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# Nigerian Agribusiness Supplier Development Programme

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*ROAD MAP*



# **Roadmap Nigerian Agribusiness Supply Development Program**

**March 2013**

## Abbreviations

AFIM	African Facility for Inclusive Markets
ASDP	Agribusiness Supply Development Program
ATA	Agriculture Transformation Agenda
BoI	Bank of Industry
CO	Country office
DATCO	Dutch Agricultural Trading Company
DFID	Department for International Development (UK)
DGIS	Directorate General of International Cooperation (of the Netherlands)
FC	Friesland Campina
FDA	Foreign Development Assistance (France)
FMARD	Federal Ministry of Agriculture and Rural Development
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
ICRA	International Center for development oriented Research in Agriculture
IED	Institute of Economic Development
GiZ	German Institute of Development Cooperation
IFAD	International Fund for Agricultural Development
IFDC	International Fertilizer Development Center
KFW	German Development Bank
KIT	Royal Tropical Institute
MDGs	Millennium Development Goals
MT	Metric Ton
NACCIMA	Nigerian Association of Chambers of Commerce, Industry, Mines and Agriculture
NASME	Nigerian Association of Small and Medium Enterprises
NGO	Non Governmental Organization
NIRSAL	Nigeria Incentive-Based Risk-Sharing System for Agricultural Lending
RUFIN	Rural Finance Institutes Development Programs
SME	Small and Medium Enterprises
SCPZ	Staple Crop Processing Zones
UNDP	United Nations Development Program
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development

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# 1. Preface

## 1.1 Background

Contributing over 60% towards regional employment and accounting for over 25% of the regions Gross Domestic Product (GDP), agriculture remains one of Sub-Saharan Africa's (SSA) most important sectors. Africa remains a strategic continent for the world's agro-food industry as it holds 60% of the world's uncultivated arable land. This makes agriculture a lead sector in Africa, with sufficient scale and comparative advantage, to engender broad based economic growth and poverty reduction towards achieving the Millennium Development Goals (MDGs).

However, investing in the agricultural sector in Africa is also a risky business. Eighty per cent of all farms in Sub-Saharan Africa are under smallholder production supplying up to 90% of the food production in some countries (ASFG, Livingstone). Despite being the major source of agricultural output in Africa, smallholder farmers face many challenges to get included in higher value markets, such as those proposed by larger companies. This creates both an opportunity and a risk for companies willing to source from smallholders. They are therefore looking for ways to tap into this opportunity while mitigating its risks.

Access to new markets contributes to the local economic development of suppliers, SMEs and their communities, but these markets in many cases will not develop on their own. UNDP Nigeria is one of first countries (together with Kenya, Angola and South Africa) to develop a roadmap for an Agribusiness Supplier Development Programme (ASDP). Its ambition is to work on practical knowledge for market development. One way to achieve this is through collaborating more directly with the private sector in order to have a larger impact on UNDP's main target beneficiaries, in particular women and youth. Geographically Northern parts of the country are target areas. Three sub-sectors, fish/aquaculture, dairy and horticulture (tomato), have specific opportunities for stimulating economic development in these areas. These sub-sectors were pre-selected in collaboration with the Federal Ministry of Agriculture and Rural Development and were shortlisted because of their potential impact on food security, poverty and gender. Cassava sub-sector was added to the list because of the strong interest from the Ministry.

In the above respect an UNDP AFIM (African Facility for Inclusive Markets) team with a KIT (Royal Tropical Institute) Sustainable Sourcing consultant, has visited Nigeria between the 25<sup>th</sup> of February and 1<sup>st</sup> of March to carry out a feasibility study for a Nigerian ASDP and to develop this Roadmap.

## 1.2 Methodology

Information was collected through various resources. Agricultural Transformation Agendas of the shortlisted sub-sectors have been studied as well as already existing programs and supply chain assessment studies. Additionally 25 organizations have been interviewed, amongst others UNDP Nigeria, the Federal Ministry of Agriculture, several Lead Firms, farm representatives, support organisations and funding organisations, both through peer group discussions as well as semi-organized interviews. For the full list, please find the Appendix.

## 1.3 Structure of the report

The report is structured in the following sections:

1. Country context
2. Opportunities and constraints for a Nigerian ASDP in four sub-sectors
3. Roadmap for a Nigerian ASDP

## 2. County context

### 2.1 Nigerian agricultural-economy

Nigeria is the most dense country of the African continent with a population of over 170 million people. Its current economy heavily depends on the oil sector: its foreign exchange earnings depend for 95 % from the oil industry and its public budget for 80%.

In the sixties Nigeria used to be an important exporter of several agricultural commodities (groundnuts, palm oil, cocoa, cotton) but due to a focus on oil and to political unrest, investments in agriculture declined, including in :

- Fertilizers
- Seeds (only 5% of the farmers have access)
- Research and development
- Rural infrastructure

As a result Nigeria is now one of the largest importer worldwide of wheat, rice, sugar and fish.

To date the main challenges in agriculture are the scale of farming, , the little production and marketing knowledge and capacity, and little developed infrastructure. Access to finance is also a major issue. In some commodities farmers are aging because young potential farmers are not interested and move to urban areas. At the processing side there are little outlets that want to invest back in the value chain. Also this is for a large extent caused by a lack of finance as well as little comparable advantages (i.e. high cost and low quality) of local produce.

Scattered value chains and weak value chain linkages between lead firms, processors and farmers are not helping the growth of value chains either. Finally, the country, particularly in the Northern states, still suffers from ethnic and religious tensions that causes an insecure situation for business as well as support staff.

#### **Box. 1 Lease Firm example: Funman fruit juices**

Funman Group Limited is amongst others processing fresh fruit (pineapple, mango, lychee, guaves etc.) in to juices. It is sold under the Funman brand. Next to Funman there are other fruit juice processors, but they all use concentrates. Funman invested in a factory and is reaching out to outgrowers (4 large farm groups), however it can still not access sufficient raw fruits. The problem is the understanding of the markets' quality needs in the supply chain but also transportation and packaging. More backwards integration by processors is required to make supply chains work. Sensitisation of lead firms could be an important role of an ASDP.

Since the elections of 2007 the country is transforming into a more diverse economy. This offers several opportunities:

- The current government has adopted a clear vision of reform that includes a diversification of the economy, including the agricultural sector. This vision is widely known as Agricultural Transformation Agenda;
- 33% arable land is not being used and available for production. In particular the North-West of Nigeria is the breadbasket of the large country;

- Despite the importance of the oil industry, the agricultural sector is still app. 1/3 of Nigeria's GDP and, consequently, an important source of income for many Nigerians;
- Nigeria was once an important exporter of groundnuts, palm oil, cocoa and cotton;
- Many important agricultural products are now being imported and could be substituted by local produce.

## 2.2 Agricultural Transformation Agenda

Nigeria has adopted an innovative framework for transforming the agrisector, called the Agricultural Transformation Agenda (ATA). The vision of the Transformation Agenda of FMARD (Federal Ministry of Agriculture and Rural Development) is "to achieve a hunger-free Nigeria through an agricultural sector that drives income growth, accelerates achievement of food and nutritional security, generates employment and transforms Nigeria into a leading player in global food markets to grow wealth for millions of farmers". Key to the Program is treating agriculture not as a development project, but as business.

As such there is much synergy with other ministries, including the Ministry of Trade and the Ministry of Finance, as well as with the Central Bank.

Key sectors of the ATA are larger commodities including cassava, rice and sorghum, but also horticulture, livestock (including dairy) and aquaculture are included. The market opportunity lies in substituting imports with local produced crops, for instance substituting wheat that is used for bread with locally produced cassava. Large sums of public money have been made available and more funding is expected through organizations like the World Bank and the African Development Bank. This is for a large extent allocated for infrastructure (irrigation, mechanization, processing, storage, roads) around 6 already selected processing zones.

Support is given on:

- Extension services
- Growth enhancement support
- Agro-processing and marketing
- Agricultural infrastructure
- Cooperatives
- Rural development
- Land resources
- Food reserve and storage
- Quarantine service
- R&D
- Insurance
- Mechanization

## 2.3 Relevant support organizations

**Bank of Agriculture (BOA)** BOA is situated in Kaduna and is involved in the implementation of donor-funded interventions. As such it has been involved in the Accelerated Artisan Fish Production Project (AAFPP) in Delta, Edo, Ondo, Kebbi, Zamfara and Sokoto States (starting in 1992). The objective of the project was to provide microcredit for artisan fishermen. IFAD and USAID have equally supported BOA with capacity building. In addition it was implementing the International Fund for Agricultural Development (IFAD) project aiming at boosting artisanal fisheries development and improving the social-economic status in the fishing communities. Involved states are



Rivers, Akwa Ibom and Cross River States. The fund was administered through BOA Branches in Uyo, Calabar and Port Harcourt.

Potential links to the ASDP:

- Collaboration in capacity building and organization of supplying farmers and SMEs.
- Link up with State Governments.
- ASDP could bring in the Lead Firm / supply chain perspective.

**Community of Agricultural Stakeholders of Nigerian (CASON)** – A part of NESG (Nigeria Economic Summit Group) CASON already works closely with the Federal Ministry of Agriculture, as a platform for government engagement with the private sector on agriculture and agribusiness development

Potential links to the ASDP:

- Due to its strong links to the private sector it could be a suitable partner to link up with for executing the ASDP.

**IFAD** (International Fund for Agricultural Development) has 3 existing programs and one under development.

These programmes are Rural Finance Institutions Building Programme, (RUFIN), Community-Based Agricultural and Rural Development Programme (CBARDP) and Community-Based Natural Resources Programme (CBNRDP). The programs' activities are on advocacy, partnership support and, knowledge and institution building through farm organization. The new program is a value chain development program of 4,5 million USD in cassava and rice that is linked to ATA and the crop processing zones. IFAD stresses that agriculture is not market led and the challenge for accelerating growth is to involve the private sector. Also access to fertilizer in the market is an issues as well as the involvement of state governments in the development of agriculture.

Potential links to the ASDP:

- Collaboration in capacity building and organization of supplying farmers and SMEs.
- Link up with State Governments.
- ASDP could bring in the Lead Firm perspective.

**NACCIMA** is the Nigerian Association of Chambers of Commerce, Industry, Mines and Agriculture (<http://www.naccima.com/>). It exists since the 1960 and has a long track record of industry promotion activities. Its objectives are to:

- To promote, protect and develop all matters affecting business
- To contribute to the overall economic stability of the country
- To encourage and promote the nation's private sector
- To provide a network of national and international business contacts and opportunities.

Potential links to the ASDP:

- Due to its long existence and neutral position it could be a suitable partner to link up with for executing the ASDP.
- NACCIMA also provides business development and advisory services to its members with operational mechanisms that targets five sectors, including Agriculture

**NASME** The Nigerian Association of Small and Medium Enterprises (NASME), established in 1996 by SMEs, the private sector and the Nigerian government, fosters the promotion of micro-, small and medium-sized enterprises (MSMEs) in Nigeria (<https://www.nasme.org.ng>) (at the time of visiting this website did not work).

Potential links to the ASDP:

- Due to the engagement of the private sector in this organization it could be a suitable partner to link up with for executing the ASDP.

**NIRSAL** (Nigeria Incentive-Based Risk-Sharing System for Agricultural Lending) is an enterprise that used to be part of the Central Bank but was recently incorporated and will operate as an independent entity with its own board. . Its role is to develop agri finance for value chains. Expected deliverables are increasing agricultural lending to 3 billion USD, which is equivalent to 7% of all outstanding loans in Nigeria. It has a 5 pillar approach to de-risk agricultural lending: risk-sharing, insurance facility, technical assistance, bank rating and bank incentives. As such it provides guarantees to banks for agribusinesses and helps farmers to fulfil all needs for accessing credits, it provides training to banks in agri-financing, it works on agri-insurance schemes, it rates banks and creates awareness in value chain on agri-loans (<http://nirsal.com/> ).

One of NIRSALS former projects was preparing tomato farmers in Kano State for accessing credits in order to be able to supply to Dangote (see later on in the Tomato section). The whole project took 3 months.

NIRSAL is currently also exploring partnerships with USAID, KfW, IED, GIZ, FDA, UNIDO and the European Investment Bank.

Potential links to the ASDP:

- Link to credit suppliers (commercial banks, micro finance institutions)
- Bringing in financial expertise.
- Since NIRSAL faces particular challenges with finding lead firms that want to invest in processing, this could be the added value of ASDP.

**2Scale** projects is a 5 years program funded by DGIS (the Dutch Directorate Government of International Cooperation). The total budget is 42,5 million Euro. It is implemented by IFDC, together with ICRA and BoP Inc in 9 countries, 8 focal countries of Dutch development cooperation plus Nigeria because of the important role it plays in developing the Western African economy. The objective of IFDC is to “develop a portfolio of 500 agribusiness clusters and value chains, supplying food to regional ,national and local markets, as well as bottom of the pyramid consumers”. It will also share knowledge with other projects.

In Nigeria the project is active in dairy (since 2012), soybean and it is starting up in the tomato sector. In the dairy sector it collaborates with Friesland Campina/WAMCO by organizing farmers and building up capacity of Fulani cattle herders in Oyo and Kwara States. For this a MoU was signed between the partners. Main challenges of the value chain are building up trust of farmers and identify the right partners in the field. Also Nestle is interested in 2Scale. More on the project can be found at <http://ifdc.org/Projects/Current/2SCALE>

Potential links to the ASDP:

- Collaboration in capacity building and organization of supplying farmers
- Activities in the tomato sector
- Activities in the dairy sector
- The ASDP could take up the role of knowledge broker, link to the Federal State Government, platform building.

**UNIDO** (United Nations Industrial Development Organization) supports the Ministry of Agriculture in setting up the 6 agri processing zones with a focus on tice, cassava and tomato. For cassava for instance Cargill has shown in interest in 15,000 ha of which 4,000 is allocated for small farmers. Since access to credits is a major constraint for the

agricultural sector to develop, UNIDO collaborates with NIRSAL in reaching out to banks for developing applied agricultural loans. The challenge is the limited expertise that exists in banks on agriculture.

Potential link to the ASDP:

- Collaboration in the 6 clusters if these are the supply areas of the Lead Firms.
- Collaboration on lobby for infrastructure investments.

**USAID Markets** 's aim was to transform Nigeria's agricultural sector from subsistence to commercial farming. It was doing this by means of (<http://www.nigeriamarkets.org/>):

- Training to increase productivity
- Access to credits and inputs
- Brokering partnerships
- Linking farmers to markets
- Promoting value-added processing.

Key sectors were: sesame, cassava, maize, rice, sorghum, fisheries and cowpies. Markets 2 (10 months program in 2011) was trying to keep the momentum of Markets by providing continued support. The ASDP could learn from the activities of Markets, replicate these and reach scale.

Potential links to the ASDP:

- Best practices from the program, particularly in cassava, could be replicated.
- Other links should still be explored.

Other organizations active in Nigeria are amongst others GiZ (German) and Technoserve. Also their potential links should be still explored.

### 3. Sub-sectors

#### 3.1 Dairy sub-sector

##### Facts and figures

GDP share	4%
Number cattle	15 million (1990), mostly Bunaji cattle
Milk productivity	0,5-2 litres per day (can go up to 10) or 469,000 MT total per year (ambition 1,1 million MT)
Cattle farmers	12 million (mostly pastoralists)
Gender	Caring (men), Milking (women)
Region	Mostly Central and Northern states
SMEs	A small number of peri-urban cattle producers exists as well as commercial cattle with dairy processing plants with exotic breeds.
SMEs	Some cooperative collection points
Industry	Only 3% of fresh milk is processed by industry (by Friesland Campina/WAMCO)
Total market	1,5 million litters per year (70% = imported powder)
Support	2Scale (IFDC)

##### Supplier constraints and opportunities

Most farmers are small scale pastoralists that migrate with their livestock. Key constraints at this level of the supply chain are:

- Unorganized fresh milk collection, processing and marketing, amongst others due to pastoralist system
- Poor productivity of cows: due to poor nutrition of lactating cows
- Lack of fresh water
- Lack of capacity and skills in dairy farm management : no services, poor food safety standards, diseases
- Lack of clear policy, amongst others on land rights
- No access to longer term finance (investing in a cow takes 3 years before returns)

There are also opportunities for growing the dairy sector:

- Good climate in Central and Northern state
- Generally healthy animals
- Available land
- Culture of dairy production and consumption
- Old processing plants available for revitalization
- Fodder crops can be grown
- Growing demand urban middle classes
- Potential investors in processing (yoghurts etc.)

##### SMEs

In the past enterprises have tried to establish themselves. They failed particularly because of a lack of sufficient inputs. Also the scale that they were at was not cost effective. There are some SME suppliers left, for instance the Shonga Farms that produce for 80% to Friesland Campina, see below. Shonga Farms has 5 farmers with a combined capacity for producing in excess of 8.700 litres of raw milk per day. They also collect milk from local herders and with technical support from IFDC ensures that the milk is the right quality. The challenge is to deliver the right quality and quantity for the market.

##### Lead firm constraints and needs in local supply

Friesland Campina/WAMCO is the biggest of a very few players in the dairy industry in Nigeria that sources fresh local milk. It started to source local milk in agreement with the government to source 10% of the dairy inputs locally. It therefore needs 15,000 – 20,000

litter per day by 2016. An MoU (Memorandum of Understanding) was signed with Friesland Campina, the state and IFCD (see in Section 2) with the aim to set up the Nigerian Dairy Program. Friesland Campina has committed itself to buying the milk, the state to investing in infrastructure supporting local sourcing practices of FC and IFDC to supporting farmers. To fulfil its part of the agreement, Friesland Campina has established Milk Collection Centres in 2 states (Oyo and Kwara and plans to expand to Abuja soon. The company Mueller provides equipment. The program started near Lagos and will eventually reach out to 5 more states. Total investment of FC lies in the range of 3 million for 40 collection point structures, 3 million for equipment and 2 extra for Abuja. The Dutch government (DGIS) funds part of the program (see IFCD). Currently FC sources from 3,500 farmers. Eventually this needs to become 20,000.

The challenge is to achieve transparency in the chain. The farm to fork approach that is implemented by FC is needed to diminish health safety risks. Finding suppliers that fulfil all quality requirements is difficult.

Extra support is particularly needed in:

- Advocacy for investments in infrastructure, amongst others for access to drinking water
- The organization of (more) farmers
- Policy building on land governance
- Learning from practice, monitoring and dissemination

Other (potential) lead firms and SMEs to be explored are:

- Nestle
- Olam
- L&Z
- GARKO
- Naigari farm
- MAzuibe farm
- Farm Fresh

### **ATA Dairy**

Since 1954 import restrictions were lifted and competition with imported milk powder hampered the industry's development. This changed a bit in 1988 with the Structural Adjustment Programme that supported local industries over import. The Kaduna Pilot Pastoral Dairy Cooperative Programme was established to vertically organize farmers in cooperatives. To date these organizations still exist but are mostly for imported powdered milk.

As part of the ATA the Ministry of Agriculture has developed the Dairy Transformation Agenda (2011). Goals are to increase annual production to 1,1 million MT per year in 2015 and to increase income to 285 million USD for 12 million farmers.

Objectives are:

- Increase dairy production to 1,1 million MT over 4 years
- Raise productivity through improved organization (clusters), production technology, feed, genetically improved animals, animal health care and extension services
- Organize producer in 17 states in milk producers cooperatives associations
- Support SMEs (semi urban dairy farms)
- Dairy (social) marketing
- Restrictions on dairy import
- Link demand to a better production, supply chain, policies and advocacy with end-users
- National Dairy Development and Marketing Commission.

One way how the chain is going to be organized is through milk collection centres that serve as farm cooperatives. The government will invest in required infrastructure.

### **Constraints and potential solutions**

Dairy is not an easy sector to develop because of pastoralists smallholders not used to farming as a business. Farmers in different areas react differently to market development activities. As a result costs are high and there is a high level of inefficiency which makes dairy not competitive with imported powder. High level investments and long term investments are required in order to change this sector from subsistence to commercial farming. Because dairy is not a low hanging fruit there is some resistance to support this sector.

Potential solutions to the constraints could be the development of dairy milk collection center model as promoted by the East Africa Dairy Development Project which AFIM has supported.

A Nigerian ASDP could add value through:

- Friesland Campina is a motivated player that needs lots of support in order to fulfil the 10% quota. Only the program of IFDC is not sufficient to this extent and support is particularly needed in lobbying with the government, access/organizing more farm suppliers and knowledge development. An ASDP could hence replicate what is already done and scale up good practices;
- An ASDP could involve other lead firms that want to invest (Nestle, Olam, L&Z?)
- Work with smaller companies and farms to extend the milk collection capacity of Friesland Campina and other Lead Firms
- A link could be laid to the IFAD dairy activities in the states;
- In addition an ASDP could facilitate the development of applied financial products for financing dairy livestock farmers and it could foster access to these products, for instance together with NIRSAL;
- Information sharing systems could support value chain development;
- On the more macro scale an ASDP could lobby for the development of a fresh milk standard and a dairy platform (DFID Round Table)

## 3.2 Aquaculture sub-sector

### Facts and figures

Existence	Since 1956
Local production	600,000 MT
Variety	Catfish
Productivity	Subsistence up to 1,5 MT per ha, integrated farms up to 3,5 MT per ha
Processing	Filleting, drying, gutting, scaling and deboning, smoking, production past and fish oil. (low quality)
Number of Fish farms	2642 of which 100 state owned (2003)
Gender	The majority is men; women do processing
Market share	5-6%
Total market	1,3 million MT
Import	56% (Nigeria is largest frozen fish importer in Africa)
Total potential market	2,6 million MT
SMEs	Most fish companies are SMEs, there are no larger firms
Fish feed industry	45,000 MT per year
Fish feed input	25000-30000 MT per ha (low quality domestic produce) 6000 MT high quality per year is imported
Fingerlings suppliers	Medium enterprises produce 3-4 million per year good quality fingerlings

### Supplier constraints and opportunities

There are over 2642 aquaculture farms of which 100 state owned (2003). Most farmers are men while women take care of processing activities (Filleting, drying, gutting, scaling and deboning, smoking, production past and fish oil).

Constraints at farm production are:

- Good practices: lack of knowledge on water quality management, disease management etc.
- Quality of local fish feed, high cost (imported) fish feed causing high cost of production
- High post-harvest losses (40%)
- Poor infrastructural facilities with hatcheries and grow –out farms
- Short supply of wood for processing (smoking)
- Dependency on traders (also for credits in remote areas)
- Lack of market information
- Lack of good transportation
- Access to credits
- Regulation of standards in fish production industry is weak. Particularly in fingerlings production

Opportunities:

- Increasing number of small scale producers (80% of all producers), it is not so difficult to set up profitable farms
- Increasing number of medium/large famers.
- Growing markets (e.g. see increasing imports)
- Growing demand for table sized fish (catfish)
- Increasing middle income class consumers
- Increasing restaurant outlets

### SMEs / Lead firm constraints and needs in local supply

All companies in the sector are SMEs (exporting companies, drying / smoking companies for local markets, outgrowing farms). There are no larger processors.

Constraints at processing/trade level are:

- Insecure supply
- High input prices
- Low quality input
- Good processing practices for producing table sized fish
- Equipment and technology
- (Access to)Packaging
- Access to (trade) finance for financing seasonal trade
- Marketing: competition in local markets
- Lack of market information (particularly by retail)
- Regulation of standards in fish production industry is weak.
- Export potential is not yet developed due to preservation equipment. Nigeria is less organized than countries such as Senegal and Gambia that produce more cost effective.

The same opportunities as for fish farmers are valid:

- Increasing number of small scale producers (80% of all producers), it is not so difficult to set up profitable farms
- Increasing number of medium/large famers.
- Growing markets (e.g. see increasing imports)
- Growing demand for table sized fish (catfish)
- Increasing middle income class consumers
- Increasing restaurant outlets

Other mentioned companies in aquaculture that were mentioned during the interviews are:

- Durante Ltd
- Fed Agro farms
- Retailers (Shoprite; Zartec)
- Obasanjo Farms,
- Com system
- CHI farms

### **ATA aquaculture**

The action plan for aquaculture value chain development for Nigeria implemented by the Federal Department of Fisheries has the following objectives:

- Development of products (1,25 billion fish seeds, 400,000 MT fish feed, 250,000 MT fish)
- Chain linking
- Quality standard and appropriate regulation (standardization)
- Reduce import (fish and feed)
- Increase production to over 1 million MT in 5 years
- 100,000 Job creation
- Include small scale fish farmers
- Cluster fish farmers to service fish processing and packaging plants
- Training and capacity building for fish farmers with a view to encouraging specialisation and to effectively target export market

The program contains 7 activities

- Fingerlings production
- Foodstock: for replacing imported feed
- Table fish production that is cost effective and competitive
- Value addition
- Transport
- Marketing
- Baseline studies
- Capacity building



It will support establishing extra fish cage culture systems, water circulatory systems, integrated fish farming and stagnant earthen ponds. UNIDO is supporting in developing 37 plants to process 1,5 million MT fish.

In addition there are / have been different NGO fish support programs, for instance the Foundation for Partnership initiatives in the Niger Delta (PIND) has developed a program as well as Market (World Bank). The latter was reaching out to 500,000 farmers in the Niger delta.

### **Constraints and potential solutions**

The largest risk in an ASDP in aquaculture would be to find a lead firm that wants to invest in this subsector. For the moment involved companies have all kind of issues themselves to solve and there are no strong leaders that can invest. It may be that retailers have an interest. This needs to be sorted out.

The potential of an ASDP of scale for now seems to be rather limited, however could add value through:

- Linking up with the government agenda on linking processors (large processing plants, exporters, fish feed plants) with farm suppliers.
- Clustering farmers to this extent.
- Collaboration with Non-Governmental Organizations(NGOs) in the field of knowledge and technology development and investment (access to finance) for aquaculture farmers, post-harvest handling techniques and cold chains.
- Working on quality standards (EU standards for export, food safety), compliance, guaranteed market, infrastructure development.

### 3.3 Tomato sub-sector

#### Fact and Figures

Producers	Many small to medium producers (only a few large)
Geography	12 Mostly Southern states out of 36 are core producing and processing states: Jigawa, Katsina, Kano, Kaduna, Plateau, Benue, Sokoto, Zamfara, Kebbi, Gombe, Borno, Bauchi. There are opportunities for extension in Northern states.
Gender	In production men, in processing women
Production	1,7 mil. MT in 2008 (16 <sup>th</sup> producing country worldwide)
Yields	64 MT per h (decreasing due to diseases)
Market demand	2,3 million MT
Import	105,000 MT tomato paste
Processing	450 MT/day processing and 1500 MT/day packaging capacity for fruits and vegetables (only 33% is used)
Lead firm	Dangote group (Dansa)
SMEs	Several tomato processors in the provinces

#### Supplier constraints and opportunities

The exact number of tomato farmers is not known. Known is that the majority of tomato farmers and processors are women. Currently most production takes place in Northern States. However new disease resistant seeds for cultivation of tomatoes in the south is being introduced to farmers in the south

Constraints for tomato farmers are:

- Farmers are situated far away from markets
- Tomato yield is low, 20-40 MT per ha/year
- Soil conditions due to water level is an issue
- Lack of technology, irrigation and processing (to transform larger volumes)
- Lack of services: spare parts, high quality seeds, fertilizers, herbicides
- Low farm gate price
- Lack of credits to finance services
- Production and post-harvest losses (19%)
- Competition with imported tomatoes from Ghana and others: low tariff regime
- Environmental damage due to chemical use

Opportunities for developing the sector however exist and include:

- Organization of farmers and sensitization in order to strengthen their position in the chain
- Contract farming with lead firms
- Irrigation
- Greenhouses out of local materials (not very common)
- Research into new hybrid tomatoes (diversification) (e.g. supplied by Betram Seeds company in Lagos) and good agricultural practices (GAP)
- Integrated pest management
- Knowledge on market segments and food use practices
- Investments in transport , food and packaging industries

#### **Box 2 Lead Firm Example: Niji group**

The Niji group is run by Kola Adeniji who is a very dedicated entrepreneur. The group does a variety of business including fabrication, hospitality and processing. Its latest investments is a farm / agricultural trading company that produces, buys and sells vegetables (including tomatoes), fufu, gari and cassava. It works with outgrowers on 10,000 ha who pay for its farm services: farm practices, processing and marketing network. It invests a lot in testing new seeds and training/educating farmers, including young and female farmers. Challenges of farmers are traditional farm practices and lack of business skills. Its success factor is treating the farm as a business. In the future Niji Farms has the ambition to expand to other areas.

### **Processor constraints and opportunities**

There are about 7 lead firm processors in Nigeria, of which Dangote is the most active. Others are Savannah Integrated Farms Ltd, Perfect Integrated Foods Company Ltd, Tiger Foods Limited, Olewa Food Company, White Rhino Farms Nigeria Ltd.

Dangote group (<https://www.dangote.com>), is one of Africa's largest business conglomerates. Its headquarters are in Lagos. The group is active in cement, manufacturing, importing, packing and distribution. In Nigeria it invested in a tomato factory in Kadawa, Kano province. This region in the North is the most important tomato growing area in Nigeria. Of the 17,000 ha of land, in the dry season 80% is used for tomato. In the wet season rice is grown. The capacity of the factory is 1,200 MT fresh tomato per day.

The factory is facing some challenges. In the dry season it underperforms and in the wet season it stands still. This is caused a) by too little yield (20 MT/ ha) and b) by the seasonality and particularly the comparative disadvantages as compared to rice in the wet season. Also there is competition with imported tomato paste.

Dangote is looking for support in getting suppliers committed, also in other supply chains such as pineapple. Needs are particularly accessing new supply (interface to farmers), finance and capacity. At the processing side investments in processing should be stimulated. Hereto loans should become more accessible. Currently interest rates are too high.

Typical constraints of tomato processors are

- Inadequate materials: the right variety for processing
- Seasonality (lack of inputs between April and September)
- High costs on equipment (storage, packaging, processing equipment, cooling)
- Access to finance
- Farmers prefer selling to markets instead of processors
- Lack of infrastructure (road, water, electricity)
- 25% Waste as result of poor processing (no storage, cooling and packaging)
- Little research and knowledge sharing on processing, storage and preservation
- No quality management and control systems (quality standards)
- For export: high costs of export, of air cargo freighting and corruption
- Competition with imported pastes and purees. Burkina Faso for instance, has Taiwanese investors investing in training and equipment.

There are however also opportunities:

- Fresh tomato is seasonal which creates a market for tomato paste and dried tomato
- Increasing demand of restaurants and home consumption which creates markets for local tomato produce
- Access to finance to invest in expelling machines, blending, filling, pasteurizer, washing, tables and canning becomes available
- Innovation: e.g. through Alvan Blanch mobile semi-processing plant that has a capacity of 4 MT per day

### **Retail constraints and opportunities**

Shoprite is a supermarket chain that came to Nigeria about 8 years ago. To date it has 6 outlets with plans to expand to 70 over the next 5 years. Initially Shoprite imported fresh produce (fruits and vegetables) from South Africa but it has made significant investment into establishing local supply. At present they work with up to 30 farmer groups in different parts of Nigeria. There are 2 farm developments in Jos and they are also

branching out into specialized foods. One of their lead farmers is a coop based in Jos that was established by Bowman Investments

Shoprite has been successful in setting up orange supply chains. Since they started to retail fresh orange juice through one shop in Ikeja, the quantity of oranges has grown rapidly to more than 2 MT a day. Working directly with farmers has enabled Shoprite to reduce supply cost of orange from N140 per kilogram to N50 per kilogram without leaving the farmer disenfranchised. There is a need for more farmers to supply oranges. Plus Shoprite plans to commence the sale of orange juice through other outlets. They also have plans to set up infrastructural hubs in other parts of Nigeria to facilitate supply of fresh farm produce through their retail outlets

Constraints Shoprite is facing include quality and road taxes paid for transporting fresh vegetables. Also volumes are insufficient. An ASDP would be useful for standardising quality and for undertaking advocacy for reducing road taxes paid for transporting fresh vegetables. In addition the model implemented by Shoprite can provide useful experience and can be replicated and expanded with other retail outlets or interested investors.

### **ATA horticulture**

The tomato Transformation Agenda as prepared by the Federal Ministry of Agriculture has the following objectives:

- Increase the production and create availability along the seasons
- Make processing efficient and substitute imports
- Good agricultural practices and training of Agricultural Extension Services
- Provide good inputs for processing industry
- Create good data and information for the industry

The objectives have resulted in the design of the following activities:

- Make production sustainable on existing land 126,000 ha and expand with 150,000 ha in 4 years with high yielding and disease tolerant varieties
- Organization of farmers and registration e.g. around the Tomato factory in Taraba State and in Ondo
- Access to certified seeds and other inputs
- R&D in seeds and establishment of seeds gardens in 3 centres
- R&D in mobile processing, bench and batch dryers
- Capacity building of extension agenda (SEA), subject matter specialists, Village extension agents
- Factories for processing will be reactivated in public private partnerships: Dangote in Kano and Tomato Processing Factory in Ikara, Kaduna State.
- Identification of moribund factories for reactivation: Savannah factory in Gombe is being reactivated.
- Linkage with NIRSAL facility is being established.
- Linkage with Dangote Group (lead firm).

### **Constraints and potential solutions**

Only Dangote has shown a clear interest in backwards investments. The opportunity for up- and out-scaling to other lead firms is not clear. Additionally the business model is not yet cost-effective due to seasonality and low productivity. This needs to be explored further: how feasible is this type of business?

A Nigerian ASDP could learn from the lessons from the Dangote business case.

- It could then replicate the model to other areas and with other processors e.g. Savannah Integrated and with the processors in the states;
- It could attract new lead firms to the sector;
- If several lead firms in the tomato sector are interested a learning and linkages platform could be established;
- There is a general need for reaching out to the farmers (sensitization) for sharing information on market linkages, good farm practices etc.

- A Nigerian ASDP could collaborate with organizations on the ground: IFDC has shown an interest as well as NIRSAL for finance

### 3.4 Cassava sub-sector

It was advised by the Ministry's Senior Technical Adviser on Staple Crop Processing Zones Dr. Niyi Odunlam, to include the Cassava supply chain in our feasibility plan. As a result this section was included. Unfortunately there not sufficient time to also discuss the constraints and opportunities with industry players.

#### **Fact and figures**

Number of farmers	1,8 million
Gender	Mostly men
Size	Small scale (1-5 ha)
Geography	Southern –Central and some in North
Productivity	12 MT per ha
Production	36,8 million MT
Market share Nigeria	Largest producer worldwide
Internal market growth	2% per year
Use	90% food, but growing markets for sweeteners, flour and starch and new markets for ethanol, chips for export/feed, garri
Competition	Thai cassava that is produced more efficient and cost effective

#### **Supplier constraints and opportunities**

- Typical constraints of cassava farmers are :
- Most farmers are aged farmers (between 55-65 years old)
- Farms are small scale and therefore little efficient
- There is lack of knowledge/capacity on cassava production practices
- Knowledge on end market opportunities is lacking

With the growth ambition of the Nigerian government there are however also several opportunities for cassava farmers including:

- (New) market linkages: mainly contract farming
- Support in developing knowledge on farm practices, processing, farming as a business etc.
- Support in inputs
- Infrastructure in 6 processing zones.

#### **SME constraints and opportunities**

There are little SMEs involved in the supply chain. Companies will buy directly from farmers. In the future however there will be a model of contracted lead farmers that will train and source from smallholder out-growers.

#### **Lead firm constraints and needs in local supply**

At the moment lead firms are hampered by:

- Access to large volumes of cassava because only small (many subsistence) farming exist
- High costs for raw materials (not cost effective because of small scale farming)
- Not well developed infrastructure: roads, but also storage, information systems etc.
- As a result there are no direct/transparent relationships with cassava farmers

Also for Lead Firms there are opportunities in the cassava, which is explained under ATA Cassava.

### **ATA Cassava**

Since the 80-ies there have been several cassava development programs. Improved varieties haven been developed and several processing units have been established. Recently there have been two large projects, USAID Market and DGIS funded program with IFDC and DATCO (Dutch agricultural trading company). They achieved to lift cassava out of subsistence into a commercial crop by setting up new supply chains for starch, sweeteners and high quality cassava flower.

The government of Nigeria has developed a Transformation Agenda for cassava with the objective to double the incomes of 1,8 million farmers, create 1 million jobs through doubling production, processing and marketing into new markets that can replace export of sugar, maize (animal feed) and wheat (for bread) in 4 years time.

Specific objectives are to:

- To access tradition food, processing and export markets through improving production, value chains, policies and advocacy;
- To improve productivity through clustering, improved varieties and inputs supply;
- Institutionalisation through establishment of Cassava Market and Trade Development Corporation;
- Substitute imports by collaboration between Ministry of Agriculture, Commerce and Finance;
- M&E.

The program will be set up in Staple Crop Processing Zones (SCPZ). Potential lead firms that will be involved include:

<b>Sub-sector</b>	<b>Lead Firms</b>
Starch-sweetener	Flower Mills of Nigeria Cargill (potential) NSN
Cassava flower	Sab-Miller Thai companies Nigerian SMEs
Ethanol	Potential Brazilian company
Cassava chips (animal feed)	Importers from China, Australia (Austrava), Grand cereal, Amobygu
Food	Mostly local companies

### **Constraints and potential solutions**

Next to rice, cassava is the focal commodity for growth according to the ministry of Agriculture. All support is welcomed to commercialising the sector. The wide involvement of various Lead Firms is an opportunity for a Nigerian ASDP. The ASDP could be helpful in linking the lead firms to the farmers in a sustainable manner, in sensitisation of farmers and particularly in training farmers in market needs (volumes, in time delivery etc.) (in their language). Also support is needed for organizing farmers in cooperatives. And, finally, an industry platform for linking all involved firms, farmer groups, services organisations etc. together could add value to Nigeria's agricultural development.

There are however also limitations that could hamper a successful ASDP:

- Cassava is mostly done by men there are little women involved. Therefore gender may be an issue and the sector may not fulfil the requirements of UNDP to contribute to gender equity.
- There are environmental but also income risks (dependency) in commercial cassava (mono culture) production.
- There are no clear quality issues in cassava which makes an ASDP less valuable than in other, longer, value chains.
- The program assumes the collaboration of local NGOs in farm capacity building. The capacity is questionable.
- The interest from farmers is not clear. What are their drivers? Do they understand the risks of commercial cassava growing?
- The value chains do not exist yet. Therefore the risk of non-compliance is higher.



## 4. Roadmap for a Nigerian ASDP

### 4.1 Development potential of a Nigerian ASDP

Because companies are ready to invest in food markets, the Federal Government is very supportive to diversify its economy and invest in the agricultural sector, and supporting institutions are fully ready for a market led approach, the key conclusion of the mission is that now is the right time to develop a Nigerian ASDP. Already projects have started to connect lead firms (markets) to small scale farm suppliers. An ASDP could add value to existing initiatives by replicating good practices, developing and disseminating knowledge on lessons learned, and institutionalising services in the current economic-political system. It would benefit both off-takers, smallholder farmers, SMEs as well as the wider economy:

Lead Firms	Farmers	SMEs	Government
Increased quality	Secured /increased access to markets	Secured /increased access to markets	Increased private investments in the agri sector
Increased volumes	Secured / increased income	Secured / increased turnovers/sales	Increased tax income
Increased secure supply	Increased productivity	Increased (cost) efficiency (less losses due to higher quality and in-time delivery)	Increased trade balance
In time delivery	Access to (financial) services/support	Access to (financial) services/support	GDP growth
Cost reductions	Increased food security	Increased value added	Job creation / employment
Increased flexibility (in local chains)	Increased knowledge/capacity	Increased knowledge/capacity	Increased poverty and food security
Improved policies/government support	Improved policies/government support	Improved policies/government support	

The expected result of an ASDP would be to scale-out independent value chain successes to sectorial level change and as such contribute to increased income generation, job creation and ultimately poverty reduction as well as development of the Nigerian economy.

### 4.2 Recommended strategic framework

The **purpose** of a Nigerian ASDP is: *"... to improve the productivity of Nigerian, particularly smallholder farmers and SME agribusinesses by facilitating support (training, advice, access to inputs, organization, standardization etc.) and linking up with off takers. Sustainability and inclusion aspects, especially women and youth play an important role"*

**Objectives** are to:

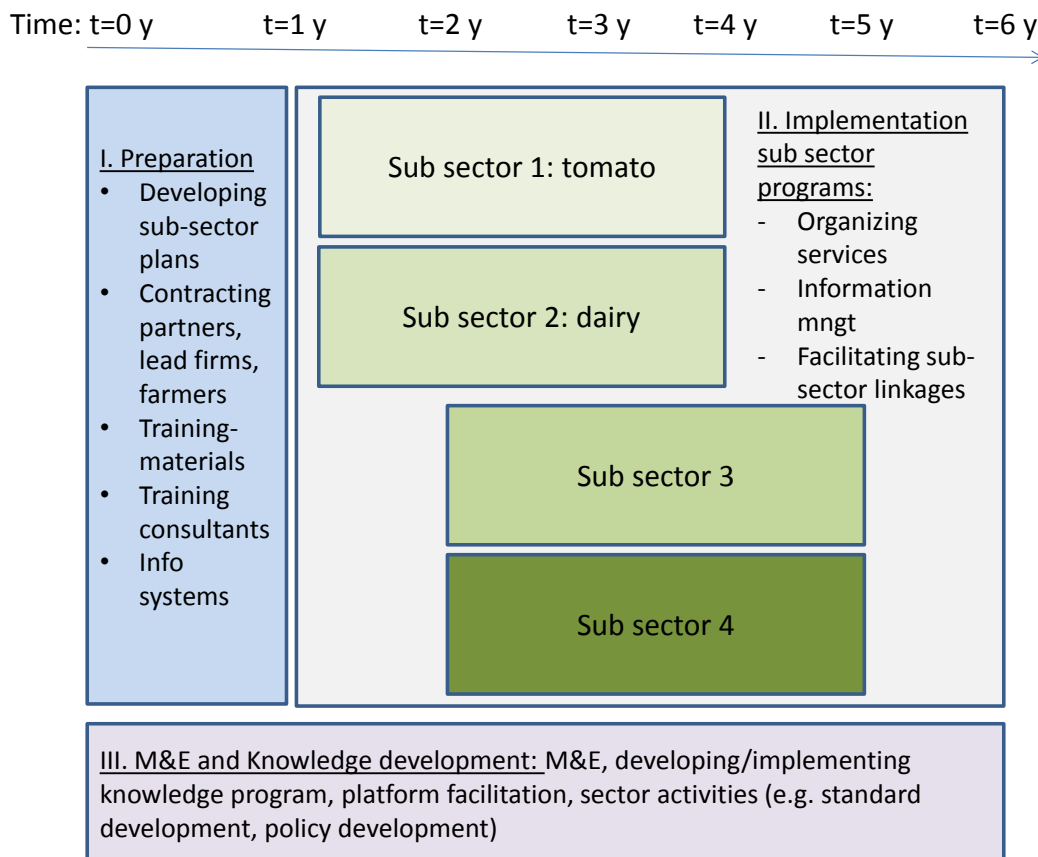
- Improve the supply of Nigerian agricultural products by farmers and SMEs towards market quality standards;
- Secure and offer lead firm's efficient and high quality agricultural products supply;
- Contribute to the development of the Nigerian economy by developing agricultural products that can substitute imports and can access export markets;

- Contribute to sustainable development goals, especially food security and poverty reduction, through job creation and income generation.

**ASDP Activities** within the already existing Transformation Agenda’s include to:

- Play a **facilitating role** in linking up lead firms with smallholders and related support organizations (government and non-government) in the value chains;
- Develop supply chain training and **build capacity of** a roster of Nigerian supply chain consultants that are ready to facilitate the development of improved supply chains;
- Develop and share full **information** through the supply chain (through tailor made information systems) to create value chain transparency at all levels;
- **Organize** the provision of **services** (Good Agricultural Practice training, certification/standardization of supply, access to value chain finance, organizational strengthening, infrastructure etc.) to supply chain actors;
- **Advocate** for improving policies in the sub-sectors;
- Develop and disseminate practical **knowledge** in and cross sub-sectors;
- **Institutionalize** the knowledge and services through training and ultimately handing over responsibilities to a permanent desk.

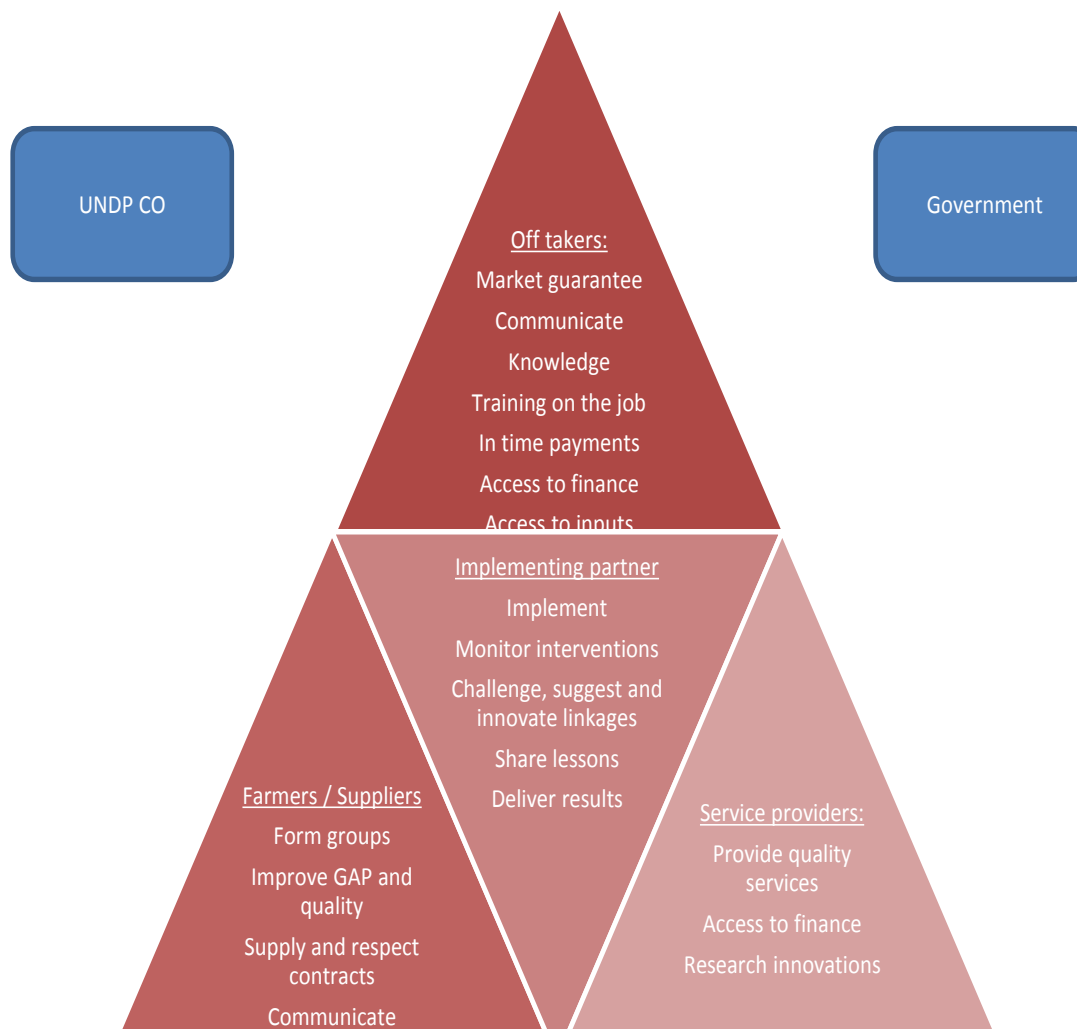
It is recommended to follow a **staged approach** where the program starts working in 2 sub-sectors and adds another 2-3 sub-sectors along the course of the program (see the graph below). This approach allows the program to build up capacity, pilot services of the program and improve these, and select the right sub-sectors that fulfil selection criteria of both the Nigerian government as well as UNDP.



It is suggested to start the program in the tomato and dairy sectors because of the interest of lead firms to expand, the number of small scale farmers, particularly women in the supply chains, the potential for SME development in processing, and because the sectors Agriculture. Aquaculture has not (yet) been selected because of the lack of lead firms that want to invest. Cassava has potential. Additional research into interested lead firms need to take place before a decision can be made on the feasibility of this sub-sector for an ASDP.

**Involved actors**

**Implementing partner:** with regards to the sustainability of the ASDP it is recommended to establish the program in an existing national service organization. ASDP staff should be working from within such an organization and, depending on the feasibility, eventually handing over the services to this organization. Expected roles are displayed in the graph below:



Potential organizations are:

- Bank of Industry (BoI): The BoI is well established in the private sector;
- NACCIMA: This institute is well established and particularly high-valued by the private sector as an relatively independent unit;
- NIRSAL: This institute is independent and private. Also it adds value due to its role in accessing finance from commercial banks for value chain actors;
- NASME: This institute is well received by SMEs and private sector actors.
- CASON (Community of Agricultural Stakeholders of Nigerian) (part of NESGofNESG (Nigeria Economic Summit Group)): CASON already works closely with the Federal Ministry of Agriculture, as a platform for government engagement with the private sector on agriculture and agribusiness development

In-depth consults are needed to make a solid decision on this. Decision criteria should be:

- ability to attract donor funding;
- acceptability to Lead Firms as collaborators for supplier development;
- effective systems and mechanisms for delivering ASDP services;
- ability to respond quickly to client needs;
- being supportive to the overall objective of sustainable and inclusive development.

**Partners on the ground:** Depending on the sub-sectors the following partners are recommended to start off the sub-sector programs with.

Tomato: Lead Firm: Dangote; Farm groups: Kano state; Support organizations: IFCD (farm support), UNIDO (infrastructure) and NIRSAL (credits).

Dairy: Lead Firm: Friesland Campina/WAMCO; Farm groups: To be consulted; Support organizations: IFCD and IFAD (farm support) and FMARD (infrastructure).

For both sectors it is important to involve more lead firms and SMEs. For the M&E and knowledge development component the program could work with respected knowledge organizations such as the Royal Tropical Institute (KIT) and/or local knowledge institutes/universities.

**UNDP's role:** UNDP has a facilitating and incubating role. It is mostly involved in the design and incubation of the program, collaboration with the Nigerian government, fund raising and overall coordination.

Next to the **Federal Ministry of Agriculture (FMARD)**, and in particular the value chain leaders of dairy and tomato (and the other 2 sub-sectors), also the **Federal Ministry of Trade and Commerce** and the **Ministry of Finance** will play a facilitating role. FMARD's role is providing (extension) services, investing in infrastructure and developing accommodating policies.

A **Steering Committee** consisting of UNDP, government, private sector and smallholder representatives as well as donors and other supporters (for instance UNIDO, Nigerian Export Import Bank, Bank of Industry or the African Business Round Table) should be established to govern the program.

The following cost items need to be incorporated in the eventual **budget** that will need to be prepared for the formal ASDP project document.

Building blocks	Cost types	Cost indication
I. Preparation	Developing sub-sector plans (2 x)	50,000 USD
	Training material	25,000 USD

	development: adapting training material to Nigerian context*	
	Training (20) consultants	25,000 USD
	Information system development: adapting forms to Nigerian context+building system*	40,000 USD
	Management and overhead (for 1 year)	150,000 USD
II. Implementation sub-sector programs (4 sub sectors * 3 years)	Sub-sector implementation programs (facilitation by trained consultants, specialist support, GAP and other training to suppliers etc.)	2,000,000 USD
	Management and overhead (for 5 years)	750,000 USD
III. M&E and knowledge development	M&E design	15,000 USD
	Knowledge program design	15,000 USD
	Mid-term and final evaluations	50,000 USD
	Knowledge program implementation (platform facilitation, developing and sharing knowledge)	500,000 USD
<b>Miscellaneous</b>		380,000 USD
<b>Total</b>		<b>4,000,000 USD</b>

\*Assumption is that program materials from Latin America SPDs are available to this extent

\*\*Costs should be partly paid for by consultants



\*\*\* Costs (hardware, part of training, inputs etc.) should be partly covered by lead firms and other support organizations




**Donors** that were mentioned in the interviews and that need to be approached are:

- Bill & Melinda Gates Foundation, which is already supporting UNDP Nigeria;
- DFID, which is also active in Nigeria and has a special interest in trade development;
- IFAD, which is already supporting programs in Nigeria and is also a potential implementing partner on the ground;
- DGIS (Dutch embassy) which is supporting development through Dutch businesses (Friesland Campina);
- UN basket funding (UNDP, UNIDO, UNCTAD etc.)
- Loans from African Development Bank (Project Preparation Facility or Middle Income Countries facility (MIC)), Nigeria Export Import Bank and/or Bank of Industry.

The central management/coordination unit would be funded separately from specific implementation program for which separate funders need to be attracted.

**Critical success factors** that need to be incorporated and closely monitored are:

Risk	Why	Level	Mitigation level
Farmers may not be committed	Many farmers are subsistence farmers that have different interests than lead firms		<p>Farmers need to be incorporated in designing the sub-sector programs from the start</p> <p>A medium term approach is needed in which sufficient time is scheduled for sensitisation and capacity building</p> <p>The program should partner with respected support organizations in the states (NGOs etc.)</p> <p>Lead firms need to commit themselves for a longer time</p> <p>Services should be adapted to the users, i.e. mostly female farmers</p> <p>Farmers could be aggregated around lead farms who will support mechanisation, facilitate extension services and guide compliance with quality standards</p>
Insufficient lead firms for scaling-out existing activities	To date only little lead firms invest in improving supply		<p>The program should embed sensitisation activities in its plan to attract lead firms</p> <p>The Nigerian government should invest in creating an enabling environment for respective lead firms (particularly infrastructure investments)</p>

Security	In Northern regions there are safety issues for visiting people (including Nigerians)		The program should (for the time being) refrain from working in these areas until safety can be secured
Finance	There are little applied financial products for financing investments in the agricultural sector		NIRSAL is a potentially good partner that could bring in financial capacity and access to banks (this needs to be validated)  Sensitisation of finance providers should be part of the program
Government image	There is a certain level of mistrust by private sector players with regards to effectiveness of governmental policies including the ATA		The ASDP should be located in a relatively independent institute that is respected by the private sector such as NACCIMA (this needs to be validated)

#### 4.3 Next steps

Next steps for developing an ASDP are to:

- Finalise consultations with potential partners of the program: lead firms (Nestle, Olam etc), programs (USAID Markets) and institutes (NACCIMA, NASME, CASON);
- Commit and involve national government into the program by consultations at minister / senior level as well as executive level;
- Prepare the project document with support from AFIM and KIT;
- Start attracting donor funding
- Nigerian representatives to attend AFIM SDP Roll-Out and Implementation Workshop in South Africa

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<https://www.dangote.com>

## Interviews

Organization	Contact persons
AfdB	Ntagwabira Evans (senior rural infrastructure engineer)
	Dr. Abodunrin Charles Omoluabi (Resource economist)
ATA	Olusegun Steve Ogidan (Consultant)
ATA infrastructure/ investments	Dr. Niyi Odunlanmi (Snr. Technical Advisor)
	Dr. Tony B. Bello (Snr. Advisor)
ATA Tomato/horticulture consultant	Okwudili Ene John (Development Horticulturist)
ATA Sorghum consultant	Dr. Omo Ohiophekai (Processing, Products and Nutrition)
ATA Dairy consultant	
ATA Aquaculture consultant	Aderemi O. Abioye (Deputy director Fisheries)
Bank of Industry	Dr. Chukwumah Ezedinma
Betram Nigeria Limited (seeds)	J.R. Bondioli (MD)
Dangote (Dansa)	A.I.Kaita (Director)
ECOWAS	Professor Nelson
Friesland Campina	Lawrence Ohue Inegbenoise (Dairy development manager)
Frijay Consult Ltd (sales and marketing fish)	Mrs. J.P. Uwheraka (MD)
Funman group	Emmanuel Adeyemi (CEO and Chairman of the Juice Manufacturers Association)
IFAD	Benjamin Odoemena (Country program officer)
IFDC / 2Scale	Raphael Vogelsperger (Regional agribusiness coordinator)
	Zailani Mohammed (Dairy ppp manager)
	Thompson Ogunsanmi (National cluster advisor)



Milk processor	Dr. M.A. Gana (Managing Director)
NACCIMA	Mr Oshiame Mikairu Braimoh (Dr. John Isemeye (Director General) = contact person)
Niji group	Kola Adeniji (CEO)
Nigerian Institute for Oceanography and marine research	E. A. Ajiao (Director)
Nirsal / Central Bank of Nigeria	Sa'ad Hamidu (Director)
Shoprite	Ronnie Ferriera
Tee-Ess Integrated Farms Limited	`Tunde Sanni (Chairman)
UNDP	Ade Mamonyane Lekoetje (Country Director)
	Victor Oboh (national economist)
	Moji
UNIDO (tomato)	Dr. Chuma Ezedinma (NPO Agribusiness and Agro industry)
	Aliyu A. Hameed
	Maryam Waisu Yaro (Public relations)
	Musa Buba (Market access)