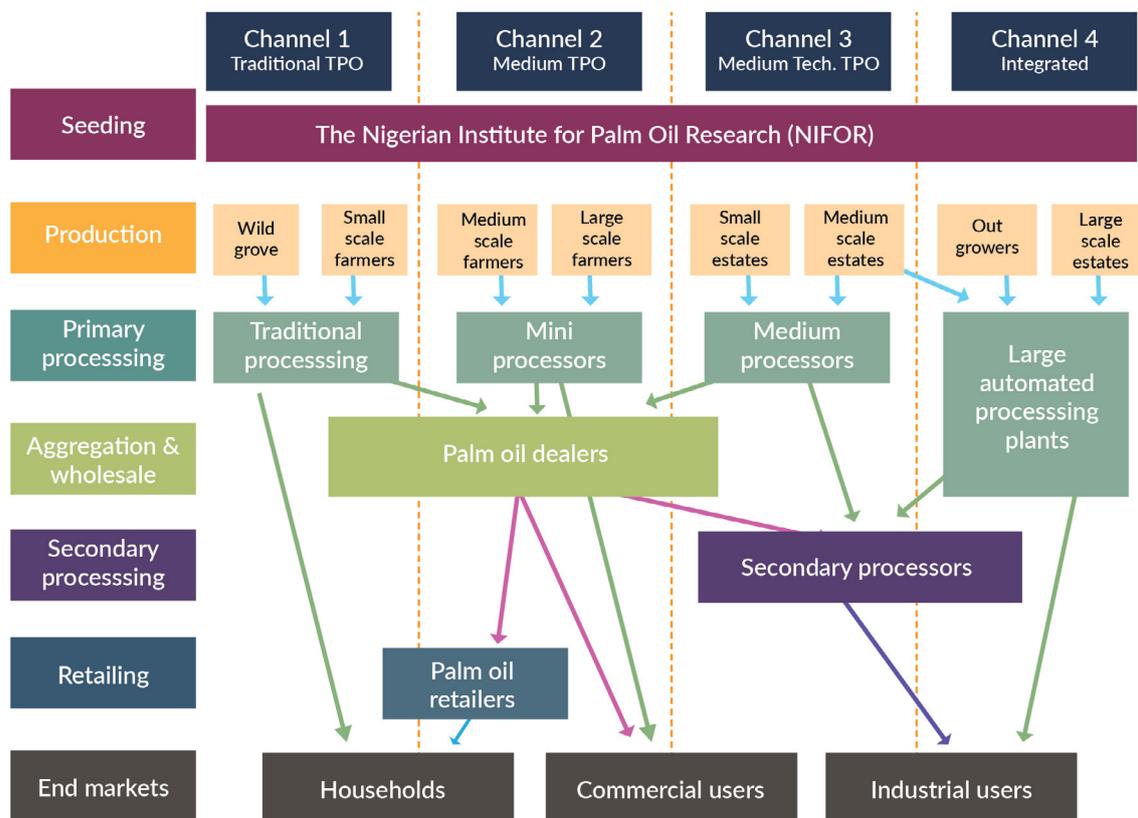
- Technical Palm Oil (TPO), low quality oil sold as unprocessed oil for traditional use, meaning essentially consumed by household;
- Special Palm Oil (SPO), high quality oil produced by large mills and used by industries, usually refined; and
- Palm Kernel Oil (PKO).

The bulk of the oil falls within the first two categories. Around 26 per cent is PKO by volume.<sup>76</sup> This distinction breaks the market into two distinct segments, effectively between smallholders supplying to traditional and smaller markets and larger estates and vertically integrated operations.

The differences between these segments are accentuated by the differences in production techniques, i.e. between traditional and modern mills. The former has extraction rates of between 20 and 50 per cent; the latter has extraction rates of around 90 per cent. TPO, which is generally produced by traditional mills is not suitable for export or higher-level industrial applications; it is effectively only suitable for domestic use.<sup>77</sup>

The diagram below demonstrates the segmented nature of the market.

Chart 3.1: Palm oil value chain for Nigeria<sup>78</sup>



The value chain as described effectively has independent smallholders supplying essentially one part of the market, i.e. household use. Out-growers or supported smallholders also supply large industrial users, but to a lesser extent. It has, however, been noted that the number of medium size farms and farmers is increasing, as farmers ‘upgrade’ production quantities and quality and attempt to achieve higher extraction rates. This has largely been since the privatisation of the industry in 2003.<sup>79</sup>

The commercial relationships between independent smallholders and larger commercial firms (plantations or processors) essentially do not exist. Smallholders have low yields and produce relatively lower quality fruit that is only suitable for the production of Technical Palm Oil. This is processed by traditional, small and medium-sized processors and is essentially used for domestic consumption or small-scale commercial operations (e.g. restaurants).

The commercial relationships between supported smallholders (out-growers) are quite conventional by global standards. For example, Presco a private company in oil palm development owned by SIAT of Belgium, commenced its out-grower program in 2003, comprising 167 smallholder units. Under the scheme, participating farmers receive high yielding planting materials, fertiliser, all material inputs and technical support from Presco, while the farmer’s input in the form of land and labour. Presco provides ready market for the FFB from the farmers and the loan deductions made out of farmers FFB supplied.<sup>80</sup>

### 3.3 Defining land tenure for smallholders

Smallholder growers for the most part do not hold secure legal title in Nigeria. The reasons for this have largely been outlined in Chapter 1 of this report. Specifically, legal tenure is expensive and bureaucratic. Most tenure is communally based. While this tenure is not 'illegal' per se, it would not meet definitions of legal tenure that would ordinarily be required under private certification or sustainability schemes.

The only real exception to this is that of Cross River State, which has undertaken a systematic and well-funded approach to land tenure for smallholders in the state. The state has approximately 250,000 ha of wild groves under cultivation.

### 3.4 Assessing the economic impacts

There is a considerable lack of microeconomic assessments of smallholder oil palm plantations in Nigeria. The limited number of studies that have been undertaken indicate positive returns for:

- large estates;
- small-to medium-size estates,
- smallholder farmers.

The results of these studies are summarised below.<sup>81</sup>

STUDY	LOCATION	STUDY TYPE	SYSTEM	RANGE
Enwelu, et al (2007)	Anambra	Ex post, household income	Smallholder	>N40,000/month
Ugwu (2009)	Cross River	Ex post, net income/ha	Smallholder	N52,500/ha/yr
Olagunju (2009)	Ondo	Ex post, net income/ha/yr	Smallholder	N434,604/yr
Nwawe (2014)	Edo and Delta	Discounted cash flow, 25 yrs	Medium estate	NPV N883,277
Adisa Kabiru Adeniyi (2012)	Osun	Discounted cash flow, 7 yrs	Estate	NPV N18,509,188
Nwawe, C.N. (2015)	(national)	Discounted cashflow, 25 yrs	Estate	NPV N20,275

The results for incomes per hectare in ex-post studies are broadly consistent. They place the incomes from average sized farms in Nigeria (1.5ha) at the level of average incomes for the country as a whole and higher than rural incomes generally.

This would indicate two things:

- Independent oil palm smallholder farming provides a means to poverty alleviation in Nigeria;
- Supported smallholder farming – and by extension larger estate developments with an out-grower component – have significant potential to alleviate poverty in Nigeria.

It might be argued that the development of large-scale estates would compromise the security of smallholder farmers supplying the domestic PKO market – and its related marketing functions. However, the high levels of fragmentation in the Nigerian palm oil market make this argument difficult to support. Large scale estates and smallholder farmers are supplying completely different markets.

It should also be noted that there are data supporting the contention that contract farmers or outgrowers have significantly better productivity, incomes and welfare gains than non-contract farmers. This supports the idea that large-scale investments will provide a greater benefits for farmers.<sup>82</sup>

There are considerable flow-on effects of smallholder farming in Nigeria, particularly in relation to household income and marketing activity (e.g. trading).<sup>83</sup>

### 3.5 Assessing regulatory impacts on smallholders

As indicated in the Chapter 1, there are no (or at least very few) natural resource management regulations that have been introduced that have directly impacted smallholder farmers.

This is broadly attributable to the sheer lack of regulations applying to farmers with areas less than 50 ha and a general lack of enforcement capacity for land use regulations that do exist.

As stated earlier in this report, Nigeria's involvement with the United Nations REDD programme has not yet introduced work on smallholders or agriculture, nor has it completed its work on land tenure reforms.

A pilot titling reform project has been commenced in Kano State; results are yet to be determined. However, one commentator has pointed out the problems associated with some communities in Kano state that will be resistant to any implementation of the Land Use Act.

Arguably the most comprehensive study of agricultural productivity in Nigerian agriculture lists the leading impediments to increasing productivity in the sector:

- Government direct participation in the provision of many farm inputs and services and in the production, processing and marketing of farm commodities;
- Policy reversals and inconsistencies;
- Aging and inefficient processing equipment and the inability to install new processing equipment due to high offshore costs;

- High on-farm costs of agrochemicals for small-scale farmers, resulting in low use by farmers; Constant threats to seed multiplication schemes by fertiliser shortages and lack of protection for outgrowers;
- Traditional management practices which seriously limit crop and livestock productivity;
- Fertiliser subsidies, which cause a high budgetary burden on the government;
- Low fertiliser use;
- Low public expenditure on agricultural research;
- Negligible private sector involvement in agricultural research;
- Poor funding for training and visit and unified agricultural extension services; and
- Group ownership of land in Nigeria, which may lead to limited tenure security, restrictions on farmers' mobility and the inevitable fragmentation of holdings among future heirs.

In other words, there are a significant number of other factors that are constraining increases in productivity growth in Nigerian agriculture, rather than just land-use regulations.

Similarly, in terms of attracting investment that would increase agricultural output and improve livelihoods for Nigerian smallholders, there are a number of factors at work. A broad survey of stakeholders identifying constraints to investment identified the infrastructure, technical, financial, Institutional health and land tenure constraints as the most critical disincentives to invest in agriculture. Land tenure constraints were identified particularly in the Southeast of the country (Cross River State) in an area of high population density. However, it should be noted that this first factor - infrastructure - is key to investments in Nigerian agriculture. The high transport and marketing costs associated with Nigerian agricultural products can be attributed to this factor.

## **PRESCO, Wilmar and Smallholders**

The relationship between smallholders and large estates in Nigeria is similar to that found in other parts of the world, although the relationship does not have the strong institutional ties that have been forged in a country like Malaysia. Presco Plc is a Nigerian company, listed on the Nigerian stock exchange. It is the subsidiary of Siat, a Belgian company with interests primarily in palm oil and rubber, with operations in different parts of Africa. Presco has more than 15,000ha of plantations in Nigeria.

The company's involvement with oil palm commenced in the late 1980s when its predecessor company purchased the Obaretin Estate from a Nigerian state-owned enterprise. The estate was established with the assistance of the World Bank during the 1970s. Presco went on to make a series of acquisitions in 1996 and 2002 in Delta and Edo states respectively. Presco is vertically integrated and includes a mill, crushing plant and a palm oil refinery. The company directly employs approximately 2,500 people locally in Nigeria, but also contributes to local employment via contract goods and services. However, the company also has launched an outgrower scheme in 2003 that was established jointly with the Edo state administration. Farmers are responsible for land management; the company provides inputs that are subsidised by the local government. Presco also provides technical and extension services to the small farmers.

Presco, when establishing its outgrower scheme in Ologobo, assessed the role that outgrowers could play in conservation of remaining forest areas. However, the study did note the complexities around expecting local communities – whose primary interest in the plantation is economic – to undertake such a role. Subsequently the company's focus in community development has been on education, roads, water and electricity.

PZ Wilmar has established oil palm plantations and palm oil processing in Nigeria much more recently and is seeking to develop more than 70,000ha of plantations. As a consequence its relationships with Nigeria's extensive smallholder and informal oil palm sectors are considerably less developed. The company is currently in the process of replanting old stock, which is providing considerable levels of employment for local farmers and additionally providing training for these farmers.

Wilmar has, in addition, committed to traceability policies within its supply chain as a part of its broader sustainability policy. There is a substantial gap – around 20 per cent – between its traceable and untraceable supply in Nigeria, which is substantially larger than its other operations. However, this does not appear to be as a result of an inability to trace domestic supplies, but imported supplies. This is largely due to the supply gap that is currently present in Nigeria.

*Sources: Thisday (2013)*

# Section 4: Assessment of Stakeholder Views

**There is general support for oil palm development among key stakeholders in Nigeria. Civil society groups that have expressed opposition to palm oil in Nigeria generally base this on what has taken place overseas, rather than any regional experiences.**

This study seeks the view of local stakeholders in relation to smallholders and the trajectory of the palm oil sector in Nigeria. The stakeholders' views are based on direct interview of selected stakeholders, publications including presentations as well as media reports and public statements. The stakeholders are classified into:

1. NGOs: Social/environmental
2. Industry; Growers/Processors/Customers
3. Government: Environmental/Commerce/Agricultural departments

Stakeholder views are sought on economic and social contributions of palm oil, environmental impact, impact of policies and regulations, livelihood and expansionary efforts in the sector given the inability to meet to the local consumption.

Generally, stakeholders agreed that oil palm has significant impacts in terms being a source of income to many farmers and others connected with palm oil production at the local level as well as its contributions to the national economy. There is also a general consensus that palm oil could be one of the vital ways to diversify Nigeria's exports and national income. In this regard, stakeholders assert that the oil palm industry represents one of the avenues for poverty alleviation and food security. The economic and social impacts identified include increased income, employment and social gains. These views reinforce some of the existing literature that oil palm development helps in alleviation of poverty and it provides a better living standard for many in rural communities. The industry at present employs an estimated 4 million people and women participation is very high particularly in its downstream sector. In the domestic retail market for example, over 90 per cent of palm oil retailers are women.<sup>85</sup>

There is also consensus that the industry is under-achieving its potentials. Industry actors feel the industry has the potential of becoming a revenue earner for the country and consequently increase the stock of foreign

investments. An example cited is the Joint Venture between PZ and Wilmar of Singapore that is investing \$650 million into new projects and acquisitions. Industries within the sector are acquiring abandoned or bankrupt plantations, mostly previously owned by state governments. Many of the state governments are divesting and willing to seek partners or sell their plantations. An example is the 26,000 hectares of plantation land in four estates in Cross River State which is being acquired by the PZ-Wilmar Joint Venture. Presco Plc has also acquired some other farms in River and Imo states.

The perceptions of the negative impacts are mixed. NGOs are concerned largely with the negative environmental impacts. The oil palm industry has not caused any serious visible environmental challenge in Nigeria but many stakeholders point to the example of Malaysia and Indonesia where palm plantations have caused environmental challenges. Many of them concede that care should be taken to ensure that Nigeria does not witness the level of environmental concerns that are being expressed in aforementioned countries should production in Nigeria reach that level. Industry actors believe potential environmental challenges should not prevent expansion effort. In fact they agreed that any increased production would ultimately lead to having more plantations as well as upgrading and investing in the existing ones. They also believe there are international agreed standards to address the environmental concerns that might be associated with massive production of palm oil and that ultimately, oil palm expansion brings higher returns for all the stakeholders, particularly the government in terms increased revenue, the industry itself as well as creating for employment opportunities.

Industry actors are of the views that already there are awareness and capacity building among key stakeholders on the best practices contained in the Roundtable on Sustainable Palm Oil (RSPO) as well as creating an enabling environment for the uptake of the RSPO standard. Many of them are therefore of the view that additional regulations or standards such as high carbon stock (HCS) would in addition to the complex land tenure system in Nigeria and dysfunctional infrastructure impose a barrier to further investment in the sector. Plantation owners are also of the view that lack of competitiveness in the sector is the greatest problems: *"to take the oil palm industry to the desirable level, we have to confront head-on the overbearing*

*challenge of lack of competitiveness in the industry as well as lack of standardisation which comes from non-uniformity of procedures and policies*<sup>86</sup>

A smallholder growers association listed lack of manpower as one of the challenges it faces. It is discovered that 50 per cent of FFB often gets wasted in the bush, rotting away because of the lack of labour to harvest the ripe FFB, mainly because of the traditional method that is still widely used. The level of competitiveness and the complex differences between cultural and legal institutions in land ownership are also noted as problems.

NGO reactions as to whether they will support oil palm expansion are mixed. They fear oil palm expansion will be bad for several communities and should not be wholly supported. Some feel it is bad and no deliberate action should be made to clear forest for plantation. The concerns being expressed include environmental impact and possible disruption of economic activities and social life in oil palm clusters. The drive for expansion has the potential of creating social and economic disruptions particularly in oil palm clusters. This means they think many traditional ways of life for example relying on local streams for water and community cohesion brought about by such acts, will be disrupted.

In the words of Ibrahim Inahoro of the Nigeria Conservation Foundation (NCF), a national NGO that works in the area of forest conservation:

*"Because massive expansion of plantation has always being at the detriment of our forest estates and reserves leading to loss of biodiversity and species, expansion of palm oil sector might be very negative for the environment and conservation of our forests if not properly planned since expansions are known to target the high forest and government reserves"*<sup>87</sup>

It is canvassed that expansion should aim to help increase smallholder production. This is in terms of capacity building and access to funding. Others directly canvass for support for smallholders to embrace modern processing methods and they will not support expansion that comes from de-forestation. It is to be noted that some industry actors are helping smallholders in building their capacity.

On the way forward for the sector given the inability to meet the local consumption, some of the stakeholders are of the view that, *"expansion should target degraded areas; use of high yielding, disease resistant and short period of maturation varieties"*<sup>88</sup>, *"Empowering small-holding farmers to enhance their production is the best way forward"*<sup>89</sup>

The mixed feeling about palm oil is largely driven by fears of what could happen rather than what has happened. There is consensus among stakeholders on the desirability of having an expanded palm oil sector in Nigeria, but stakeholders differed in how they hoped it could be achieved. Industry actors tend to support increased expansion through massive plantations and a move away from small-holding and grove production methods. NGOs are concerned that expansion is potentially disruptive.

*"It will be very positive for conservation and the environment if the expansion target degraded lands. But on the other hand if the expansion focuses on the tropical forestland it will have an adverse effect on Biodiversity and contribute to deforestation and species loss"*<sup>90</sup>

The government is desirous of growing the industry to become the greatest producer of palm oil in the world. Part of its current policy thrust is supporting palm oil as part of the outgoing administration's industrialisation and transformation strategy.

The government's key goal is to bring in more investors into the sector through a series of policy measures and incentives which are outlined below, which are consistent with the views expressed by those interviewed. Interviewees say paucity of funds from the government necessitates bringing in more investors to revamp the sector. They are of the view that if HCS is another barrier that would impede the growth of the sector, it is not likely that any government of the day would be in support of it, as it would go against the government's policy to develop the palm oil sector as a foreign exchange earner, aside from oil and gas.

At present, the government is promoting oil palm under the Agricultural Transformation Agenda (ATA) by the Federal Ministry of Agriculture and Rural Development. Other commodities include rice, cocoa, sorghum, cassava, maize/soybean, horticulture. In promoting oil palm, the ministry's concern is to bridge the gap in vegetable oil production, raise productivity, promote value addition, create employment and improve oil palm marketing activities.<sup>91</sup> On sustainability, the government believes Nigeria's palm oil industry cannot be transformed without first putting in place sustainable arrangements that guide production, processing and marketing activities, to ensure quality standards and environmental friendliness.<sup>92</sup>

Some of the government's strategies include :<sup>93</sup>

1. ₦40 billion (USD200 million) Palm Oil Intervention Fund. The fund is to be financed mainly from levies charged on importation of crude palm oil. The fund will be allocated to support activities along the palm oil value chain as follows:

- 50 per cent of the Fund will be a grant to the Federal Ministry of Agriculture & Rural Development to accelerate and expand its ongoing initiatives under the Agricultural Transformation Agenda.
  - 20 per cent of the Fund – Single digit interest rate loans to smallholders to accelerate the adoption of improved technology practices and mechanisation of first level farm processing (extraction/milling) of palm oil.<sup>94</sup>
2. Establishment of the Nigeria Palm Oil Board (NPOB) with representatives from all stakeholders in the palm oil value chain. The Board is being modelled after the Malaysian Palm Oil Board and will be responsible for the following activities among others:
- Develop enabling policies and development programmes to ensure the viability of the palm oil industry in Nigeria.
  - Regulate, register, co-ordinate and promote all activities relating to the palm oil industry.
  - Develop and secure favourable arrangements for the licensing, production, quality control, sale and export of palm oil.
  - Develop and expand markets for palm oil products through innovations from research and development.
  - Liaise and co-ordinate with other organisations inside or outside Nigeria to further enhance the palm oil industry in Nigeria.
  - Maintain and enforce the import duty on CPO importation at 35 percent.
  - Approve the introduction of 20 per cent CPO import levy.
  - Approve immediate removal of the 75 per cent duty rebate granted to CPO importers in free trade zones.
3. Additional fiscal measures to be taken include the following:
- Extension of the three year tax holiday to five years for all agricultural producing and processing companies, including palm oil.
  - Extension of the Interest Drawback Programme Fund to the palm oil sector.
- 60 per cent repayment of interest paid by borrowers under the ACGS (Agricultural Credit Guarantee Scheme) for the purpose of palm oil production and processing, provided that such borrowers repay their loans on schedule.
4. Measures on land titling and reform:
- The Presidential Technical Committee on Land Reform (PTCLR), which is overseeing
    - GEMS3, a program being undertaken with the support of the UK's Department for International Development (DFID), the FAO and the International Food Policy Research Institute (IFPRI) that aims to implement cadastral titling across the entire country, commencing with pilot programs in Kano and Ondo states.

From the stakeholder interviews, an emerging insight is that irrespective of the HCS threshold set, community participation/involvement is central to any expansion effort. This is because agitation and resistance will be higher in communities where this is not properly done and communities' consent is not secured. Already, there is community resistance to several acquisitions of state governments' oil palm estates by palm oil companies.<sup>95</sup>

The perception of inadequate manpower as a key challenge for smallholder farmers need further investigation in order to understand the dimensions, the causes and how standardisation could contribute. Often, traditional farming activities including palm oil production in local communities are identical with family history. The land, palm trees and processing methods are handed down generations with little change over time. Further research could throw more light on this area.

What is generally noticeable is that collaboration among stakeholders will be important to growth of the sector and smallholders cannot be ignored. To be effective, any action or decision must involve smallholders because they have a controlling stake in the palm oil sector in Nigeria.

## Section 5: Conclusions and Recommendations

The palm oil sector in Nigeria provides a significant opportunity for Nigeria's economy. There are already 4 million people working in the sector, generating significant livelihoods and returns to the Nigerian economy. Demand for palm oil in the domestic economy is high.

The sector, however, is plagued by many of the problems that face the agricultural sector more broadly, by way of high costs, production inefficiencies and lack of competitiveness. These are significantly compounded by an ineffective land tenure regime that works as a disincentive for longer term investment in the economy by smallholders and large estates alike.

Governments have attempted and are attempting to address some of these problems. However, it is unlikely that many of these problems will be overcome in Nigeria without significant private sector investment in improved agricultural techniques, better transport, better production techniques and better marketing.

On the key question of whether stricter environmental regulations will deter investment and therefore work against smallholder livelihoods in Nigeria, the conclusions are slightly more nuanced.

*There are many more significant deterrents to investment than environmental regulations.* The incentives to invest in agriculture in Nigeria are low. Costs are high; risks from poor governance are also high. The domestic market can often be serviced more competitively by other locations in the region or even outside of it.

*The risks associated with free, prior and informed consent and land tenure are well recognised in the African context.* Those with the financial means to invest in Nigeria are likely to be well aware of the risks from land tenure problems in Africa; it is for this reason that investment in these environments is considered risky. If anything, a framework such as HCS or RSPO is likely to provide some level of assurance in this context.

*It is not only oil palm that is facing these risks.* There is considerable demand for other staples such as rice and bananas in Nigeria and there have also been calls for greater investment in these crops.

*Environmental thresholds on oil palm will not necessarily result in environmental protection.* They may simply prompt development of another crop. Oil palm is not a key driver of deforestation in Nigeria; this is because the area for oil palm – although suffering low productivity – is large.

In the event that HCS did deter investment, then, what would be the impact?

*The key positive impact from greater palm oil investment will be improved productivity and greater support for outgrowers.* In other words, the likely gains are to be within the existing industry. Improved investment in cultivation, harvesting and processing will provide significant gains for many smallholders in Nigeria who are already supplying the domestic market and/or are seeking to expand their crops. This is also because the existing smallholder market does not supply a product that is competitive with imported palm oil or palm oil from integrated operations or for use in high-end applications.

In other words, the trade-off would be the choice between an industry that remains stagnant and dominated by independent smallholders that supply the domestic market or significant productivity gains for the 4 million smallholders in Nigeria.

# Endnotes

- <sup>1</sup> African Development Bank (2010). Agriculture Sector Strategy 2010-2014. January 2010. African Development Bank Group, Kinshasa
- <sup>2</sup> Ibid.
- <sup>3</sup> International Monetary Fund (2012). Regional economic outlook. Sub-Saharan Africa. – Washington, D.C.: International Monetary Fund
- <sup>4</sup> Eastwood, R., Lipton, M. and Newell, A., (2008) "Farm Size", Chapter 5 of R. Evenson and P. Pingali (eds) Handbook of Agricultural Economics, vol. III., North Holland.
- <sup>5</sup> McIntyre, B.D., Herren, H.R., Wakhungu, J., Watson, R.T. (Eds.), 2009. Agriculture at a Crossroads, Global Report. IAASTD. Island Press, Washington (International Assessment of Agricultural Knowledge, Science and Technology for Development).
- <sup>6</sup> Godfray, H.C.J., Beddington, J.R., Crute, I.R., Haddad, L., Lawrence, D., Muir, J.F., Pretty, J., Robinson, S., Thomas, S.M., Toulmin, C., 2010. Food security: the challenge of feeding 9 billion people. Review Science, 327, 81 (Subject: 2–818).
- <sup>7</sup> Munk, Nina (2014). The Idealist: Jeffrey Sachs and the Quest to End Poverty. HarperCollins, New York.
- <sup>8</sup> Djurfeldt, G., Holmes, H., Jirström, M., Larsson, R. (Eds.), 2005. The African Food Crisis: Lessons from the Asian Green Revolution. CABI, Wallingford, UK.
- <sup>9</sup> Nigerian Bureau of Statistics figures
- <sup>10</sup> Ibid.
- <sup>11</sup> FAOSTAT figures
- <sup>12</sup> Federal Republic on Nigeria (2013). REDD Readiness Preparation Proposal for the World Bank and Forest Carbon Partnership Facility. World Bank, Washington.
- <sup>13</sup> Land Use Act 1978. Federal Republic of Nigeria Official Gazette. No.14.Vol. 65.Published and Printed by the Fed. Ministry of Information, Printing Div., Lagos, Nigeria.
- <sup>14</sup> This is arguably a conservative estimate, with estimates for the entire nation at around 97 per cent. See Birner and Okumo (2012). Challenges in Land Governance in Nigeria: Insight from a Case Study in Ondo State. IFPRI, March 2012
- <sup>15</sup> Ghebru, et. al (2014). Tenure Security and Demand for Land Tenure Regularization in Nigeria: Empirical Evidence from Ondo and Kano States. IFPRI Working Paper No 25. IFPRI, Washington.
- <sup>16</sup> Ibid.
- <sup>17</sup> See Blench, R. (2010). Conflict Between Pastoralists and Cultivators in Nigeria, Kay Williamson Educational Foundation. Cambridge
- <sup>18</sup> Federal Republic on Nigeria (2013). REDD Readiness Preparation Proposal for the World Bank and Forest Carbon Partnership Facility. World Bank, Washington.
- <sup>19</sup> Ibid.
- <sup>20</sup> Nielsen, Croitoru and Margulis (2007). Nigeria: An Economy Analysis of Natural Resources Sustainability. Land Tenure and Land Degradation Issues. World Bank, Washington.
- <sup>21</sup> Republic of Nigeria (1992). Environmental Impact Assessment Decree No 86 of 1992. Accessed at <http://www.nigeria-law.org/Environmental%20Impact%20Assessment%20Decree%20No.%2086%201992.htm>
- <sup>22</sup> R.O. Yusuf, S.E. Agarry & A.O. Durojaiye, 'Environmental Impact Assessment Challenge in Nigeria' 2/2 J Environ Sc & Technol 75, 78 (2007).
- <sup>23</sup> Allan Ingelson and Chilenye Nwapi, 'Environmental Impact Assessment Process for Oil, Gas and Mining Projects in Nigeria: A Critical Analysis', 10/1 Law, Environment and Development Journal (2014), p. 35, available at <http://www.lead-journal.org/content/14035.pdf>
- <sup>24</sup> See Ghebru, op. cit.
- <sup>25</sup> Ndehedehe, C. & Kolawole, B. (2012) Principles and practice of land management and administration in Akwa Ibom State. *Journal of Environmental Science and Resources Management*, 4: 50 – 58.
- <sup>26</sup> See Nigel Edmead, Chiemeka Ngwu, Bassey Ika Oqua and Frank Pichel (2013). Streamlining Land Administration and Governance In Cross River State, Nigeria. Conference paper, FIG Working Week 2013 Environment for Sustainability Abuja, Nigeria, 6 – 10 May 2013.

<sup>27</sup> See Odigha Odigha (2014). Presentation: REDD in Cross River State. Pan-African Meeting on Regional Collaboration to Advance Jurisdictional REDD+ and Low-Emissions Development in Africa. June 10-12, 2014

<sup>28</sup> It provides for the procedures, processes and checks and balances necessary to ensure that all of the existing and potential benefits from the state's forest resources contribute directly to the well-being of the people of Cross River State. It also enabled the government to allocate "carbon concessions" in the states forests. This is a first in Nigeria. The law includes a mechanism for the sharing of timber royalties from logging concessions that splits royalties between the government and forest communities. This is 50:50 split for royalties from timber from forest reserves and 30:70, with 70 for the communities, for timber royalties from community forests.

<sup>29</sup> Obunadike, G.O. (2003). Land Administration in Anambra State. Paper Presented at the working luncheon organized by NIESV, Anambra State Branch at Tracy Hotels, Awka.

<sup>30</sup> Wole Morenikeji; Dayo Ayorinde and Gideon Owoyele (2013). Land administration problems in Nigeria: Case studies of Oyo and Niger states. Accessed at [http://www.researchgate.net/profile/Oluwole\\_Morenikeji/publication/258241540\\_Land\\_Administration\\_Problems\\_in\\_Nigeria\\_A\\_case\\_study\\_of\\_Oyo\\_and\\_Niger\\_States/links/00b495278d44b9d62b000000](http://www.researchgate.net/profile/Oluwole_Morenikeji/publication/258241540_Land_Administration_Problems_in_Nigeria_A_case_study_of_Oyo_and_Niger_States/links/00b495278d44b9d62b000000)

<sup>31</sup> ITTO (2007). Achieving the ITTO Objective 2000 and sustainable forest management in Nigeria. Report of the Diagnostic Mission Report submitted to the International Tropical Timber Council by the Diagnostic Mission established pursuant to Decision 2(XXIX) 2006, 9 October 2007. ITTO, Yokoahama, Japan.

<sup>32</sup> Ghebru, et. al (2014). Tenure Security and Demand for Land Tenure Regularization in Nigeria: Empirical Evidence from Ondo and Kano States. IFPRI Working Paper No 25. IFPRI, Washington.

<sup>33</sup> Ibid.

<sup>34</sup> Ladé A. Dada (2007). The African export industry: What happened and how can it be revived? Case study on the Nigerian oil palm industry. Food and Agriculture Organization, Rome.

<sup>35</sup> Republic of Nigeria (2006). National Forest Policy. Ministry of Environment, Abuja.

<sup>36</sup> Federal Republic on Nigeria (2013). REDD Readiness Preparation Proposal for the World Bank and Forest Carbon Partnership Facility. World Bank, Washington.

<sup>37</sup> Ibid.

<sup>38</sup> See <http://rsponigeria.org/>

<sup>39</sup> Ndehedehe, C. & Kolawole, B, op cit.

<sup>40</sup> ITTO (2007). Achieving the ITTO Objective 2000 and sustainable forest management in Nigeria. Report of the Diagnostic Mission. Report submitted to the International Tropical Timber Council by the Diagnostic Mission established pursuant to Decision 2(XXIX) 2006, 9 October 2007

<sup>41</sup> R.O. Yusuf, S.E. Agarry & A.O. Durojaiye (2007). 'Environmental Impact Assessment Challenge in Nigeria'. *Journal of Environmental Science and Technology* 75 (78), 2007.

<sup>42</sup> Macualay, B (2014). Land degradation in Northern Nigeria: The impacts and implications of human-related and climatic factors. *African Journal of Environmental Science and Technology* 8 (5)

<sup>43</sup> Aghalino S.O. (2000); *British Colonial Policies and the Oil Palm Industry' African Study Monographs*, 21(2): 19-31.

<sup>44</sup> Ibid

<sup>45</sup> Akpan B.S. and Patrick I.V. (2015). 'Does Annual Output of Palm Oil, Palm Kernel and Rubber Correlate with some Macro-Economic Policy Variables in Nigeria?' *Nigerian Journal of Agriculture, Food and Environment*. 11(1):66-72

<sup>46</sup> RMRDC (2004): RMRDC. Oil Palm. Report on survey of selected agricultural materials. Raw Materials Research and Development Council; 2004

<sup>47</sup> Partnership Initiative for Niger Delta (PIND) (2011) Palm Oil Value Chain Analysis in the Niger Delta

<sup>48</sup> Thompson Ayodele (2010): African Case Study : Palm Oil and Economic Development in Nigeria and Ghana; Recommendations for the World Bank's 2010 Palm Oil Strategy.

<sup>49</sup> PIND Report Op cit; also see <http://www.thisdaylive.com/articles/palm-oil-importation-a-strategic-stabiliser-for-palm-oil-industry-in-nigeria/198476/>

<sup>50</sup> PIND Report Op cit

<sup>51</sup> Ibitoye et al., Op cit

<sup>52</sup> [www.index.mumdi.com/agriculture](http://www.index.mumdi.com/agriculture) (2014): Data on palm oil production (accessed March 20th, 2015)

- <sup>53</sup> Nigeria Industrial Revolution Plan Palm Oil sector key Policy Thrust for Industrialisation. A presentation by Hon Minister for Commerce and Industrialisation Hon Olusegun Aganga at Economic Management Implementation Team (EMIT) march 2015
- <sup>54</sup> Thompson Ayodele Africa palm oil case study Op cit
- <sup>55</sup> PIND Report Op cit
- <sup>56</sup> Beveridge, A. .; Owolarafe, O.K., Usman, Z.; Oni, O. . and Lockwood, R (2011): Palm Oil Industry Supply Chain Development Programme in Abia State, Nigeria
- <sup>57</sup> Nigeria Industrial Revolution Plan Palm Oil sector key Policy Thrust for Industrialisation. Ibid
- <sup>58</sup> Owolarafe, O.K. (2007): "The Mechanics of Palm Oil Extraction", An unpublished PhD Thesis of the Department of Agricultural Engineering, O.A.U. Ile-Ife, Nigeria.
- <sup>59</sup> Ibitoye Op cit
- <sup>60</sup> Beverage *et al.*, Op cit
- <sup>61</sup> Elekwachi, J. ; Owolarafe, O.K. ; Fadare, S.O. and Adu, A (2012). Palm Oil Scoping Study. A report submitted to the Partnership Initiatives in the Niger Delta (PIND)
- <sup>62</sup> Ibitoye et al Op cit
- <sup>63</sup> Thisday (2015)"Palm Oil Importation: A Strategic Stabiliser for Palm Oil Industry in Nigeria" <http://www.thisdaylive.com/articles/palm-oil-importation-a-strategic-stabiliser-for-palm-oil-industry-in-nigeria/198476/>
- <sup>64</sup> Ibid
- <sup>65</sup> Ibitoye Op cit
- <sup>66</sup> PIND Report Op cit
- <sup>67</sup> <http://www.proshareng.com/news/18113> (2015): Agriculture alert: Concerns over review of crude palm oil import tariff (accessed May 12th, 2015)
- <sup>68</sup> Ibid
- <sup>69</sup> FAOSTAT (2011): Statistic Data on Palm Oil Importation In West African Countries
- <sup>70</sup> Taiwo, K.A.; Owolarafe, O.K.; Sanni, L.A.; Jeje, J.O.; Adeloye, K. and Ajibola, O.O. (2000), Technological Assessment of Palm Oil Production in Osun and Ondo States of Nigeria, *Technovation*, UK 20 (4): 215 – 223 (Elsevier)
- <sup>71</sup> Owolarafe, O.K. and Oni, O.A. Modern mill technology and centralised processing system, an alternative for improving performance of palm oil mills in Abia State, Nigeria- *Technology in Society*, 33 (2011) 12–22 Elsevier UK
- <sup>72</sup> Salako, Y.A. Owolarafe, O.K. and Anozie, (2014) A.N. Performance evaluation of a small scale palm fruit biomass-fired boiler, *CIGR Journal*, USA. Vol. 16, No.4, 51-56
- <sup>73</sup> World Bank (2003). Reaching the Rural Poor A Renewed Strategy for Rural Development. IBRD, Washington DC
- <sup>74</sup> National Bureau of Statistics data
- <sup>75</sup> Vermeulen, S. and Goad, N. 2006. Towards better practice in smallholder palm oil production. *Natural Resource Issues Series No. 5*. International Institute for Environment and Development. London, UK.
- <sup>76</sup> USDA FAS (2014). Nigeria Provides Export Market for Oilseeds and Products – GAIN report.
- <sup>77</sup> ) Moll H. A. J.(1987) The Economics of Oil Palm Issue 2 of *Economics of Crops in Developing Countries*, No 2/Pdc289 Pudoc
- <sup>78</sup> Gourichon H, 2013. Analysis of incentives and disincentives for Palm Oil in Nigeria. Technical notes series, MAFAP, FAO, Rome.
- <sup>79</sup> Gourichon, op. cit.
- <sup>80</sup> Presco company data
- <sup>81</sup> Enwelu I. A., Nwanegbo O. A., P Onoh & Ifejika P. (2013). Challenges and Prospects of Smallholder Oil Palm Production in Awka Agricultural Zone of Anambra State, Nigeria. *Journal of Agricultural Extension*, 17 (2); Ugwu, D. S. (2009). Problems and Prospects of Commercial Small and Medium Scale Cocoa and Oil Palm Production in Cross River State, Nigeria. *Journal of Applied Sciences Research*, 5(7): 827-832; Olagunju, F.I. (2008). Economics of Palm Oil processing in Southwest Nigeria. *International Journal of Agricultural Economics & Rural Development*. 1(2): 69-77; CN Nwawe, BO Erumwenbibi, SN Utulu, M Dada, El Omofonmwan (2015). Economic assessment of oil palm projects in Nigeria. *Journal of Agriculture, Forestry and the Social Sciences* 17 (2).
- <sup>82</sup> Aderibigbe S. Olomola (2007). Competitive Commercial Agriculture in Africa: Nigerian Case Study. Report to the World Bank.

<sup>83</sup> Malchau, G. (1997) Income structure of small scale farmers households in the hinterland of Uyo, SE-Nigeria: An Analysis against the Background of the Carrying Capacity Concept in Daura, M.M. (ed.)(1997): p.210-220, Maiduguri. 39th Annual Conference of the Nigerian Geographical Association, Maiduguri, May 5-8, 1996.

<sup>84</sup> Phillip. Nkonyua, Pender, Oni (2009). Constraints to Increasing Agricultural Productivity in Nigeria. IFPRI, Washington DC.

<sup>85</sup> Interview with official of Elepo-Io-Lere Association (Palm Oil Retailers Association) Oyingbo Market Lagos.

<sup>86</sup> Plantation Owners Association of Nigeria (POFON)

<sup>87</sup> Interview with official of Nigeria Conservation Foundation

<sup>88</sup> Ibid

<sup>89</sup> Interview with official of Partnership Initiative for Niger-Delta (PIND)

<sup>90</sup> Ibid

<sup>91</sup> Akinwunmi Adesina, Hon Minister of Agriculture and Rural Development, Presentation at the Nigeria national Interpretation of the Principles and Criteria of RSPO presentation and Fundraiser for the Private Sector, held at Sheraton Hotels and Towers Ikeja on Tuesday 26 June 2012

<sup>92</sup> Ibid

<sup>93</sup> Ibid

<sup>94</sup> Akinwunmi Adesina Ibid

<sup>95</sup> Friend of the Earth (FoE); Exploitation and empty promises: Wilmar's Nigerian land grab, 2015 [http://webiva-downton.s3.amazonaws.com/877/f7/4/6087/Nigeria\\_report\\_summary-lowres.pdf](http://webiva-downton.s3.amazonaws.com/877/f7/4/6087/Nigeria_report_summary-lowres.pdf) , <http://worldstagegroup.com/index.php?active=news&newscid=23417&catid=44>

