Preliminary Research into the Agricultural Market Systems and the Opportunities for Youth Employment in Delta State

Commissioned by PIND

Prepared by

Raphia Red Ltd

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B. Abbreviations

BITC- Business Information Training Centre

DFID - Department for International Development

DIDP - Delta State Integrated Development Project

FAO - Food and Agricultural Organisation

FGD - Focussed Group Discussion

FGN - Federal Government of Nigeria

GDP - Gross Domestic Product

GEMS - Growth, Employment and Markets in States

GTZ - German Technical Co-operation

IFAD - International Fund for Agricultural Development

IFC - International Finance Corporation

IITA - International Institute of Tropical Agriculture

JICA – Japanese International Cooperation Agency

IPPs - Independent Power Projects

MICS - Multiple Indicator Cluster Surveys

M4P - Making Market Work for the Poor

MOU - Memorandum of Understanding

MSME - Micro Small Medium Enterprises

MT – Metric Tonne

NBS - National Bureau of Statistics

NEEDS - National Economic Empowerment and Development Strategy

OFN - Obasanjo Farms Nigeria Ltd

PAPI - Poverty Alleviation for the Poor Initiative

PIND - Partnership Initiatives in the Niger Delta

PPP - Public Private Partnership

PROPCOM - Promoting Pro-Poor Opportunities in Commodity and Service Markets

TIC - Technology Incubation Centre

UN - United Nations

UNDP - United Nations Development Programme

UNICEF - United Nations Children Education Fund

UNOPS - United Nations Office for Project Services

YETA - Youth Empowerment through Agriculture

SEEDS - State Economic Empowerment Development Strategy

SSCE - Senior School Certificate Organisation

C. Acknowledgements

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We would also like to acknowledge the efforts of Mr Bernard Okumagba, Commissioner for Economic Planning in Delta State who really kick-started the whole process of opening doors for us to have informed conversations with the various relevant government departments. Our particular thanks go to Mr M.C Nwanze, Director of Statistics who made available relevant reports and documents which facilitated the production of this report.

Also we recognise and appreciate the support given to us by the Permanent Secretary Ministry of Agriculture in Delta State, Mr J.N Ochonogor. .

Finally we wish to thank Chief P.I.G Onyeobi, the Asagba of Asaba who graciously received us in his home and provided great insight into the oil palm sub sector and connected us to Presco Oil Ltd.

D. Objectives & Scope of Study

Foundation for Partnerships Initiative in the Niger Delta (PIND) is a new initiative established by Chevron Corporation to provide support for socio-economic development programmes in Nigeria's Niger Delta. Its core objective includes working in Delta State to:

- Create jobs for youths through the establishment of commercial agricultural production
- Improve economic opportunities and livelihood of the youth
- Establish linkages amongst agricultural market players
- Increase production of quality agricultural commodities
- Increase non-oil related economic growth

As one of the inception activities of the initiative, PIND engaged the services of Raphia Red Ltd to conduct preliminary research into agricultural market system opportunities with the highest potential for employment generation of the youth in the Delta State.

Objectives

The primary objective of the study is to set out the linkages between growth opportunities in agriculture and youth unemployment and skills gaps in Delta State. The intended outcome is to identify channels through which PIND can make an impact on youth unemployment via agriculture and agri-business.

The secondary objectives of the assignment include but are not limited to the following:

- Identifying and prioritising agricultural market system(s) with the most potential to create jobs in Delta state; and
- Setting out recommendations on prioritising interventions to address failures or weaknesses in the agricultural market system(s).

Scope of the Study

The study focused on both the agricultural products and the agricultural market system as they tend to create the "right conditions" for improved growth and access. Utilising the features of the M4P approach, the study looked the subject matter from three fundamental perspectives as follows:

1. Understanding the profile of the unemployed youth and ex-militants and their wider context including economic opportunities. This will include demographics such as age groups, education level, gender, reasons for being unemployed, factors that will influence their choices for employment, etc.

2. Mapping out the specific agricultural market system(s), its dynamics and the position of the unemployed youth; specifically how is the agricultural market failing to serve them and why.

3. Identifying specific systemic market constraints, that cause employment; specifically trying to understand the root causes;

The study covered the three senatorial districts of Delta State where key respondents (individuals, groups and institutions) were drawn.

E. Methodology and Limitations

The methodology adopted in carrying out the study was driven by the objectives of the study itself. This methodology was carefully designed to generate information required to provide answers to the objectives of the study. The geopolitical demarcation of senatorial districts was utilised in deciding location points for information gathering. In this regard one location was selected from each senatorial district using the criteria of population. The three locations are Warri for the south senatorial district, Sapele for the central senatorial district and Asaba for the North senatorial district (See map below).

FEDERAL SENATORIAL DISTRICT MAP OF DELTA STATE

Qualitative and quantitative information gathering techniques were used in conducting this study. Participatory methods were also deployed in the entire process of information gathering. Although the study design was structured, it was also made flexible in order to give stakeholders the opportunity to contribute and define the information gathering process. Other specific techniques adopted include use of semi structured interview, focus group discussion, site visits to farms, one-on-one meetings and many more. The entire process was divided into three integrated stages as follows;

1. Desk Research

We employed the use of the internet and personal contacts to identify and utilise all relevant material on Delta State, Youth, Unemployment, or any other similar research carried out in order to get an initial impression of what has been done in the past. To this end we sourced a lot of material including; The Niger Delta Master plan,, Delta State draft statistical book, Delta state budget, UNDP human development report, The World Bank's "Doing Business in Nigeria 2010", Vision 2020 essay statistics (broken down by States), Reports by Economic Associates; a consulting firm in Lagos, Data from the National Bureau of Statistics, etc. A comprehensive list of all material used is contained in the reference section of the report on page 79.

2. Field Work

The field work undertaken is categorised into four main areas. Firstly guided interviews were held with youths from three different locations of Asaba, Sapele and Warri. Prior to our meeting, questions and checklists were developed in line with the objectives of the study. These included two separate semi-structured questionnaire for the youth (employed and unemployed) and a checklist for Focus Group Discussions (FGDs). See appendices 2, 3 & 4.

Secondly, we consulted with stakeholders in the government institutions. Once again, a checklist (see appendices 5 & 6) was developed to guide the questions to be asked before we visited and interviewed officials in the States Ministry of Agriculture and its agencies; Ministry of Economic Planning and its departments including Department of Statistics, Planning and Administration; and Youth and Development. We also interviewed representatives of the Delta State Integrated Development Project (DIDP), a department within the Delta State Governor's office.

Thirdly, we interacted with several actors within the agricultural market system including.– Nigerian caterers in Warri; a distributor and retailer of agricultural produce including, meat, chicken and rice; Unitop; a catering company who also is a processor and distributor of poultry and meat products; Farmers Association of Nigeria, Delta Branch; Shell Farm, Jedo Warri; Presco Oil; independent farmers such as RUCEM Farms (Fishery and Poultry), in Jedo Warri; SOTONIA Farms Warri, a frozen fish business that mainly import frozen fish from outside Nigeria; Clarita Farms Warri, a poultry farm that shut down business because of the harsh business environment; OVO Farms Ughelli, a fishery farm, RUCEM Farms (Fishery and Poulty) in Jedo Warri,Chief P.I.G Onyeobi, the Iyase of Asaba and ex- Chairman of Presco Oil for 19 years (who also has an oil palm plantation called Ahamba farms), and the current Managing Director of Presco Oil itself.

Finally, we interacted with NGOs & donor agencies working in the Delta State including Poverty Alleviation for the Poor Initiative (PAPI), Ughelli, a non-government organisation promoting employment generation and increasing farmers' income through bee production and representatives from IFAD and UNDP

3. Compilation of result and report writing

The information generated from the field especially that of the youth was collated using excel spreadsheets for simple analysis. Other information from stakeholders was documented and analysed and then sent off to expert consultants who used their wealth of experience to validate some of the findings and expand the breath of recommendations. The final report was produced based on an agreed template developed by the Raphia Red team.

Limitation and challenges

Although the study was successfully completed, it was not without challenges. These challenges varied from issues around concept and formulation of the study as well as field specific issues. Some explanation is given below.

Preliminary vs. Feasibility Study: Although this study was conceived to be a preliminary one; at times it was difficult to determine where to draw the line between a preliminary and a full feasibility study. This became clear in both the depth and line of questioning as well as responses between the team and stakeholders in the filed. This meant that more time would be required to explore this fully, which varied from the original proposal design. In an attempt to address this, the team made a conscious effort to control the depth of questioning and resolved to take note of these stakeholders; in the likely event of a full feasibility study in the future.

In addition, pragmatic decisions were made to extend the study beyond the initial design by engaging more unintended stakeholders and redesigning the approach for information collection. An example of this redesign was the decision to conduct a search for information in Delta State from the three senatorial districts instead of the two originally planned.

Gaps in Stakeholders: Our field experience indicated the need to further interview other key stakeholders in the agricultural markets system; some which were not identified in the initial proposal. A good example of this are financial institutions which could not be included giving the time frame. Therefore, we would recommend that actors such as this be considered in any future detailed feasibility studies to be commissioned by PIND.

Unwillingness and suspicion by key stakeholders: Some of the youth were fed up with what they called “empty promises” either by the Government or other institutions and disillusioned about the possibility of job creation. They said there has not been feedback or follow up by other organisations who have attempted to carry out similar tasks and as such, were reluctant to make themselves available for any discussions. This same sentiment was shared by a couple of other agricultural market system actors and some government officials within Delta State. Sometimes these stakeholders’ demanded cash incentives for the ***“privilege”*** of providing useful or relevant information. It was somewhat difficult to manage from an ethical standpoint but the team decided a way around this was to cover the cost of ***“refreshments and other incidentals***” such as transport costs during the course of the assignment.

Perception of Government: Some individuals were very passionate about what they termed the “insincerity of Government” in programme implementation; therefore were unsure if the proposed PIND partnership with the Government will yield any meaningful result. Convincing them to listen to us was a big challenge in the field.

F. Executive Summary

This study looked at the agricultural market system and its potential for employing youths in Delta State. In trying to analyse the constraints facing the agricultural market system, the team used the M4P approach to understand where the constraints may be within four key selected sub-sectors namely oil palm, rubber, poultry and fishing. After careful analysis, the main constraints facing all four sub sectors were found to centre around inappropriate government programmes, poor extension services, manual/inefficient farming practices, inadequate finance support for agriculture and the poor work attitude of the youth. To address some of these, it is recommended that PIND build programmes around two additional areas besides the potential value chain intervention opportunities identified, these areas are:

a. Youth support opportunities
b. Government support opportunities

With regards to the youth surveyed the oil sector still remains the preferred sector for employment and agriculture does not seem to be fully understood or appreciated by them. Overall, the youth exhibited some differences across different geographical areas, but they were uniform in their problems of unemployment, disappointment and even disdain for the government and formal sectors. Generally, youth blame the government in most part for not meeting up to its promises of reducing unemployment in the state and efforts to address their attitudes, dispositions and access to information on jobs and skills acquisition would be most effective.

With regards to the government, the poor state of agriculture in the state is not helped by the fact that the state's budget allocation to agriculture 2009 and 2010 was virtually negligible, despite the size of the employment it currently generates. Instead the state is focused on developing much needed infrastructure but with a view to supporting more manufacturing and service sector activities. While agriculture and agro-processing businesses may benefit from these infrastructural development, guidance on government programmes to support youth employment and agricultural development would help make the most of what little support is directly given to this critical sector.

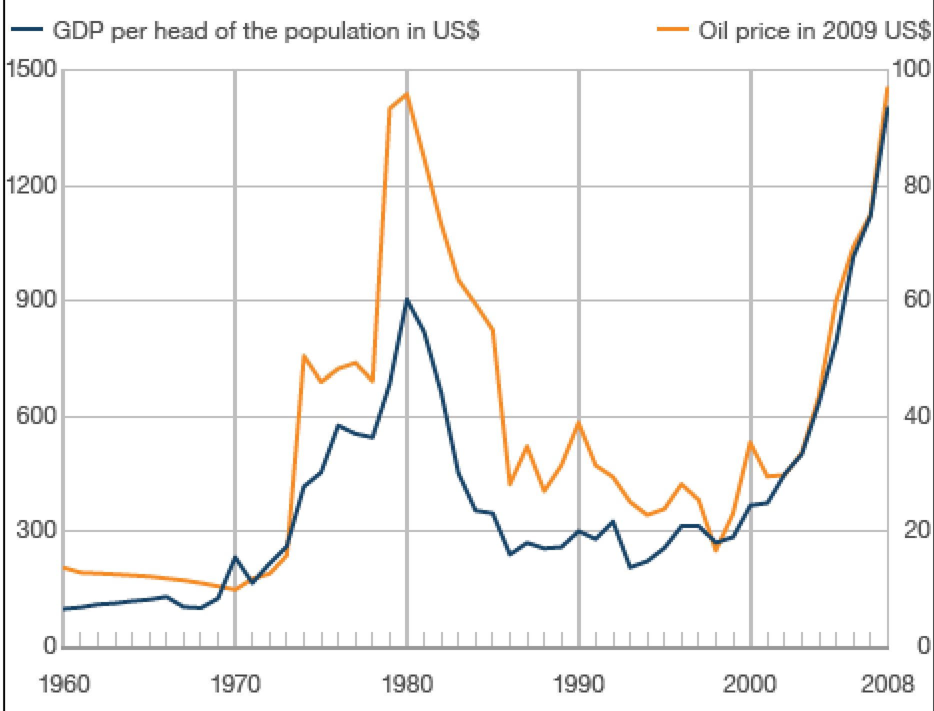
Main Report

1. Economic Overview

Nigeria, while endowed with natural resources is also plagued by political instability, corruption, and poor macroeconomic management. As a result basic socio-economic infrastructure is grossly inadequate. The present administration of the country was convinced of the need for a drastic departure from the 'business as usual' syndrome in the policy of the nation. Major steps have been taken to reform both the investment environment and the way of doing business in the economy.

Nigeria's Federal Government is also implementing a strategic shift of the economy from over-dependence on the capital-intensive oil sector, which provides 95% of foreign exchange earnings. The largely subsistence agricultural sector is being empowered to engineer a shift to mechanised farming capable of sustaining local consumption and even exports. FGN has shown great commitment to the implementation of a market-oriented economy. As a result, the private sector is being empowered to lead in the running of the economy. All erstwhile publicly-dominated sectors and industries are being deregulated to allow for private investment. The Banking sector has also been re-capitalised to enable the creation of modern and large enough institutions capable to sustain long-term investment. All these reforms are based on the National Economic Empowerment and Development Strategy (NEEDS). As a confirmation of the confidence in the management of the economy by the administration, Nigeria's external creditors recently agreed to write-off 60% of Nigeria's external debt while the balance would be bought back at discount. But Nigeria's well-being is still inextricably linked with the global price of oil (see chart above).

Oil price and Nigerian growth

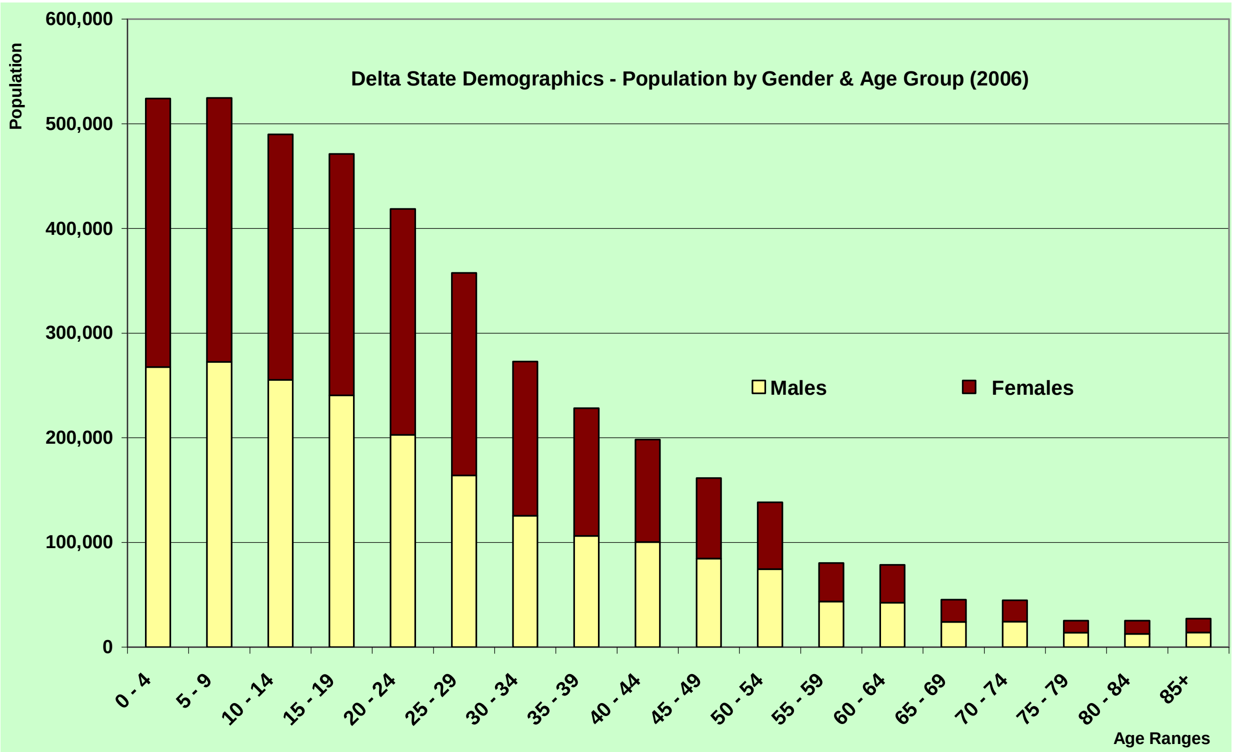


Note: The oil price from 1960 to 1983 is for Arabian Light posted at Ras Tanura. From 1984 onwards it is Brent dated.

Source: World Bank Development Indicators/BP

Social & Economic Profile of Delta State

Delta State is one of the 36 states of Nigeria and one of 9 that make up the Niger Delta geo-political zone and which is home to Nigeria's oil & gas industry. Delta State has a population of just over 4 million (as at 2006 census) which is estimated to be growing at 3% per annum. The 2006 census figure showed that persons from the age of 15 - 39 accounts for almost 43% of the total population. However, the data also shows that a recent baby boom means the percentage in this age range is only going to continue rising for the foreseeable future.

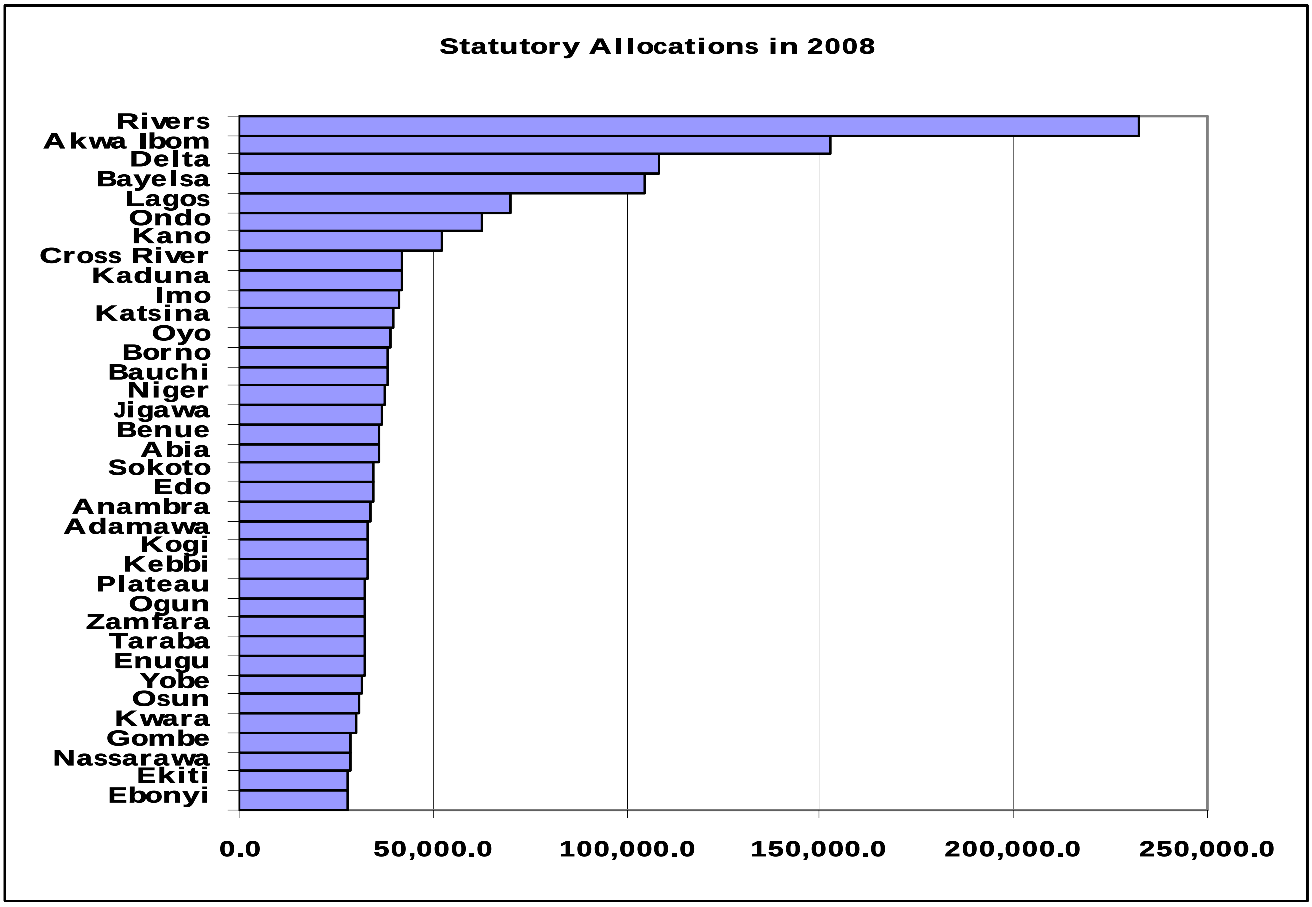


Source NPC 2006 Census

As mentioned earlier, the State is divided into three Senatorial Districts, which are Delta North, Delta South and Delta Central (see map on page 7) which are further broken down into 25 local government areas (see appendix 1). It is bounded in the North by Edo State, on the East by Anambra State, on the South-East by Bayelsa State, and in the south by the Bight of Benin with a 160 kilometre coastline. The State covers a landmass of about 18,050 square kilometres of which more than 60% is land and 33% is covered by water/swamp while 4% is covered by forest. Delta State is generally low-lying with an abundance of rivers, creeks and streams, all forming part of the famed Niger-Delta.

The vegetation of Delta State varies from the Mangrove Swamps along the coast to Evergreen Forests and Savannah in the North. This makes her well placed in the production of tree crops including rubber & oil palm and the production of forest related products such as timber, bamboo, paper and board. With a 160-kilometre coastline, numerous rivers and waterways, Delta State has vast and rich fisheries resources. Farming, Fishing and Hunting are the major occupations of the inhabitants of Delta State accounting for up to 80% of the active labour force. The State also has significant mineral resources and accounts for about 30% of the nations oil & gas output. Other significant minerals found in the state are kaolin, clay and silica.

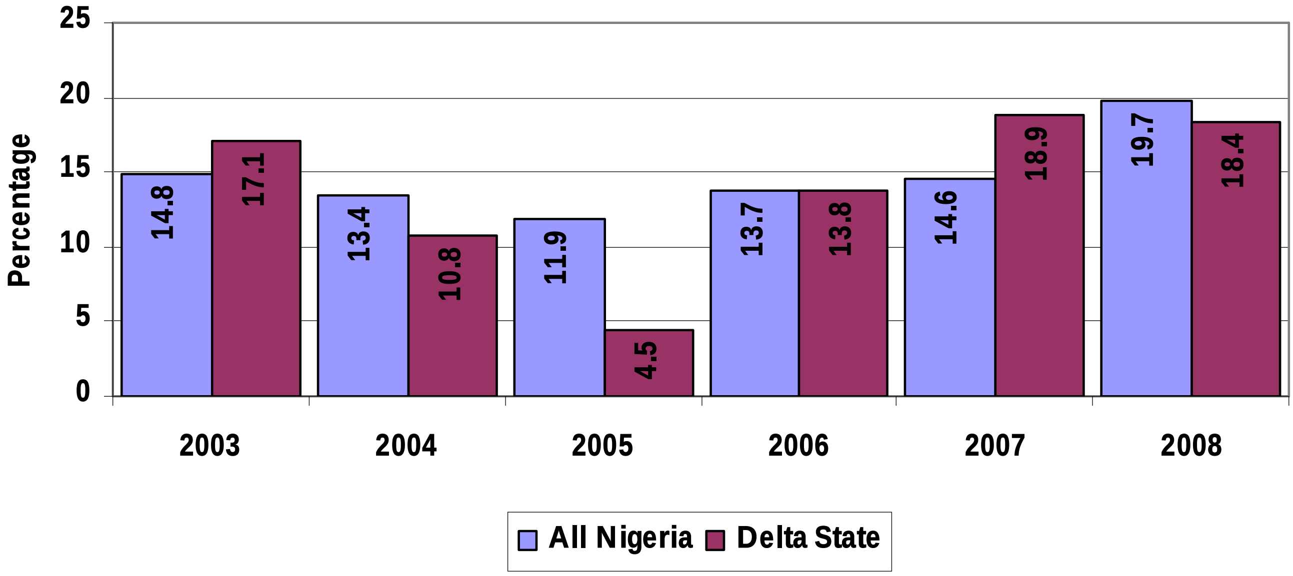
Delta State is the third largest producer of oil amongst the nine states that make up the Niger Delta. Similarly, the state's allocation from the federation account was the third highest in the country in 2008 at ₦ 108bn (see table below). The state's internally generated revenue (IGR) shot up by more than 1,500% from about ₦ 2 billion naira in 1998 to more than ₦ 35 billion in 2009. The increasing federal allocations being complimented by rising internal revenue had resulted in expansion of the state expenditure. Consequently, the state expenditure has also gone up by more than 3,000% since 1998 from about ₦ 5.5 billion naira in 1998 to about ₦ 233 billion in 2008, although it dropped slightly to about ₦ 217 billion naira in 2010. The state's budgeted expenditure is second only to Rivers and Lagos States.



Source: FAAC, Federal Ministry of Finance

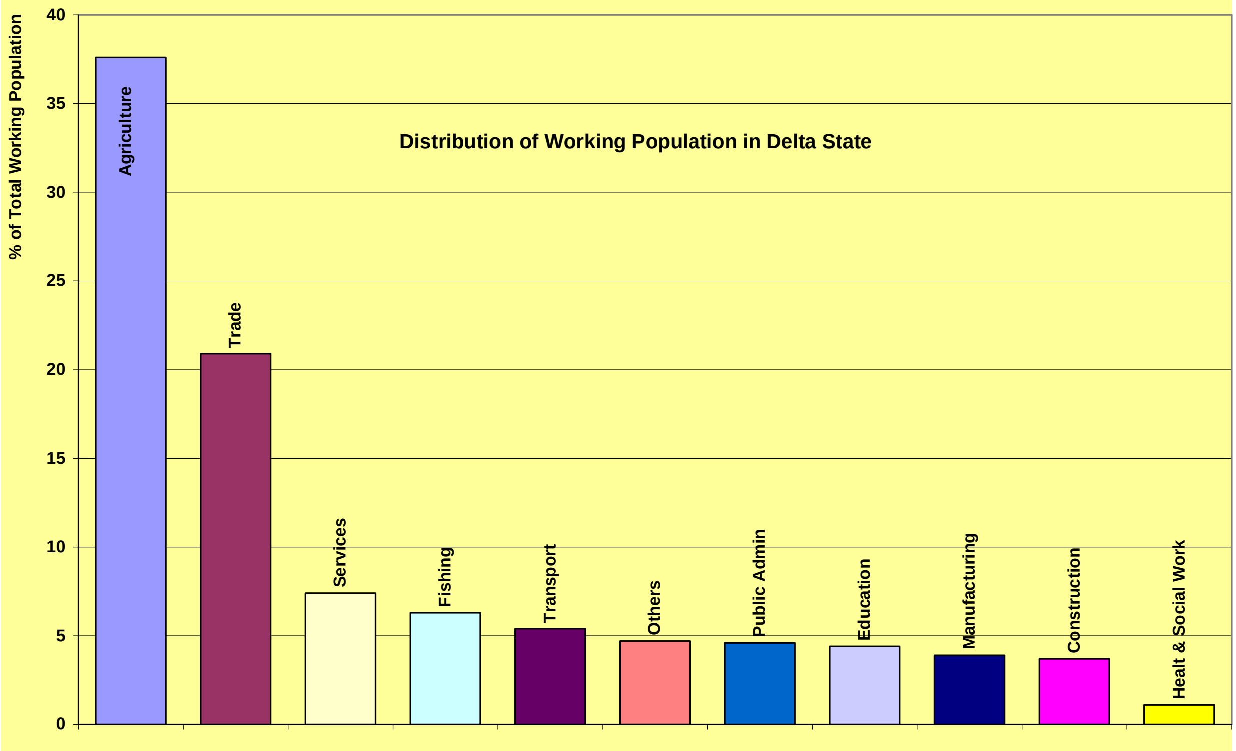
Despite its economic size, the state also has the unenviable claim that in 2009 84% of its population is classed as poor. According to the NBS, unemployment levels rose from 4.5% in 2005 to 18.4% in 2008. Although this was below the national average of 19%, it still ranked 20th out of the 36 states in this statistic. There was a tremendous decline in the rate of unemployment in Delta state between 2003 and 2005 (see the chart below). The rate of decline was faster for the state than for the nation.

National and Delta State Unemployment Rate 2003 to 2008



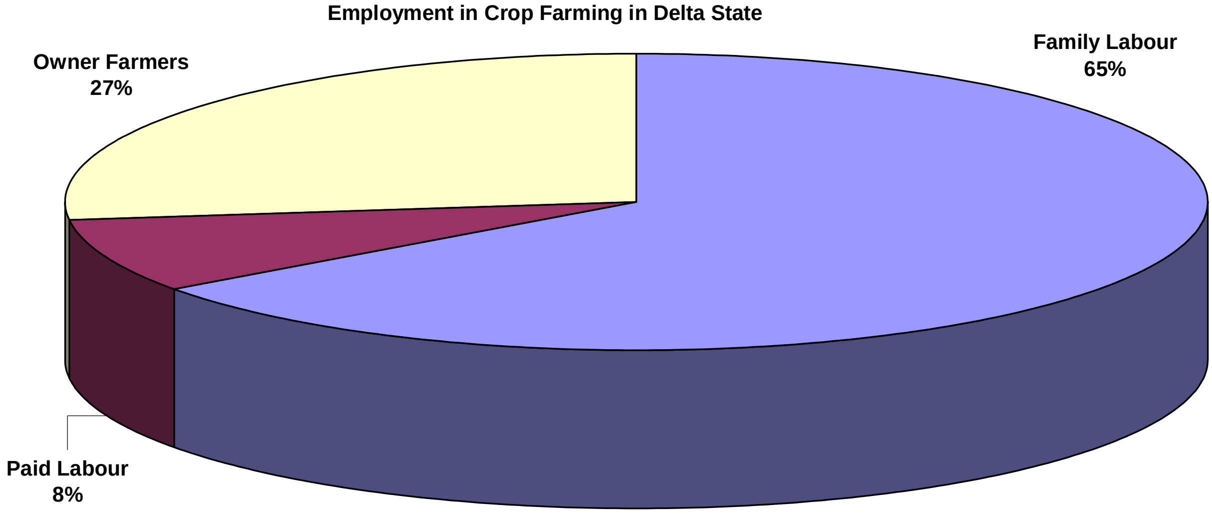
Source: National Bureau of Statistics, Annual Abstract of Statistic 2009

A closer look at the distribution of employment by economic activity in the state shows that more than half of the existing employment is in crop production and trade combined, with more than 37% of state work force working in agriculture and about 21% in trade (see chart below).



National Bureau of Statistics, Annual Abstract of Statistic 2009

Delving deeper into the agricultural sector, we observed that 65% of the "employed labour" in this sector are unpaid family members with only 8% paid labour; hence time spent by these individuals in this occupation is not financially compensated for.



National Bureau of Statistics, Annual Abstract of Statistic 2009

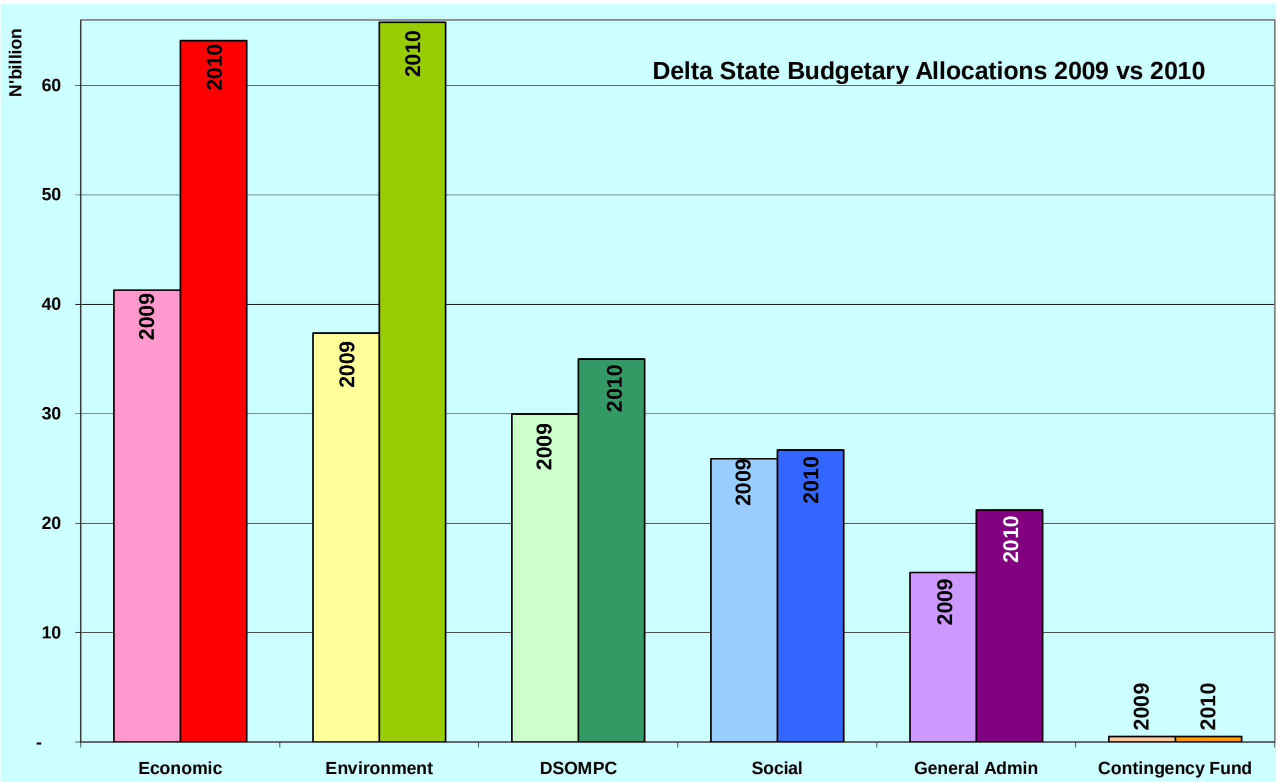
Despite all these gloomy statistics, the agriculture sector does not appear to warrant the state government's attention if the portion of the state's budget towards it is anything to go by, dropping from an already paltry 2.04% in 2009 to a negligible 0.87% of the 2010 budget.

2. Development Focus of the Delta State Government

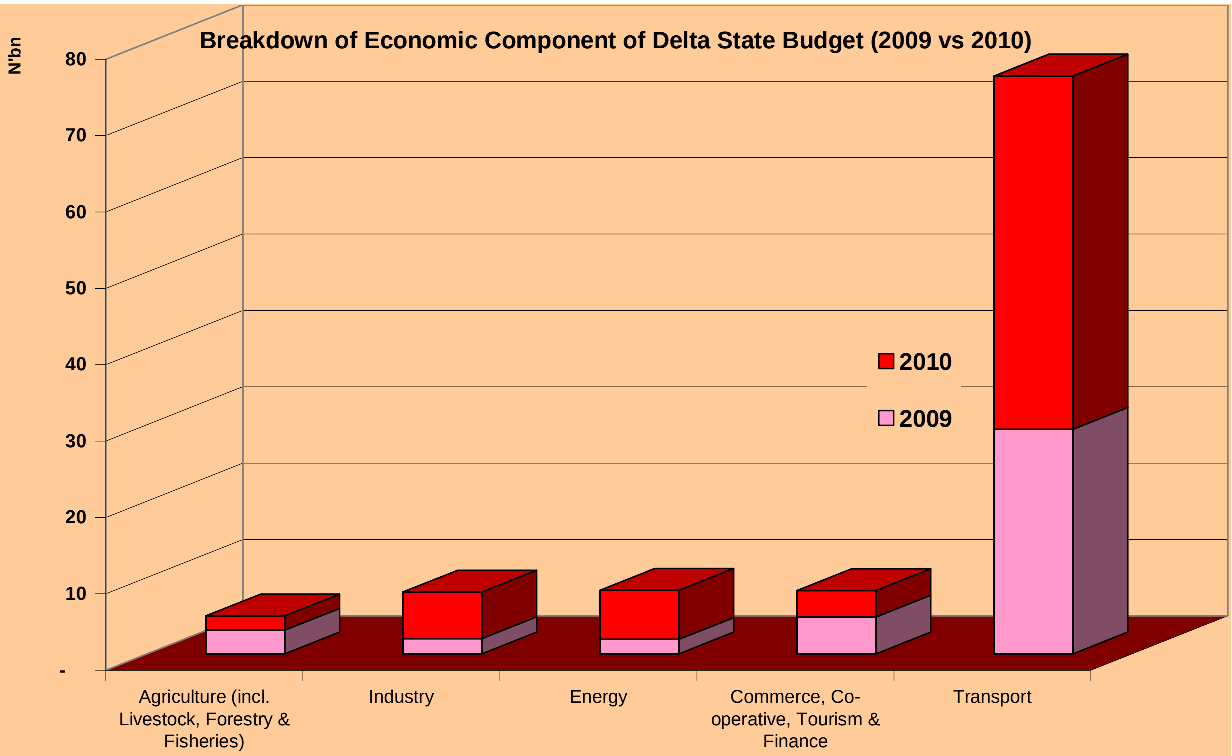
The Delta State government has focused its effort, in the last three years, on developing a well thought out and co-ordinated integrated plan to industrialise the economy of the state. Its ambition is to make Delta State the most industrialised economy in the country. It believes it has all the crucial ingredients required to achieve this ambition.

Its primary objective is to create an environment that attracts private sector investment and involvement in the economy which will lead to overall economic growth as well as generate employment. As part of this ambition, it created a new development department within the governor's office to research and oversee the integrated plan. The Delta State Integrated Development Project (DIDP) office is charged with researching, developing and implementing a strategy of achieving an industrial economy in the shortest time possible.

As a result, the expenditure pattern of Delta State in 2009 & 2010 shows the economic sector as the major priority sector in 2009, though it lost ground to the environment sector in 2010. About ₦ 41.3bn, 27% of the total budget was allocated to this sector in 2009, rising to 30% in 2010. 71% of this was allocated to transportation (for road construction & rehabilitation), the share of this budget going towards agriculture however, dropped from 8% in 2009 to 3% in 2010.

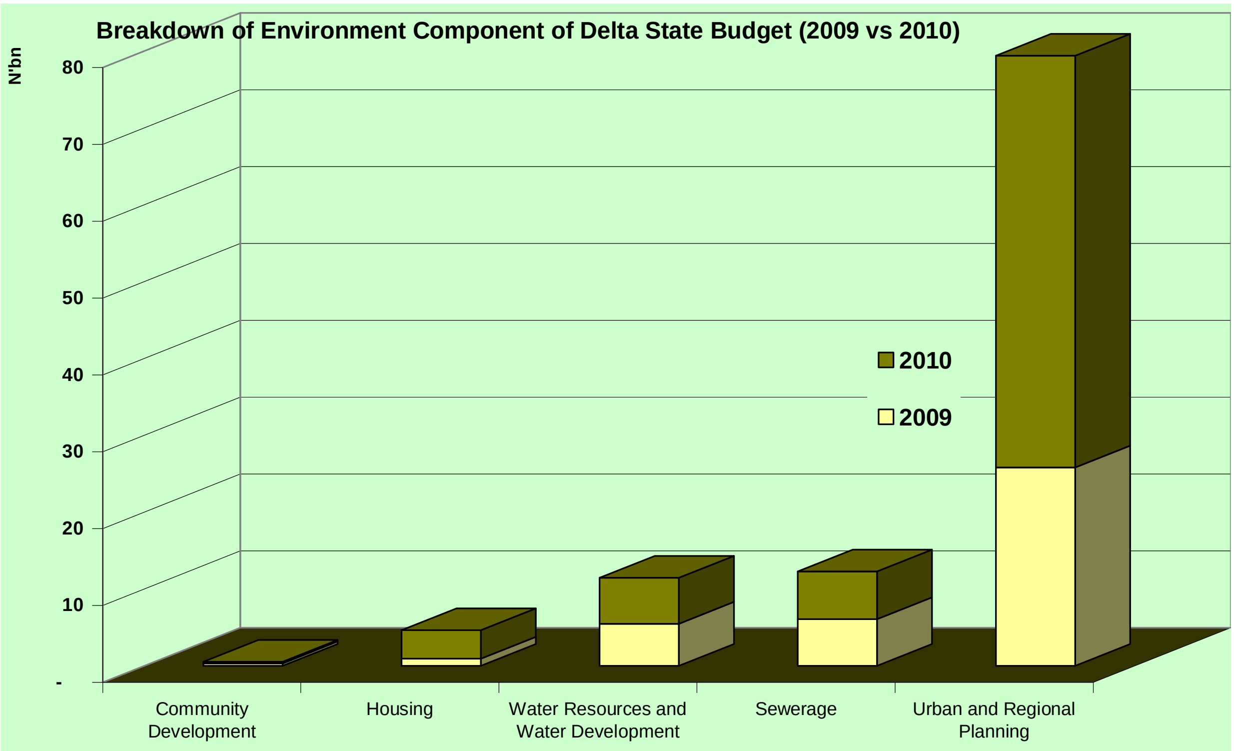


Source: Delta State Approved Expenditure for 2009 & 2010



Source: Delta State Approved Expenditure for 2009 & 2010

The other major component of the state's budget was environment, accounting for about 31% of the total budget in 2010. Within this, the lion share (81%) was allocated to "urban & regional planning" electrification and the provision of soar powered public lighting (see below).



Source: Delta State Approved Expenditure for 2009 & 2010

The DIDP has done extensive research on how other economies such as Malaysia, Singapore and Dubai have achieved industrialisation within a specific timeframe. This can be achieved if the government provides the enabling environment, in terms of “friendly” private sector policies, infrastructure and security of life and property in the state. Their preliminary results suggest that the state should focus on sectors it has competitive advantage in. In order to be successful in its proposed implementation, the DIDP has engaged the private sector by sharing its vision and its strategy towards achieving this vision. It is assumed most of this has been positively received as agreements have been reached with financial institutions and other private sector players on various aspect of the plan. DIDP believes that Governments role should be to define the vision of where they need to go but then allow the private sector drive the process.

In addition, the DIDP is overseeing plans to open seas ports along the Delta State coastline, develop four power generating plants and establishing an independent electricity grid. The State achieved a rear feat of getting approval from the federal government to have an independent grid for electricity it generates in these four power plants.

The DIDP has done its most extensive research in the agriculture sector; as it has investigated crops that thrive in each of the 1,509 communities to determine why their production remains at subsistence levels and what can be done to take it to commercial levels. It has sent seedlings and planting materials of various crops to institutes in the United States of America for further refinement. The aim is to have an agriculture sector output beyond local demand but on a worldwide scale. The ambition of its programs in agriculture is designed mainly for export rather than local consumption.

In order to achieve its objectives, DIDP believes the infrastructure has to be put in place to support this strategy. The one big step towards making this has been the mapping out of a ring- road network starting from Asaba to other parts within the entire state which will facilitate the evacuation of goods and services. This currently does not exist

According to DIDP, Delta State produces 40% of Nigeria’s gas but does not process any of the associated raw materials which means that that it cannot move or transport it to the second level of the chain (processing) and therefore earn the value obtained in this processing stage due to transportation /road inadequacies.

Similarly Agriculture in Delta State does not have a thriving processing sector. The Government believes that more industrial processing will lead to greater demand for products and therefore drive the growth of crop production in the state. As a result the state has identified 3 specific agricultural sub-sectors within which to invest in processing and production; these are Aquaculture, Poultry farming & Oil Palm.

- **Aquaculture:** This was chosen on the basis that Delta State is one third under water and more so during the raining season which means that she is naturally positioned in an aquatic space. Delta State prides itself as the original home for a specific type of fish called Catfish which it believes grew between the Isoko and Urhobo aquatic land. Their proposal is to develop a self sustaining aquaculture district which will involve 3,600 farm units (and employing the same number of farmers) producing between 1.2-1.8 million tonnes of Catfish for export in one space.

- **Poultry:** This was chosen on the basis that it requires fairly reduced land acreage and also the availability of new and improved technology will help to deliver commercial viability. The government is working to identify the poultry needs for Delta State as most poultry needs are currently imported. In order to meet commercial viability, the study suggests the state needs to produce a minimum of 3 million birds a month. If this target is to be met (1 million growing layers - for eggs and 2 million Broilers- for meat), Delta State will still only meet the demands of 8 States in Nigeria. This is in addition to the current capacity of the state. It must be noted however that the issues surrounding how to get the parent sock needs to be addressed and one way is via Obasanjo farms (renowned for its quality stock production) which has now been set up in Delta State.

- **Oil Palm:** This was chosen on the basis that the state has the climate to support its development and also has a huge potential for economic activity with its lengthy value chain. The land used for growing oil palm can be further used for growing pineapples, vegetables and fruits such as cucumbers in what is termed “mixed cropping”. Although Delta States land is good and can support this, the project believes that it must develop a smart strategy in order for it to make economic sense. For example the presence of a common oil palm aggregator to bring growers together will further promote the processing sub sector in the oil palm market.

Agriculture and Youth Support Programmes in Delta State

Whilst it is important to elaborate on some of the current programmes designed to support either agriculture and the youth in Delta State, it is also worth noting that no measurement and evaluation has been done to determine the success or failure of theses programmes. In any case, it is necessary to highlight what the key objectives are in order to throw some light on what is currently available to avoid duplication.

The Songhai Training Institute

The Songhai Delta was designed after the Songhai Centre in Republic of Benin to equip persons especially youths with skills for employment in agriculture and agro-allied activities. The Delta State Government is funding this initiative that replicates the Songhai agricultural training model from the Benin Republic. The infrastructure was put in place by the Government and the Ministry of Agriculture as well as consultants from Songhai design to guide the delivery of the curriculum. A skills transfer and utilisation strategy was set and a framework for post-qualification and post-completion networks and networking development put in place. Graduates are provided with SEED money and equipment to start their own farming business.

The project aims to address unemployment by stimulating the interest of the youth in agriculture and agricultural enterprises and thus raise a crop of agricultural based entrepreneurs. The specific objectives of the farm project are to:

- Draw more unemployed youth and resources into active agricultural production and agri-business engagements;
- Equip the youth with agricultural management skills and motivation to establish own agricultural production / agro-processing and agro- commercial operations and increase income;
- Create a strong supply chain of raw materials to feed the emerging agro-industries;
- Create a strong base for the development of agro-allied cooperatives and networks;
- Reduce food insecurity and poverty in the state and establish basis for sustainable development.

It is designed as an integrated curriculum incorporating theoretical, laboratory and practical education to address the cultural, economics, technical and management aspects of agriculture (agronomy, livestock, micro-livestock and fisheries, apiculture, silviculture, agro-forestry, horticulture, mushroom production and snail farming) and agribusiness. The project scope includes:

- Establishing a model farm centre to be used as training clinic;
- Developing and deliver functional and integrated curriculum;
- Establishing and provide integrated farm management and business advisory services;
- Producing farm products and sell to Deltans;

- Establishing capacity for and provide organizational / Institution development services;
- Providing starter packs for graduates.

Since inception in 2001, the Songhai Delta Centre, Amukpe Centre has trained youths in various agricultural related fields such as fishery, poultry, etc. These youths received training in batches of about 500 annually. In 2010, the graduating class comprised of 315 youths in fish production, 100 in poultry, 25 in piggery, 10 in bushmeat and snail production and 50 in crop production. It is understood (but not verified) that the state government has made funds available via its micro-credit scheme (including production infrastructure) for the beneficiaries of the training programme.

Shell Nigeria's LiveWIRE programme

Shell started the LiveWIRE programme to support entrepreneurship development among youths in the Niger Delta. It provides young people the skills they need to start up and manage their own business. In Nigeria, this programme claims to have trained more than 3,500 young people since 2003. With the support of the Delta State government, they had established more than 519 businesses by the end of 2009. In addition, Shell is partnering with USAID Nigeria and the International Institute of Tropical Agriculture (IITA) in a $11.3 million project ($2.25 million Shell share) over five years to develop cassava farming. In 2009, more than 3,400 farmers received training under this programme. It has also provided technical and business skills training for 11,000 farmers and has created 3,600 full-time and 9,000 part-time jobs.[1]

Youth Empowerment Through Agriculture (YETA)

Established in 2007, this programme was set up by the Delta State government to create a new generation of farmers to replace the present ageing generation. It is believed YETA has produced about 1,000 beneficiaries supposedly selected on an equal basis from all local government areas of Delta State. Training is in areas such as livestock production such as piggery, poultry, Heliciculture (snail cultivation), cane rat (bushmeat) production aquaculture (fishery) and crop production as well as agri-business entrepreneurship, book-keeping, leadership skills and group dynamics.

The programme trained 950 youths in 2 graduating classes. They were trained in the background knowledge of agriculture production, management and marketing. The graduates of the programme were supported with start-up packs that included a piece of a cluster farm that has the entire infrastructure needed to start and sustain operation.

Performance data is very difficult to get on these programmes so the effectiveness cannot be determined. However, discussions with the ministry of agriculture indicate that the impact has been lower than expected because there has been no significant take up of agriculture by the graduating

[1] It must be stated that all of this information has not been validated. There are mere reports.

youths. The ministry officials said that the trained youth lacked focus and suggested this was due to several reasons including the fact that selection of participants was politicised and not based on genuine interests. Furthermore the trained youth were discouraged by the long gestation period to yield returns and were more interested in getting immediate financial support from government; hence they were motivated for the wrong reasons, even though the training budget was insufficient for start-up support.

However, the youth themselves offered their explanation for why the programme failed and point to one example in which youth were trained in fishery and subsequently were given 3,000 fingerlings and 3 mobile tank ponds as starter packs on graduation from the centre. These beneficiaries later realised that when the fish started growing and required sorting by size, the three tanks provided were not large enough and this posed a difficult challenge. As a solution to this challenge some youths sold off their tanks and fingerling and concluded that it was not economically viable to start up a business with only three tanks.

Farmers Support Program

Established in 2008, this programme was designed to support small to medium scale farmers improve access to finance and other support services. This programme is part of a state wide agriculture road map headed by the governor. The programme's objective is to assist farmers increase their output through additional investment in equipment and techniques. Financial support was also provided through a microfinance institution.

The support targeted farmers in piggery, poultry and fishery for their quick win nature (short time to harvest) and others like cassava, vegetable and rice. According to government publications some farmers were able to increase output and consequently income. However were no scientific monitoring data to prove the impact of this programme and as overall agriculture output in the state has declined, it could be argued that this programme did not meet its objectives.

UNOPS/Shell and Delta State Partnership Programme

This initiative was set up in 2009 under the UNDP Niger Delta Job Creation and Conflict Prevention and is being implemented by UNOPS. It is targeted at equipping youths with market driven skills that provide them greater opportunity for competitive employment in the labour market. To achieve this target, a Multi-Purpose Youth Training Centre was set up in Egbokodo. Prior to this, a Job Creation **and Skills Needs Assessment Survey** was conducted in 2009 to identify viable employment options (self and paid employment) available in the Niger Delta that can provide sustainable income for the teeming population of unemployed youths.

The study observed that the oil and gas companies and their activities account for a majority of formal job opportunities available in the region while majority of other livelihood opportunities are in agriculture and agro allied small scale ventures. The study also noted that greater proportions of the youth have acquired skills such as welding and fabrication; which is very much oil and gas related. The study discovered that great potential exists in development and expansion of agric-based livelihoods activities such as cassava production, processing and marketing; livestock and fish farming; development of bamboo and cane processing industry, plantain production and palm oil production.

Obasanjo Farms

In June 2010, in an effort to encourage agricultural development, the governor of Delta State signed an MOU for a ₦ 3bn poultry farm project between the state and Obasanjo Farms Nigeria Ltd (OFN). Under this arrangement, the Delta state government provided ₦ 759mn and 200ha of land whilst the goodwill and expertise comes from the well established Obasanjo farms whose head office is in Otta, Ogun State.

The main objective of this partnership is increased agricultural production within Delta State especially for the unemployed youth (18-40yrs) who would be engaged and empowered to take up agriculture as a means of livelihood. There is a component of the project called “broiler processing”. In it, whole chickens will be produced, processed, packaged and sold within and outside the state. It is hoped that this will be consolidated with the current poultry food chain.

There are concerns amongst existing poultry farmers in the state that this programme will crowd them out; as production from this project will simply eat into their market share. Specifically, Clarita Farms concerns are that the size of such a business will be monopolistic and control the supply of day-old-chicks. In addition, the political power of the owner (the former president of Nigeria) will also not bode well for the small-scale industry.

3. Youth & Unemployment in Delta State

Unemployment rates amongst the youth are normally around three times higher than those for adults overall. Youth employment is a special concern as conflict environments have typically younger populations, and they are more likely to have missed their education. Unemployed and uneducated youths are far more likely to take up arms, and even after demobilisation they are less able to take an active part in development[2]. This is particularly true for Delta State. According to the World Bank report "Youth Unemployment in Africa", few topics in Africa deserve more attention than the pressing issue of youth employment. More than 10 million Africans enter the labour market annually, only a tiny fraction of whom can currently expect to find formal employment. This demographic phenomenon presents a challenge to job creation and therefore poverty reduction.

Youth unemployment is a problem for which a comprehensive and effective strategy has yet to be developed. The World Development Report of 2007 highlighted the promise and the challenge of youth. Recent years have seen some models of youth focused public and private sector partnerships generate promising rates of return. The World Bank is already part of some research efforts to understand which interventions work best. These are just the beginnings. The social and economic security of Africa over the new decade will depend on how the continent and its partners make progress in addressing this seemingly intractable challenge.

The United Nation's (UN) definition of youth is a person that is between the ages of 15 - 24 years while the Delta State Ministry of Agriculture, in its programmes, classify a youth to be between the ages of 18 - 30 years. However during the field study, it was discovered that age classification is less rigorously applied by the people themselves. Rather a youth is classified from the angle of physical ability to do work, mental and emotional strength, as well as economic status. For example in one of our focus group discussions, a female of 45 years presented herself as a youth. Given this background, the study did not stick firmly to the UN or the states ministry of agriculture classification of who is a youth, rather a wider age range was adopted in order to contain the definition of the people themselves. An age range of 18 – 40 years was focussed on, though a few people who attended our focus group discussion were above 40 years. In our opinion, the adoption of this age range by the team did not in any way affect the study because the issues surrounding unemployment and strategies for job creation affect both young and old; therefore any one of them can comfortably discuss the issues and proffer solutions. Unemployment is a universal challenge though strategies for solution could differ due to environmental factors. Since both the young and

[2] International Alert (2006): 'Local Business, Local Peace: The peace building potential of the domestic private sector'. IA, UK.

old live in the same environment in Delta State, age differentiation might not be so critical in seeking viable and potential solution to unemployment.

The literacy rates for Delta State amongst youths aged 15-24 years rose from 77% to 95.7% between 1999 and 2007[3]. Whilst this can only be a good thing, the bigger challenge is that most unemployed youth lack the required skill set needed to give them gainful employment. This point was validated by the youth themselves in the surveys carried out in the field during the course of this assignment.

Results from Youth Survey

In order to get a deeper understanding of the mind set of the youth in Delta State and their attitude to agriculture and unemployment, a series of one-to-one interviews was carried out in conjunction with focus group discussions. Structured interviews were held with youths from three different locations of Asaba, Sapele and Warri. Adopting this strategy was important in order to achieve some level of balance in terms of representation. The survey with the youth and focus group discussions were designed to answer four principle questions (from their perspective);

1. What are the reasons for unemployment amongst the youth?
2. How has the market system failed the youth in their quest for employment?
3. What is their general awareness of the states efforts (through specific programmes) to help deal with unemployment?
4. What is the general impression of the youth towards agriculture as a means to solving unemployment and what sectors would they be attracted to?

33 youth were engaged in one to one interviews which comprised 12 employed and 21 unemployed. In addition, one focus group discussion was held in each location with the following attendance; Asaba 16 youths (6 females, 10 males) with age range of 18 to 32 years; Sapele 20 youths (5 females, 15 males) with age range of 21 to 45 years and Warri 19 youths (7 females, 12 males) with age range of 20 to 30 years. The focus group discussion was a mixture of both the employed and unemployed youth. In all a total of 88 youth were interacted with both from the one to one interviews and the focus group discussions' across all three locations. See table below for breakdown.

One-on-One Interviews

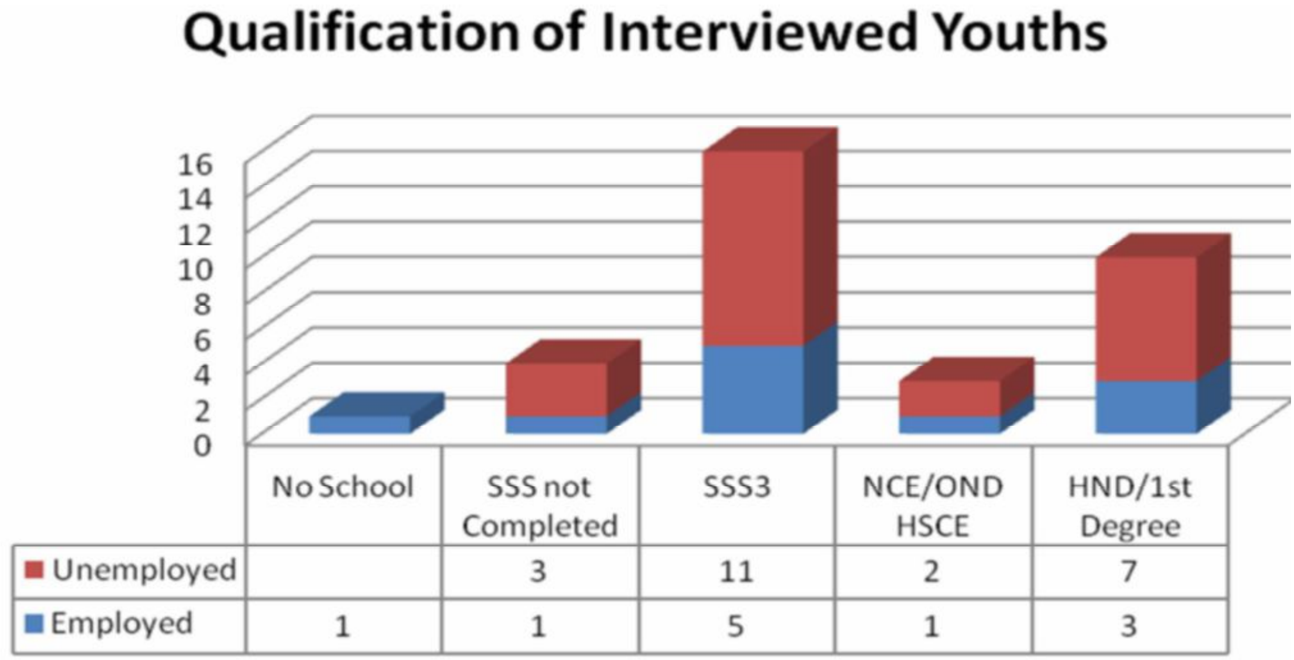
	Total	Employed	Unemployed
Asaba	**13**	1	12
Sapele	**10**	5	5
Warri	**10**	6	4
TOTAL	**33**	12	21

[3] According to the UNICEF Nigeria, Multiple Indicator Cluster Surveys (MICS)

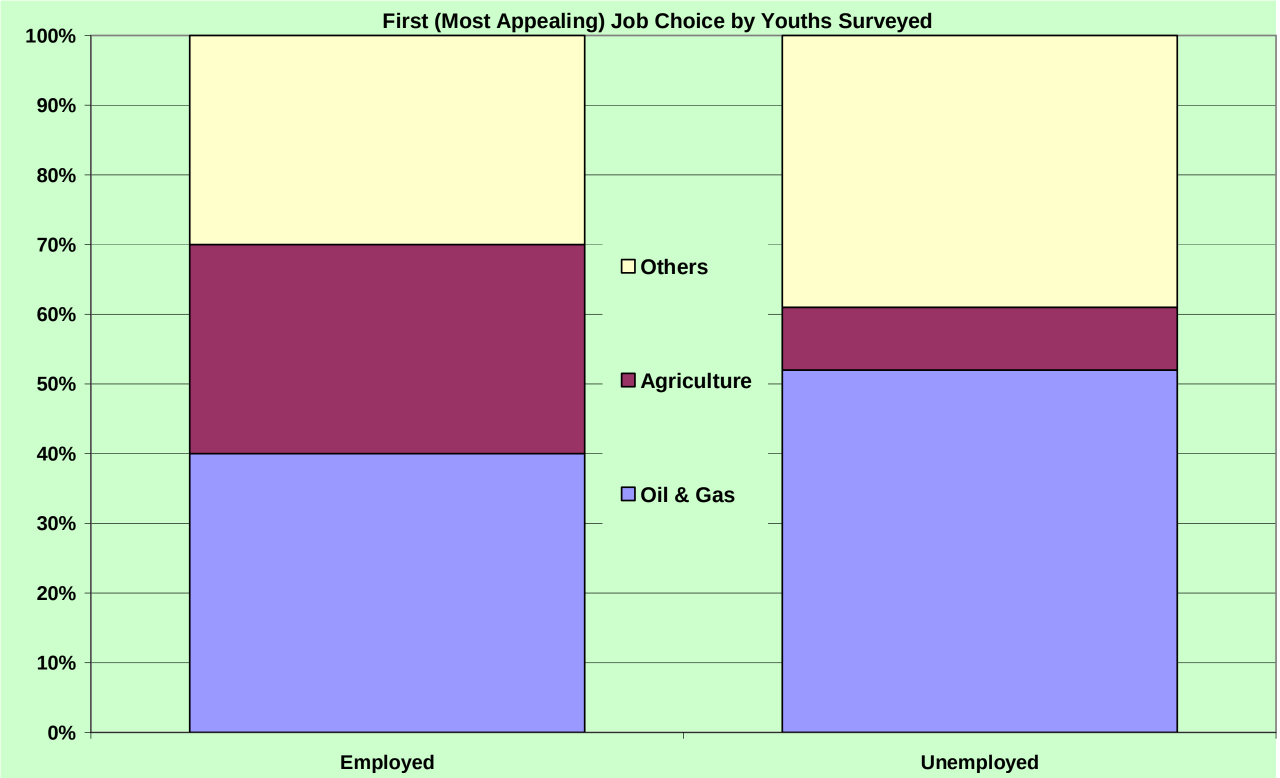
Focus group discussions

	Total	Male	Female	Age Range
Asaba	**16**	10	6	18-32 yrs
Sapele	**20**	15	5	21-45 yrs
Warri	**19**	12	7	20-30 yrs
TOTAL	**55**	37	18	

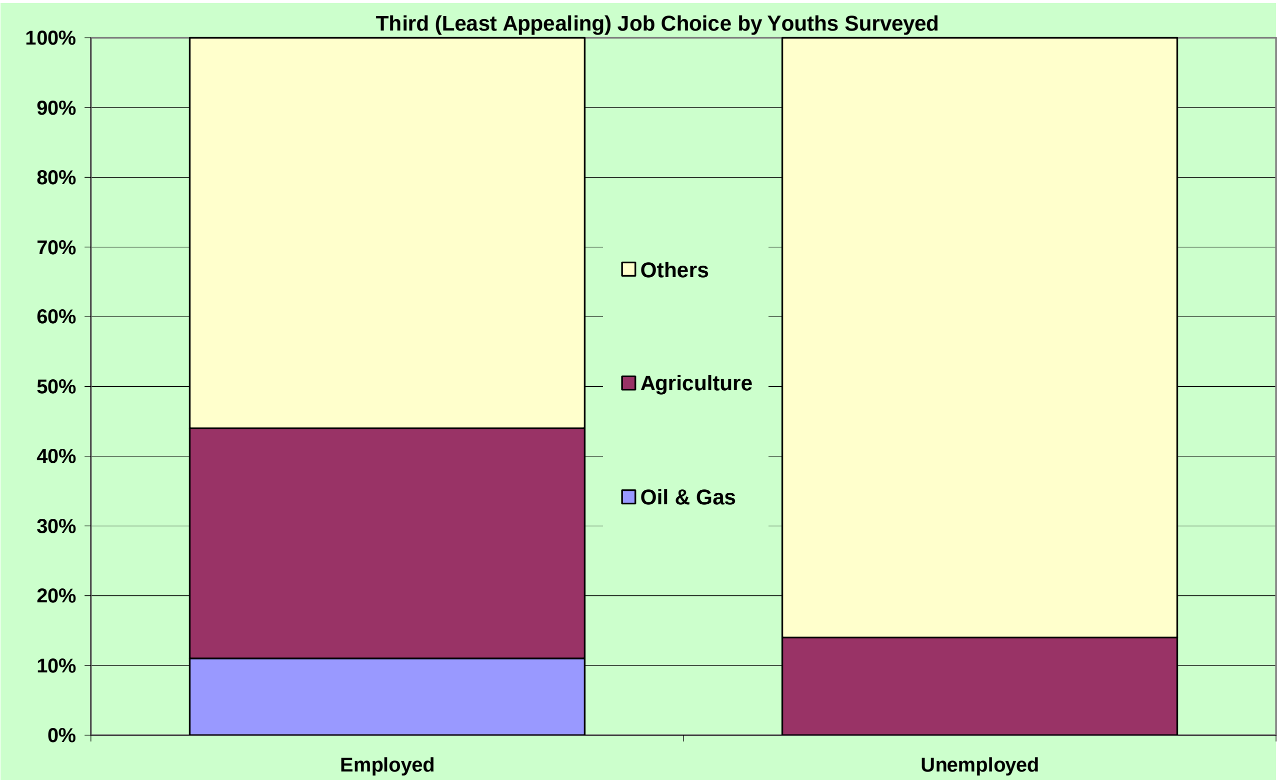
Educational assessment of the youth indicated the majority (48%) possessed the Senior School Certificate Examination (S.S.C.E) qualification and 30% had a first degree. The remaining 12% either had not completed their secondary education or had not been through any formal education



As regards job interest, the survey showed that overall; the oil and gas sector is still the preferred industry to work in amongst the employed and unemployed whilst agriculture ranked equally with “other” jobs amongst the employed and ranked lowest amongst the unemployed. Poultry and Fishing were the preferred areas within Agriculture amongst both groups. Reversing the question and asking about third or least favourite choice of job, oil & gas only featured for 10% of the employed and didn’t feature amongst the unemployed respondents as an undesirable industry. Interestingly agriculture fared better than other jobs in this response.



Source: In-house youth survey analysis



Source: In-house youth survey analysis

Our research revealed that the youth (both the employed and the unemployed), when given the opportunity to make a choice, still prefer the oil and gas sector as first choice. However, deeper questioning further revealed that the youth are ready to take up jobs in other sectors like agriculture but they require that the environment be made friendly. Specifically, the following were points raised by the youth:

- **Consistency of Income**: Although jobs with larger incomes will always be preferred, regularity of income is more important; according to the youth. They reiterated that they would prefer to be engaged in jobs that can offer them regular income as long as it enables them meet their basic needs. This is perhaps why the youth seem disinterested in agriculture/agri-business because of the long gestation period required before any rewards begin to filter through. As agricultural output is generally seasonal, this gestation period should be taken into consideration in designing any employment intervention.
- **Job Security**: In addition to regularity of income, the youth pointed out that any job opportunity within agriculture which provides some form of pension is highly desirable. This will give a feeling of security which they say is essential to guarantee their survival; especially considering the volatile environment in which agriculture sector finds itself. Agricultural insurance is not common in Nigeria. In some cases, only marketers are given some form of protection whilst producers are side-lined.
- **Housing and Medical Services**: Similar to what currently exists in private sector jobs or within the corporate environment, the youth expressed the need for housing subsidies and access to medical facilities (as part of their overall benefits package). This is something they claim would encourage them to get involved in the agricultural sector. A higher value seemed to be placed on this benefit rather than cash.

On the whole agriculture is regarded as somewhat synonymous with farming which in the view of the youth is not a profession of status. However further discussions began to open their eyes to the more robust definition of the agricultural market system and the extension services that may be available such as logistics, marketing, distribution, etc and these seemed much more appealing.

Across the board, there was almost no awareness (by the Youth) of the government's programmes to address unemployment in the state. Not surprisingly, the youth believe that the government has a huge role in providing employment for its citizens. They do not see the distinction between government providing an "enabling environment" and providing direct employment opportunities. This concept was fairly hard for them to comprehend and as such a lot of their anger and frustration was directed at the state government.

Our survey of the youth in Delta State revealed that unemployment in the state is caused by a complex mix of social, political and economic factors the analysis of which is beyond the scope of this report. Nevertheless some salient findings were made in the course of our investigations that are highlighted here.

- **Government corruption**: Overtime, the youth continue to feel let down by promises made by successive government. Their impression is that although funds and budgets are set aside to address the issue of unemployment, theses are usually diverted to the pockets of politicians and state ministry officials for personal gain which results in the problem not being addressed.
- **Tribalism and nepotism**: The issue of transparency in the process of recruitment is very much questioned and is a major source of de-motivation for the youths in the state. The impression is that whatever little employment opportunities exist within private or public institutions, they are ultimately given to family members, people they know personally or people of the same tribe. Even when jobs are advertised, the outcome is usually known even before the advert is placed. This is a particular frustration and one youth suggested the use of a "town crier" strategy for informing people about possible employment positions. This opens up an opportunity for an intervention (job boards/SMS services/impartial recruitment agencies).
- **Skill set gap**: The youths recognised the gap between their existing skill set and what potential employers may be looking for. Some of them are underprivileged with very little formal training and almost no vocational training at all. This of course puts them in an even more disadvantaged position in a society that is regarded as nepotistic. The interesting discovery is that whilst some of the youth are open to the idea of addressing this skill-set gap by investing in their own personal development, the majority see it as the government's responsibility. Additionally most youths, whether educated or not, are seeking employment in sectors for which they do not have the skill sets and look down their noses at the jobs that are available as "menial" and "dirty". Part of the reason for this is the distortions caused by the existence of oil companies in the state, but it also has to do with the neglect of other sectors of the economy such that activities therein do not appear to offer rewards comparable to oil sector jobs. Our survey showed us that the youth often drop out of mainstream education to get a vocational training in skills that oil companies may require, even without the guarantee of a job in that sector. Hence when such jobs do not materialise, the acceptance of any other job can be seen to be a "failure" on their part.
- **Company closures**: In very recent times, a lot of companies have begun to move their operations away from Delta State because of the Niger Delta crisis and general youth unrest. This has led to many redundancies which have left some of the youth despondent. In our conversations with some employers in the agriculture sector we discovered that their

main problem is getting qualified locals for job vacancies. In Delta State communities feel that anyone doing business in the state has to employ locals whether they are qualified or not. If they don't they stand the chance of facing the wrath of the community; regardless of the negative consequences of this strategy on the company and ultimately on the community. The result is fewer and fewer businesses choose to establish within these communities in particular and the state in general. This is a direct corollary of the nepotism issue mentioned above as this appears to be the only way communities can get their youths employed. This was the case in all three senatorial district investigated. The result is an unhealthy level of resentment towards government and its officials.

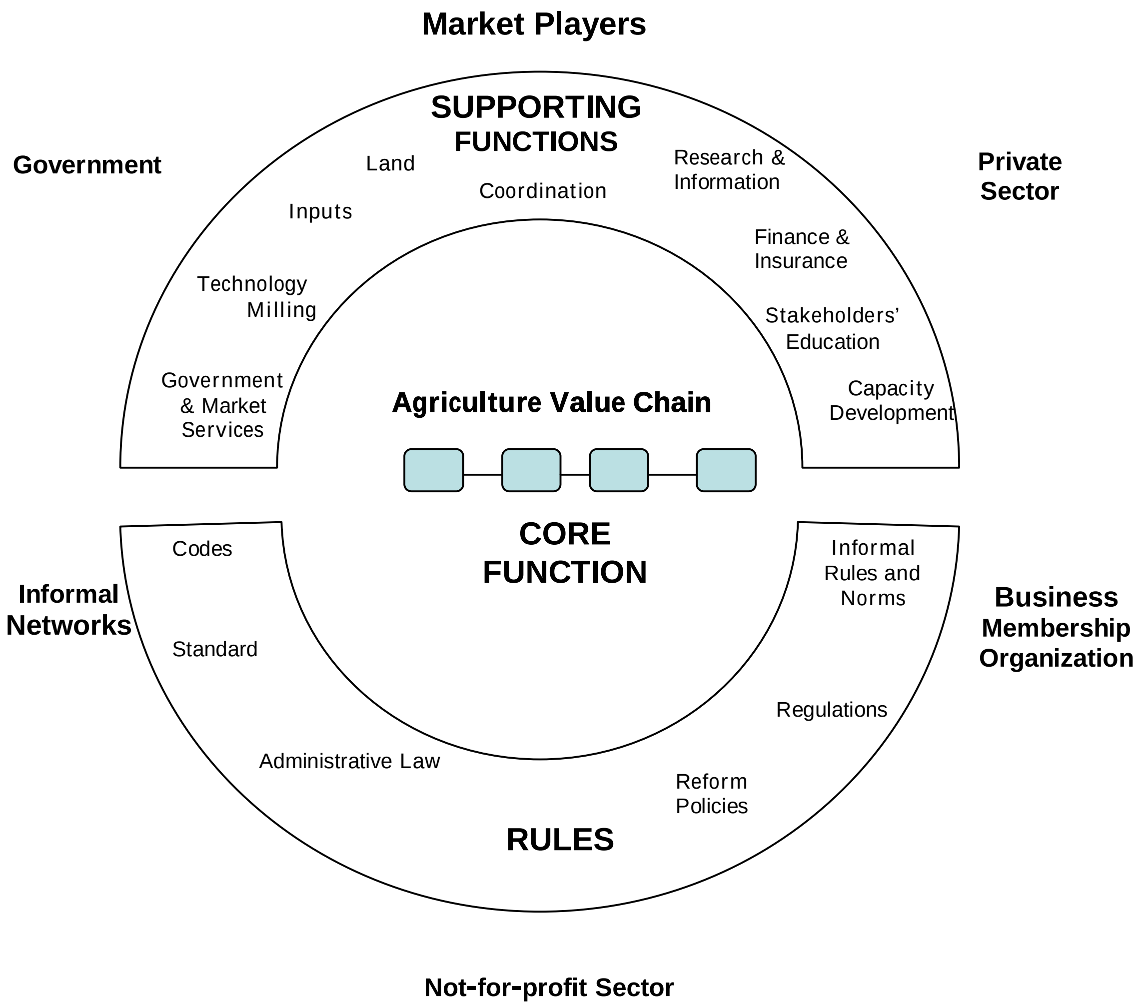
- **Lack of support for small businesses**: Access to finance seemed to be the biggest limiting factor for the youth who largely seem to be resilient in tough times despite all that is happening in their immediate economic environment. Some, despite being laid-off still have the entrepreneurial spirit within them and still try to think about independent and self employed means of survival. Others have attempted to develop business plans and are let down at the operational end of the process with limited or no access to finance from the financial institutions. When finance options exist, they require unrealistic collateral and interest payments.

It is encouraging to observe that the youth are not altogether averse to opportunities within agriculture or agri-business especially in poultry and fishery (aquaculture). They say this will be of particular interest especially if it came with the opportunity to own some part of the business enterprise.

In conclusion the team got the impression of a desire for change mostly amongst the youth in Warri and Sapele as against Asaba. The latter seemed much more passive about the possibility doing something positive to change their current unemployment status. However, we must note with caution that this view may not represent the overall attitude of youth within the northern senatorial district. More investigation will need to be carried out to get a clearer picture of attitudes to unemployment across the various regions in Delta State which will be important in designing the relevant and specific interventions that may be required.

4. Making Markets Work for the Poor (M4P) Approach to Agricultural Development

Marking Market Work for the poor (M4P) is a framework used to identify, analyse and understand the systemic constraints that prevent the poor from benefiting from the market within which they operate. The assumption is once the systemic constraints are removed, the market will work effectively for the benefit of the poor. This approach suggests that the poor depend on the market system for their livelihood such that the design and effectiveness of this market system will directly impact the level of poverty amongst its participants. In other words, the less efficient and competitive market is, the higher the level of poverty.



The M4P approach (as shown in diagram above) as a multi-function and multi-player arrangement, operates within institutional boundaries set by the society. These boundaries can work for the participants but can also be the constraint that limits the benefit of participation. This thinking is directly linked to the concept of - the way market works determines market prices and transaction costs[4]. These transaction costs, in turn, determine the level of profitability for the participants. In other words, the more profit a participant makes the less likely he will remain in poverty.

There are three main functions in an M4P market system; the core function, rules and supporting functions.

Core function: In understanding this framework, market systems must provide a conducive-space (environment) for transactions, exchange of products and services for some form of consideration[5], to take place. The core function is therefore the interaction of supply and demand in this space.

Rules: The behaviour of players within the market system is governed by rules. These rules can be both formal and informal. It covers government policies, standards and regulations as it relates to all transaction activities within the market system. It also includes the rules and regulation of business membership organisations. In addition, there are some informal rules that are determined by customs and tradition of the society. These are generally unwritten but no less enforceable than the formal written rules. The efficiency of the market system is determined by the fairness of these formal and informal rules.

Supporting Function: This refers to services provided by the government and privately owned business that support the core function. These services range from infrastructure by the government to market and price information, research, technology, legal and accounting services provided by privately owned businesses. This is the basis from which the core activity takes place. This view of the market systems enables a comprehensive analysis of the system and eases the identification of the failures. Most importantly, it will identify the areas that intervention will be most effective.

In addition to these functions, the M4P approach has four main principles that guide interventions on focusing on sustainability of any intervention programme;

1. ***Systemic analysis:*** this is a primary requirement for any intervention based on M4P, it is important that the design of the intervention strategy and operation is done only after a detailed study and full understanding of the market system.

[4] Transaction cost here refers to the en ante cost of marketing and negotiation, and the ex post cost of monitoring and enforcing of contracts and agreements.
[5] Although consideration is mostly money or near money, it also refers to levies and taxes for government services or goodwill for donations.

2. ***Facilitation role*:** the role of any intervention should be limited to facilitation; the intervention should not directly perform a function in the market system.

3. ***Sustainability:*** the incentive designs and capacity building for the players should be to achieve greater involvement of the players in the intervention. The players should be encouraged to fill the gaps identified. This will ensure sustainability. The involvement of a primary player in the market system towards driving the required systemic changes will ensure that the impact will outlive the intervention agency. Therefore a primary requirement that there is a clear path for players to take over the role an intervention agency plays to move the intervention even further.

4. ***Impact scale:*** using the market system as described above should have impact on significant number of people because its emphasis is on the system rather than individual or group of individuals which would limit the overall impact.

The main guiding principle of this approach is to avoid the distortion of the local market systems by becoming a player but rather ***promote local incentives and ownership and hence sustainability.***

The context of this section of the study is to use the M4P approach in understanding the nature and status of agriculture in Delta State and to also outline systemic issues that should be investigated further[6].

[6] The scope of this study limits the extent of the research – it thus serves as a preliminary study that requires further investigation, if consistency with the M4P principle is desired.

5. Value Chain Mapping

The M4P analysis framework described in the chapter 4, formed the basis for analysing the agricultural sub sectors and value chains with the highest potential to reduce unemployment amongst the youth in Delta State.

It is important to point out that the scope of this study and resources allocated does not allow for a more comprehensive value chain analysis for all the crops and livestock that presently do well in Delta State. Hence some criteria were identified to help select the key sub sectors and their corresponding value chain to further analyse. This decision was guided mainly by the objective of the PIND intervention (commercial agricultural production) but also taking into consideration other factors such as the growth potential, level of labour intensiveness, market availability, the risk levels and entry barriers. Several crops and livestock were weighted and ranked and the top selected. The Raphia Red team used this pre tested approach but the result will need to be further validated by the by stakeholders within the states ministry of agriculture at some stage in the future especially if more detailed investigations are to take place.

Various value chains were categorised into crop production or livestock production. Seven crops and four livestock were analysed and ranked with special emphasis being placed on those in which Delta State has competitive advantage.

Cassava (though 2nd in the ranking) was not analysed further in this study because there has been extensive research done on cassava production in Nigeria which suggests its high production cost does not make in competitive in the global market space (see appendix 7). In addition, this sector is currently being supported heavily by the Shell LiveWIRE project so any more investment may be an over kill.

Oil Palm and Rubber were selected as the two crops with the most potential to deliver on PIND's objectives whilst Aquaculture and Poultry came out on top in the livestock category (see tables below)

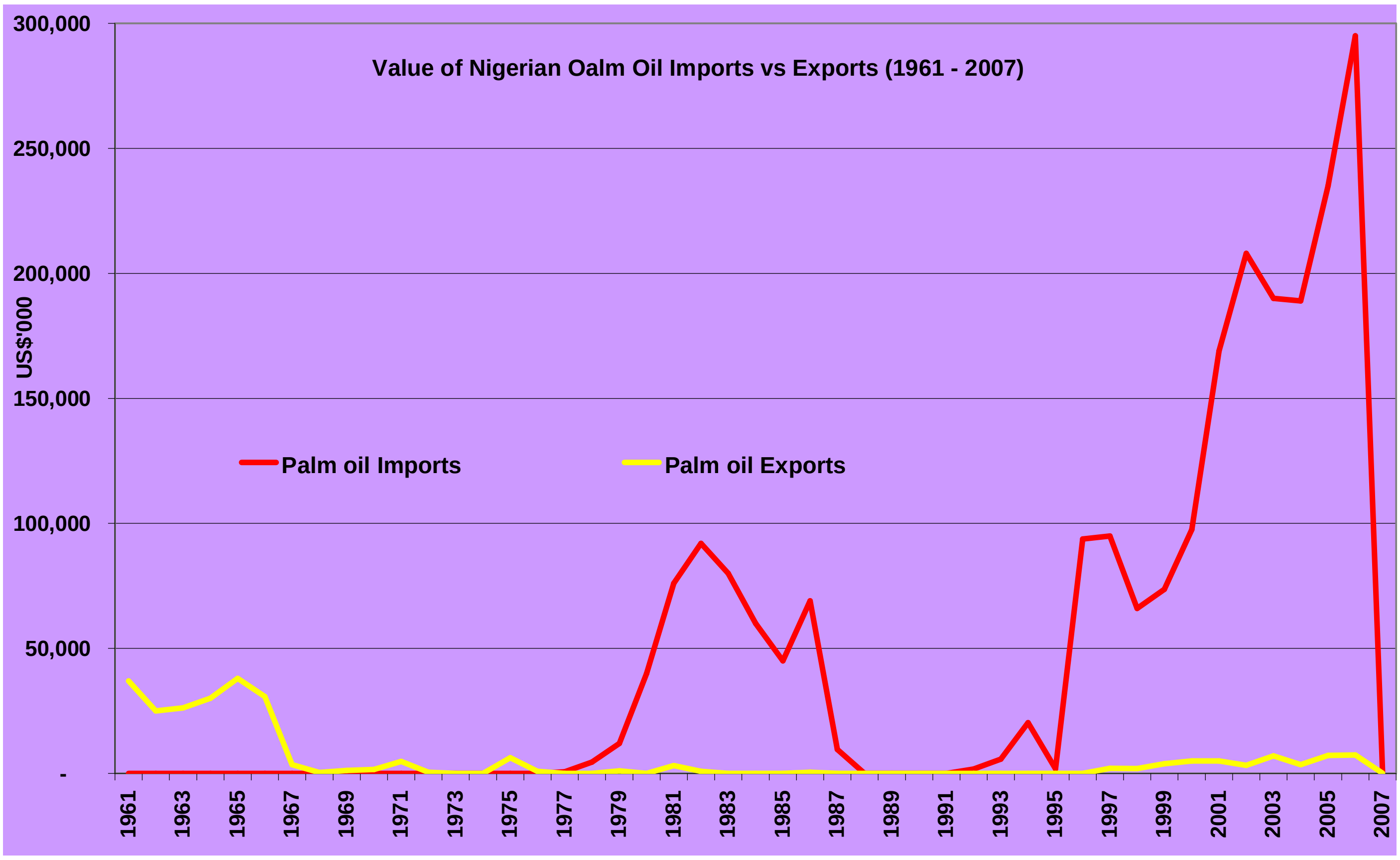
VALUE CHAIN SELECTION CRITERIA TABLES

Crop Production (Score out of 7)								
		Oil Palm	Cassava	Rubber	Maize	Cocoa	Plantain	Rice
Growth Potential	Profitability	7	4	6	1	5	3	2
	Number of Different product produced	7	6	3	4	5	2	1
Labour and skill availability	Low Technical Skill required	3	7	2	6	1	5	4
	Technical skill availability	3	7	2	6	1	5	4
	Potential for employment (number of intermediaries)	7	4	6	1	5	2	3
	Attractiveness to youths	1	6	2	7	3	5	4
	Average Income Level	7	3	6	2	5	1	4
Entry Requirement	Low capital requirement	3	6	2	7	1	5	4
	Government Policy Support	7	4	6	3	5	2	1
Potential for PPP		7	4	6	3	5	1	2
Risk Level	Yield/Survival rate	7	5	6	3	4	2	1
	Low Possibility of Theft	6	2	7	1	5	3	4
Environment Sustainability	Ability to thrive In Delta State	7	5	6	4	2	3	1
Market Potential	Local	7	6	2	5	1	4	3
	International	7	5	6	3	4	1	2
	Total	**86**	**74**	**68**	**56**	**52**	**44**	**40**
	Ranking	1	2	3	4	5	6	7

Livestock Production (Score out of 4)					
		Fishery	**Poultry**	**Goat**	**Piggery**
Growth Potential	Profitability	4	3	2	1
	Number of Different product produced	3	4	2	1
Labour and skills availability	Low Technical Skill required	1	2	4	3
	Technical skill availability	2	3	4	2
	Potential for employment (number of intermediaries)	3	4	1	2
	Attractiveness to youths	4	3	2	1
	Average Income Level	4	3	1	2
Entry Requirement	Low capital requirement	3	2	4	1
	Government Policy Support	4	3	1	2
Potential for PPP		4	3	1	2
Risk Level	Yield/Survival rate	1	2	4	3
	Low Possibility of Theft	1	2	4	3
Environment Sustainability	Ability to thrive In Delta State	4	3	2	1
Market Potential	Local	4	3	2	1
	International	4	2	1	3
	Total	**46**	**42**	**35**	**28**
	Ranking	1	2	3	4

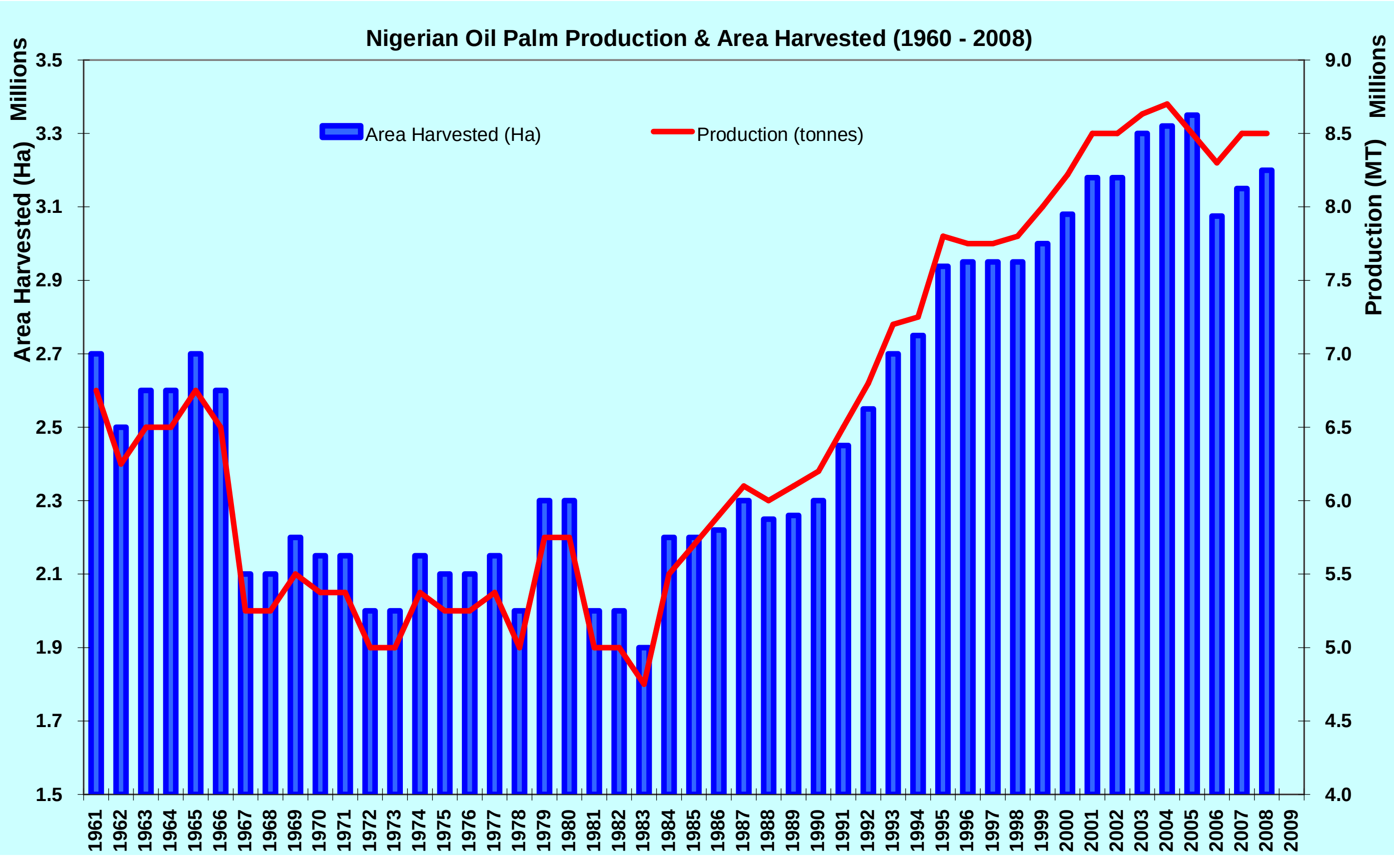
Oil Palm

Oil Palm (*Elaeis Guineedsis Jacq)* is indigenous to West Africa and thrives in Delta State because of the soil and climate. It is the main vegetable oil consumed and produced in the country. According to the DFID/ EME report titled “Identifying growth pole value chain” 2008, Nigeria used to be the world’s leading producer of oil palm in the 1960s. However it now only produces around 3.5% of the world total compared with Malaysia (49%) and Indonesia (34%). Nigeria’s current production of about 1 million MT of palm oil, valued at about US$1.3 billion is insufficient to meet Nigerian consumer’s demand.



Source: FAO

Over 3 million hectares of land are estimated by the FAO to be under oil palm cultivation although yields of 25,000MT/Ha are some of the lowest in the oil palm producing world. It is estimated that about 2 million people derive income from the gathering, farming, processing and trading of oil palm fruit and palm oil in Nigeria. Incomes earned by smallholders are low, but are supplemental to other sources of income.

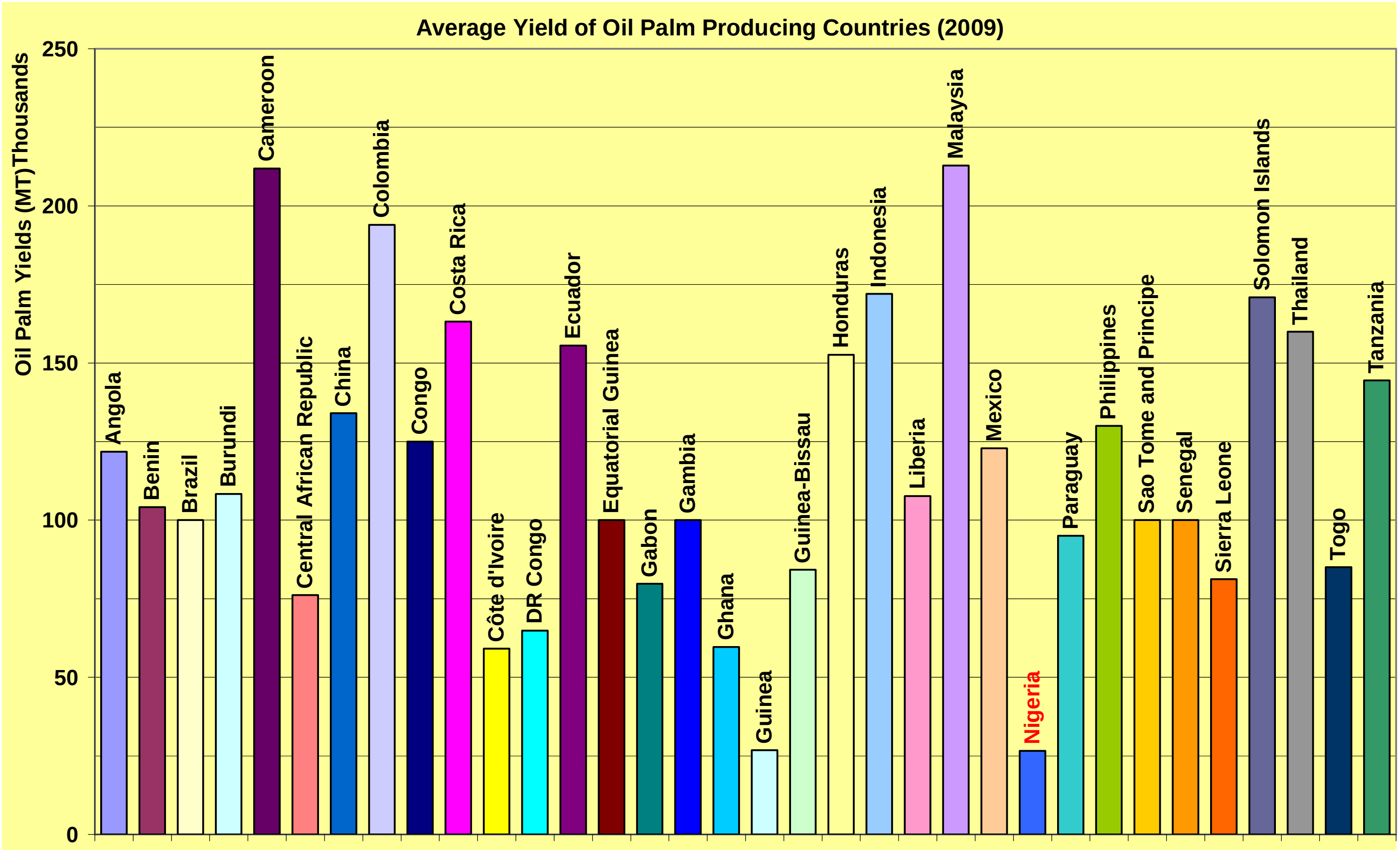


Source: FAO

Several constraints are faced by the industry all along the value chain. At the production end of the value chain, the large majority of the cultivated acreage is old, low yielding and in need of re-planting. As a result, large scale estate production has declined sharply and there is little sign of interest in new investments. Small-scale production on the other hand, depends largely on wild groves. Harvesting from wild groves is a labour intensive operation with the primary cost being the labour time involved in gathering and bringing the bunches to a processing site. Nevertheless, production of palm oil remains an important livelihood for rural households and smallholder cultivation and gathering of wild fruit is increasingly dominant.

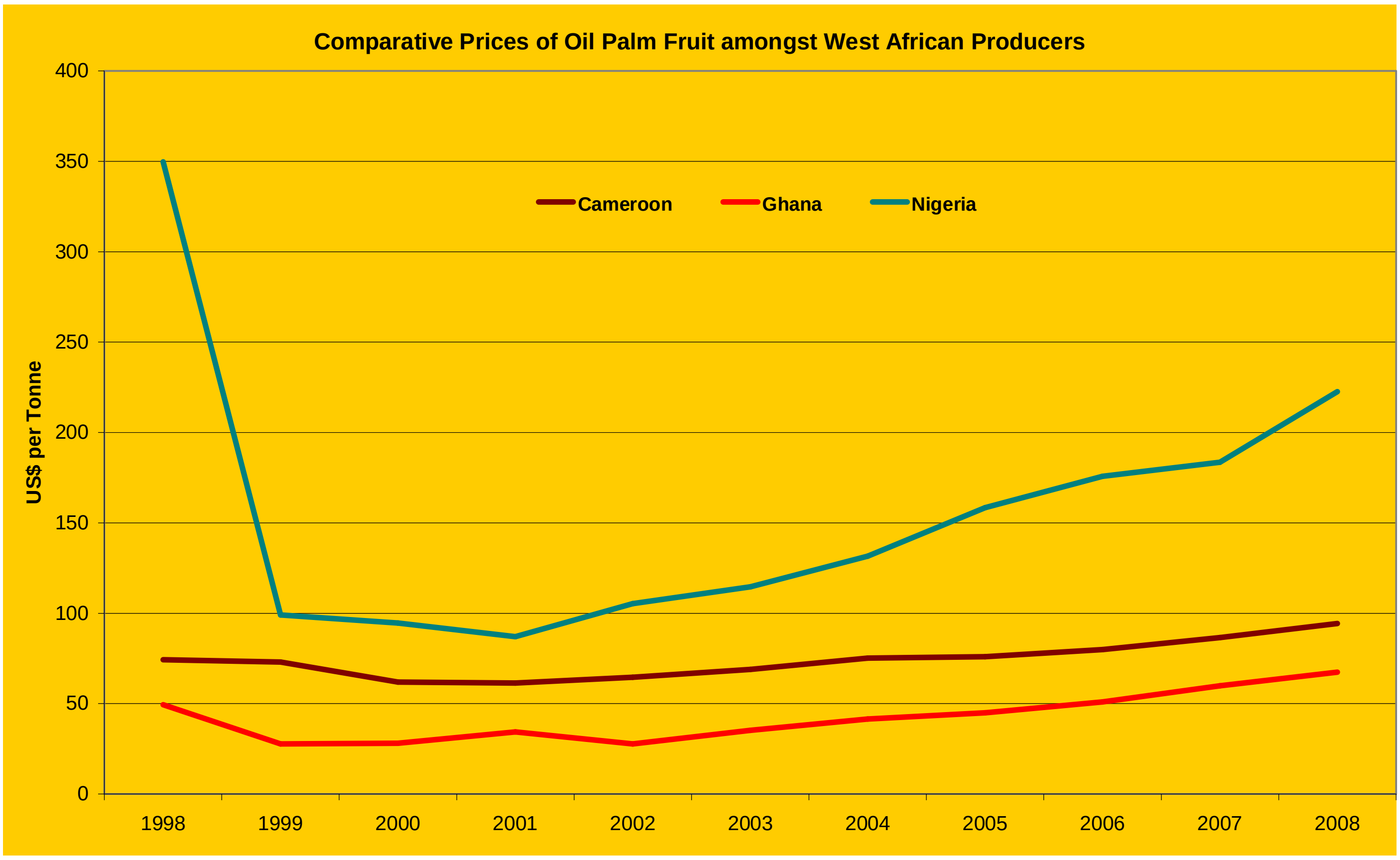
At the processing point on the value chain; processing takes place on-farm and at mills. On-farm processing results in low extraction rates as equipment is poor and uses inefficient technologies. Some of the mills however use improved technology; allowing rural producers to obtain a better yield for their fruit bunches but this is not as efficient as large-scale mills. The larger businesses involved in palm oil production have moved towards an alternative system using a small core estate with efficient processing facilities linked to smallholder out-growers.

At the marketing end of the value chain, an import ban on edible oils has been in place since April 2005. This means that there is a large and growing market within Nigeria for edible oil that is currently not being met even though output has been increasing rapidly since the import ban was put in place (at around 7.5% per year). Hence the domestic price of palm oil in Nigeria is rising rapidly.



Source: FAO

Indicative figures suggest the price of crude palm oil (ex-local processors) has risen by around 67% in the past year to approximately US$1,300/ MT. Global palm oil prices have also risen very fast, doubling in the last year to over US$1,100/MT for Malaysian benchmark grades of crude oil. The forecast is for continued rises, boosted by demand for use in manufactured food and other products, as well as from the bio-diesel sector as global crude oil prices soared.



Source: FAO

There are some key systemic failures within the oil palm sector which affect its longer term competitiveness including

- Information flows on technology innovations.
- Co-ordination failures brought about by the weak linkages between large scale processors and producers.
- Capital market failures with commercial banks not offering suitable loan products to small scale producers and processors or competitive term loans to large scale processors.
- Land market failures leading to a range of land tenure constraints, particularly problematic for tree crop development.
- Failures in related markets e.g. input supply and business development services.

Oil Palm Value Chain

The value chain analysis in this study is concerned primarily with the potential the oil palm has for reducing unemployment amongst the youth of Delta State. The focus therefore will not be in detailing the process but a brief explanation of the value chain and the economic activities conducted within it that can generate additional employment.

The vertical value chain consists of five main stages as shown as activities in the diagram below. Each of these activities offers employment potential for the Delta State youth, but some more than others. The employment opportunities within each of theses activities and its match (or mismatch) to the interest of the youths is discussed in brief in the various stages.

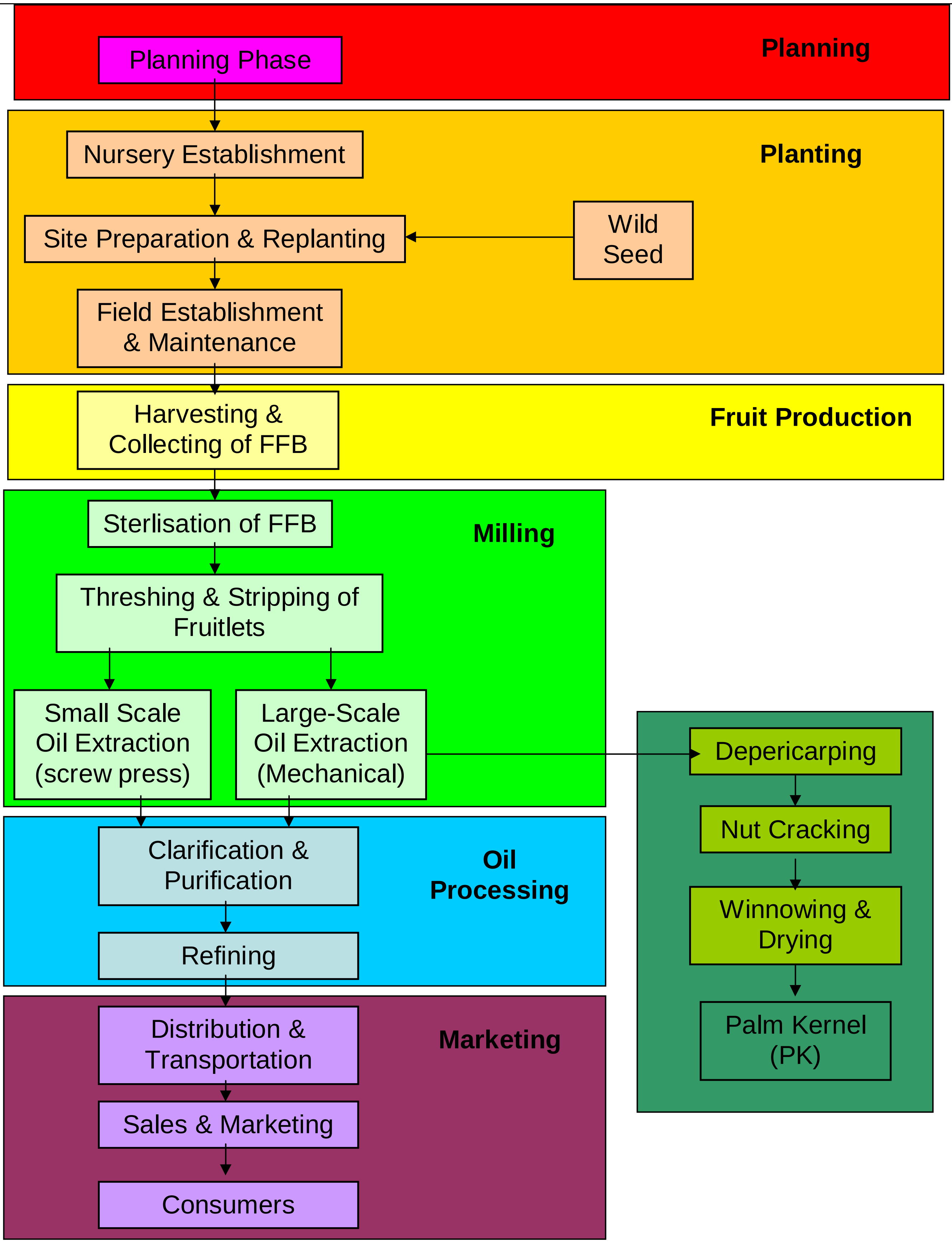
Planning

The planning stage involves feasibility studies, scientific examination & analysis of the soil and also environmental impact assessment. This suits the university graduates amongst the unemployed youth as it requires more specialised literacy and numeracy skills and an understanding of business plans etc. The white-collar nature of the work also matches the job profile the youths are interested in. The impact of this stage on the unemployment figures is potentially insignificant.

Planting

There are several sub-stages within this stage of the value chain, depending on the level of sophistication of the planter including nursery establishment, replanting, maintenance & harvest. All of these sub-stages are labour intensive so the profile of the type of work is at odds with the type of work the youth are interested in. In this stage, seedlings from commercial or government run nurseries are re-planted in plantations of varying sizes. Some planting involves the collection of wild seedlings by small-holder farmers and their subsequent re-planting in their orchards. The work in most of these sub-stages is considered to be inadequately compensated manual labour by the youth of Delta State.

Significant impact on the number of “uneducated unemployed” may be achieved at the other sub-stages that are highly labour intensive and where there has been little technological advancement that reduces the labour intensiveness of these sub-stages. The nursery for instance, although requiring a semi-skilled workforce also requires a large number of people to tend to planting materials in it. Planting and replanting are highly labour intensive, no methods or system has been developed yet to increase productivity at this stage of the value chain. This will be unsuitable for the youth in Delta State as there is a mismatch between the youth profile and interest of the unemployed youths and the workforce required.


Planning Phase
Planning
Nursery Establishment
Planting
Site Preparation & Replanting
Wild Seed
Field Establishment & Maintenance
Harvesting & Collecting of FFB
Fruit Production
Sterlisation of FFB
Milling
Threshing & Stripping of Fruitlets
Small Scale Oil Extraction (screw press)
Large-Scale Oil Extraction (Mechanical)
Depericarping
Nut Cracking
Winnowing & Drying
Palm Kernel (PK)
Clarification & Purification
Oil Processing
Refining
Distribution & Transportation
Marketing
Sales & Marketing
Consumers

The long “gestation” period for palm oil production (up to 72 months from start to first harvest) is also a heavy consideration for any business choosing to invest. However, the existence of old but producing plantations around the state may help bridge this gap if properly coordinated and planned.

Fruit Production

At maturity the fruit is harvested and collected. There is some need for technical expertise but only with regards to identifying the fruit bunches that are ripe for picking; the picking and gathering process itself is highly manual. Again, this type of activity is not appreciated by the unemployed as it is seen to be back-breaking work with very little reward.

Milling

The milling stage includes the physical extraction of oil from the fresh fruit bunch. This stage is a technology driven stage; all of the sub-stages here are mechanical as it starts with sterilisation by steaming in pressurised vessels, then stripping by a rotating drum thresher. Fruitlets from these operations are transported to the press digester and the empty bunches are transported to the plantation for mulching. The horizontal value chain is as follows

1. Sterilisation
2. Threshing and stripping of fruitlets
3. Oil extraction

Crude palm oil is produced at this point and the process continues for press cake

4. Depericarping (press cake)
5. Nut cracking
6. Winnowing and drying
7. Palm Kennel

This stage and all its sub-stages require mainly skilled and semi-skilled workers but not in large numbers. The employment potential at this stage depends on the size of the plantation and if the intervention model is to encourage smallholders or large plantation. Most large plantations integrate milling into their operation because of the importance of getting the fresh fruit bunch to the mill within a couple of hours to avoid degradation in the quality of oil produced from them - the longer the fruit remain in the fruit bunch stage, the higher the fatty acid level within them, this impacts directly on the quality of the oil produced from them.

The profile of the work required at this stage closely matches the interest of the unemployed youths in Delta state, but not in huge numbers. However, some may not have the technical skill to do these jobs. This means that some amount of training will be involved.

Oil Processing

Oil processing involves the clarification & purification of the extracted oil and its subsequent refining. Once again this is largely mechanised so labour requirement is limited to machine operators. Hence there is little employment impact but significant value-addition to the product.

Employment impact is limited at this stage but may be potentially significant as other businesses can spring up as support services for the milling and refining machines. Most of the modern machines are electronic and mechanical – these skills are available amongst the youths but need to be updated in some training program or on the job learning. Employment as machine operator and plant repairer appeals to the youth in Delta State but to have any significant impact on the number of unemployed, there will have to be a significant number of milling and refining operation established in the state.

Marketing

The distribution, transportation and marketing of the finished product is carried out by various sizes of operators from small-scale (individual) traders to large-scale multinational corporations such as Presco. The barriers to entry in this stage are limited to financial capability as there is very little technical skills requirement for this. Hence there are employment opportunities here for individuals and/or businesses willing to enter the trade as long as they believe it is financially rewarding.

Potential Areas of Intervention

1. ***Improved Coordination:***

Improved co-ordination between the large and small scale processors, smallholders, service providers, State and Federal Government to develop innovative new models for production, distribution and processing with the lead coming from the private sector. This will benefit the smallholder plantations more than the estate plantation. The few estates that operate in the state are fully integrated and have little co-ordination problems. The lack of linkages and share of product, price and market information with other players in the chain has continuously resulted in low yield and income for the small holders. A network of smallholders can be encouraged and their capacity built to acquire knowledge and expertise and co-ordinate price and market information. An effective intervention here will have a significant boost to income levels and will potentially create employment opportunities for the rural unemployed youth.

2. ***Extension services:***

The quality of the fresh fruit bunch from smallholders does not meet the standard required by processing plants across the state because the planting material used are not the right variety and are not properly tended. These impact on the yield of the smallholders and on their earnings. An intervention that can provide extension services or lobby the state governments to provide adequate extension services for the oil palm value chain could help address this.

3. *Land reservation*

This is crucial and lessons can be learnt from the experience of the World Bank's MSME project in Cross River state where the government offer palm oil estates to the private sector for large scale investment on a 99 year lease basis, and of renting out palm oil land to smallholders on short term leases. In addition planting has been encouraged through provision of subsidised seedlings and inputs. It was reported that replanting is progressing very slowly and that even 'zero cost' replanting is resisted by smallholders due to the loss of income for up to four years.

4. *Cluster farms*

Co-ordinated and networked to operate almost as a single commercial entity will get the youths engaged and give them ownership of the farms

5. *Finance*

Work with commercial banks to improve tailored access to finance for all stakeholders particularly those interested in the marketing end of the value chain who need more financial support than technical support in entering this business.


Oil Palm Seedlings in a nursery


Oil Palm Plantation


Oil Palm Fresh Fruit Bunches (FFB)

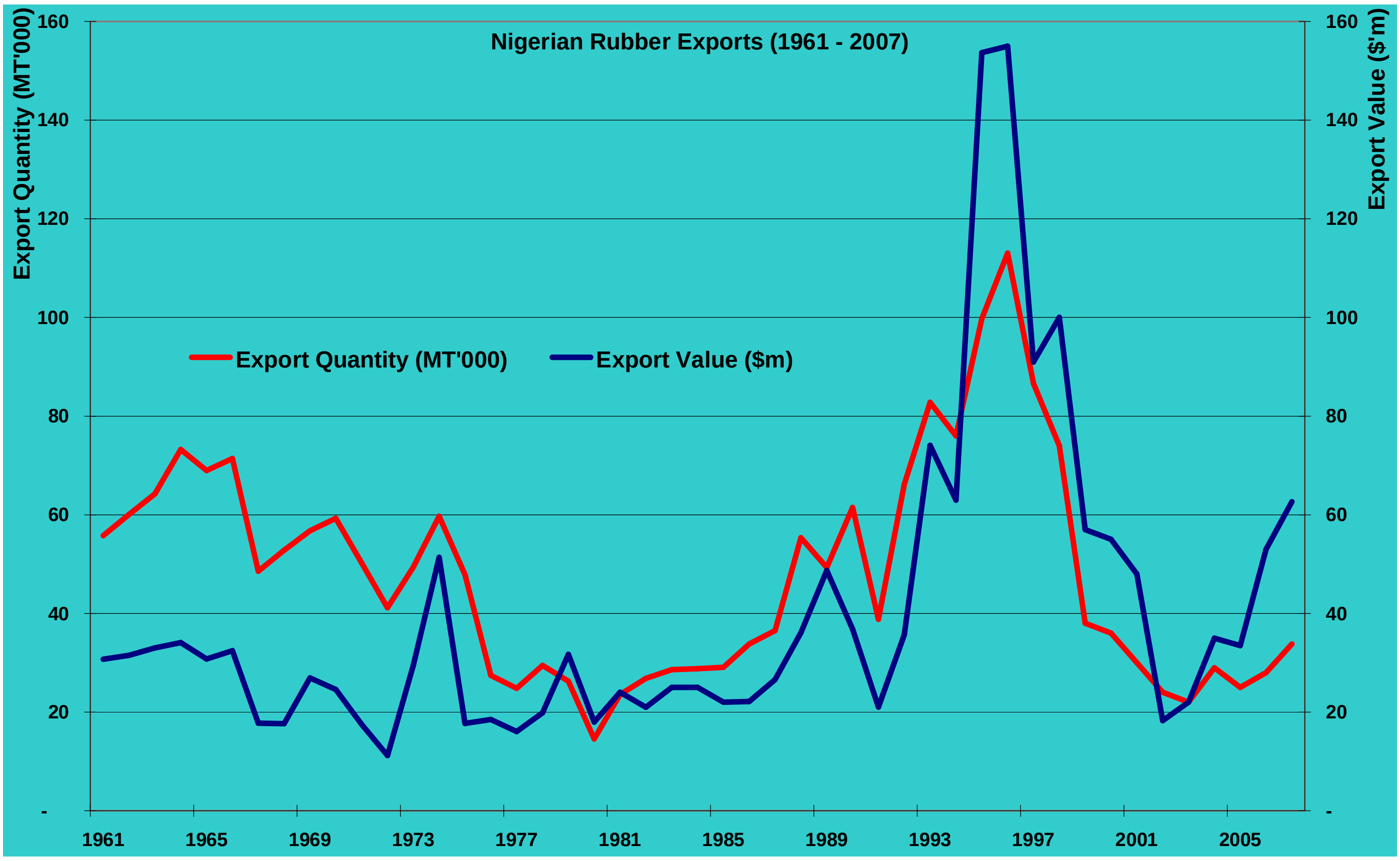

Loose Oil Pam Fruitlets


Manual Palm Oil Pressing Mills


Palm Oil Traders

Rubber

Natural (para) rubber, *Hevea Brasiliensis*, is a commercial tree grown in plantations. The para rubber plant produces latex that "bleeds" from the stem in the event of wounding. The product of the coagulated latex is rubber. Rubber is used in the manufacture a number of industrial products which range from tires, balls, containers, shoes to rubber bands and condoms.



Source: FAO

The rubber industry in Nigeria has had its fair share of ups and downs: throughout the 1960s & 70s rubber production and exports waned. Rubber production in Nigeria tripled from 50,000MT to over 150,000MT in the late 1980s and early 90s as rising global prices fuelled an uncontrolled "rubber-rush". During this period plants were over-exploited for their latex and consequently the area harvested rose from 73,000Ha in 1988 to almost 300,000Ha by 1995. The immediate result of this was a reduction in the quality of the trees such that average yields halved from over 8MT/Ha to less than 4MT/Ha. When the world price for rubber collapsed from over $2,800 per tonne in 1998 to $600 per tonne in 1999, farmers turned their back on rubber and trees were cut down to make way for other crops, thus reducing the quantity of trees. According to the FAO, Nigerian rubber production has levelled off at around 140,000MT per annum and even though world rubber prices are on the rise again (up to $2,000/MT in 2008), the country is unable to respond as capacity is at a peak, hence export volumes are only as high as they were in the mid-1980s.

As a plantation tree crop with enormous potential foreign currency earning, rubber was supported by both the state and the federal governments, but like most government support programmes, this waned over time. Rubber cultivation in Delta State is now dominated by smallholders rather than commercial size plantations. The climatic and soil conditions in Delta state are very suitable for rubber and so the tree grows in the wild and in such numbers that land owners use the wildly grown trees as a source of regular income. These land owners have over the years transformed to be smallholder plantations. It is in recognition of the commercial success of these landowners that some other farmers began to plant rubber trees for commercial purposes.

In Delta State, the industry is characterised by trees that are way past their maturity and are due for replanting but are still being harvested for latex. The productive years of a rubber tree is 25 but most of the rubber trees still harvested in Delta State are older than this - the Delta State Ministry of Agriculture estimates that 80% of the current plantations are over 30 years old.

The Rubber Value Chain

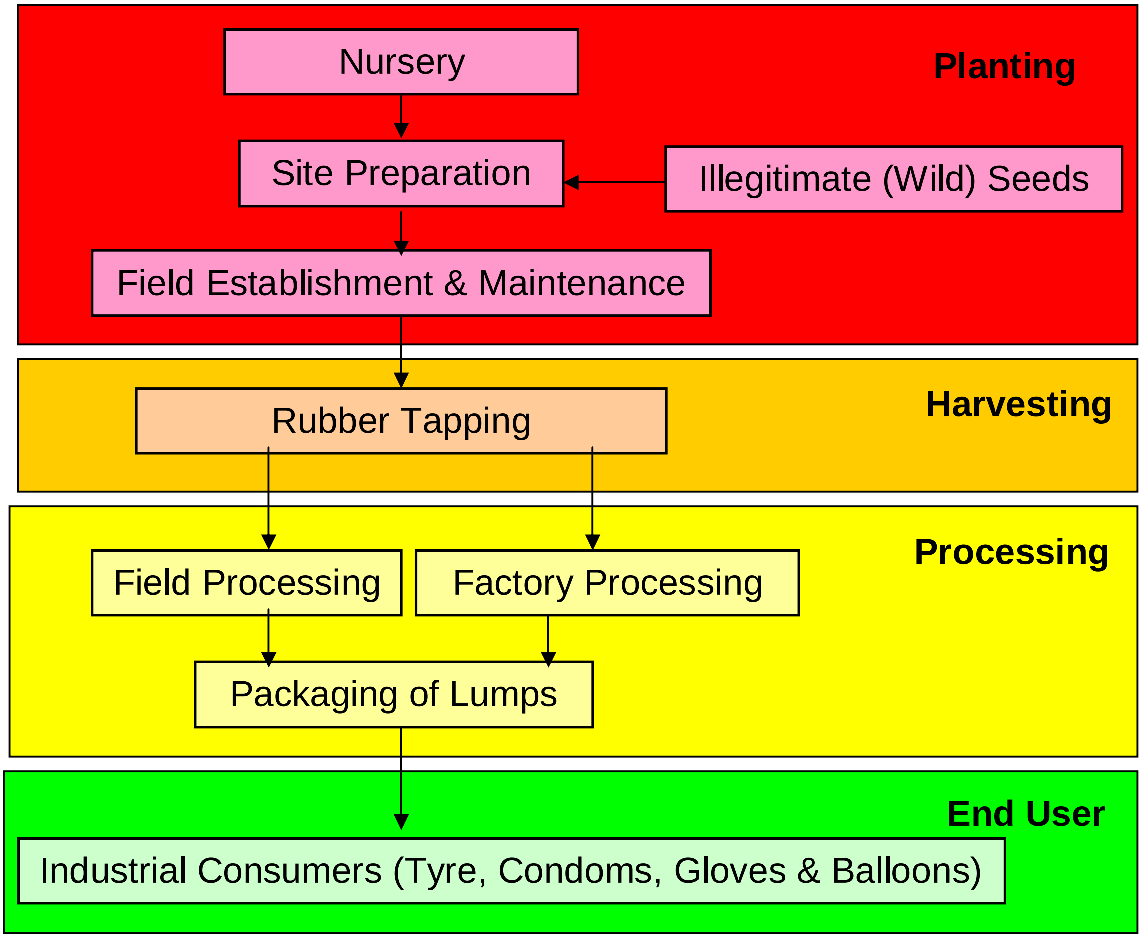
There are four main stages similar to that of oil palm: planting, harvesting, processing and marketing. It also has a gestation period of 6-7 years. The actors are the farmer/grower, the tappers and collectors, the traders and finally the end consumer who is almost always an industrial consumer. In Delta State some of the farmers do their own tapping and collecting but sell to the nearest trader because tapped latex solidifies within eight hours of tapping. This reduces the bargaining power of farmers who have to “off-load” their stock before it’s too late.

Planting

This part of the value chain include, planning, clearing, nursery and planting. The nursery is where the seedlings are planted in small black plastic bags for replanting after they are few weeks old. Rubber seedlings are not as sensitive as those of oil palm and therefore do not require as much attention. The few weeks old trees are then replanted into the prepared land ten metres apart. Land preparation is a major operation because of the thickness of the forest in the most suitable area for cultivation. Heavy machinery is often required for clearing but when this is not available, manual labour is required. Replanting is also a manual operation that requires physically digging and replanting the. Some skills are required though as the proper application of fertiliser and pesticide will determine the survival rate and potential yield.

This stage of the value chain is labour intensive and can provide jobs for a large number of "uneducated youths". The impact is not significant because the employment generated at this stage of the chain is transitory as the large number of labour needed to clear the site for plantation is not required to maintain the site. The time-to-harvest can take up to seven years which poses a challenge to owner-farmers. The profile of the job opportunities at this stage doesn't match the profile and qualification levels of the Delta State youth. The rural youth (aged 30-45 years old) are the most likely to take on the job because they are not as educationally qualified and are already engaged in agriculture and physically intensive work. In addition, they are more likely to appreciate the crop cycle and can get round the irregularity of income by planting other crops alongside the rubber in the early years.

Rubber Value Chain



Harvesting

There are three levels in the harvesting part of the value chain; tapping, collecting and lump production. The rubber tree is sliced on the bark and the sap (latex) drained into a container. These full containers are then collected from each tree on a regular basis and transported to the nearest buyer who then turns them into lumps for further transportation to the processor.

The harvesting stage is mostly manual, the tapping for latex is done manually and requires a moderate number of people to tap and collect. The profile of the job is considered to be dirty and hard by the educated youth but favoured mostly by the under-educated youth (age 30-45). Although this employment is more permanent, low wage also makes it unattractive to the youth.

Processing

The latex collected by the tappers and collectors are sold in liquid form to the processors who then produce coagulates called rubber lumps for further sale as inputs into manufacturing. This coagulate formed is then transported to the nearest dealer. This processing is mostly done manually and requires a certain level of expertise to ensure the required quality required by manufacturers. Naturally, this stage is unattractive to the youth primarily because of its manual nature.

Marketing

This stage involves connecting the users of rubber which could be both local and national buyers, with the processed goods themselves. Again there is an opportunity for the educated youth to serve as aggregators and "bulkers" by collecting rubber lumps from small-scale processors for onward delivery to industrial users.

Potential Areas of Intervention

The rubber industry in Delta state is characterised by smallholder plantations and the level of expertise of farmers in the field is low, leading to over harvesting and low yields. An intervention in the rubber industry that should stimulate and motivate players to provide the following:

1. ***Access to training & information***

Improving the technical skills of labour through training programmes, especially on processing and sustainable forestry maintenance can help improve yields and productivity. Similarly the provision of information on the impact of inappropriate methods of clearing (bush burning) and other unproductive practices will improve the productivity of the rubber industry

2. ***Access to financing***

Educating the youth and financial institution on the profit potential and commercial viability of rubber can support a regeneration of the industry Delta State.

	
Rubber Plantation	**Rubber Latex Tapped from Tree**
	
Processing Wet Coagulate from Latex	**Boots made from Rubber**

Poultry

Poultry farming involves the raising of chickens, turkeys, ducks and other birds for meat or eggs. Hence poultry farms can be either breeding farms - where poultry is raised for meat or layer farms - where eggs are produced. Nigeria has always been deficit in meeting its poultry requirements and was officially a major importer of poultry until a ban on the import of chicken imposed in the early part of this decade was prompted by a need to increase self sufficiency. To date, these bans have not resulted in a huge supply response; instead the ban on the importation of frozen chicken resulted in an immediate rise in price of not only poultry products (chicken and eggs) but also other types of meat. This ban, combined with demand for larger volumes of consistent quality chicken from fast-food chains, has led to major changes in the poultry industry. In addition, there is evidence in the marketplace that this ban is not total, as there is still imported frozen chicken to be found on open sale in most city markets.

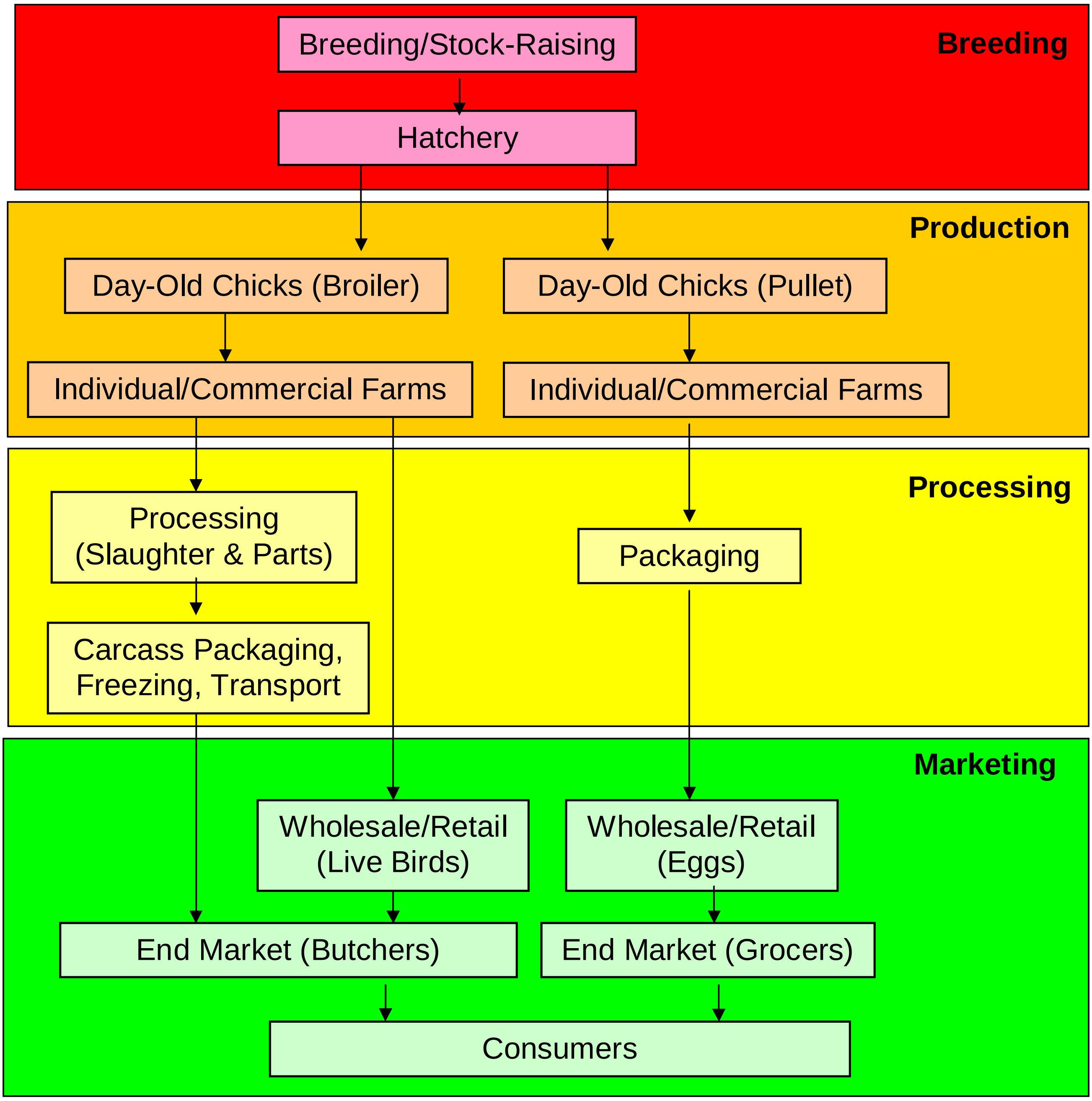
The Poultry industry in Delta State can be broadly grouped into two production systems; the extensive and intensive systems. The extensive system refers to free ranging birds with little or no husbandry whilst the intensive system can be further split into two production systems based on scale and husbandry; the urban backyard system and the commercial farm system. These are largely defined in terms of the number of birds under management. The urban backyard system is a farm that has between 250 and 1,000 birds under management whilst the commercial farm system have more than one thousand and can have up to one million birds under management.

Although reported to be one of the most profitable agricultural sub-sectors in Delta State, it is largely operated on the backyard scale. There are a large number of independent commercial poultry growers, in Delta State. They are served by hatcheries and feed mills. The output from these growers is bought by traders who consolidate the output and have birds slaughtered at independently owned slaughter houses. This independent commercial system of production is increasingly encouraged by large buyers who are dissatisfied with the service they receive from the large integrated farms, especially with their attempt to dictate prices. Much of the states production still comes from smaller producers who keep poultry to meet their own needs and sell surplus for cash. According to Unitop Catering Services Limited; a catering company who also is a processor and distributor of Poultry and Meat products; they “import” 95% of their poultry requirements from outside Delta State; primarily from Northern Nigeria.

The Poultry Value Chain

The poultry value chain offers different levels of growth opportunities in income and employment. Most of which is in the production stage but various systemic challenges restrict the productivity and profitability levels.

Simplified Poultry Value Chain



The capital and labour intensive nature of the business limits the engagement of the youth to being employees of the market system. The rewards here are considered to be better than crop farming and acceptable to the youth of Delta State; but still not on the same levels as other employment opportunities in banking or the oil sector.

Hatchery

There are three main sub-sectors within this first stage of the value chain; the breeder stock production (sometimes referred to as parent stock farming), the hatchery and day old chicks production. The breeder stock production is a commercial operation to produce broilers to feed the hatchery where day old chicks are hatched for commercial broiler farms and other day old pullet for the egg line.

The nature of the hatchery stage requires semi skilled labour as care needs to be taken in the handling of eggs for hatching and the hatched day old chicks. The chicks are vulnerable to infection and mishandling so require a “good hand” to ensure that mortality rate is low. This is a labour intensive stage of the chain and it’s considered “dirty” by the unemployed youth in Delta State. Despite this, some are still engaged in some little way by raising chickens for commercial purposes, although at a village level of operation and mostly using local breeds.

Production

This stage of the chain is sometimes referred to as the growing stage. This is where the day old chicks are moved to a special facility until they are a few weeks old before being transferred to cages or litters made out of concrete and embedded wire mesh. This is the most labour intensive of all the stages because the birds require constant monitoring and the housing requires constant maintenance. The level of husbandry at this stage impacts greatly on the level of productivity and profitability (survival rate and infection impacts). Waste management is an integral part of the production stage because it offers operators a secondary source of income via its bye-products as the droppings of the birds can be composted and sold off as fertilizers.

The production stage, like the hatchery stage is also labour intensive and offers employment opportunities for unskilled, semi-skilled and skilled labour. The veterinary and bio-security of the farm requires well-trained skilled personnel whilst the maintenance of the birds housing require unskilled labour. The semi-skilled labour can be engaged in cutting beaks and other bird handling required at the growing stage. The number of jobs in a farm depends largely on the scale of operation but it offers the highest number of jobs within the value chain. The most common ratio for employment at this stage is one person to 250 birds but some farms do one person to 400 birds.

The unemployed youths of Delta state are aware of the income and employment opportunities that exist at this stage but are incapacitated by the level of capital it requires to start-up and some do not consider the potential wage in the industry as adequate.

Processing

The processing stage comprises of the slaughtering, de-feathering and meat processing. All of these are done in abattoirs. Although there are commercial abattoirs in Delta State, some farmers (even at the backyard production level) process their birds for their customers. This is mostly done manually though not in the same general area as the live birds.

The employment opportunities here are limited to slaughter and de-feathering. This is dependent on farms or abattoirs with manual processing. Most abattoirs now have machines which have cut down the amount of labour required for the processing of poultry. Although, it requires semi skilled labour, it generally pays below the expected wage of the Delta State youth and it also considered dirty.

Distribution and Retailing

Like most of the country, live chickens are the predominant way poultry is sold in Delta State. Due to irregular power supply in the country, meat storage and transportation is difficult and can lead to spoiled stock. Hence, live birds are transported from the farms by dealers (and sometimes the farmers themselves) to a livestock market where they are processed and sold directly to customers. The household customers are therefore offered the processing and packaging at point of purchase in the market. Consistency levels in quality and supply continues to be the major frustration to industrial buyers. Some medium scale fast food restaurants have poultry farms to limit their exposure to supply and quality shocks.

There are less employment opportunities here but enormous income opportunity if youths can engage in the distribution, transportation or retailing of poultry. The demand for these services is high and is one of the major frustrations for farmers and processors alike. It thus offers an income opportunity for an enterprising youth. The potential impact on unemployment is entirely dependent on the level of output and outlets

Potential Areas of Intervention

1. ***Quality Breed***

The productivity, survival rate, output levels and profitability of the value chain depends largely on the quality and handling of day old chick. The hatching and the subsequent handling of the chick is completely inefficient and old fashion. An intervention that raises awareness at the hatchery levels about handling and proper transportation will have an immediate impact on the level of output. Farmers are frustrated with the inconsistency in quality of the breeds and also the inconsistent supply. The parent breeders cannot meet the demand. An intervention here will have an immediate impact.

2. Awareness campaign amongst the youths

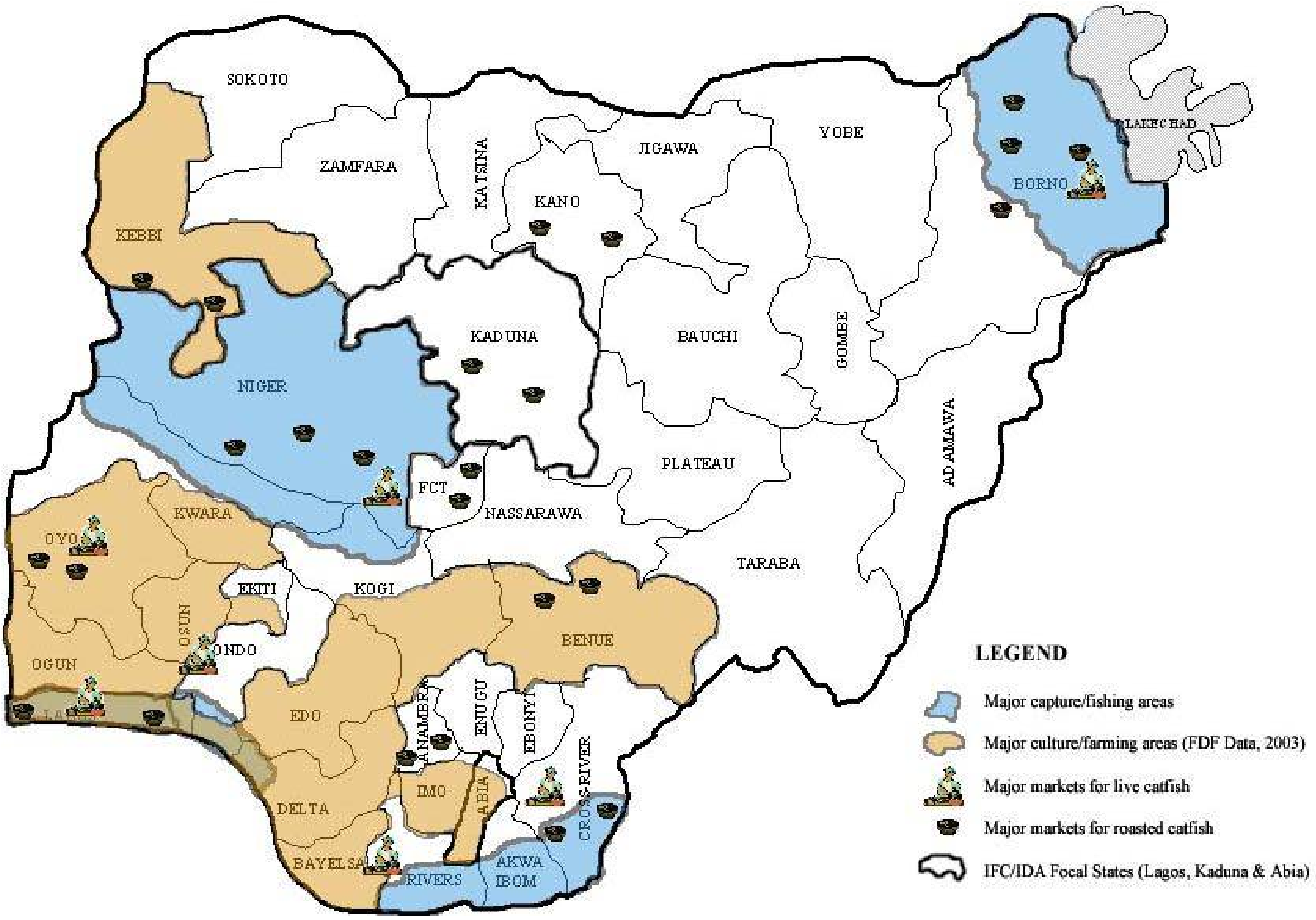
Although most of the youth are aware of the income opportunities within the value chain, they are not aware of the employment opportunities and the career progression and income growth the value chain offers its skilled workers. The perception is that the industry is a dirty industry that requires high labour input and compensation is below acceptable levels.

3. Input Support and support services

Inconsistent quality and supply of inputs such as feed & medicines greatly impedes the growth & success of the industry. Feed, which accounts for up to 60% of production costs, is largely made from maize. However the supply and cost of maize is seasonal affecting feed millers' ability to supply feed at consistent quantities and prices. In addition, access to affordable drugs and veterinary services in rural locations is a constraint with state veterinary service almost non-existent and private supply concentrated in urban areas. Hence, improvement of these two critical support services can only benefit the overall industry.

Catfish

Nigerians are major fish consumers and consumption is increasing as incomes increase. According to 2003 data[7], Nigeria consumed over 1 million tonnes of fish annually with a value of some $1.1 billion (at 2003 wholesale prices); catfish comprised between 10 and 13% of fish consumption or about $275 million worth. Nigerian fish imports in 2003 accounted for 74% of total supply by weight & 40% by value. Fresh water catches amount to 180,000-200,000 tonnes per annum, of which catfish types were the single most important category, amounting to about 40-50 percent of total catches. 90% of all farmed fish was catfish and even then this segment was growing at 10.5% p.a. not least because of the relatively quick production cycles of 4-8 months.



African catfish (*Clarias* and *Heterobranchus*), because of its capacity to breathe air, can be kept alive in buckets of water for up to a week, provided the water is changed 3 or 4 times a day. Catfish is sold live,

[7] IFC Catfish Sub sector Assessment 2003

freshly dead and dried/smoked hence the product does not require a cold chain for marketing. Highest prices and strongest demand is for the live fish.

Catfish and shrimp are the two aquaculture value chain singled out by the governor's DIDP program for policy and practice support because of their growth potential in income and employment. The Delta State Ministry of Agriculture groups fish farms in the state into three main groups, the small-scale village level farms with 3,000 to 5,000 fish under management, the medium-scale intensive farms with fish under management of between 5,000 and 20,000 and the large intensive commercial farm with over 20,000 fish under management. Although various species of fish are farmed in Delta state, the most popular is catfish; a rough estimate by the State Ministry of Agriculture puts it at 85% of fish production in the state. The medium level scale dominates the catfish value chain in the state. Output levels of the state fish farms are good but not sufficient to meet local demand so fish are still brought in from neighbouring states particularly in the off-season.

Several constraints are faced by the fish farmers; firstly there is little or no access to veterinary or extension services. As a result survival rates particularly at the nursery stage of the value chain is low (typically around 15%). Secondly, supplies of quality feed is low; most fish farmers prefer to mix their meals themselves and use a combination of locally produced meal and imported meal to reduce costs. Labour is another major constraints for the farmers as fish farming is largely manual and hence unattractive to the youth. Finally, the farmers need UV lighting to nurture the fish and electricity supplies as erratic as they are means they have to rely on expensive generators to power these lights.

The Catfish Value Chain

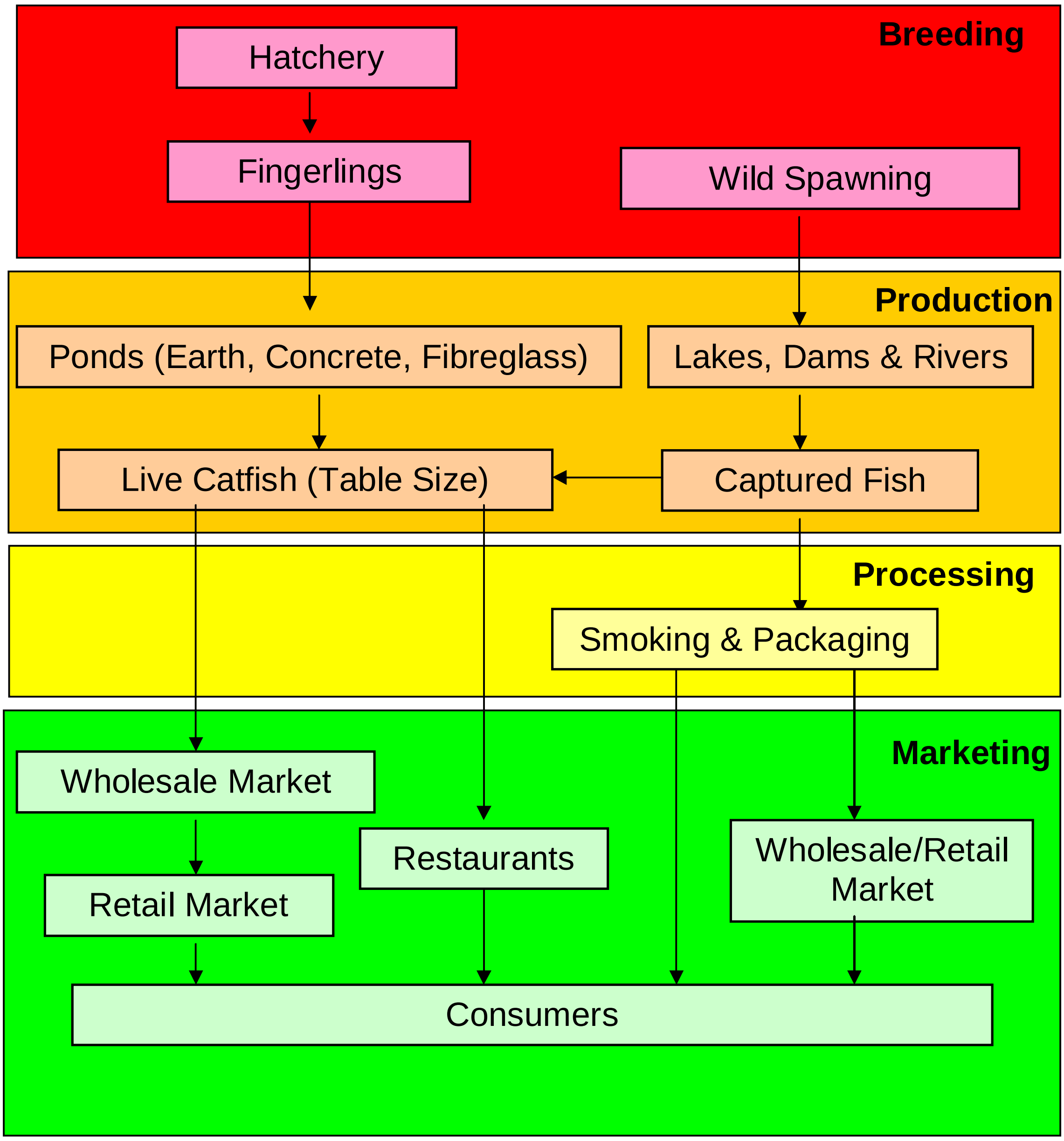
The catfish value chain is a typical aquaculture value chain; its peculiarity lies in the linkages between the actors and stakeholders within the chain. The linkages are weak and it disadvantages the farmer(s) within the chain. There are four main stages to the vertical value chain; breeding, production, processing and marketing. The linkages between the chains are fragmented and information flow frustrating.

Breeding

Fish farmers in Delta State buy their fingerlings from nurseries that focus on producing fingerlings. A negligible amount of stock is sourced from the wild. At this stage of the chain, the eggs are hatched and the litters transferred to a specialised tank that requires constant monitoring and feeding. Constant water changing and ultra violet light treatment is required at the nursery. The power requirement at this stage of the value chain is high and prohibits most farmers from having a nursery in their farm as a result there is very little competition at this stage so prices are high and supply erratic.

At this stage careful handling of produce and some skills are required. The semi skilled nature of the job and the social status matches the type of work that the youths desired. The level of impact on the unemployment numbers will however be negligible because it is not labour intensive and the high barriers to entry make it expensive.

Catfish Value Chain



Production

This stage of the value chain is the most competitive; most of the farmers operate at this level as the entry barriers are lowest. Unfortunately, the high number of producers does not translate to high output. This may be as a result of low skills of the farmer in keeping the stock alive or perhaps inadequate feeding methods

There are two main types of fish tank used – earth & concrete; the earth tank does not require as intensive monitoring and feeding as the concrete tanks. The concrete tanks also require constant change of water because of pollution from the feed and other environmental effects on the water. The earth tanks have natural nutrients and are more suitable for the fish but because of the exposure to the bare earth, the water is murkier and managing the fish is harder. The water is changed by pumping fresh water from a well or borehole into the fish tank slowly from one end of the tank and letting out the other end. The tank is sometimes filled manually if there is no power for the pump; this is very common.

This is the most labour intensive stage of the chain as the growth of the fish has to be monitored and they must be constantly fed so the bigger fish do not eat the small fish, this is especially important in the concrete tanks. The tanks are drained after several weeks to harvest or move from one thank to the other because the fish outgrow the tank. This is important because cramped tanks adversely impact the yield of the farm so they are constantly moved from tank to tank and thinned out as they grow. It takes about 3-4 months from the fingerlings stage to a fully grown fish ready for sale and consumption. There is no processing & packaging stage as the fish are kept alive right up to consumption.

Marketing (Dealers & Retailers)

Retailing is usually done in an open market by market traders. These traders go from farm to farm to buy small quantities for daily sale at open markets. The fish are usually put in containers with water to keep them alive. The household consumers and small catering outlets usually buy at these open markets.

Dealing on the other hand is a specialised form of retailing but differs because of the actors and their practices. Dealers are usually major suppliers to companies (mostly oil companies in the Delta State) caterers and fast food chains. These dealers go directly to the farmers and some have semi-contractual relationships. These dealers have to ensure certain standards for their customers and also shield the farmers from the volatility in market price. These two stages offer low employment opportunities as they are mostly sole proprietorships but because they are not as labour intensive as the other stages in the chain, they appeal to the Youth and can potentially pay the sort of wages they seek. They also require low start-up costs.

Potential Areas of Intervention

The most effective intervention in this value chain will be at the production stage; it has the highest potential for employment and better potential for income through ownership schemes. Apart from the revenue to be derived from growing fish, the youth can also be involved in growing feed which can be utilised by farmers.

1. Extension and support services

Any intervention that will support better access to veterinary service, information on modern growing services and one that can ensure procurement of modern tools would have the most effective and immediate impact on the output of each farm and increase the capacity of the farmers.

2. Improved Coordination

An intervention that focuses on the linkage and the process of market and price information flows between the actors will have significant impact on the employment generation and profitability of the growers.

3. Access to Finance:

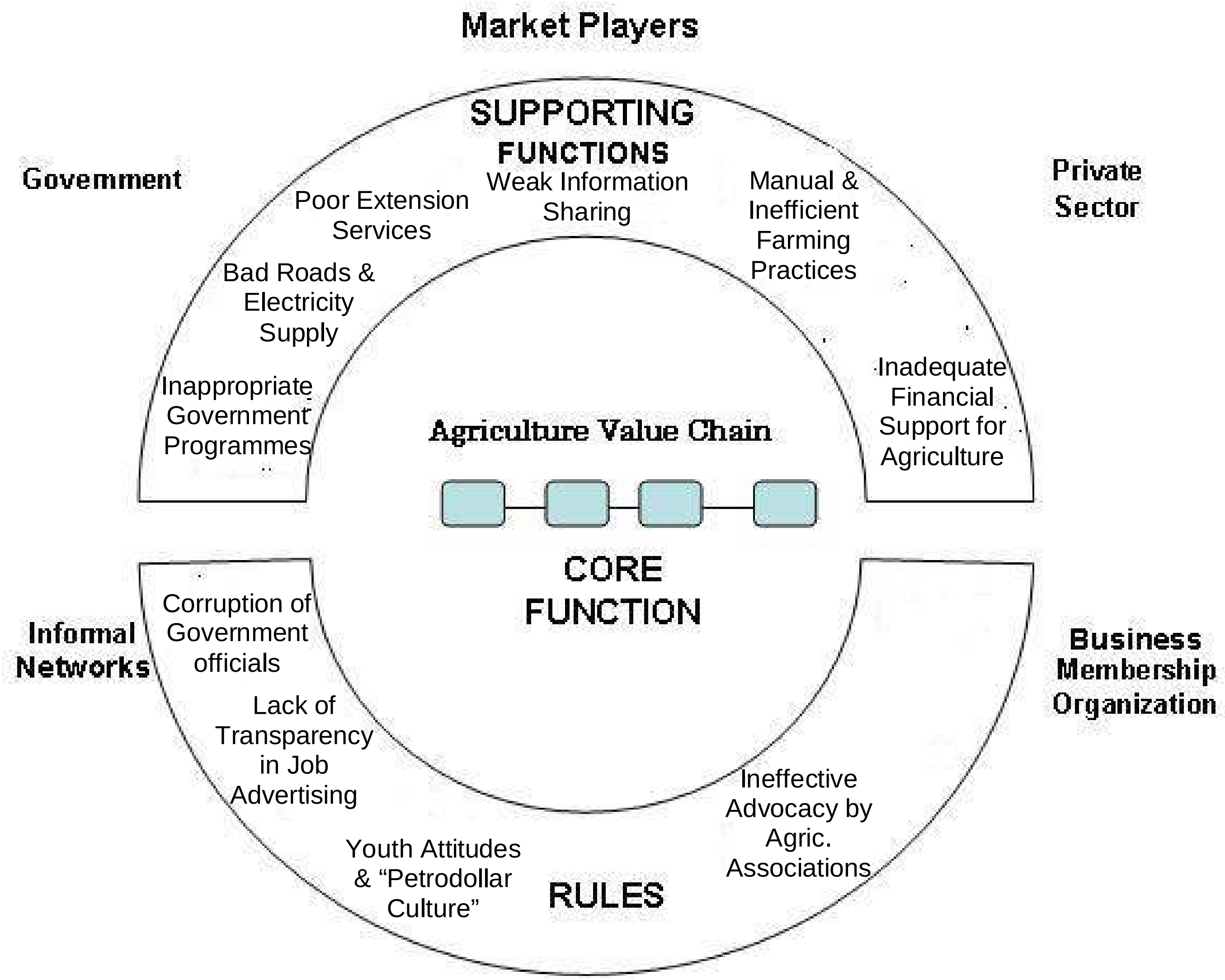
Educating the youth and financial institution on the profit potential and commercial viability of catfish can support the industry in Delta State.

	
Earthen Fish Pond	**Concrete Fish Tanks**

6. Recommendation & Conclusion

This study is a preliminary study and the findings and recommendation are only suggestive. A further detail study would be required to ascertain the viability of the findings and recommendations. It is our hope that the steps suggested in this report if implemented will be useful in directing the work of PIND.

During the course of this investigation it became clear in that there are high income growth and employment opportunities within agriculture in Delta State. However, the value chain analysis discussed in the previous chapter identified the systemic constraints in the four sub sectors investigated which are preventing players in the agricultural market system (especially the youth) from exploiting the opportunities profitably.



The constraints identified span across the rules and supporting functions of the market system, however not all of these can be addressed by one development programme hence our recommendations are careful to ensure they fit in with the M4P principles of sustainability, scale & impact and require only a facilitative role to get started. Theses constraints have now been "fit" into a revised M4P diagram shown above.

Value Chain Intervention Opportunities

It has been demonstrated that there are various level of opportunities for employment in the four value chains. In our opinion, poultry & catfish are the best sub sectors to provide significant employment opportunities for the Youth in Delta State. Quick wins can be easily achieved within 12 months. These sectors also reflect the interest of the both the employed and unemployed youth in Delta State; based on our survey result. The value chain with the highest potential is catfish mostly because it has the lowest barriers to entry and the shortest production cycle; hence it should appeal to the unemployed youth the most. However all value chains provide opportunities in the marketing and planning/development stages which also require little capital investments to start with though they would possibly benefit from a higher level of education and training.

M4P Analysis of Potential Areas of Intervention on Value Chains

Palm Oil			
Intervention	**Facilitative role**	**Sustainable**	**Impact & Scale**
Improved Coordination	Yes	Maybe	Yes
Extension Services	Yes	Maybe	Maybe
Land Reservation	Yes	Maybe	Yes
Cluster Farms	No	Maybe	Yes
Access to Finance	Yes	Maybe	No

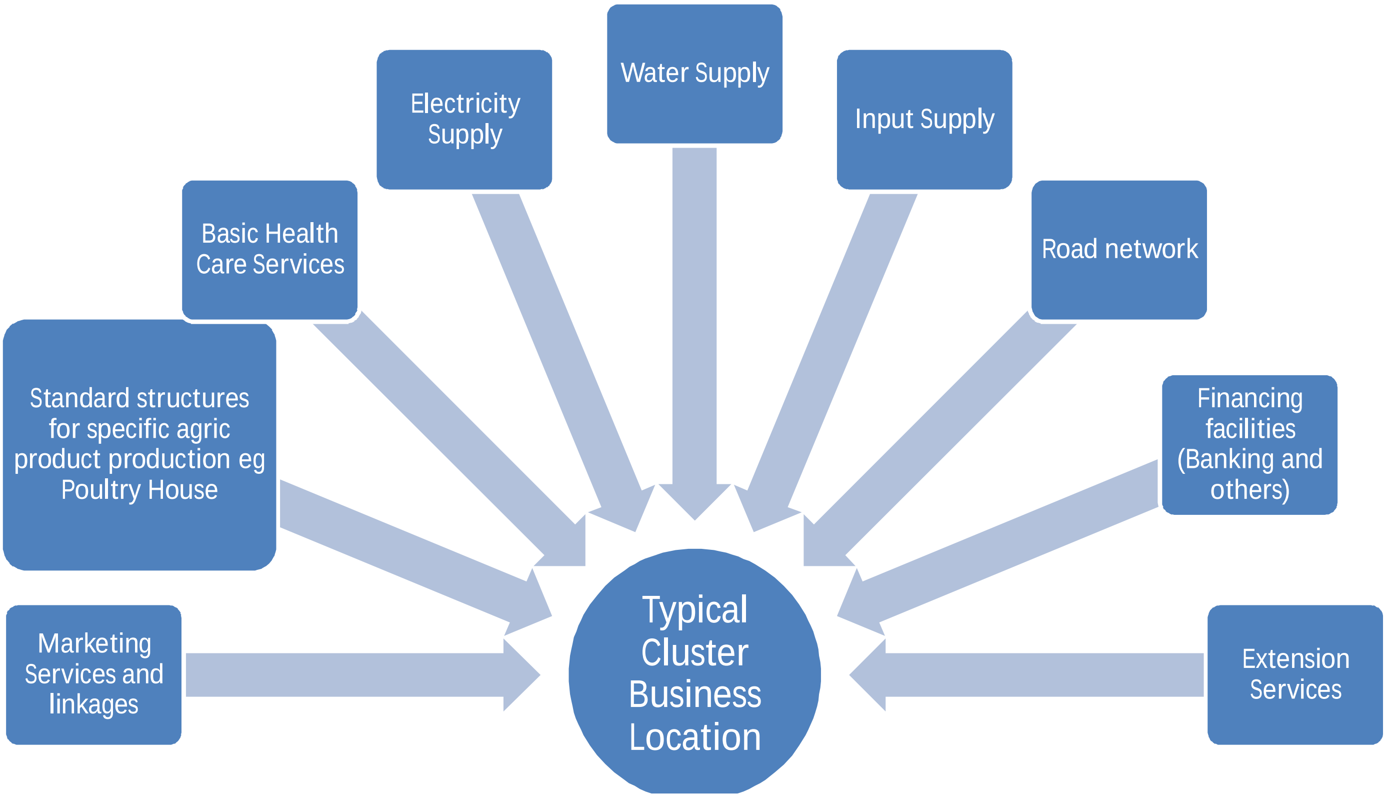
Rubber			
Intervention	**Facilitative role**	**Sustainable**	**Impact & Scale**
Training & Information	Yes	No	No
Access to Finance	Yes	Maybe	No

Poultry			
Intervention	**Facilitative role**	**Sustainable**	**Impact & Scale**
Quality Breed	Yes	Yes	Yes
Awareness Campaign	Yes	No	Yes
Input Support Services	Yes	Yes	No

Catfish			
Intervention	**Facilitative role**	**Sustainable**	**Impact & Scale**
Extension & Support Services	Yes	Yes	No
Improved Co-ordination	Yes	Maybe	Yes
Access to Finance	Yes	Yes	Yes

On the whole, the nature and the type of employment opportunities need to be carefully assessed if one is to suggest a potential effective intervention opportunity. For instance, most of the employment opportunities in the value chains reviewed require manual and/or unskilled labour while most of the youth want office jobs. One possible way to generate interest in these jobs by the youth is to ensure they have ownership of the business; owning their own farms with potential for growth in size and income will encourage those already interested in agriculture.

In addition, given that that most agricultural value chains are more profitable on a commercial scale, it is advisable to cluster producers and processors together to achieve economies of scale that would not otherwise accrue to them. Hence it is recommended that the establishment of a demo cluster business/estate business with basic infrastructure be considered. This model can be applied across the board for any chosen value chain. The concept of the cluster business in this context is the development of specific locations for common agricultural business. They includes land reservation, provision of electric power supply, water, road and other support services like banking, market network etc. Lessons can be learnt from the government run Technology Incubation Centres (TICs) dotted around the country.



Youth Support Opportunities

With regards to the youth, the re-orientation of the youths and promotion of formally recognised lobby groups free of political influence is crucial. Our preliminary research suggests that those with a certain criteria should be targeted by PIND. For example those with al least a secondary school leaving certificate and within the age range of 18-35 years. Not only because this group demonstrate passion and keen desire to resolve their unemployed situation, but also because they are trainable and seem to understand the idea of business which means that supporting them may be easier and more sustainable.

Business Information Centres

The unemployed youths complained about the lack of transparency in the way recruitment is done in public and private organisations. The service of recruitment and selection is already provided for a fee in and around Delta State. Typically job seekers register with an employment agency for a fee, they are then physically taken from organisation to organisation to apply for vacancies, even when they are not advertised. But this is not very rewarding.

A Job Information Centre can be endorsed by the government but operate as a commercial entity. It will screen potential candidates for positions in government or private companies by interviewing them first and then act as a clearing house for employers & employees. Income will be generated from registration fees and paid job advertisements in the centre and also disseminated via SMS to job seekers. Other services can also be offered such as business plan development and screening for bank financing. The important thing is that the bulk of the centre's income is from the employer side with only a token amount charged to job seekers e.g. GTZ's Business Information Training Centre

Support to Associations

There are several support services and programmes that the government has on offer for the youth and the unemployed, especially in the areas of agriculture. There are also development projects that farmers and others can take advantage of but these have not been adequately promoted to the target group. As a result corrupt government officials take advantage of these opportunities and share these opportunities amongst themselves and their relatives. The ministry of agriculture identified this to be one of the areas of weakness and an area that they most need support. So a process that ensures programmes of this nature can reach the target group is needed.

On the other hand, demand side advocacy is lacking, principally because the stakeholders are not organised into lobby groups. Existing associations do not have the capacity to gather data and information to generate reports that they can challenge government with. Government development programmes can be influenced and the implementation monitored by lobby groups. The group can also provide a secondary monitoring service on all development projects that concerns them – increasing the transparency of programme monitoring and reducing the level of corruption within government. This also helps increase the communicative power of groups and reduce the need for coercion and intimidation that is so often resorted to. Lessons may be gathered from DFID-PrOpCom's experience of working with rice farmer associations in Ogun State.

Agricultural Enterprise Training

For those youth already engaged in agricultural practices (production, processing or even input supplies), they can benefit strongly from training on how to manage their agro-related businesses. Skills such as record keeping, business planning & cashflow management can all be provided by certified trainers of the Nigerian Agricultural Enterprise Curriculum (NAEC). The curriculum was designed jointly by USAID MARKETS & DFID-PrOpCom to address the lack of business skills amongst agro-related businesses. 30 trainers have been trained and certified and are available for a fee to deliver their training to groups of agro-processors, producers or agro-dealers anywhere in the country.

Several other donor-led initiatives exist to address the issues of employment and economic development which PIND can reach out to for possible collaboration in the Delta. The World Bank's MSME Project and JICA's "One Local Government - One Product" scheme are a few that spring to mind.

Government Support Opportunities

Delta State Government' agricultural development focus is on poultry, aquaculture and oil palm production. This is encouraging as it is very much in-line with the findings from this study. However there is still room for some support to the government sector that could enhance the effectiveness of other interventions directed towards the agricultural sector.

Policy Guidance

PIND can lobby government to understand that its role is to create an enabling environment. For instance, government could support the investment of private sector players by creating favourable tax policies for private sector players and address the complaints of overtaxing raised by businesses (one organisation visited said it costs about ₦ 25,000 for government stickers per vehicle for the organisation). Such costs deter potential investors to Delta State. Lessons can be learned from the IFCs Better Business Initiative in Anambra State in addressing this issue as well as from DFID-PrOpCom's work in supporting agricultural policy making in Kano & Ogun States.

Monitoring Support

This study has observed that a major contributing factor to the unemployment in Delta State is the lack of coordination and monitoring at the government level; programmes were developed without performance indicators to scientifically measure their effectiveness or success. There will be a sizeable impact on unemployment in the state if programmes and services are coordinated better and monitored closely. An intervention that can build the governments capacity to recognise the importance of monitoring and evaluation will increase the effectiveness of its programme and will direct its efforts to more effectively deal with the priorities of the state. An intervention could come in the form of capacity building, for the ministries with a view to helping staff learn how to design and implement appropriate monitoring and evaluation mechanisms for future programmes. Lessons can be drawn from the World Bank's support for the Ministry of Economic Planning & Budget in Lagos State.

In summary suggested next steps for PIND include:

- Decide on what sub sector(s) to support
- Commission a detailed feasibility study into the chosen sub sector(s)
- Determine strategy options for roll out i.e. pilot, big bang approach, etc.
- Identify and liaise with other donor programmes (e.g. IFAD and JICA) working in similar geographical or business areas (several of which have been mentioned in this report) to share knowledge and best practices and even to collaborate on some ventures
- Get the State governments buy-in and specifically determine how they can support the chosen sub sector(s) by providing capacity building for government officials
- Get the Youth's buy-in by establishing information centres that address their immediate needs of job search
- Get the agricultural sector's buy-in by developing the capacity of associations to generate membership income and effectively lobby for their needs
- Develop a strong advertising campaign to raise awareness of agriculture amongst the youth and private sector players in Delta State.

Appendices

Appendix 1: Local Government Areas in Delta State

LGA	Headquarter	Population (2006 Census)
1. Aniocha North	Issele-Uku	104,062
2. Aniocha South	Ogwashi-Uku	142,045
3. Bomadi	Bomadi	86,016
4. Burutu	Burutu	207,977
5. Ethiope-East	Isiokolo	200,942
6. Ethiope-West	Oghara	202.712
7. Ika North-East	Owa-Oyibu	182,819
8. Ika South	Agbor	167,060
9. Isoko North	Ozoro	143,559
10. Isoko South	Oleh	235,147
11. Ndokwa East	Aboh	103,224
12. Ndokwa West	Kwale	150,024
13. Okpe	Orerokpe	128,398
14. Oshimili North	Akwukwu-Igbo	118,540
15. Oshimili South	Asaba	150,032
16. Patani	Patani	67,591
17. Sapele	Sapele	174,273
18. Udu	Otor-Udu	142,480
19. Ughelli North	Ughelli	320,687
20. Ughelli South	Otu-Jerermi	212,638
21. Ukwuani	Obiaruku	119,034
22. Uvwie	Effurun	188,728
23. Warri North	Koko	136,149
24. Warri South	Warri	311,970
25. Warri South-West	Ogbe-Ijoh	116,538

Appendix 2: Survey for Employed Youth

BACKGROUND INFORMATION

1. **Name of Interviewee/group:**______________________________________
2. **Sex:** *Male, Female*
3. **Educational qualification** *(for people still in school please take the last educational qualification attained):* *No school 0, Adult Education, Not completed Primary School, Primary Six, JSS not completed , JSS3, SSS not completed, SSS3, NCE/OND/HSCE , HND/1st Degree, Masters Degree, PHD,*
4. Technical Skills acquired – *Welding and fabrication , Fitting, Catering, Fashion designing/tailoring, IT, None*
5. **What motivated you to take up the skills?** *No money to continue school , Too old to continue school , Personal interest , No alternatives, Remuneration from the field , Free training, Family business ,*
   Others Specify -----------------------------------
6. Age range: Below 20; Between 20&30; Between 31&40; Above 40

A. EMPLOYMENT INFORMATION

1	**Which of the following employment categories do you belong?** *1. Paid employment* *2. Self employment*	**1.** To define employment by type **2.** It will give an idea of what is prevalent in Delta State, self employment or paid employment.
2	**If paid employment, how did you know about the job or get the job?** *TV* *Newspaper* *Friends* *Training Centre* Relatives	**1.** To establish the most common used channel for employment.
3	**What sector do you work** *Agriculture* *Manufacturing and processing* *Building and Construction* *Hotel Restaurant and Tourism* *Transport* *Communication* *Education* *Mining and Quarrying* *Utilities* *Banking and Finance* *Civil Servants* *Health* *Real Estate and Business Services* *Consultancies (Private Professional Services)* *Others*	**1.** This will give an indicate the highest employer of labour by sector
4	**What is your current average monthly**	1. Will enable comparison of wage across sector, more

	wage/salary/income?	importantly, how agric fare..
5	**What do you think is responsible for your unemployment?**	1. Youths perspective on the causes of unemployment
6	**If given the opportunity to change your work, what type of work would want to engage in** 1st choice (Most desirable) Last choice (Least desirable)	1. To determine job preference 2. Does agric feature in the preference **3.** The attractiveness of the agriculture in job mobility
7	**What employment/job creation initiatives are you aware of in Delta State.**	1. This is to measure the level of awareness of any government employment initiative. 2. Effectiveness of government promotion of job creation initiatives
8	**What Agric Employment opportunities are you aware of in Delta State?** List	1. To measure the popularity of employment opportunities available within the agric sector **2.** Determine if youths know of and aware of potential opportunities within the agriculture. **3.** The awareness of the range of opportunities within agric
9	**Which of these agric opportunities in question 5 would you be interested in? List them in order of preference**	1. To determine the a match between the agric opportunities and the desire of the unemployed 2. Ranking will highlight preferred agric agriculture sub sector for the unemployed. 3. This will establish the match or mismatch between the interest of the unemployed youths and the sub-sector government is prioritising.
10	**What is your recommendation on how to solve unemployment problem in Delta State**	1. Determine what the challenge of the unemployed youths are 2. To capture youths perspective on how to solve the unemployment problem in the state. 3. Capture other solutions or factors we may not have considered.

Appendix 3: Survey for the Unemployed Youth

BACKGROUND INFORMATION

Name of Interviewee/group:______________________________________

1. **Sex:** *Male, Female*
2. **Educational qualification** *(for people still in school please take the last educational qualification attained):* *No school 0, Adult Education, Not completed Primary School, Primary Six, JSS not completed , JSS3, SSS not completed, SSS3, NCE/OND/HSCE , HND/1st Degree, Masters Degree, PHD,*
3. Technical Skills acquired – *Welding and fabrication , Fiting, Catering, Fashion designing/tailoring, IT, None*
4. **What motivated you to take up the skills?** *No money to continue school , Too old to continue school , Personal interest , No alternatives, Remuneration from the field , Free training, Family business , Others Specify ----------------------------------*
5. Age range: Below 20; Between 20&30; Between 31&40; Above 40

B. EMPLOYMENT INFORMATION

1\`	**Where do you look for job vacancies?** *Newspaper Vacancies* *Employment Agencies* *Personal Contacts* *Others (specify) ……………………………. 0*	1. To establish a systemic constraint – information flow from potential employer to candidates and candidates to employer. 2. We will establish if there is structure to the search for employment and determine if employers get advertise jobs 3. Which medium do employers use to advertise job vacancies?
2	**What do you think is responsible for your unemployment?**	1. Establish youth perspective on the causes of unemployment
3	**What type of work would you want to engage in** 1st choice (Must desirable) Last choice (Least desirable)	1. To determine how the unemployed rank agric, if at all. 2. Determines industry/job preference
4	**What employment/job creation initiatives are you aware of in Delta State?**	3. This is to measure the level of awareness of any government employment initiative. 4. Effectiveness of government promotion of job creation initiatives.
4a	**How successful are these initiatives?**	1. To determine perceived effectiveness of government efforts 2. Give government feedback on promotion of initiatives
5	**What Agric Employment opportunities are you aware of in Delta State?** List	4. To measure the popularity of employment opportunities available within the agric sector 5. Determine if youths know of and aware of potential opportunities within the agriculture. 6. The awareness of the range of opportunities within agric
6	**Which of these agric opportunities in question 5 would you be interested in?**	4. To determine the a match between the agric opportunities and the desire of the unemployed 5. Ranking will highlight preferred agric agriculture sub sector

	List them in order of preference	for the unemployed. This will establish the match or mismatch between the interest of the unemployed youths and the sub-sector government is prioritising.
7	**If not interested in any of the opportunities in question 6, why?**	1. Understand the unemployed perception of opportunities within agriculture
8	**What is your recommendation on how to solve unemployment problem in Delta State**	4. Determine what the challenge of the unemployed youths are 5. To capture youths perspective on how to solve the unemployment problem in the state. 6. Capture other solutions or factors we may not have considered.

Appendix 4: Checklist for Youth Focus group discussions

Question	Rationale
1. What will attract you to take up a job or change your job?	1. To establish a benchmark that agric have to meet to in order to attract the youth.
2. In your opinions, what do you think is responsible for the unemployment of youths in Delta State	Primarily to establish youths perspective on the causes of unemployment.
3. What are the most effective ways of accessing information about job vacancies?	This will give us an indication of the best way to get job opportunity information to the unemployed. The options might be; 1. Job centres (govt or private) 2. Recruitment agencies 3. Newspaper ads 4. TV and radio ads 5. Internet If the youths consider that these mediums have a role to play then it can be compared to the areas agric sector put their job vacancies.
4. What are the potentials of job and employment creation in Agriculture in Delta state?	1. To determine if they consider that there are any opportunities within agric
5. What factors will limit these potential in agriculture?	1. Gather information about the challenges
6. What do you do think should be done to harness the potentials in that area	1. Information and perception
7. Why are youth not taking up jobs in Agric	1. Gather peoples perception within of employment within agriculture
8. What is your recommendation for creating jobs in Delta State	1. Information gather and perception

Appendix 5: Stakeholder Issue checklist: Ministry of Economic Planning

Issues (or Questions)	Rationale
Economic Background; 1. Delta State GDP 2. GDP distribution by sector (e.g. Manufacturing, service, agric etc) 3. Agriculture contribution to GDP by sub sector (fishery, poultry, farming)	1. The information will enable us to determine the economy structure of the state and the impact (or size) of the agriculture sector on the delta state economy. 2. Information of sub-sector of agric will show us which generates the greater income and rank them according to income source for the government. 3. The sub sector information will also enable us to compare the state priorities with the ranking – with this we establish consistency or lack of, and reason the state priorities the sub-sector it did.
Unemployment and employment , **Structure of Employment** • Employment by sector (manufacturing, service, agric etc) in unit or percentage. • Average income/wage/salary by sector (manufacturing, service, agric etc) • Employment by employer classification (civil service and private sector) • Definition of unemployment (RR defined it as no earning for 3 months) **Unemployment** • The unemployment in unit and rate • Age group of the unemployed and their unit or percentage value • Sex distribution of the unemployed • Unemployment rate or unit by skill category (graduate, skilled and unskilled)	Answer to all these questions will give us the structure of employment in Delta State. It will also answer the following; 1. The highest employer of labour by sector to determine how agric rank or compare to the other sector 2. Establish the gap between remuneration in other sectors and agric 3. The information will give an insight into how attractive agric sector is to job seeker and what agric sector will have to do to compete favourably for talent or competent staff. 4. It will highlight any mismatch in competence level required in agric and the compensation able to pay.
Agricultural sector 1. Comparative advantage crops in Delta state 2. Transactional activity level of each of these crops. 3. Specific agric policy to promote agric in general and these crops in particular 4. Any specific and special incentive for any of the priority crop or any crop for that matter (e.g. land use, tax incentive or technical assistance)	1. This will enable us to determine if the priority crops are the same as the crops that have comparative advantage in. If not, the reason for the inconsistency needs to be determined – maybe policy to promote new crop or agric process that may have greater employment impact. 2. This will enable us to rank by income level and determine the reason for the priorities. 3. Policy will allow us to determine if there is sincerity of purpose. If there is inconsistency between the policy and the priority crops, this will limit the potential employment impact and will be a serious systemic constraint. 4. Will determine if there are promotional activities in Delta State and determine the stage of these activities. It may be at the infancy stage or advance stage. Impact and effectiveness can be measured.

Appendix 6: Stakeholder checklist: Ministry of Agriculture

	Questions	• Rationale
1	What are the crops that Delta State has comparative advantage in?	• Information about the crops • To determine if they are the same crop the government has prioritise • Criteria for prioritising
2	Employment impact of each of these crops identified in question one	• To established whether or not the potential of these crops are being exploited by the state.
3	Activities level for each of this crop	• Information to rank the crops and compare to the government priorities
4	Are there new agric sub-sectors that the ministry is promoting or wants to promote?	• For information
5	Is the ministry promoting this for employment impact or because of the potential income for the government?	• The criteria for choosing what to promote
6	Are there any special incentives in place to promote any agriculture sub-sector in Delta State?	• Information gathering
7	What percentage of the employed staff by the government works in the agriculture ministry?	• This information will highlight the size of the department and probably the adequateness of the size given the government priorities.

Appendix 7: Cassava: International Market Profile

Nigeria is the world's largest producer of cassava. In spite of its huge potential as an industrial raw material, cassava is mostly consumed in Nigeria as a food item; garri accounts for 70% of total cassava consumption. It is the third most important source of calories, after rice and maize, and contributes tremendously to food security and rural incomes. It is the most widely cultivated crop in the middle belt and southern part of the country by almost all farming households. The development of improved varieties of high yielding cultivars, improved agronomic practices and the diversification of its uses give cassava the potential to have a significant impact on the livelihoods of poor people throughout Nigeria.[8]

Producer Price (US $/tonne) (USD)

country	item	2008	
Brazil	Cassava	103.7	
Cameroon	Cassava	193.6	F
China	Cassava	775.8	F
Congo	Cassava	91.2	F
Côte d'Ivoire	Cassava	238.9	F
Ghana	Cassava	155.1	
India	Cassava	66.3	F
Indonesia	Cassava	152.7	
Madagascar	Cassava	187.9	
Malawi	Cassava	295.1	F
Mozambique	Cassava		
Nigeria	Cassava	189.3	F
Thailand	Cassava	35.8	

[ ] = Official data | F = FAO estimate

FAOSTAT | © FAO Statistics Division 2010 | 30 September 2

Although Nigeria ranks number 1 in world production, yields are almost half of the world average (8 tonnes per hectare as compared to ~15-20 tonnes per hectare world average). Thailand is the largest exporting country of dried cassava (77% of world export in 2005[9]), producing half of Nigeria's volume (25million tonnes vs 45million for Nigeria) at 20% of Nigeria's cost ($189/MT Nigeria vs $36/MT Thailand). Nigeria has a competitive advantage in meeting its domestic market for fresh cassava given the product's bulkiness and perishable. However, for Nigeria to compete even in its domestic market for processed, industrial products, it has to significantly reduce its costs. A detailed analysis of production costs identifying major economic constraints is a first step. Innovative and realistic ideas to address major barriers would be tested, refined and replicated so that Nigeria can compete in ***all*** domestic cassava markets.

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