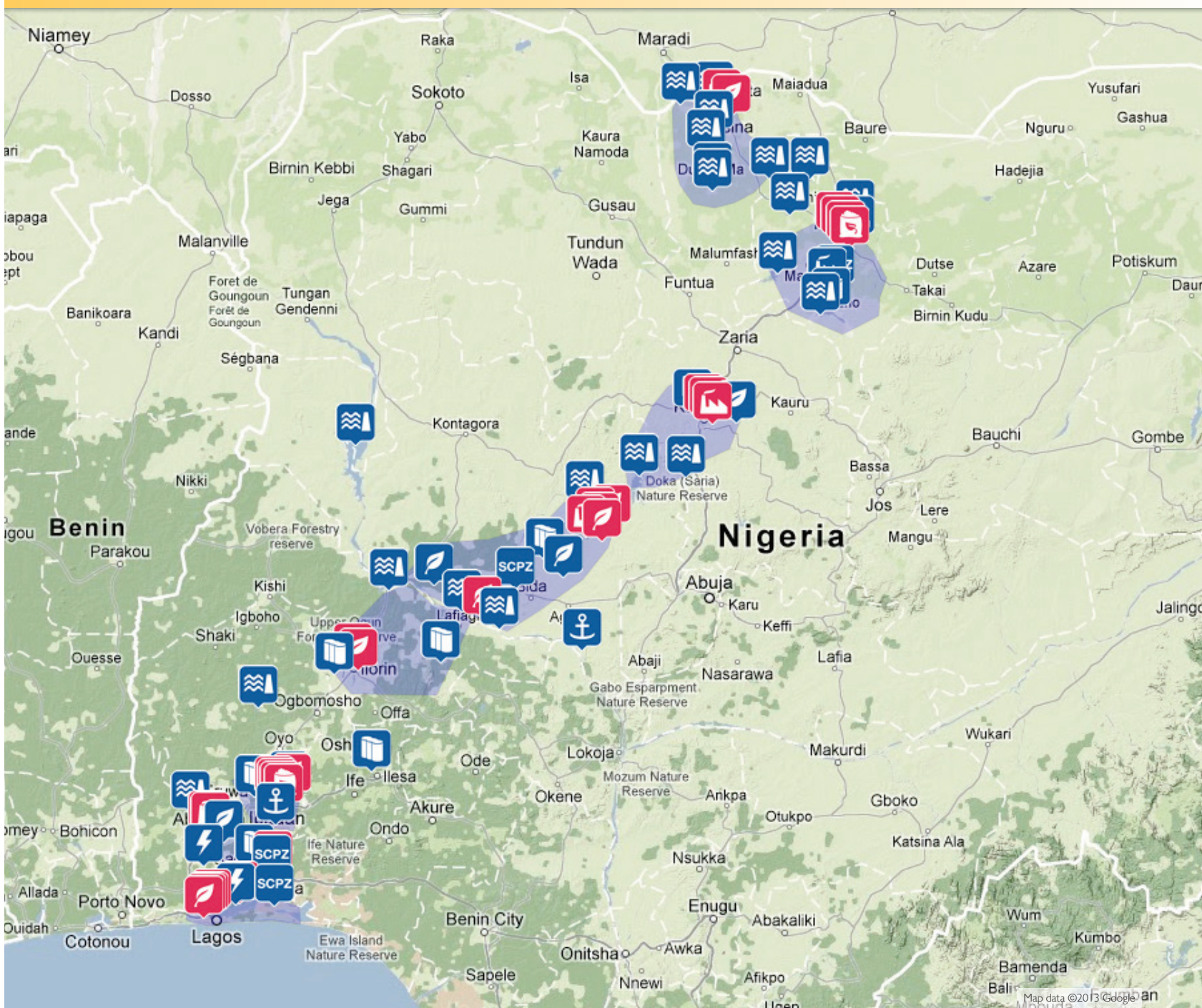


OPPORTUNITY ASSESSMENT: INVESTMENT ON THE LAKAJI AGRICULTURAL GROWTH CORRIDOR





USAID
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NEXTT
Nigeria Expanded Trade and Transport

USAID's Nigeria Expanded Trade and Transport Program (NEXTT)

NEXTT, managed by CARANA Corporation and its implementing partners (Crown Agents, the Global Cold Chain Alliance, RBS Solutions, and Development Associates) is a four-year program supporting the Nigerian government's efforts to expand trade volume and efficiency domestically, within the ECOWAS sub-region, and beyond so that trade, particularly in agricultural products, can generate inclusive economic growth and development in Nigeria.

NEXTT addresses trade policy and trade facilitation constraints by aligning the formulation, coordination, and implementation of trade policies, regulatory frameworks, and facilitation services in ways that maximize competitiveness and support expanded trade, investment, and job opportunities. Bringing together private and public sector stakeholders, NEXTT supports the improvement of both transportation infrastructure and services and strengthens transport corridor governance along the most important transportation route in Nigeria from a food security perspective. NEXTT also promotes the expansion of agricultural product exports by improving the delivery capacity of those institutions and service providers supporting exporting enterprises so that they can meet market requirements.

To jump-start new agribusiness investment, CARANA Corporation and its implementing partners conducted an initial assessment of the corridor designed to review the agricultural logistics services, infrastructure inefficiencies, and investment needs along the corridor; as well as develop an investment blueprint, or profiles of high-priority, investable opportunities that are commercially viable along the corridor with a high potential for development impact and improving the flow of goods. The assessment research was conducted by 13 team members, led by Dr. Mima Nedelcovych, who traveled the length of the Lagos – Kano – Jibiya Corridor in February and March of 2013. The team visited the eight major Corridor states and met with 179 representatives of agribusiness firms, prospective agribusiness investors, representatives from the Nigerian Federal and State governments, donor agencies, non-governmental associations, consulting firms, and banking and finance institutions. This document is an executive summary of this initial assessment, the goal of which is to inform a conversation between private investors, public agencies and donor-funded programs, focused on how to align resources and efforts in a way that maximizes the potential of the LAKAJI corridor as a conduit for agricultural development.

This report is made possible by the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of CARANA Corporation and do not necessarily reflect the views of USAID or the United States Government.

1. NIGERIA'S AGRICULTURAL MARKET

Nigeria has numerous attributes that make it a unique location for investment, most importantly its population size, estimated to surpass 200 million in the near future, and its most abundant natural resource: arable land. Nigeria's Federal Government has designed an aggressive plan (the Agricultural Transformation Action Plan, or ATAP, which, in combination with the pull of a growing economy (7-8% annual GDP growth), has the potential to transform the agricultural sector over the next decade.



At the time of its independence in 1960, Nigeria was a major agricultural producer, meeting its domestic needs, and exporting a number of agricultural commodities. In contrast, today the country imports nearly \$8 billion in wheat, rice, sugar and fish (2011 figures).

With the exception of wheat, all major domestically consumed and imported products have the potential to be competitively produced in

Nigeria. Moreover, the economies of scale achievable in the large domestic market for basic staples could be leveraged into competitiveness in the regional market for those same products over time (particularly packaged and processed foods). Rice and sugar cane present perhaps the largest opportunities to increase local production and displace imports, and rice in particular, is receiving special protections and incentives from the Nigerian Federal Government. A more complete list of agricultural products in high demand that could potentially be supplied by domestic producers includes:

- Processed foods (varied)
- Horticulture
- Rice
- Sugar Cane
- Maize
- Cassava
- Poultry
- Fish
- Cattle and dairy

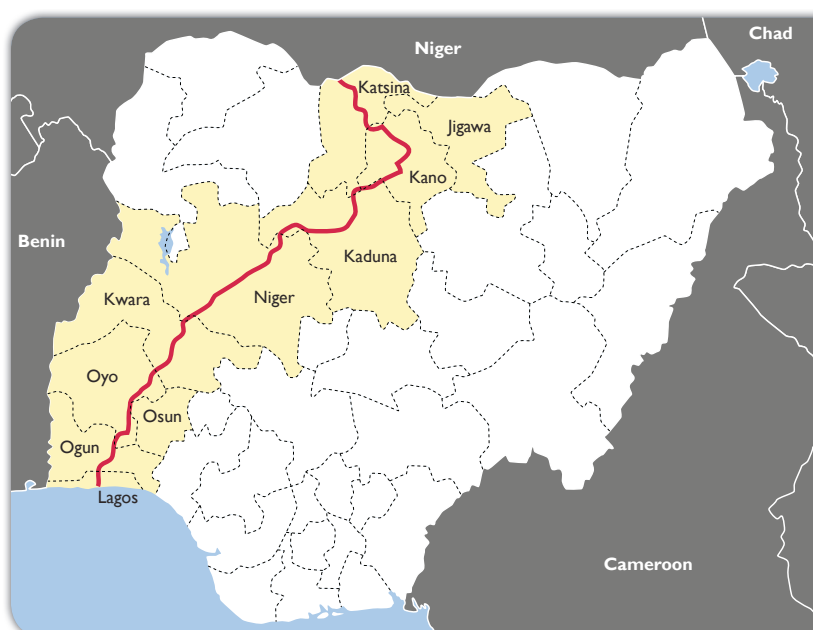
In several export-oriented crops, Nigeria has a uniquely advantageous position. Given the large domestic market that Nigerian companies are supplying, there are ample opportunities to develop regional export markets for processed and packaged foods such as tomato paste, vegetable oil, palm oil, pasta and animal feed. Under an improved policy environment and with properly revamped infrastructure, Nigeria also has the potential to dramatically increase exports of specific products to international markets, including:

- Cocoa
- Cashews
- Sustainable Seafood
- Sesame Seed
- Shea and Shea Butter

2. FEATURES AND ATTRIBUTES OF THE LAKAJI CORRIDOR

The LAKAJI Corridor is the main route for moving imported goods to northern Nigeria and exports to southern ports. It also feeds into local and regional markets and is a vital conduit for food supplies to neighboring countries. The Corridor cuts a broad swath of territory commencing at the port of Lagos in the South, and terminating at the Republic of Niger border of Jibiya in the State of Katsina, then continues onward to southern Niger's largest agricultural market at Maradi.

The main physical infrastructure supporting the corridor is Nigeria's primary North-South interstate road, conditions of which range from generally fair to rather poor in certain sections. The newly rehabilitated Lagos to Kano railroad now offers an alternative mode of transport between these points. As the Corridor winds its way north, it crosses eight States – Lagos, Ogun, Oyo, Kwara, Niger, Kaduna, Kano and Katsina, and road conditions vary in each section. Some (such as the 500 km length Lagos – Ibadan – Illorin section, is served by a two-lane, dual carriage road, taking 3.5 – 4 hours to travel in a passenger vehicle. The section between Illorin and Abuja is single carriageway and is in poor state of repair, lying in the flood plain of the Niger River, impacting road condition and maintenance costs. Abuja and Kano's section is reasonably good for all season operations. The



stretch between Kano and Jibiya is a single carriageway in fair condition due largely to favorable terrain in that part of the country.

Perhaps most importantly, the corridor links the two largest cities in Nigeria; Lagos with a population of over 20 million inhabitants and Kano with a population of over 10 million people. There are 53.4 million people living along the Corridor as broadly defined, representing 32% of the Nigerian population.

Major commodity flows along the Lakaji corridor

Northbound	Southbound
Rice	Live cattle
Sugar	Maize
Palm oil	Sorghum
Fish	Millet
Packaged foods	Groundnuts
Fuel	Cashews
Fertilizer	Shea butter
Cement	Cocoa
Construction material	Cotton
	Sesame

The majority of products traveling north along the Corridor are imported consumer staples, intermediate goods such as construction materials, and fuel originating at the Lagos or Cotonou port complexes. Southern shipments consist of mostly unprocessed or semi-processed agricultural commodities that are being processed in the south for both human consumption and, in the case of maize (and soybean as it expands), for the rapidly growing poultry and aquaculture sectors. Key agricultural exports, such as cocoa and sesame, are also flowing south, for the most part in unprocessed form.

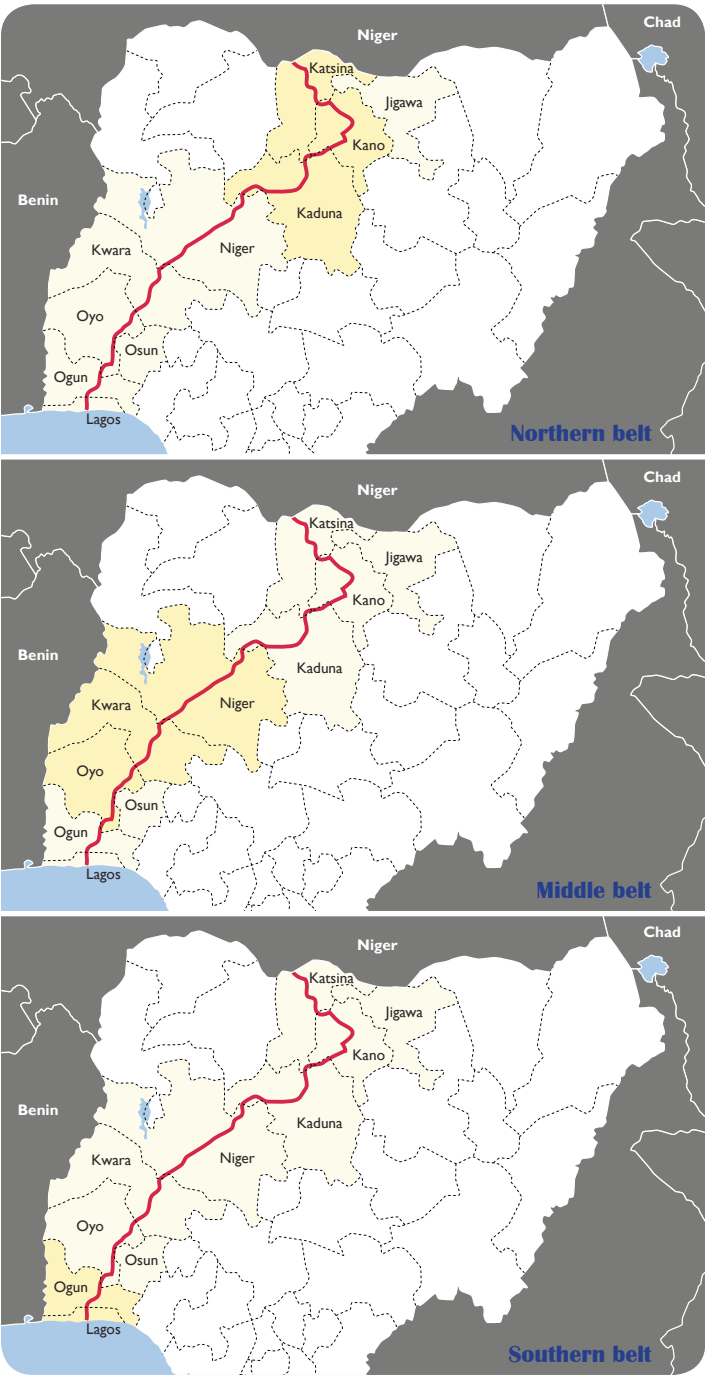
The LAKAJI Corridor has several attractive features, including: large tracts of arable land, a number of special economic zones designed to promote agribusiness (notably the Staple Crop Processing Zones (SCPZs)), major water retention and irrigation schemes and several large grain storage facilities. Production and processing centers along the corridor also benefit from proximity to dense urban population centers that provide end markets for domestic goods, as well as the human resources for value addition. Among the factors limiting the realization of the corridor's potential are major infrastructure deficiencies, particularly the poor condition of secondary roads in two of the most fertile states with the most available arable land, Niger and Kwara, and the lack of affordable energy.

This report segments the eight states along the LAKAJI Corridor into the Northern States, Southern States and less clearly defined “Middle Belt” States. Because of the distinct climatic zones and physical and social environments across the three “belts” of the LAKAJI Corridor, investment opportunities in production and processing are varied and diverse.

The Southern Belt states are more populated, have better infrastructure and logistics, including power and a denser network of viable roads, and will remain Nigeria's industrial hub. In Lagos and Ogun States, there is a concentration of agricultural processing and other value added manufacturing, often supported by raw material suppliers in the north. The Lagos metropolitan area generates significant demand pull for food products.

For purposes of this report, “Middle Belt” states of Niger, Kwara and Oyo are characterized by low population density and large tracts of uncultivated land, presenting diverse opportunities for production of a range of tree and field crops. Export crops and domestic crops find favorable conditions in this zone.

Northern Belt states of Kaduna, Kano and Katsina feature more temperate climates for food crops, (cocoa and oil palm being the exception) abundantly available arable land, and are better suited for agricultural production. Kano presents another significant demand pull for food crops given its large, metropolitan market, which also serves as a major transshipment hub for Southern ports, processing centers and consumer markets.



3. INVESTMENT OPPORTUNITIES HIGHLIGHTED

The LAKAJI Agricultural Growth Corridor Assessment identified a set of promising opportunities for investment in improved infrastructure and services for agriculture along the corridor. It also examined growing and processing areas that are linked to the corridor via a network of feeder roads in order to determine opportunities that will strengthen upstream supply chain linkages and efficiencies.

Prospective investments in logistics infrastructure and services were assessed from the perspective of their intrinsic qualities, but only those conferring significant crosscutting benefits in relation to USAID and Government of Nigeria priority agricultural value chains were considered. Particular attention was paid to the location of complementary initiatives, including those financed by donors and by State and Federal Ministries of Agriculture, such as the Staple Crop Processing Zones (SCPZs).

The report identifies an initial set of 33 commercially viable and relevant agribusiness investment opportunities throughout the 8 states visited, separated by state and the following investment categories: Inputs, Production, Processing, Manufacturing, Warehousing & Infrastructure, and Information and Communication Technologies (ICT).

The range of financing required for the investments identified ranges from \$100,000 to \$130 million, with an average size of investments ranging from \$9–17million. Project and working capital finance are required for a range of privatization opportunities, joint venture partnerships, equity partnerships and greenfield investments. Value chains implicated in the investments identified include: cotton, sesame, soybean, maize, rice, sorghum, inputs (seeds & fertilizer), transport and logistics (cold storage facilities, trucks and tractor manufacturing), vegetable oil, vegetables (tomato, cucumber, peppers, onions), shea, cashew, honey, spices, fruits (TBD), cassava, cocoa, fish, poultry, and ICT infrastructure.

A summary of investments identified is provided in the next section.

No.	Investment Type	Name	Brief Description	Investment Value		Type of Financing	Type of Deal	State	Location Identified	Land Acquired	Value Chain
				Low End	High End						
1	Warehousing and Logistics	Warehousing and Logistics Hub	Improve bulking and storage infrastructure for sesame and cotton	\$3,000,000	\$5,000,000	CAP-EX	Privatization	Katsina	Yes; infrastructure in need of repair and upgrading	Yes	Cotton, Sesame, Maize, Rice, Sorghum
2	Production	Cotton Production Management and Logistics	Expand smallholder cotton production, productivity and quality with current investors	\$2,000,000	\$3,000,000	CAP-EX; working capital	Joint venture or partnership	Katsina	Yes for production management; no for logistics site TBD	Yes for production, no for logistics	Cotton
3	Inputs	Kano Agricultural Supply Company (KASCO)	Acquire and rehabilitate KASCO's physical assets, train staff and rebrand	\$7,000,000	\$10,000,000	CAP-EX; working capital	Privatization	Kano	Yes	Yes	Fertilizer, Transportation and Infrastructure
4	Processing	Specialized Oil Processing	Upgrade and/or create new vegetable oil processing facilities	\$10,000,000	\$15,000,000	CAP-EX, working capital	Greenfield or joint venture	Kano	No	No	Vegetable oil
5	Production	Tomato Production	Expand smallholder production among tomato farmers with current investors	\$15,000,000	\$25,000,000	Working capital	Joint venture or partnership	Kano	Yes	No	Tomato
6	Inputs	Kano Agrochemicals Supply Network	Improve quality and distribution of agrochemicals with an established distributor	\$8,000,000	\$15,000,000	CAP-EX	Joint venture or partnership	Kano	Yes (existing infrastructure)	Yes	Fertilizer
7	Inputs	Improved Seeds and Fertilizer	Improve seed quality as well as fertilizer supply in partnership with existing seed production firms	\$30,000,000	\$130,000,000	CAP-EX; working capital	Joint venture or equity partnership	Kaduna	Yes (existing firms)	Yes	Seeds and Fertilizer
8	Production; Processing	Rice Production and Milling	Establish new rice production and milling sites involving smallholder farmers	\$30,000,000	\$100,000,000	Working capital; CAP-EX	Greenfield	Kaduna	No	No	Rice
9	Processing	Maize and Soybean Processing	Improve aggregation services and create new processing mills	\$6,000,000	\$8,000,000	CAP-EX	Greenfield	Kaduna	No	No	Maize and Soybean
10	Production; Processing	Rice Production and Milling	Establish new rice production and milling sites involving smallholder farmers	\$30,000,000	\$100,000,000	Working capital; CAP-EX	Greenfield	Niger	No	No	Rice
11	Production; Warehousing and Logistics	Maize and Soybean Production and Storage	Increase size of maize and soybean production and create new storage and warehousing facilities	\$15,000,000	\$100,000,000	Working capital; CAP-EX	Joint venture or equity partnership	Niger	Yes (existing firms); new land for expanded production not yet identified	No	Maize and Soybean
12	Processing	Maize and Soybean Processing Mills	Create new processing mills and link aggregators to these	\$2,000,000	\$5,000,000	CAP-EX	Greenfield, potentially joint venture	Niger	No	No	Maize and Soybean
13	Processing	Industrial Shea Processing	Establish industrial size shea processing facility	\$3,000,000	\$5,000,000	CAP-EX	Greenfield, potentially joint venture	Niger	No	No	Shea
14	Production; Processing	Honey Production and Processing	Establish industrial size honey processing facilities	\$100,000	\$500,000	CAP-EX	Greenfield	Niger	No (unless co-located in new agro-industrial park)	No	Honey

No.	Investment Type	Name	Brief Description	Investment Value		Type of Financing	Type of Deal	State	Location Identified	Land Acquired	Value Chain
				Low End	High End						
15	Production	Maize and Soybean Production	Improve maize and soybean quality, production scale and aggregation	\$5,000,000	\$10,000,000	Working capital; CAP-EX	Greenfield	Kwara	Near large-capacity silos for storage	No	Maize and Soybean
16	Production; Processing	Rice Production and Milling	Establish new rice production and milling sites involving smallholder farmers	\$30,000,000	\$100,000,000	Working capital; CAP-EX	Greenfield	Kwara	No	No	Rice
17	Processing	Processing Facility for Spices, oils, Fruits and Vegetables	Establish industrial size processing facility for spices, oils, fruits and vegetables	\$10,000,000	\$15,000,000	CAP-EX	Greenfield, potentially joint venture	Kwara	No	No	Spices, Oils, Fruits and Vegetables
18	Production; Processing	Cassava Processing and Aggregation	Establish new cassava processing facilities and expand aggregation and market linkages with smallholder farmers	\$5,000,000	\$25,000,000	CAP-EX; working capital	Greenfield	Ogun	No	No	Cassava
19	Processing	Cashew Processing and Aggregation	Establish an industrial size processing facility for cashew	\$25,000,000	\$30,000,000	CAP-EX; working capital	Greenfield	Ogun	No	No	Cashew
20	Production; Processing	Cocoa Aggregation and Processing	Improve capacity of existing processing facility, improve yield and quality of multiple cocoa product lines	\$3,000,000	\$7,000,000	Working capital; CAP-EX	Greenfield	Ogun	No	No	Cocoa
21	Production; Warehousing and Logistics	Production and Warehousing of Soybean, Maize, Sorghum and Cassava	Establish new storage/warehousing facilities and outgrower schemes with smallholder farmers	\$3,000,000	\$5,000,000	Working capital; CAP-EX	Greenfield, potentially joint venture	Oyo	No (unless rehabilitate existing warehouses and loading dock infrastructure)	No	Soybean, Maize, Sorghum, Cassava
22	Inputs	Poultry Feed	Improve quality of poultry feed via technical packages and veterinary supplies, and improve distribution infrastructure	\$2,000,000	\$3,000,000	Working capital; CAP-EX	Joint venture, equity partnerships	Oyo	Yes (existing poultry producers)	Yes	Poultry Feed (Maize, soy and other grains)
23	Manufacturing	Agricultural Equipment Manufacturing	Acquire and rehabilitate physical assets, train staff of an existing truck and tractor assembly plant	\$40,000,000	\$50,000,000	Working capital; CAP-EX	Joint venture, equity partnership	Oyo	Yes (existing firm)	Yes	Transportation (trucks) and Farm Infrastructure (Tractors)
24	Production	Cocoa Production and Aggregation	Expand commercial plantations of cocoa farms, involving nucleus farms, linkages with smallholder farmers and new storage facilities	\$10,000,000	\$25,000,000	Working capital	Greenfield	Oyo	Yes (existing firms/producers)	No	Cocoa
25	Production	Cashew Production	Re-initiate and expand production of an existing cashew plantation	\$15,000,000	\$25,000,000	Working capital; CAP-EX	Joint venture, partnership	Oyo	Yes (existing firm/plantations)	Yes	Cashew
26	Warehousing and Logistics	Greenfield Cold Storage and Logistics Hub	Create a new cold storage and logistics hub for processed foods (poultry, fish, frozen foods, fruit juices, dairy, vegetables, fruits, prawns, etc.)	\$5,000,000	\$10,000,000	CAP-EX	Greenfield	Oyo	No (Anjala, just south of Ibadan is one possibility)	No	Infrastructure (Cold Storage); poultry, fish, frozen foods, fruit juices, dairy, vegetables, fruits, prawns.

No.	Investment Type	Name	Brief Description	Investment Value		Type of Financing	Type of Deal	State	Location Identified	Land Acquired	Value Chain
				Low End	High End						
27	Production; Processing	Poultry Farming and Processing	Create a new poultry farm and/or processing facility	\$3,000,000	\$6,000,000	CAP-EX	Greenfield, joint venture, acquisition	Lagos	No (unless rehabilitate existing infrastructure)	No	Poultry
28	Production	Acquaculture	Create new aquaculture production sites	\$2,000,000	\$5,000,000	Working capital; CAP-EX	Greenfield, joint venture	Lagos	No	No	Fish
29	Production	Vegetable Production	Expand commercial vegetable production	\$500,000	\$2,000,000	Working capital; CAP-EX	Greenfield, joint venture	Lagos	No	No	Tomatoes, cucumbers, peppers, onions
30	Manufacturing	Agricultural Equipment Manufacturing	Increase productivity of an existing agro-allied equipment manufacturing plant	\$2,000,000	\$6,000,000	Working capital; CAP-EX	Joint venture, equity partnership	Lagos	Yes (existing firm)	Yes	Infrastructure (mineral and agro-allied equipment)
31	Warehousing and Logistics	Cold Storage Facility	Create a new cold storage facility in Lagos at the Inland Container Depot	\$3,000,000	\$7,000,000	CAP-EX	Greenfield	Lagos	Yes (Inland Container Depot)	Yes	Logistics
32	Information and Communication Technology (ICT)	ICT Platform for Staple Crop Aggregation	Establish a new ICT platform to streamline sourcing of bulk grains from small farmers (replicating a version of the E-Choupal model)	\$100,000	\$200,000	CAP-EX	Greenfield	National potential	TBD	TBD	Infrastructure (ICT)
33	Warehousing and Logistics	Livestock Centers	Replicate a model of "one-stop shopping" for livestock traders including processing facilities, links to infrastructure, rest areas and pastures	\$1,000,000	\$3,000,000	CAP-EX	Greenfield	National potential	TBD	TBD	Infrastructure (logistics, ICT)



1. WAREHOUSING AND LOGISTICS HUB

Insufficient bulking and storage infrastructure for high-volume commodities, such as sesame and cotton, present an opportunity for commercial investment.

\$3 million \$5 million

INVESTMENT VALUE

DEAL TYPE GREENFIELD JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING CAP-EX WORKING

MARKET OPPORTUNITY

Agricultural products produced in the state by small farmers need to be aggregated and shipped down to larger consumer markets. At the end-market level, major off-takers, including Olam and ETG, are purchasing cotton and sesame for export markets alongside maize and rice for distribution to urban centers. Generally, importers are focusing on development of local rice production and milling capacity in response to high rice tariffs, with Katsina's agro-climatic conditions and water resources creating a favorable location for these projects. The Aba Malting Plant also sources sorghum from 1,000 farmers in Katsina.

To support acceleration of the sourcing trend, Katsina is making major investments to boost yields. This includes 10,000ha of new irrigation infrastructure adjacent to existing dam projects, increased fertilizer blending and distribution capacity, and a partnership with the Songhai Center to improve farmer training. Katsina is an intermediate aggregation point en route to larger markets in Kano and Maradi (Niger), but lacks the infrastructure to serve this function well as output increases. There is need

for a specialized agricultural logistics and warehousing operator to support efficient evacuation of commodities from the growing regions and bulking in proximity of the corridor for bulk buyers.

INVESTMENT REQUIRED

There are both brownfield and greenfield investment opportunities in the logistics and warehousing space in Katsina. Existing government warehouses and loading dock infrastructure are in need of repair. Existing warehouses can be rehabilitated or replaced, and specialized produce handling equipment (specifically for loading and unloading) are needed to improve operational efficiency.

The next steps are a thorough assessment of existing warehousing space and negotiation with the Katsina government for their use. The investment would also benefit from a warehouse receipt program and guaranteed future purchase contracts for aggregating supply to the larger buyers. Additional warehousing construction needs to be considered as required.

SUPPORTING INITIATIVES

There are a number of investment projects and initiatives ramping-up production and processing activity in Katsina, which can be linked to a warehousing and logistics hub:

- The West African Cotton Company (WACOT) is planning to invest in a soybean crushing plant in Katsina to produce edible, refined oil, and is doubling capacity of a sesame seed hulling plant to 24,000 MT.
- The rehabilitated Katsina Grains Silo presents grain storage opportunities, and can facilitate growth in nucleus farm estates.
- The GON has four fertilizer blending plants in Katsina, each with an output capacity of 10,000 MT per annum.
- DfID's PrOpCom Mai-Karfi project is working with Springfield Agro Ltd. and Nova Technology Ltd. to provide appropriate technology, market information and access to finance to small rice farmers.

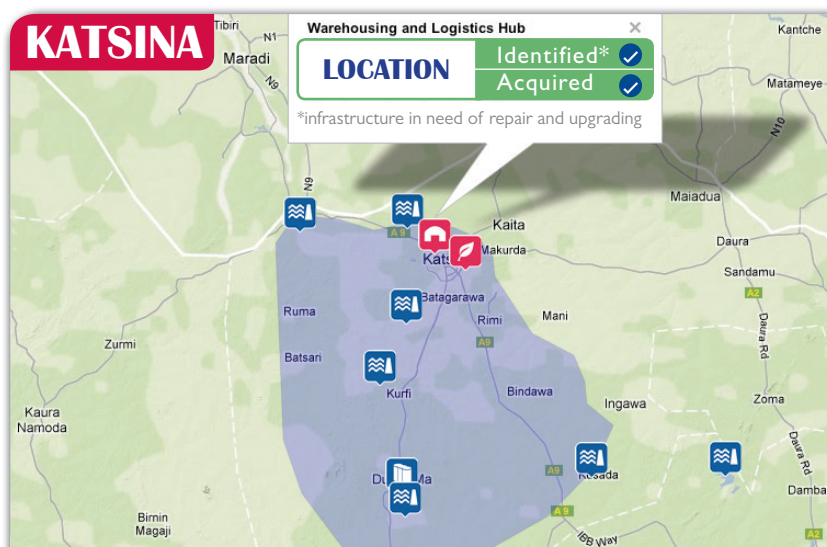
REQUIRED COMPLEMENTARY INVESTMENTS

- Financing for bulking and storage infrastructure is an important complement that can be provided by the Bank of Agriculture, which provides loans for farm inputs and machinery.
- Investments in Modular Compressed Natural Gas (CNG) power plants that target the various industrial and business parks within the cluster are another complementary investment.

PUBLIC SECTOR ROLE

- Delivering power and water to logistics hubs and improving farm to market roads are key roles for the public sector. In order to incentivize private power generation, the state and federal governments can liberalize the processes of licensing and entry of electric providers into this market.
- To support these investments, Katsina state could finalize its agricultural support policies, and within this, consider playing a more proactive role regulating quality and enforcing standards in the agro input and output markets

VALUE CHAIN: Cotton, Sesame, Maize, Rice, Sorghum



WHY KATSINA? The LAKAJI Corridor's northernmost state, Katsina is an important production center and gateway to several regional markets. 5% of the country's producers of staple crops are located here, cultivating 819,000 ha of land, yielding 1.2 tons of crops. Katsina is comprised of 24,000 square km of land, with a population density of 160 persons per square km, of mostly farmers and livestock rears. The road between Kano and Katsina is a single lane in fair condition, providing easy movement of goods and services.



2. COTTON PRODUCTION MANAGEMENT AND LOGISTICS

Building on the efforts of Dangote, expand smallholder cotton production on the basis of improved productivity and quality.

\$2 million \$3 million

INVESTMENT VALUE

DEAL TYPE GREENFIELD JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING CAP-EX WORKING

MARKET OPPORTUNITY

The Dangote Ginnery in Katsina state depends mainly on cotton from small farms within about 50km radius from its operational base. It is currently doubling its processing capacity from 2 to 5 tons per hour, working 24hr shifts. To meet the 100+ tons per day demand of the ginnery and improve prices for both lint and raw cotton, an aggregator capable of managing farm-to-factory logistics and a cotton improvement program is needed. The Ginnery is part of a fully integrated cotton textile supply chain operated by Dangote, with a spinning mill in Kano and a fabric mill in Lagos.

The market for long-staple cotton and associated yarn and fabric is particularly attractive. Government support in the form of 240,000 tons of improved cotton seed for small farmers has been committed. An investor could take advantage of this through an off-take agreement with

the ginnery for improved long-staple varieties and a distribution agreement with the government for specified seed varieties. Farmers in the area are also in need of extension services, which could be bundled with inputs to provide a more complete farm-level technology package.

INVESTMENT REQUIRED

A shift to long-staple varieties requires testing of new seed varieties, replanting and a technical package for participating farmers. Investment will also be needed in distribution infrastructure for inputs and a farm-to-factory collection system.

The next step is to enter into discussions with the Dangote Ginnery as to the quantity and price they would offer for outgrower schemes.

SUPPORTING INITIATIVES

Several public, private, and donor initiatives support the commercial viability of investment in cotton production management and logistics:

- The GON is aiming to increase irrigation capacity to serve 10,000 – 20,000 ha of land by 2015. The GON is rehabilitating the Jibiya Federal Dam, (supporting 2,000 ha), the Ruwan Sanyi Dam (supporting 30 ha), and the Kusa and Kusada Dams.
- Some farm estates have been revived by the GON to provide extension services in the areas of crop production, livestock rearing, fisheries and bee keeping, amongst others. The GON has four fertilizer blending plants in Katsina, each with an output capacity of 10,000 MT per annum.
- Other donor interventions operating in Katsina include the UK Government's Mai-Karfi project, aiming to make rural markets work for the poor by stimulating private and public investment in the rural economy by more than £100 million.

REQUIRED COMPLEMENTARY INVESTMENTS

- Financing for expanding production will be an important complementary activity required to move forward with this investment. The Bank of Agriculture may be able to play a role here, as this bank has a history of working with primary producers and providing microloans for farm inputs.

PUBLIC SECTOR ROLE

- Provision of a reliable power supply and improving farm to market roads are perhaps the most valuable investments the government could provide in Katsina to boost agricultural investment.
- Either through legislation or other judicial measures, having a legal system that is capable of supporting contract enforcement (in particular for outgrower contracts) and with appropriate delivery of justice would represent significant improvements in the enabling environment for agricultural investors and farmers.





3. KANO AGRICULTURAL SUPPLY COMPANY (KASCO)

A state-owned network of agro-dealers slated for privatization.

\$7 million \$10 million

INVESTMENT VALUE

DEAL TYPE

GREENFIELD

JOINT VENTURE

PARTNERSHIP

EQUITY PARTNERSHIP

PRIVATIZATION

ACQUISITION

FINANCING

CAP-EX

WORKING

MARKET OPPORTUNITY

With Nigeria's rapidly growing agriculture sector and potential for further growth, there is robust demand for quality agricultural inputs (including fertilizers) and a stable market for investments in the sub-sector. Agro-input supply markets are becoming more attractive now that the GoN is limiting interventions in the sector and encouraging private participation in schemes like the fertilizer voucher program, which subsidizes 25% of the cost of fertilizer to farmers. In Kano State, the 1,031,290 farmers involved in the voucher scheme are likely to continue and/or increase fertilizer utilization with further crop intensification, making them a reliable customer base for investments in agro-input supply in the State.

The Kano State Government is considering privatizing KASCO, a state-owned network of agro-dealers. This includes selling agro-dealer outlets for other businesses (e.g. light manufacturing) or selling its KASCO's current infrastructure, which includes offices, warehouses, silos, fertilizer

blending plants, feed mills, tractor and equipment, agro-service outlets, lorries and delivery trucks. Given that the agro-input supply sector remains underdeveloped with room for new players and investment, the KASCO privatization could be a strategic acquisition for a leading agro-inputs supply company interested in developing or expanding a footprint in this fertile market.

INVESTMENT REQUIRED

Investments required would include acquisition and rehabilitation of KASCO's physical assets, as well as training of staff and rebranding.

Next steps include a full assessment of the market and a valuation of KASCO's current assets, distribution network, and sales for further discussions with Kano State. Consideration should also be taken as to expansion possibilities beyond Kano State from existing base.

SUPPORTING INITIATIVES

- The International Fertilizer Development Corporation (IFDC), through the USAID MARKETS II project, has supported the Government in rolling out the fertilizer voucher program and promoting its utilization by farmers. AGRA, via IFDC, and DFID, via its ProOpCom project, have also contributed to the development of trained agro-dealer professionals that has created a viable human resource base for this business.
- The Kano State Government has in place a rice-focused agricultural policy which was developed with the support of DFID's ProOpCom.
- DFID's Mai-Karfi project also supports market system reforms to respond to emerging demands. The market-led focus of this project could be further deepened and complemented in Kano to maximize impact.

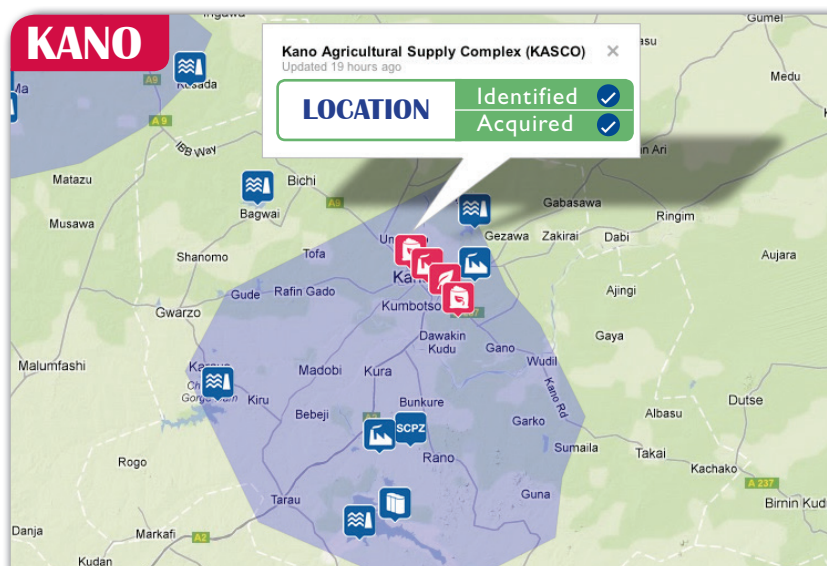
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- The Kano State Government has in place a rice-focused agricultural policy which was developed with the support of DFID's ProOpCom.
- DFID's Mai-Karfi project also supports market system reforms to respond to emerging demands. The market-led focus of this project could be further deepened and complemented in Kano to maximize impact.

PUBLIC SECTOR ROLE

- Kano State Government would need to issue a tender for KASCO on a fully-privatized or PPP basis, as well as strongly consider investments in CNG power plants.
- The Nigerian agrochemical market is challenged by quality issues and standards enforcement. Improving the regulation of both is critical to ensure the sustainability of agricultural investments, and to avoid the situation where credible agrochemicals service providers are forced out of this market.

VALUE CHAIN: Fertilizer, Transportation and Infrastructure



WHY KANO? KASCO's hub is in Kano city, with outlets across the state. Kano is an agricultural hub for inbound and outbound goods, influencing adjacent country markets. Kano state is home to 9 million people, mostly engaged in agricultural activities. 6% of the country's crop holders are in Kano, producing 1.3 million ha of staple crops in 2010, cultivating 1.6 million tons. Kano city has over 3 million inhabitants, making it the 2nd largest city in Nigeria. Kano's rainy season lasts between 3-5 months, with average rainfall from 1,000 mm per year in the south, to 800mm in the north of the state. Kano has over 18,000 square kilometers of cultivable land and is the most extensively irrigated state in Nigeria.



4. SPECIALIZED OIL PROCESSING

Specialized processing of vegetable oils to meet the growing market demand for processed and packaged food ingredients.

\$10 million \$15 million

INVESTMENT VALUE

DEAL TYPE **GREENFIELD** **JOINT VENTURE** PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION **FINANCING** **CAP-EX** **WORKING**

MARKET OPPORTUNITY

With current and expected growth in the packaged and processed food sector, food companies like Dansa Foods, Dantata Foods, Nestle and Olam are expanding purchasing of specialized oils and oleoresins as critical inputs. These companies and others represent a stable market for investments in vegetable oil refining capabilities offering a competitive, locally produced alternative to imported oils. Given gaps in specialized oils processing capacities in the region, export opportunities also exist. In Kano, Dantata Foods could serve as both a supplier of crude vegetable oil and buyer of refined oils and oleoresins, making it an attractive joint venture partner for investors with knowledge of and access to specialized oils markets.

INVESTMENT REQUIRED

The investment would require acquisition of land (if not co-located with a partner), investments in refining equipment and facilities, and development of offtake agreements for crude vegetable oil from Dantata and/or other sources.

The next steps for moving this investment forward include conducting a full assessment of the market, holding further discussions with potential partners, conducting a feasibility study, and preparing a business plan.

SUPPORTING INITIATIVES

The GoN has undertaken a number of initiatives which support the feasibility of this investment:

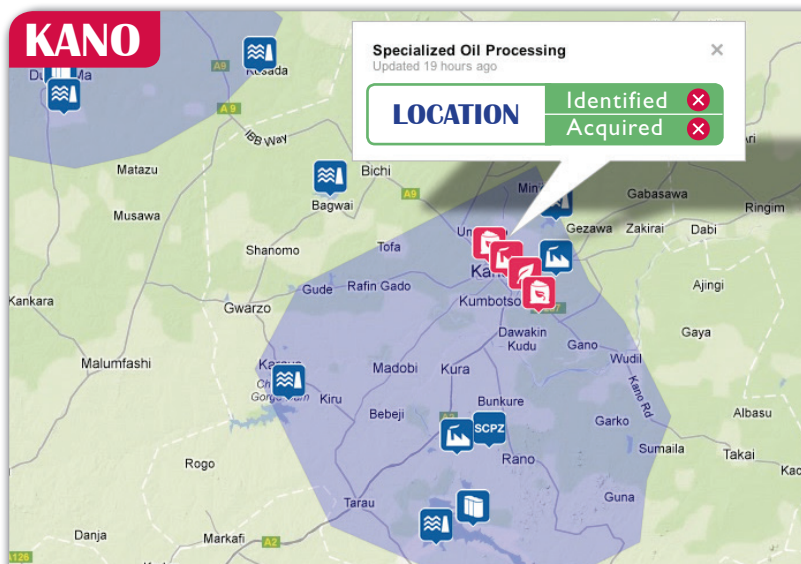
- The Government—at both the federal and state levels—has provided support to agriculture through a number of subsidized services and facilities. Though previous focus centered on supply, government support is now focused on stimulating demand. In support of this, Staple Crop Processing Zones are being created in the state by the Federal Government.
- The Kano State Government is rehabilitating its numerous business parks across the state.

REQUIRED COMPLEMENTARY INVESTMENTS

- Revival of Dantata Foods & Allied Products vegetable oil mill in Kano (an estimated capacity of 300,000 tons per year of sunflower, groundnut, cottonseed and soybean oils) could be an important stimulus and prerequisite to more sophisticated production of oleoresins.

PUBLIC SECTOR ROLE

- Providing an assured and steady supply of electricity is one of the most critical investments the public sector can make in Kano to improve the competitiveness of the state in agribusiness.
- Governments at the state and federal levels could liberalize the processes of licensing and entry of electric providers into Kano.
- Public investments in Modular Compressed Natural Gas (CNG) power plants that target the various industrial and business parks within the cluster are an attractive complementary investment. Government policies and legislation should support the privatization of such plants after their creation



WHY KANO? Co-location with Dantata's oil mill in Kano is one possible approach. Kano is an agricultural hub for inbound and outbound goods, influencing adjacent country markets. Kano state is home to 9 million people, mostly engaged in agricultural activities. Kano city alone has over 3 million inhabitants, making it the 2nd largest city (and urban market) in Nigeria.



5. TOMATO PRODUCTION

A new \$15.5 million investment in a tomato processing facility requires a complementary \$19 million investment in production.

INVESTMENT VALUE

\$15 million \$25 million

DEAL TYPE

GREENFIELD

JOINT VENTURE

PARTNERSHIP

EQUITY PARTNERSHIP

PRIVATIZATION

ACQUISITION

FINANCING

CAP-EX

WORKING

MARKET OPPORTUNITY

Dansa Foods (Dangote Group) is currently constructing a modern tomato paste factory and a series of greenhouses in Kano that could supply up to one third of Nigeria's domestic market for processed tomato products, estimated to be valued at approximately \$75 M yearly. The facility will process 1,200 MT of raw tomatoes daily, making it a stable market for an investment in commercial tomato production. Dansa would consider arrangements whereby it would supply seedlings to contract farmers of tomatoes with offtake agreements, allowing the investor to focus on production, aggregation and post-harvest logistics. With the Dansa facility supplying only one third of Nigerian imports of tomato paste and other processed tomato products annually, investors able to bring technical knowledge and the capacity to scale production would benefit from entering the market early and establishing a strong relationship with an anchor offtake partner.

INVESTMENT REQUIRED

A nucleus commercial farm with facilities for aggregation, sorting and packaging, and an outgrower network is suggested. Twenty-four (24) farming cooperatives in the area are ready to be linked to the Dansa facility supply chain. The investment involves acquisition of land, development of irrigation systems, construction of facilities and possibly construction of infrastructure in proximity to farmer cooperatives. The nucleus farm could also work with USAID and GoN initiatives to offer training, inputs, and credit to smallholder farmers in allied coops.

The next step for moving forward this investment is to conduct a full feasibility assessment and enter into supplier discussions with Dansa.

SUPPORTING INITIATIVES

A number of initiatives and projects support the feasibility of this investment:

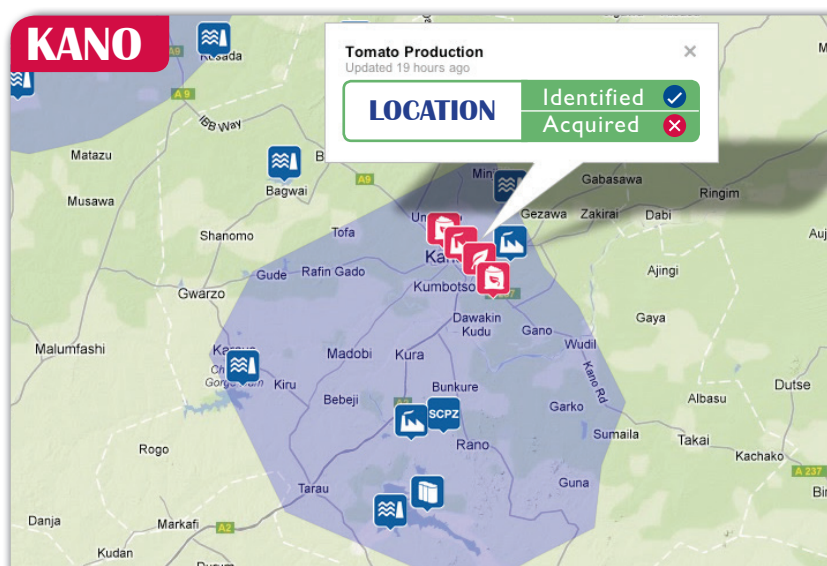
- Dizengoff Nigeria has unveiled a new farmer's kit to boost tomato production. The idea is provide small scale farmers a proven approach to become agropreneurs while bringing fresh fruit and vegetables to the surrounding communities at affordable prices. Other local investors are also planning projects in tomato farming and tomato paste processing (for example, Tropical General Investments).
- NIRSAL financing and government subsidies for fertilizer could assist farmer associations and other commercial farms supplying the Dansa factory.
- Staple Crop Processing Zones are being created in Kano by the Federal Government, while the State Government is rehabilitating its numerous business parks across the state.

REQUIRED COMPLEMENTARY INVESTMENTS

- Dansa Foods' investments in the greenhouse complex and processing facility are expected to be completed soon. In other to secure its supply chain, investments in the expansion of existing irrigation schemes could be considered.
- Investment in nearby irrigation dams, including equipment and machines that help maximize output, would support the clustering of small and medium farms close to the Dansa facility.

PUBLIC SECTOR ROLE

- One important role governments at the state and federal levels could play is to liberalize the processes of licensing and entry of electric providers into Kano. The same applies to land acquisition, which is currently constrained by bureaucratic bottlenecks.
- Public investments in Modular Compressed Natural Gas (CNG) power plants that target the various industrial and business parks within the cluster are an attractive complementary investment.



WHY KANO? The Dansa Foods facility is in the Kadawa area of Kano State, which is ideally suited to tomato growing. The commercial farm and aggregation infrastructure should be located in close proximity to the factory and allied cooperatives. Kano is an agricultural hub for inbound and outbound goods, influencing adjacent country markets. Kano state is home to 9 million people, mostly engaged in agricultural activities. Kano city alone has over 3 million inhabitants, making it the 2nd largest city (and urban market) in Nigeria. Kano's rainy season lasts between 3-5 months, with average rainfall from 1,000 mm per year in the south, to 800mm in the north of the state. Kano has over 18,000 square km of cultivable land and is the most extensively irrigated state in Nigeria.



6. KANO AGROCHEMICALS SUPPLY NETWORK

Joint venture or strategic partnership opportunity with established agrochemicals distributor.



DEAL TYPE GREENFIELD **JOINT VENTURE** PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING CAP-EX WORKING

MARKET OPPORTUNITY

Increased investment in agricultural production has catalyzed demand for quality agricultural inputs, and thus created a stable market for investments in agro-input production and distribution. In addition, the government has effectively pulled out of fertilizer distribution, leaving behind a market in need of providers. Recent estimates put the growth in demand for crop protection products at 9% per annum, with projections of \$150M in annual sales by 2016. With an underdeveloped agro-supply sector and widespread presence of poor quality of agrochemicals (often with prohibited, toxic or inert ingredients) opportunities exists for investments in the production, import and blending of high quality agro-chemicals. In terms of production, local petrol chemical plants could be assisted to focus on the production of key active ingredients. In addition, blending plants can mix locally produced and imported active ingredients, as is currently done with automotive lubricants. One possible route is a joint venture or strategic partnership with C. Zard and Company Ltd. The agrochemicals

distribution company is one of the oldest and most established in Nigeria, and is open to engaging investors interested in leveraging their network and credibility to improve the availability of high quality agrochemicals in the Kano market.

INVESTMENT REQUIRED

C-Zard is ripe for equity investment, as the GoN is divesting from the company. Investment would include joint venture capital to support training of staff and marketing of new products, leveraging the physical network and reputation of C-Zard. Physical investments could include upgrades in plants and purchase of equipment and distribution trucks.

The next step is further discussion with C. Zard and Company and the Kano State Government, and the completion of a feasibility study which delves further into the investments needed.

SUPPORTING INITIATIVES

Several initiatives could support an investment in agrochemicals supply and distribution:

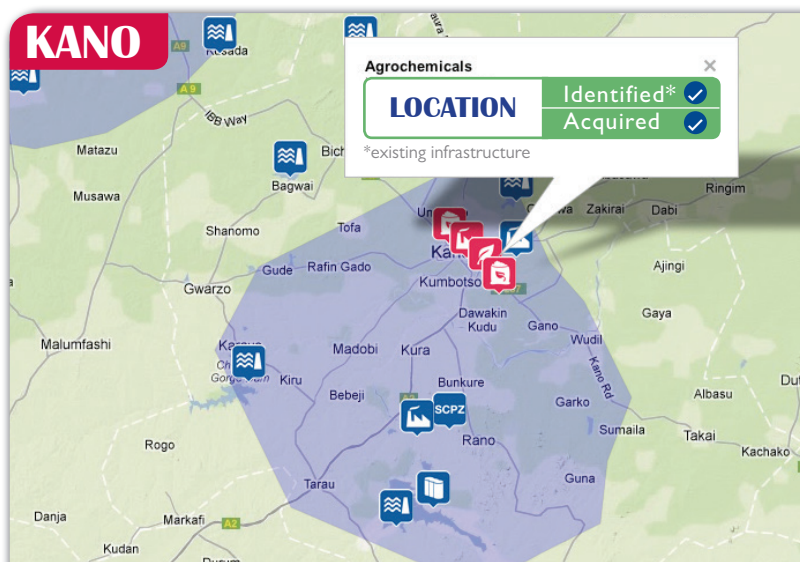
- The International Fertilizer Development Corporation (IFDC), through the USAID MARKETS II project, has supported the government in rolling out the fertilizer voucher program and promoting its utilization by farmers.
- AGRA, via IFDC and DFID's ProOpCom project, have also contributed to the development of trained agro-dealer professionals that has created a viable human resource base for this business.
- There are several government-owned agro service centers and warehouses that could be privatized.

REQUIRED COMPLEMENTARY INVESTMENTS

- There are opportunities for independent power generation at existing business parks. Modular Compressed Natural Gas (CNG) power plants that target the various industrial and business parks within the cluster are an attractive complementary investment.

PUBLIC SECTOR ROLE

- Kano state could play a more proactive role in regulating the agro input and output markets. The Nigerian agrochemical market is challenged by quality issues and standards enforcement. Improving the regulation of both is critical to ensure the sustainability of agricultural investments in this state, to avoid the situation where credible agrochemicals service providers are forced out of this market. State and local governments could consider addressing this issue now to protect current investors before waiting for relevant Federal regulations. A more competitive market for agrochemicals and inputs will follow.
- Kano State Government can push forward its privatization program to make room for equity investment



WHY KANO? Kano is an agricultural hub for inbound and outbound goods, influencing adjacent country markets. Kano state is home to 9 million people, mostly engaged in agricultural activities. Kano city alone has over 3 million inhabitants, making it the 2nd largest city (and urban market) in Nigeria. Six percent of the country's crop holders are in Kano, producing 1.3 million ha of staple crops in 2010.



7. IMPROVED INPUTS (SEEDS AND FERTILIZER)

Improvements in seed quality is required for increased agricultural production. Seed quality improvements also require parallel investments in fertilizer supply. By linking the two, investors can increase market share.

\$30 million

\$130 million

INVESTMENT VALUE

DEAL TYPE GREENFIELD JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING CAP-EX WORKING

MARKET OPPORTUNITY

Nigeria's growing agriculture sector has created robust demand for quality agricultural inputs, including fertilizers. Yet, the agro-input supply sector is underdeveloped, and thus ripe for ventures offering quality seeds, fertilizers or a complete input package to farmers. Such an opportunity exists in Kaduna State, where seed companies do not operate at full capacity. This is in part due to the underdeveloped nature of fertilizer supply markets. Small farmers are unlikely to purchase high quality seeds without high quality fertilizer to ensure optimum yield. Investments in high quality seed and fertilizer distribution would satisfy market demand while increasing capacity utilization within seed operations. Existing Kaduna seed companies are open to equity partnerships or joint ventures with investors able to bring new technologies, products, and funding for investments in fertilizer distribution networks.

INVESTMENT REQUIRED

Total investment ranges from \$30M to \$130M, based on the nature of the venture. Given that the agrochemical market is underserved, a large investment is commercially viable. The investment would likely require about \$30M in equity partnership in two of the nation's leading seed companies and close to \$100M in financing to invest in facility upgrades, equipment procurement, product development, rebranding and distribution.

A thorough review of the market as it now stands for production/blending of fertilizer and improved seed multiplication, as well as the distribution channels, is necessary as part of a feasibility study.

SUPPORTING INITIATIVES

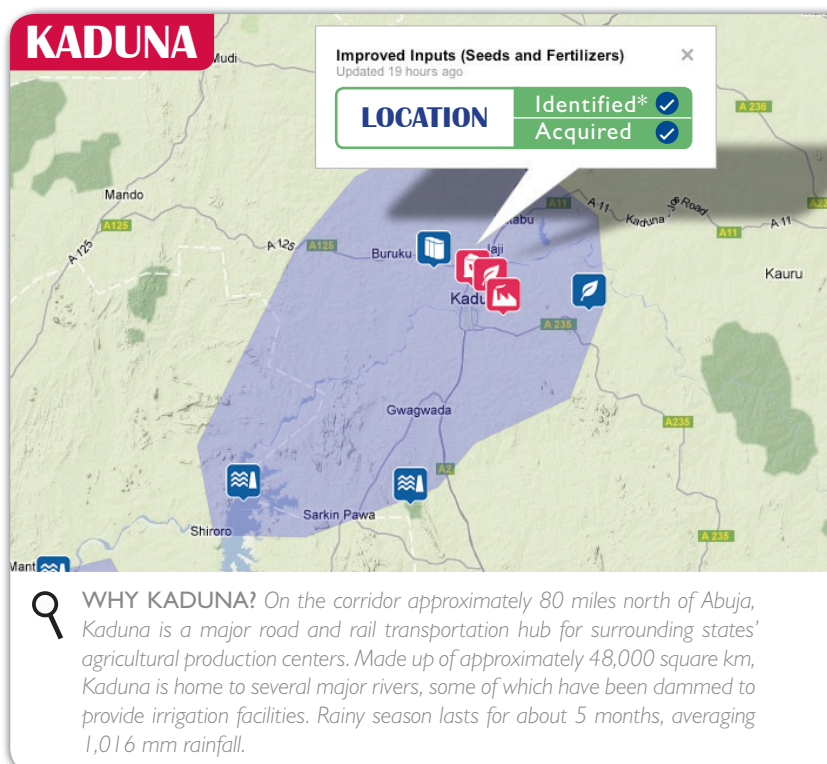
- The Kaduna state government is revising its agricultural policies, and is aiming to convert the state into a cereal grain production, processing and marketing hub for the country. In support of this goal, the state government has constructed a 25,000 ton grain silo.
- The state government is also working with Niger, Kebbi, Kano and Sokoto states on developing electronic marketing of agricultural produce through the deployment of tradable warehouse receipt systems.
- The GoN's agricultural seed subsidy scheme is another supporting initiative that can be tapped into to increase seed production.

REQUIRED COMPLEMENTARY INVESTMENTS

- There are several irrigation dams located in Kaduna that could be brought under irrigation. Public investment in equipment and machines to maximize the output of irrigation dams could support this investment in improving seed quality and agrochemicals, by supporting the growth and clustering of small and medium farms in and around the dam locations.
- Investments in Modular Compressed Natural Gas (CNG) power plants targeting various industrial and business parks within the cluster and beyond would be another viable complementary investment.

PUBLIC SECTOR ROLE

- In order to support these investments, the state government needs to finalize its agricultural policy and ensure proper attention is provided to the need for input supply.
- The potential for expanding water retention schemes and irrigation is abundant in Kaduna State. The state can seek public-private partnership opportunities for supporting water schemes as they are doing elsewhere (Djiga Dam) with World Bank financing.
- The state can also support independent power generation projects, by liberalizing entry into the market.





8. RICE PRODUCTION AND MILLING

Increased production of Nigerian-produced paddy is a large market opportunity given human consumption patterns and Nigeria's high import duty tariff on rice.



MARKET OPPORTUNITY

Nigeria imports 30% of its rice consumption (estimated at over 2 million MT yearly) to meet growing demand, making Nigeria the largest net importer of rice in Africa and the second largest importer globally. This is despite agronomic conditions that position the country to be at least self-sufficient, if not exporting surpluses. With the GoN's recent 100% import tariff on rice, opportunities exist for multiple large-scale irrigated rice projects that can capture on the growing domestic market. Both large international rice buyers and local investors are considering locations for projects in Kaduna State, creating opportunities for joint partnerships involving either production or processing, or integrated projects that combine both.

INVESTMENT REQUIRED

Integrated projects are recommended, which include a nucleus rice farm supported by a network of out-growers. With estimated land cultivation and irrigation costs of approximately \$2,000 per ha, 15,000 ha of rice

production (combining core commercial farms and out-growers) could be achieved through an initial investment of some \$30M for land development. With irrigation and a double crop, it would be possible to produce 120,000 MT of paddy per year.

Rice husk could serve as the fuel to co-generate electricity both for running the factory and pumping water. Such onsite electricity generation would greatly enhance commercial viability through reduced energy costs. It would also be possible to export some of the power. Estimated costs for a mill and power co-generation facility of this size would range between \$60-70M.

A full feasibility study with accompanying environmental and social impact assessment would be a necessary first step toward preparing a bankable business plan for an investment of this size.

SUPPORTING INITIATIVES

There are a number of projects and initiatives which help make this an attractive investment:

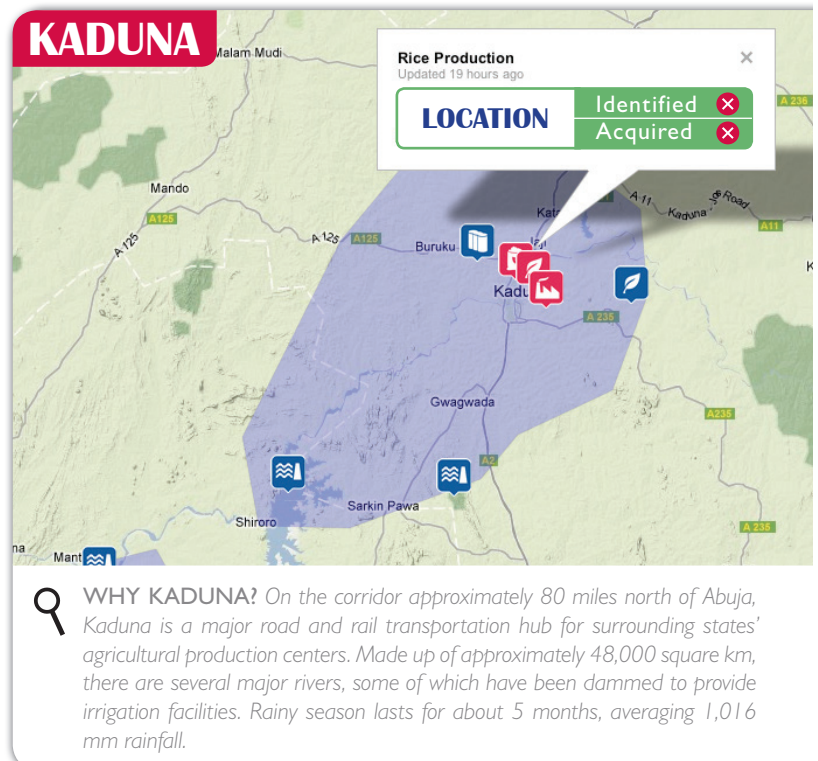
- The Kaduna State Government is working to revise its agricultural policy, and aims to develop the state into the cereal grain production, processing, and marketing hub of Nigeria. In support of this effort, the State has constructed a 25,000 ton grain silo, and is working with other States such as Niger, Kebbi, Kano and Sokoto on electronic warehouse receipt systems trading of agricultural produce.
- Government of Nigeria's agricultural seed subsidy scheme can be tapped into to increase seed production.

REQUIRED COMPLEMENTARY INVESTMENTS

- Industrial rice production is not viable without large irrigation investments, which could be established by government and leased back or financed on a PPP basis.

PUBLIC SECTOR ROLE

- Finalization of the Kaduna State Government's agricultural policy will be important for supporting these investments. Provisions in support of irrigation projects should be considered.
- In order to facilitate independent power generation, the state and federal government can play an important role liberalizing the licensing and entry of electric providers into the market.





9. MAIZE AND SOYBEAN PROCESSING

Linking existing aggregators of maize and soybean to local processing facilities can assist in meeting high demand for human consumption and poultry feed.

\$6 million \$8 million

INVESTMENT VALUE

DEAL TYPE **GREENFIELD** JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING **CAP-EX** WORKING

MARKET OPPORTUNITY

Nigeria's dynamic growth in packaged foods markets and high levels of poultry consumption in South Western Nigeria (Lagos and Ibadan) is resulting in an ever-increasing demand for raw and processed maize and soy. For example, poultry consumption has been increasing by as much as 30% annually, creating a large demand for maize and soy used in feed. With growing maize and soy production levels outpaced by growing demand (100,000MT maize and 200,000 MT soy imported annually) and the GoN's determination to substitute imports with local production, there is a stable market for commercial maize or soybean processing investments.

Large buyers have expressed interest in sourcing maize from Kaduna, which is ideally situated for access to major consumption centers for maize and soy bean, including poultry production areas. Maize and soybean are major crops being produced in Kaduna State, with production levels at 1,006,100

tons for maize and 76,000 tons for soybean in 2010. The reliability and volumes of supply from these producers is likely to increase due to donor and GoN programs aimed at increasing maize yields from 2 tons/ha to 4.2 tons/ha and minimize post-harvest losses.

INVESTMENT REQUIRED

Financing required to build a new mill is estimated at \$6-8M for a mill that can run at 10 tons/per hour capacity.

The next step is to ascertain the size of the potential market in Southern Nigeria for milled maize and processed soybean, particularly for the poultry feed industry, and formulate a business plan to produce for and supply that market.

SUPPORTING INITIATIVES

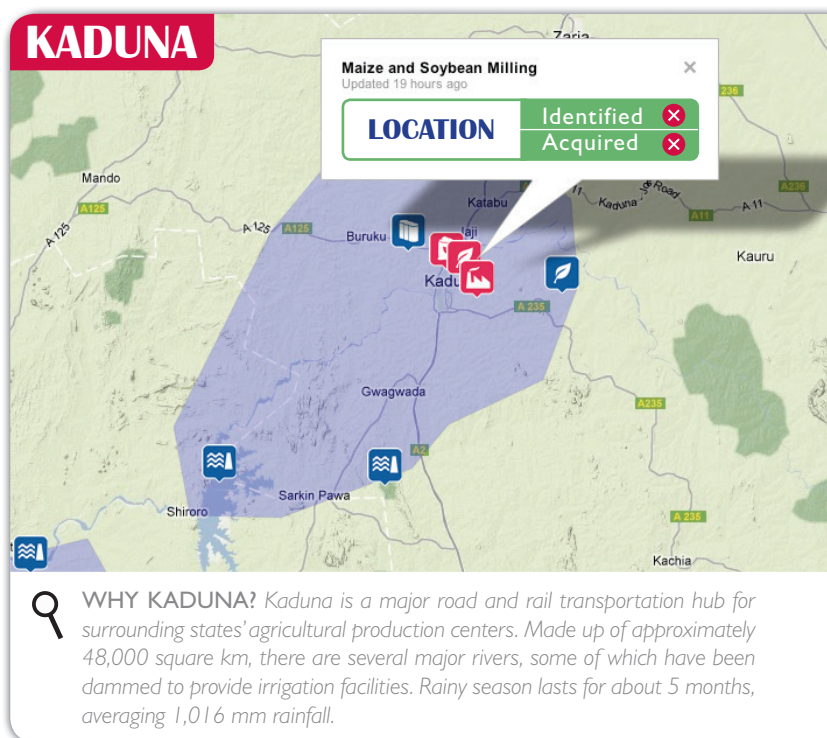
- Doreo Partners' Babban Gona "Great Farm" agricultural development franchise approach is being piloted in Kaduna, with the mission of lifting small farmers out of poverty. Babban Gona is a franchise business, whereby smallholders involved are provided with inputs and extension services in exchange for delivery of an amount of crop equal in value to the cost of services provided to them. An anchor firm (in this case, Doreo) offers to buy excess crop from farmers at a fair price. Extension workers maintain daily contacts with farmers throughout the growing season. Doreo Farms is reportedly investing \$50 million to expand Babban Gona operations in Kaduna on 20,000 HA of land.
- The USAID Nigeria MARKETS II project is also working with small farmers in maize and soybean in Kaduna.

REQUIRED COMPLEMENTARY INVESTMENTS

- There are multipurpose mills found in Kaduna that are capable of handling various grains depending on which commodity is in season. However, many of these are small (100 - 200kg per hour) and are driven by diesel engines. Existing mills will not be able to handle the expected increases in productivity and land under cultivation. Investments in mills that can produce, grits, flour, pasta, vegetable oil, etc., will drive commercial demand and aggregation for these commodities, as well as the opportunity to shift farming operations in them from subsistence to commercial operations. Increased production may also move current aggregators (such as Doreo) to purchase farm outputs and also provide inputs and embedded services to smallholder farmers.

PUBLIC SECTOR ROLE

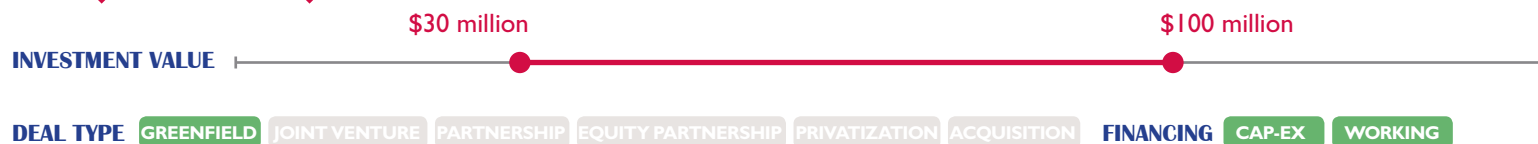
- Finalization of the Kaduna State Government's agricultural policy will be important for supporting these investments.
- In order to facilitate independent power generation, the state and federal government can play an important role liberalizing the licensing and entry of electric providers into the market.





10. RICE PRODUCTION AND MILLING

Increased production of Nigerian-produced paddy is a large market opportunity given human consumption patterns and Nigeria's high import duty tariff on rice.



MARKET OPPORTUNITY

Nigeria imports 30% of its rice consumption (estimated at over 2 million MT yearly) to meet growing demand, making Nigeria the largest net importer of rice in Africa and the second largest importer globally. This is despite agronomic conditions that position the country to be at least self-sufficient, if not exporting surpluses. With the GoN's recent 100% import tariff on rice, opportunities exist for multiple large-scale irrigated rice projects that can capture the growing domestic market. Both large international rice buyers and local investors are considering locations for projects in Niger State, creating opportunities for joint partnerships involving either production or processing, or integrated projects that combine both.

INVESTMENT REQUIRED

Integrated projects are recommended, which include a nucleus rice farm supported by a network of outgrowers. With estimated land cultivation and irrigation costs of approximately \$2,000 per hectare, 15,000 hectares

of rice production (combining core commercial farms and outgrowers) could be achieved through an initial investment of some \$30M for land development. With irrigation and a double crop, it would be possible to produce 120,000 MT of paddy per year.

Rice husk could serve as the fuel to co-generate electricity both for running the factory and pumping water. Such onsite electricity generation would greatly enhance commercial viability through reduced energy costs. It would also be possible to export some of the power. Estimated costs for a mill and power co-generation facility of this size would range between \$60-70M.

A full feasibility study with accompanying environmental and social impact assessments would be a necessary first step toward preparing a bankable business plan for an investment of this size.

SUPPORTING INITIATIVES

There are a number of investment projects and initiatives which can support this investment:

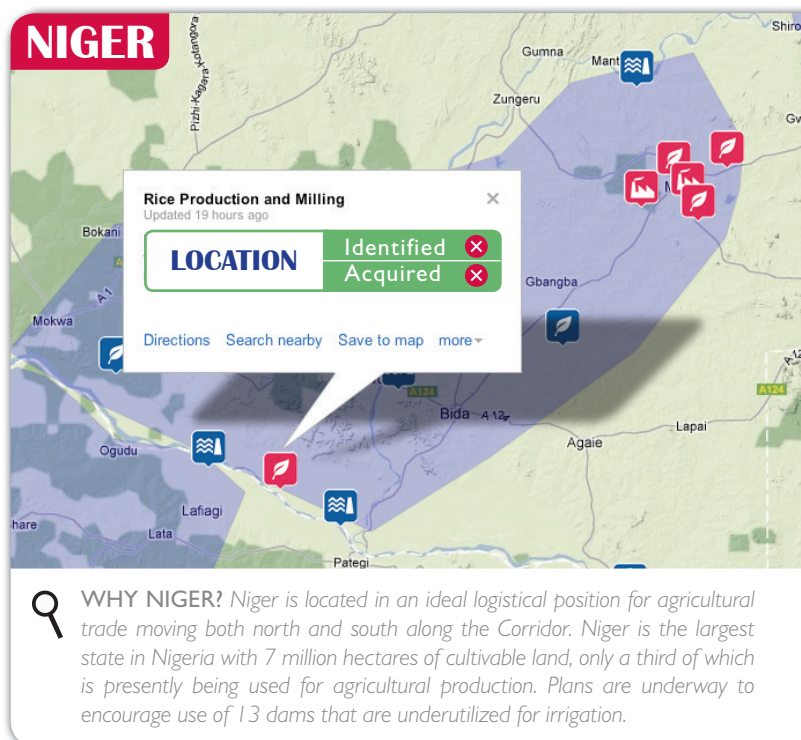
- The GON is planning to locate an SCPZ site in Niger State.
- The Niger State Government is planning to pilot a rice project in association with the SCPZ to put 100,000 HA under production. The 2013 target is to cultivate 20,000 HA through small farmers, with Central Bank of Nigeria and NIRSAL support for financing, including 50% subsidies for fertilizer and improved seed varieties.
- The State Agricultural Development Program (now called Niger State Agricultural Mechanization Authority) owns warehouses which it intends to use to for a warehouse receipt program.

REQUIRED COMPLEMENTARY INVESTMENTS

- There are several irrigation dams located in the Niger cluster. Investment in equipment and machines that maximize the output of these dams would support this investment and the clustering of small and medium farms nearby.
- Investments in Modular Compressed Natural Gas (CNG) power plants will ensure a reliable power source.

PUBLIC SECTOR ROLE

- Investment in new or improved roads is one of the most important infrastructure investments the GON can make to improve Niger State's agricultural economy and level of food security. If the State is to maximize use of an existing grain storage facility of 25,000 ton capacity and a new SCPZ, interstate and feeder roads must be in condition to support these other agricultural investments.
- Facilitating access to reliable power sources is also critical. To do so, the State government can liberalize the process of licensing and entry of electric providers into the market.





11. MAIZE & SOYBEAN PRODUCTION AND STORAGE

Smaller farms of maize and soybean could benefit from equity investment or joint-venture partnerships to facilitate improved production and storage techniques to assist in meeting high demand for human consumption and inputs for poultry feed.

\$15 million

\$100 million

INVESTMENT VALUE

DEAL TYPE GREENFIELD JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING CAP-EX WORKING

MARKET OPPORTUNITY

Nigeria's dynamic growth in packaged foods markets and poultry consumption in South Western Nigeria (Lagos and Ibadan) is resulting in ever increasing demand for raw and processed maize and soybean. For example, poultry consumption has been increasing by as much as 30% annually, creating a large demand for feed, and thus a demand maize and soy. With growing maize and soy production levels outpaced by growing demand (100,000MT maize and 200,000 MT soy imported annually) and the GoN's determination to substitute imports with local production, there is a stable market for large commercial maize or soybean investments involving nuclear farms with irrigation, intercropping and out grower networks.

Maize and soybean investments in production, aggregation and storage in Niger would benefit from favorable agronomic conditions and vast amounts of available land, and the growing number of local farmers looking at expanding existing maize production while moving into dual cropping maize with soy. The reliability and volumes of supply from these producers is likely to increase, due to donor and GoN programs aimed at

increasing maize yields from 2 tons/ha to 4.2 tons/ha and minimize post-harvest losses.

INVESTMENT REQUIRED

A nucleus commercial farm (or multiple farms) with facilities for aggregation, sorting and packaging, and a fully serviced out grower network is suggested. As much \$20M could be invested to develop and cultivate 15,000 ha (combined core commercial farms and outgrower networks). Commercial viability for smaller farmers becomes attractive at minimum of 200 ha of production. An initial investment of as much as \$15M in seed multiplication and up to \$100M in agrochemical importation and distribution would be required to intensify and expand production at both the nucleus farms and out grower farms. A core commercial could work with USAID and GoN initiatives to offer training, inputs and credit to smallholder farmers in allied cooperatives.

A full feasibility study would need to be conducted to determine the exact parameters of the investment and the most appropriate phasing of the project.

SUPPORTING INITIATIVES

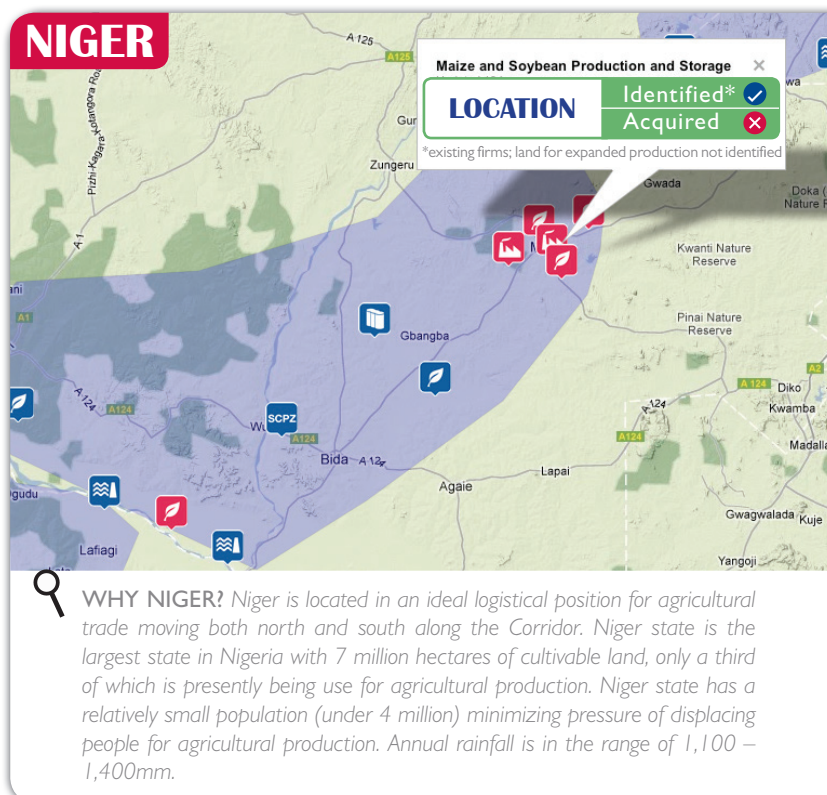
- The Federal Government has built a 25,000 ton grain silo in Niger state.
- There are plans for three agro-industrial parks for processing and packaging agricultural products.
- The GoN will locate one of the country's 13 SCPZs in the state.

REQUIRED COMPLEMENTARY INVESTMENTS

- Improved roads between Niger state and poultry processing states will reduce costs to facilitate the ability of domestic maize and soy farmers to compete with importers.

PUBLIC SECTOR ROLE

- Farmers currently do not invest in agro chemicals and inputs because of past negative experiences. The Federal and State Government can play a stronger regulatory and enforcement role of quality and standards.
- Either through legislation or other judicial measures, the Niger State government can ensure a legal system that is capable of supporting contract enforcement (in particular for outgrower contracts).





12. MAIZE AND SOYBEAN PROCESSING MILLS

A greenfield investment or a joint venture is possible to link existing producers and aggregators of maize and soybean to local processing facilities, which would assist in meeting high demand for human consumption and poultry feed.

\$2 million \$5 million

INVESTMENT VALUE

DEAL TYPE **GREENFIELD** **JOINT VENTURE** PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING **CAP-EX** WORKING

*Potentially

MARKET OPPORTUNITY

Nigeria's dynamic growth in packaged foods and poultry consumption in South Western Nigeria (Lagos and Ibadan) create a stable market to support investments in maize and soybean processing mills in Niger State. For example, poultry consumption has seen growth rates as high as 30% per year, placing large demands on poultry feed production. Processing investments in Niger could take advantage of its location along the corridor to source maize and soybean from Kwara state to complement increasing local production. Local investments in production and Donor and GoN programs aimed at increasing yields from 2 tons/ha to 4.2 tons/ha and minimize post-harvest losses are likely to improve availability and volumes of locally produced maize and soya for processing. For example, the GoN aims to bring national maize output to 20 million tons per year (from 8 million), and soybean production has risen from 160,000 tons to 550,000 tons between 1995 and 2010. Strong Linkages with producers and aggregators with support from agriculture programs would enhance the

reliability of supply. Favorable agronomic conditions and vast amounts of available land in Niger state also present opportunities for integrated maize and rice projects involving irrigation, intercropping, out grower networks and processing facilities.

INVESTMENT REQUIRED

The cost of a modular mill is estimated at between \$2M to \$5M, depending on processing capacity and supporting facilities. To enhance reliability of local supply, investors could engage donor or GoN projects to develop off take linkages with aggregators and producers.

A market demand assessment is the next step to sizing and cost estimating the milling facility and preparing a full business plan to be presented to local banks.

SUPPORTING INITIATIVES

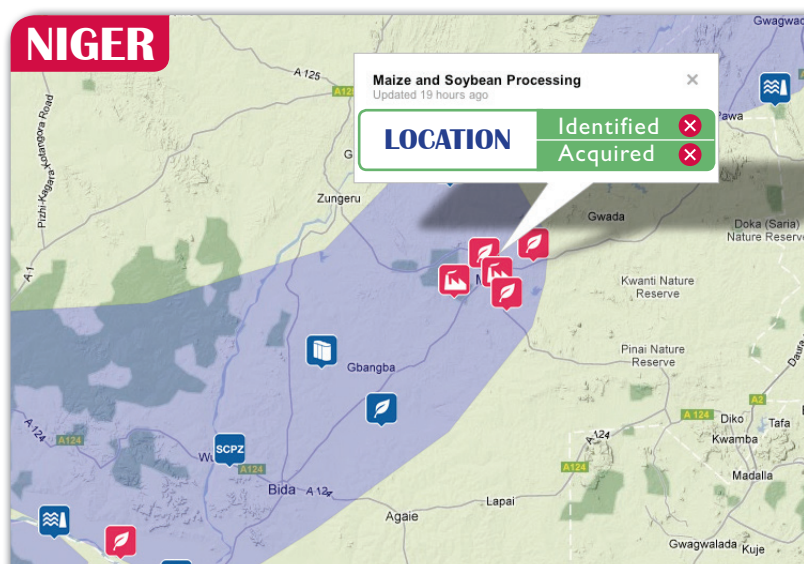
- The Federal Government has built a 25,000 ton grain silo in Niger state.
- There are plans for three agro-industrial parks for processing and packaging agricultural products.

REQUIRED COMPLEMENTARY INVESTMENTS

- Completion of one of the three agro-industrial parks under discussion may be a pre-requisite for this investment.
- Improved roads will reduce costs to facilitate the ability of domestic maize and soy farmers to compete with importers.

PUBLIC SECTOR ROLE

- Ensuring reliable power supply at the agro-industrial parks is a key role for the state. There are also opportunities for independent power generation, which the state can support by liberalizing entry into the market.



WHY NIGER? Niger is located in an ideal logistical position for agricultural trade moving both north and south along the Corridor. Niger state is the largest state in Nigeria with 7 million hectares of cultivable land, only a third of which is presently being used for agricultural production. Niger state has a relatively small population (under 4 million) minimizing pressure of displacing people for agricultural production. The port on the Niger river at Baro is navigable all the way to the ocean as an alternative transport route. Processing facilities could be located in one of the new agro-industrial parks planned for this state.



13. INDUSTRIAL SCALE SHEA PROCESSING

Nigeria has potential to move into industrial scale shea processing via a greenfield investment or a joint venture with an existing processor to facilitate aggregation of small producers and meet domestic and growing international demand for shea by the natural cosmetic and confectionary industries.

\$3 million \$5 million

INVESTMENT VALUE

DEAL TYPE **GREENFIELD** **JOINT VENTURE** PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING CAP-EX WORKING

*Potentially

MARKET OPPORTUNITY

Of the estimated 600,000 tons of shea nuts harvested in West Africa, about 350,000 tons are exported at a market value of ~\$100-150 million, mostly as raw nuts. The remaining 250,000 tons are processed and consumed locally. Exports experienced impressive growth in the 15 years to 2008, rising 700% from a base of just 50,000 tons. Trends driving this growth have included rising chocolate consumption, which has increased demand for cocoa butter equivalents (CBEs), and the emergence of shea as a major ingredient in the natural and organic personal care industry, now a \$5 billion industry in the U.S. alone. Future demand growth is expected to come from the chocolate industry, where overall demand has grown by over 30% since 2001 and consumption in Asia is expected to be particularly strong in the coming years. Demand for shea in cosmetics is also growing rapidly, as consumers trends favor naturals and major manufacturers reformulate their products to keep pace. A recent indicator of this trend is Jergens' launch of a new line of shea products in partnership with the Global Shea Alliance.

Mali, Burkina Faso and Ghana export the largest quantities of shea, with Nigeria trailing closely behind (exporting an estimated 45,000 Tons in 2008), yet Nigeria is estimated to have among the largest stocks of shea parklands.

INVESTMENT REQUIRED

An investment in a shea processing facility is estimated at \$3-5 M considering location in one of the new agro-industrial parks planned for this state. Industrial scale shea producers will also require annual working capital financing for shea nut purchase valued at anywhere from \$1-3 M per season, representing an important, additional financing opportunity for this investment.

The most critical next step is to organize the most efficient collection and delivery mechanism and organization for having the raw shea nuts brought to the processing facility. There also needs to be consideration of whether intermediate processing facilities should also be established close to the collection points.

SUPPORTING INITIATIVES

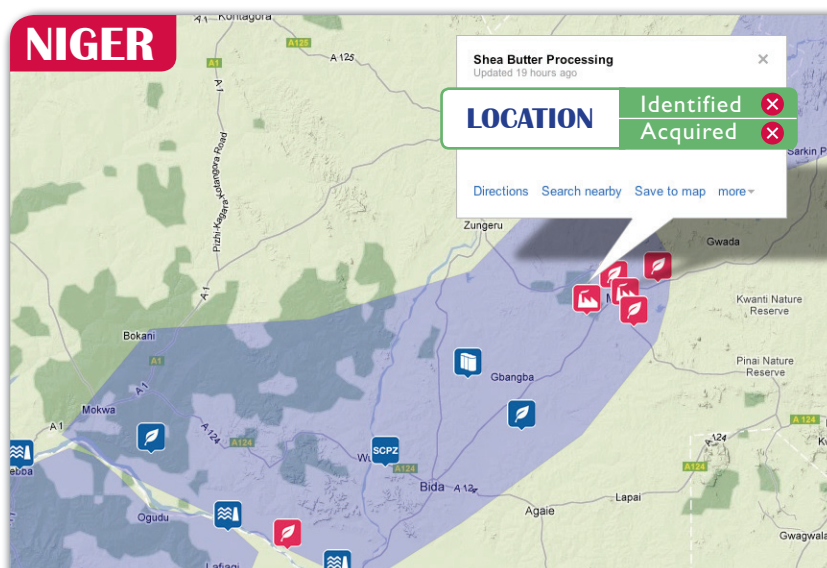
- Plans exist to create three agro-industrial parks for processing and packaging agricultural products.
- The Director General of the Niger State Commodity and Export Promotion Agency is a great supporter of shea exporting from Nigeria and a member of the Global Shea Alliance (Mohammed Kontagora).

REQUIRED COMPLEMENTARY INVESTMENTS

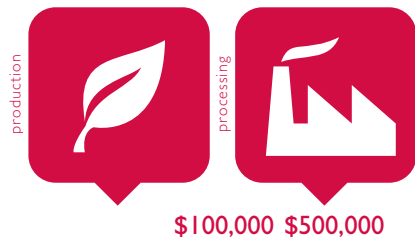
- Completion of one of the three agro-industrial parks under discussion is an important complement for this investment.

PUBLIC SECTOR ROLE

- Supporting the enabling environment for shea processing and export is the GON role. Improving roads and electrical supply will have a significant, positive impact on the growth of the shea processing industry.
- Installing an international, accredited laboratory within Nigeria would also go a long way to ensure product quality.



WHY NIGER? Niger state is one of the largest producers of shea nuts in the country, and is blessed with a large number of shea trees. Niger state is located in an ideal logistical position for agricultural trade moving both north and south along the Corridor. Niger state is the largest state in Nigeria with 7 million hectares of cultivable land, only a third of which is presently being used for agricultural production. Niger state has a relatively small population (under 4 million) minimizing pressure of displacing people for agricultural production. The port on the Niger river at Baro is navigable all the way to the ocean as an alternative transport route, in particular for exports.



14. HONEY PRODUCTION AND PROCESSING

By expanding processing facilities, improving linkages with small producers and introducing quality improvements via a greenfield or equity investment, investors can tap into the expanding market for honey production (and its derivatives), both for domestic and export markets.

INVESTMENT VALUE

DEAL TYPE **GREENFIELD** JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION **FINANCING** CAP-EX WORKING

MARKET OPPORTUNITY

Growing demand within Nigeria for high-quality, packaged honey has created market opportunities in commercial processing. Despite high production potential, the sector has remained primarily artisanal and domestic retailers report frustration identifying reliable and consistent suppliers. As a result, Nigeria relies on imported honey to satisfy unmet demand. The long-term outlook for honey is favorable, however: intake by supermarkets will increase if quality and consistent supply are increased; beeswax can be used in rapidly growing food processing industries as an additive, and in cosmetic and pharmaceutical products; and Nigerian exporters can capture consistently high international demand for honey products. Niger state has a number of apiaries that currently source from honey producers in Abuja, but these apiaries could easily expand output by sourcing from nearby producers within the state.

INVESTMENT REQUIRED

An investment in a commercial honey processing facility is estimated at \$100,000 - \$500,000. The location could be within one of the new agro-industrial parks planned for this state. Industrial scale honey producers will also require annual working capital financing to purchase honey procured locally, representing an important, additional financing opportunity for this investment. Entry requires land, vehicles and equipment. Small farms require bees with queens, brood chambers, honey containers, honey boxes, various extracting tools, and cold storage. Larger operations, with 10-20 employees, can source honey from neighboring farmers, and with correct marketing, can distribute to schools, restaurants, households, pharmacies and hotels. Investment in packaging and distribution will be an important component of this investment.

To the extent that exports are to be considered, identifying the right foreign partner with access to the specialized and niche international markets is a key next step for this investment.

SUPPORTING INITIATIVES

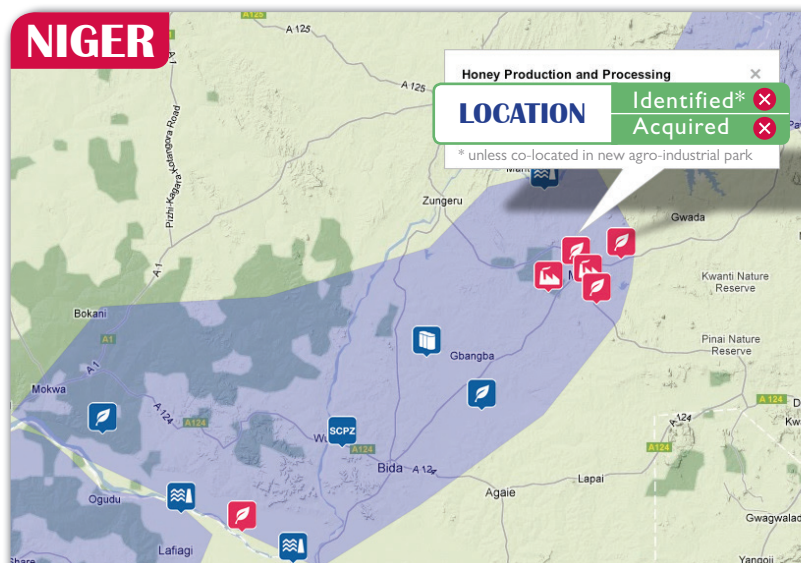
- Plans exist to create three agro-industrial parks for processing and packaging agricultural products.

REQUIRED COMPLEMENTARY INVESTMENTS

- Completion of one of the three agro-industrial parks for processing and packaging agricultural products.

PUBLIC SECTOR ROLE

- Improving roads and providing a sustained electrical supply will have a significant, positive impact on the growth of agro processing industries.
- Efforts to institute minimum international product standards will allow Nigeria to take advantage of steady, growing demand for honey in international markets. In particular, the GoN can play a stronger role in adopting standards related to honey quality, labeling, and packaging.



WHY NIGER? Niger state is located in an ideal logistical position for agricultural trade moving both north and south along the Corridor. Niger state is the largest state in Nigeria with 7 million hectares of cultivable land, only a third of which is presently being used for agricultural production. Niger state has a relatively small population (under 4 million) minimizing pressure of displacing people for agricultural production. The port on the Niger river at Baro is navigable all the way to the ocean as an alternative transport route, in particular for exports. For commercial pollination to work, investors must locate the investment near a nectar source, and determine the appropriate crop to hive ratio.



15. MAIZE AND SOYBEAN PRODUCTION

Linking existing producers and aggregators of maize and soybean to local processing facilities can assist in meeting high demand for human consumption and poultry feed.

\$5 million \$10 million

INVESTMENT VALUE

DEAL TYPE **GREENFIELD** JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING CAP-EX WORKING

MARKET OPPORTUNITY

Nigeria's dynamic growth in packaged foods markets and poultry consumption in South Western Nigeria (Lagos and Ibadan) is resulting in ever increasing demand for raw and processed maize and soybean. For example, poultry consumption has been increasing by as much as 30% annually, creating a large demand for feed, and thus a demand maize and soy. With growing maize and soy production levels outpaced by growing demand (100,000 MT maize and 200,000 MT soy imported annually) and the GoN's determination to substitute imports with local production, there is a stable market for commercial maize or soybean investments.

Favorable agronomic conditions and vast amounts of available land in Kwara state also presents opportunities for integrated maize and soybean projects involving irrigation, intercropping, and out grower networks. Investments in aggregation could benefit from the growing number of local investors looking at expanding existing maize production while moving into intercropping maize with soy. The reliability and volumes of

supply from these producers is likely to increase, due to donor and GoN programs aimed at increasing maize yields from 2 tons/ha to 4.2 tons/ha and minimize post-harvest losses. Two new recently built large capacity silos for grain storage (11,000 MT and 25,000 MT) located in Kwara are not currently utilized and could be part of a larger aggregation operation. Such operations could be greenfield or involve investments in existing aggregators.

INVESTMENT REQUIRED

An investment in maize aggregation and storage is estimated to cost \$5M to \$10M, to assist in quality improvement, increased production (including equipment and machines) and productivity.

A full market demand assessment is the next step to sizing and cost estimating the storage and handling facility, and preparing a full business plan to be presented to local banks.

SUPPORTING INITIATIVES

There are a number of public and private initiatives that could support this investment proposal:

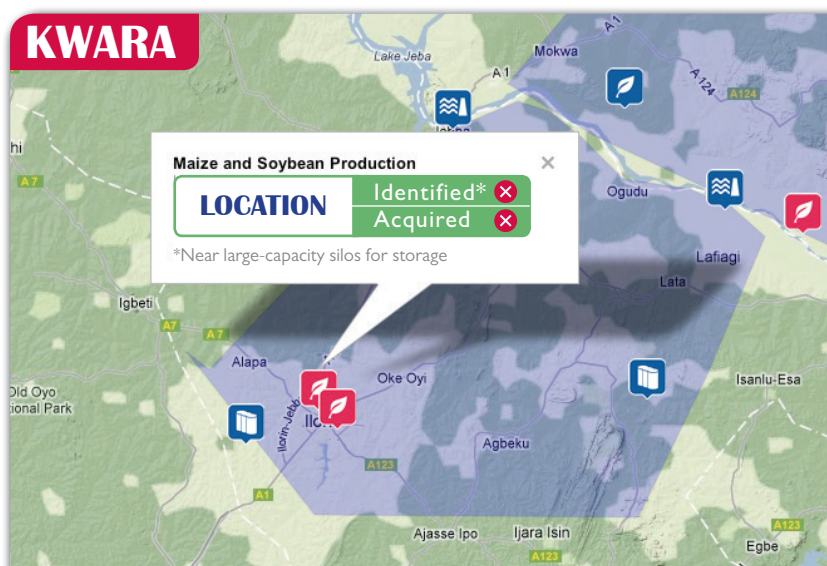
- Kwara State leaders have articulated their vision for agricultural corridor development through the state's five-year development plan, called the Kwara Agricultural Modernization Master Plan (KAMP), created in 2012. The plan seeks a modern, integrated farming sector which links farm communities to universities and research institutions, thereby providing employment opportunities for youth and business opportunities for investors.
- Kwara envisions a "pilot agribusiness corridor," which will support public-private partnerships for competitive agribusiness. The pilot corridor will be focused on anchor firms surrounded by smallholder plots.
- There are a number of irrigation dams in or close to Kwara State, including: Daku-Lade, Asa, Duro-Gapkan, Oke-Oyi/Abati, Onire, Erin-Ile, Okuta, Patigi, Jebba, Tada Shonga and Iyin Ekiti irrigation dams. The three largest cover an estimated area of 6,000 ha which could be easily expanded to 10,000 HA by investors with interest in irrigation dam development.
- Kwara is the site of two major grain silo complexes (built in 2009), one in Illorin (unused) designed to store maize and sorghum with a 25,000 MT capacity. The other is by the Niger River, and has capacity for 11,000 MT of grain.

REQUIRED COMPLEMENTARY INVESTMENTS

- Physical road infrastructure is a critical, complementary investment for Kwara. The road between the distribution hub of Illorin to fertile land areas along the Niger River is highest priority.

PUBLIC SECTOR ROLE

- The State government can support the shift from rain-fed to irrigated agriculture for higher productivity and increased, commercial agriculture.
- Facilitating the enabling environment should be the primary concern of the GoN to support Kwara in its agricultural development.



WHY KWARA? Kwara is ideal for commercial agriculture. Located within the fertile "middle belt" of the country and bordered by the Niger River in the North, it is endowed with vast arable land and a strategic location between north and south. Much of the land is underutilized, with hundreds of thousands of ha available for development. Most promising areas are the swath located south of the river. Kwara state has had a successful experience with large scale commercial farming. There is sufficient rainfall (600-800 mm per year) during rain seasons to support field crops as maize and soybean without irrigation.



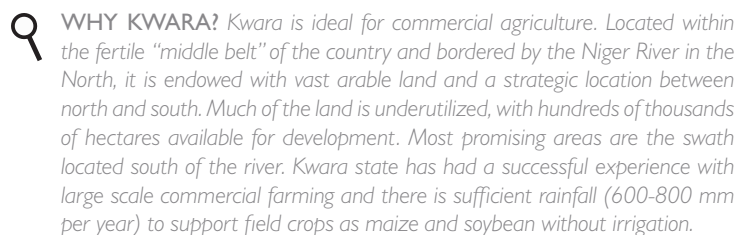
The chart displays investment values and deal types. The top section shows a horizontal axis for investment value, with a red line segment from \$30 million to \$100 million. The bottom section shows a horizontal axis for deal types, with a red line segment from Greenfield to Acquisition.

Investment Value	Deal Type
\$30 million	Greenfield
\$100 million	Acquisition

Integrated projects which include a nucleus rice farm supported by a network of out-growers are recommended. Estimated land cultivation and irrigation costs are approximately \$2,000 per hectare; 15,000 hectares

A full feasibility study with accompanying environmental and social impact assessment would be a necessary first step toward preparing a bankable business plan for an investment of this size.

- Improve road infrastructure to enhance the competitiveness of Kwara's agricultural industry.
- Better regulation of the Nigerian agrochemical market. A more competitive and sustainable market for agrochemicals and inputs will follow.





17.PROCESSING FACILITY FOR SPICES, OILS, FRUITS & VEGETABLES

Increased demand to serve both domestic and export markets provides an opportunity for a joint venture or equity investment in agricultural food processors to expand processing capabilities and reach new markets.

\$10 million \$15 million

INVESTMENT VALUE

DEAL TYPE **GREENFIELD** **JOINT VENTURE** PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING **CAP-EX** WORKING

MARKET OPPORTUNITY

Agricultural food processors are looking to expand their local and U.S. market shares of organic foods and spices by opening processing facilities, possibly in the middle belt of Nigeria, to expand production of products such as chili pepper, garri, palm oil, beans, spice, melon seeds and okazi leaf. According to the Organic Trade Association's 2012 industry survey, the U.S. organic and natural food sector grew by 9.5 % in 2011. The USDA asserts that organic and natural food markets accounted for over 3.5% of total U.S. food sales in 2012, with consumer demand growing rapidly. The U.S. imports about \$1-\$1.5 billion worth of organic and natural foods,

including processed foods. The U.S. market, with AGOA preferences for African exporters, provides an attractive export opportunity. In addition, local demand for processed food and spices is equally strong.

INVESTMENT REQUIRED

Investments required include equipment and facilities for refinement of crude vegetable oil and other spice and food processing. There may be joint venture opportunities for investors with knowledge of and access to the U.S. market.

SUPPORTING INITIATIVES

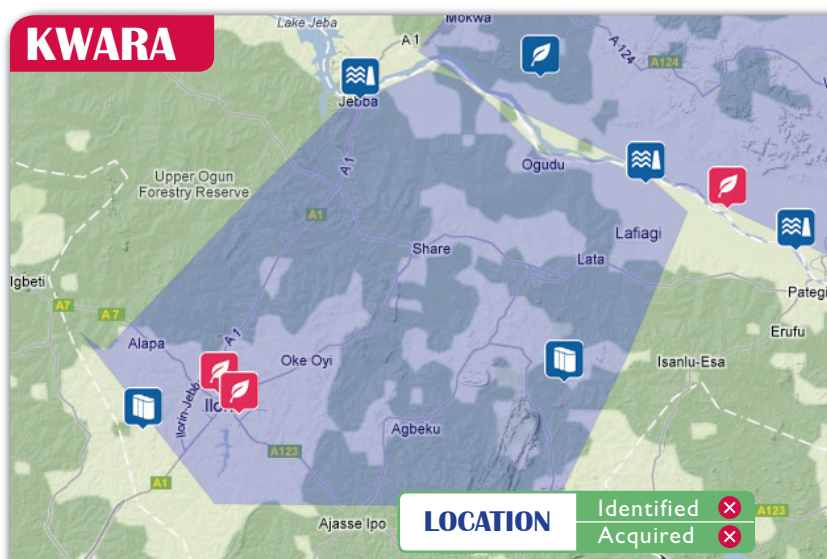
- The precursor to NEXTT, the USAID-funded Nigeria Expanded Exports Project (NEEP), has supported various firms that may be interested in joint venture or equity investment opportunities.
- The state put in place the 2012 Agricultural Modernization Master Plan (KAMP), a five-year plan which maps out the state's agricultural development strategy and priorities. The goal is to create a dynamic, productive and sustainable agricultural sector. The plan will establish a modern, integrated farming sector linking farm communities to universities and research institutions, thereby providing employment and business opportunities for youth and investors. The plan also seeks to catalyze the establishment of the Kwara State Agric-City (KSAC) project.

REQUIRED COMPLEMENTARY INVESTMENTS

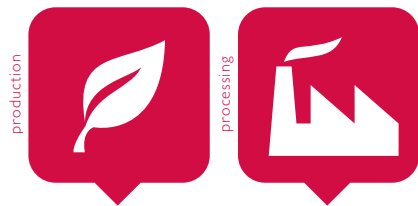
- Investment in GPS tracking systems for truckers would enable trucking companies to track their drivers, estimate delivery times and inform clients of trucking delays.
- Access to finance is an important input for agribusiness firms. Stimulating increased financial services to agribusiness firms would assist SMEs access financing via more flexible loan terms, more competitive interest rates and innovative collateral schemes.

PUBLIC SECTOR ROLE

- Improve road infrastructure to facilitate transport of goods between the distribution hub of Illorin to fertile land areas along the Niger River and large cities such as Abuja and Kano.



WHY KWARA? Kwara is ideal for commercial agriculture. Located within the fertile "middle belt" of the country and bordered by the Niger River in the north, it is endowed with vast arable land and a strategic location between north and south. Much of the land is underutilized, with hundreds of thousands of HA available for development. Most promising areas are the swath located south of the river. Kwara state has had a successful experience with large scale commercial farming and there is sufficient rainfall (600-800 mm per year) to support field crops as maize and soybean without irrigation.



18. CASSAVA PROCESSING AND AGGREGATION

Equity investment or joint venture opportunities exist to increase industrial processing of cassava, as well as to link producers with aggregators of cassava to meet high demand for raw cassava tubers.



DEAL TYPE GREENFIELD JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION **FINANCING** CAP-EX WORKING

MARKET OPPORTUNITY

Nigeria produces between 40-55 million tons of cassava in a given year, making it the world's largest producer. It is also the world's largest consumer of cassava. Yet very little is processed outside of household or village-level conversion to gari and other staples. Urban and industrial growth in Nigeria is spurring demand for convenience foods and other products for which processed cassava is a key basic ingredient. Demand for processed starch, flour, sweeteners, dried chips for export and animal feed, fuel ethanol and high quality gari is currently estimated at 2 million tons and growing. Glucose imports alone stand at 120,000 tons at most recent estimate (2007), representing a \$60 million import substitution opportunity. The Central Bank of Nigeria estimates the cassava starch and cassava glucose market at \$200 million per year.

The main market channels for cassava glucose and starch are as ingredients in convenience foods and, increasingly, beer. Additionally, the government has put in place a regulatory requirement for wheat flour millers to blend high-quality cassava flour into their products at a 10% ratio. Meanwhile, a supplementary levy on wheat (>60%) has been introduced to further

discourage imports. The proceeds for the levy are earmarked for further research on opportunities for substituting imports with processed cassava.

INVESTMENT REQUIRED

The new Staple Crop Processing Zones (SCPZ) planned for Ogun will provide the power, water and technical support needed to facilitate the establishment of processors in the state. Investment required to establish new cassava processing facilities or upgrade existing facilities is estimated at anywhere from \$5 million to \$25 million, depending on scale. Organizing smallholder farmers to provide quality cassava at a level that can meet demand is an additional investment opportunity. The goal will be to process industrial starches, flours, sweeteners, high quality garri or dried chips for local consumption or export.

The critical next steps to be taken are determining the most profitable markets to be producing and processing cassava (both for domestic and export markets) and establishing purchasing contracts with existing processors.

SUPPORTING INITIATIVES

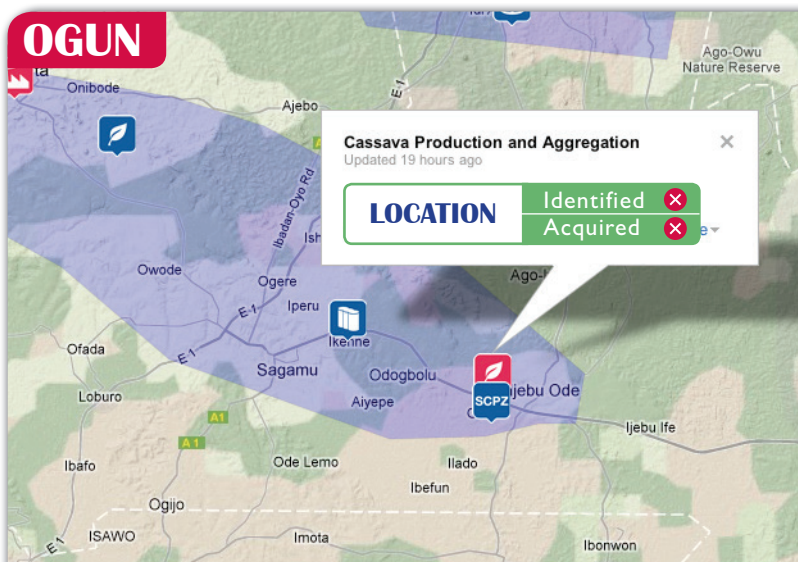
- Ogun State has prioritized the transformation and value addition for cassava and is the site of one of the first cassava SCPZs in Ososa. This SCPZ is meant to offer "wrap around services" for cassava production and processing, including warehousing, processing equipment, technical assistance and financing support.
- The state government is also promoting farm mechanization through leasing programs and attractive terms for obtaining farmland.
- The USAID MARKETS II project could assist with organizing smallholder farmers to source industrial processors already established, or investors seeking to establish new operations in Ogun.
- USAID MARKETS II is working closely with EKHA Agro, a cassava based sweetener plant that is seeking to expand its operations.

REQUIRED COMPLEMENTARY INVESTMENTS

- The most important complementary investments in the Ogun Cluster are the extension of the electricity grid for reliable and affordable power to the processing centers and improvement of roads connecting farms to markets.

PUBLIC SECTOR ROLE

- Continued supportive policies from the State and Federal Governments to stimulate farming operations and encourage new investments to improve road and electricity infrastructure.



WHY OGUN? Ogun State, is ideally located for cassava processing facilities thanks to its proximity and easy access to the port of Lagos. Ogun is located in the heart of the rapidly industrializing areas of Southwest Nigeria where electricity and transport is becoming more easily accessible. For an efficient cassava production chain, farmland should not be too distant from the processing centers. In the case of Ogun, potential farmlands are located in the vicinity of existing processing centers. There is sufficient rainfall (1000-1200 mm per year) to support expanded cassava production without irrigation.



19. CASHEW PROCESSING AND AGGREGATION

Continued supportive policies from the State and Federal Governments to stimulate farming operations and encourage new investments to improve road and electricity infrastructure.

INVESTMENT VALUE

\$25 million \$30 million

DEAL TYPE

GREENFIELD

JOINT VENTURE

PARTNERSHIP

EQUITY PARTNERSHIP

PRIVATIZATION

ACQUISITION

FINANCING

CAP-EX

WORKING

MARKET OPPORTUNITY

The market for cashews has been growing at a pace of 5% for the past 15 years and global cashew production has now surpassed 1.5 million tons. The cashew nut has a low cholesterol and high unsaturated fat content, driving the increasing global demand for this “health in a nutshell”. India, Vietnam and Brazil account for the majority of the world market for processed cashew, with all 3 countries processing 100% of their domestic raw cashew. India supplements domestic production with imports, primarily from Africa, which are then re-exported raw. Indian processors have come under significant pressure from buyers to locate their processing activity closer to the source, however, and some buyers are also turning to domestic processors in Africa as a source of kernels.

With newly planted trees about to come to maturity, Nigeria is poised to double its cashew production from 120,000 to 250,000 tons per year. Supported by the world’s largest snack foods companies, Kraft and Intersnack, the African Cashew Alliance (ACA) is encouraging and assisting investors in the region to increase installed capacity for cashew processing to a point where 50% of the raw cashew nut crop is exported as kernels.

Nigeria presently only processes 20% of that target. Significant room for additional processing capacity remains and complementary logistics and bulking infrastructure is also required, which could be launched as an independent service business to existing processors.

INVESTMENT REQUIRED

Establishing processing facilities and plants to process, sort and package the cashews for export is the major opportunity for value addition. The cost of developing a 300 ton/day processing facility will be around \$25 million. Working capital financing for cashew processors is an additional financing opportunity, as bulk purchase of raw nuts is required in a timely manner during cashew harvest.

Two opportunities exist that need to be further explored: one is increasing planting and production of cashew, and the other is aggregating existing production and establishing processing plants to increase the amount of value-added processed cashews that are exported. A full market study, cost estimate and business plan would need to be formulated.

SUPPORTING INITIATIVES

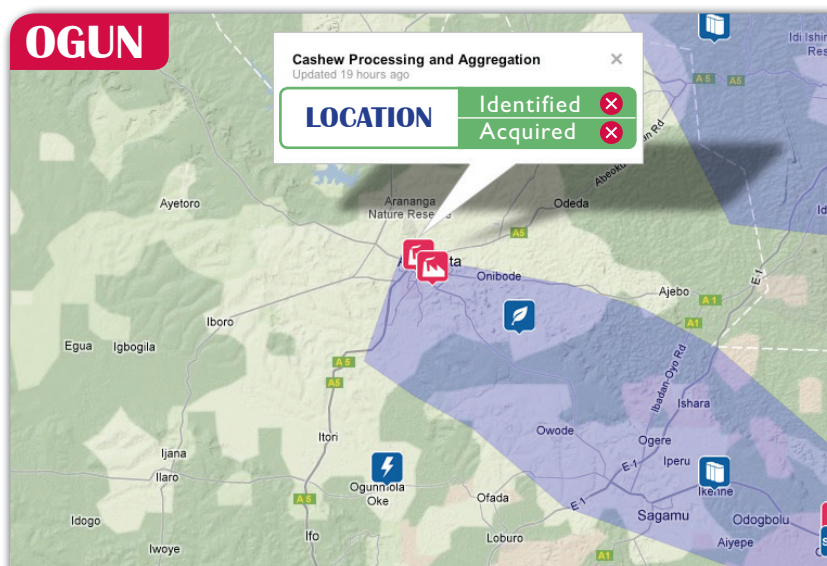
- ACA, financed by USAID, has a national affiliate in Nigeria committed to improving the competitiveness of the cashew industry. It provides members with world class support and technical assistance in quality improvement, access to finance and access to markets.
- The International Institute for Tropical Agriculture (IITA) is conducting research on improved cashew tree varieties.
- The Ogun State Government has made it a point to be very business friendly in attracting value adding agro-industries and especially those targeted for export.

REQUIRED COMPLEMENTARY INVESTMENTS

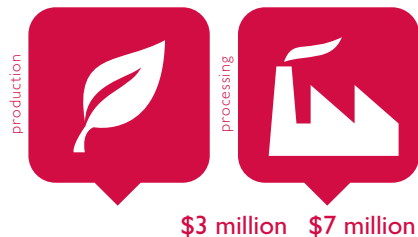
- The most important complementary investments in the Ogun Cluster would be for the extension of the electricity grid line for reliable and affordable power to the processing centers and improvement of farm to market roads by the State government for ease of bringing in the raw cashew kernels.

PUBLIC SECTOR ROLE

- The State and Federal Governments can continue in their role of developing supportive policies to stimulate increased farming operations, as well as making new investments to improve road and electricity networks.



WHY OGUN? Ogun State offers an ideal location for cashew processing facilities thanks to its proximity and easy access to the Lagos and its vicinity to the rapidly industrializing areas of Southwest Nigeria where reliable electricity and transport infrastructure are becoming rapidly accessible. The neighboring states of Oyo and Oshun are also major cashew production areas and offer another supply source.



INVESTMENT VALUE

DEAL TYPE **GREENFIELD** JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING **CAP-EX** **WORKING**

MARKET OPPORTUNITY

Global cocoa output needs to rise by an estimated 25-30%, or 1-1.5 million tons, by 2020 in order to keep pace with demand. That demand is surging on the back of increased chocolate consumption in emerging markets. And, While cocoa is Nigeria's largest agricultural export in both volume and value (est. \$900 million in 2012), Nigeria is underperforming its potential for both total output and value addition. Cocoa yields in Nigeria (~350kg/ha) are half of those in Ghana and only ~10% of exports are in the form of processed powder, butter and cake. The strong global market outlook presents attractive opportunities in both segments: cocoa bean exports and processed cocoa products for domestic and global markets. There is also an opportunity to improve margins through quality improvements, as Nigerian cocoa generally trades at a discount to neighboring markets.

Hershey's recently committed to supporting an initiative to double farm-level yields in Nigeria. The USAID-funded MARKETS project has also trained 2,000 farmers in improved cocoa production using 52 lead farmers.

Established firms, such as Tulip Cocoa Processing, Ltd., present a potential market for cocoa supply chain development services. USAID NEXTT and other donor programs also stand ready to support market linkages for new cocoa processors.

INVESTMENT REQUIRED

Investment would go to expansion of processing capacity, aggregation infrastructure and/or increasing the core land holdings. With donor support, core plantation production can be increased through programs designed to integrate smallholders and provide inputs and technical assistance to improve yields.

Next steps include investigating the capacity of smallholders to increase yield and improve quality of their cocoa, as well as establishing new processing facilities and/or expanding existing ones.

SUPPORTING INITIATIVES

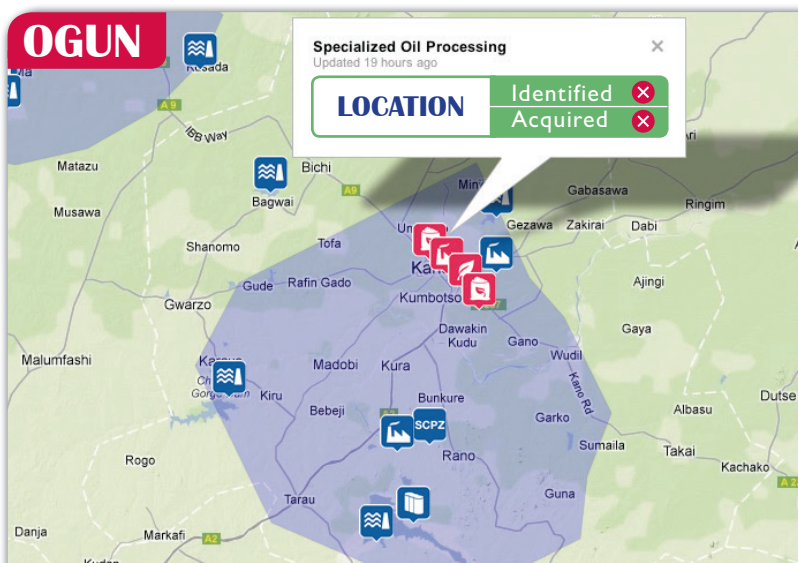
- The International Institute for Tropical Agriculture (IITA) is providing research for improved cocoa tree varieties. The World Cocoa Foundation and Technoserve are collaborating closely to support these research investments as part of the World Cocoa Initiative.

REQUIRED COMPLEMENTARY INVESTMENTS

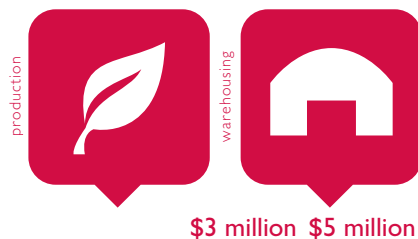
- Continued technical assistance and support from IITA, MARKETS II and other donor programs to improve the quality and yield of smallholders to make investments into processing facilities more attractive.
- Provision of reliable and affordable electricity for the processing plants is paramount to increase competitiveness.

PUBLIC SECTOR ROLE

- Continued efforts from the State and Federal Governments to push supportive farming policies and to improve rural roads and electricity networks.



WHY OGUN? Ogun State is ideally located for cocoa processing facilities due to its proximity to cocoa producing areas, easy access to the port of Lagos and the nearby presence of major cocoa processors such as Nestle. Ogun is also in the heart of the rapidly industrializing areas of Southwest Nigeria where electricity and transport infrastructure are fast becoming easily accessible. Several neighboring states are, in addition to Ogun, major producers of raw cocoa beans and thus a reliable source of supply for processing factories in Ogun. The Ogun State Government has also prioritized business friendly regulations and attracting value adding agro-industries, especially those targeted for export.



21. PRODUCTION AND WAREHOUSING OF MAIZE, SORGHUM & CASSAVA

Legacy outgrower schemes to supply large agribusiness firms can be expanded upon to meet growing consumer demand.

INVESTMENT VALUE

DEAL TYPE **GREENFIELD** **JOINT VENTURE*** PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING CAP-EX WORKING

*Potentially

MARKET OPPORTUNITY

Growth in packaged food, beverage and poultry consumption has resulted in increasing demand for locally sourced maize, sorghum and cassava. With a stable market for agricultural commodity products, vast opportunities exist for companies to efficiently link farm-level products with large markets like Lagos and Kano. Oyo presents attractive opportunities for strategic commercial agriculture investments, based on its favorable location and growing conditions and the existence of functioning outgrower networks positioned to supply large buyers. These outgrower networks are a legacy of the now defunct Nigeria Tobacco Company (now British American Tobacco (BAT)). The legacy outgrower schemes have been maintained and used by agribusiness like Nestle to source products. In this context, there is a case for warehousing and logistics investments focused on aggregating agricultural products produced in Oyo to be shipped South to larger industrial and consumer markets. Such a project could serve industrial consumers like Nestle, Cadbury, Nigerian Breweries and CHI who are forced to hold up to 12 months of inventory at their production facilities

due to the lack of intermediate aggregation. A specialized agricultural logistics and warehousing operator could capitalize on their need for efficient sourcing of commodities from Oyo and other growing regions and bulking commodities in close proximity of the corridor. Integrating bulking and warehouse receipt systems could foster complementary commodity trading services. Opportunities also exist for large agribusinesses to initiate integrated projects involving core farms, management of large outgrower networks, aggregation services, warehousing and trading services.

INVESTMENT REQUIRED

The estimated cost to construct or rehabilitate existing warehouses and loading dock infrastructures in Oyo is \$3-\$5 million. Warehouse handling equipment for loading and unloading also needs to be put in place to minimize manual operations. Establishing core farms and putting in place outgrower schemes is another investment possibility.

SUPPORTING INITIATIVES

- The National Strategic Grain Reserve Silo in Monatan, Ibadan, was recently rehabilitated and presents possible grain storage opportunities for interested partners, as well as opportunities to establish more nucleus farm estates.
- A number of government warehouses exist that could be taken over by investors as the distribution of farm inputs from the public sector ends.
- The State Government is rehabilitating and reviving its farm estates in aid of crop production, livestock rearing, fisheries and bee keeping, amongst others.
- USAID Nigeria's MARKETS II project is supporting farmers in Oyo to improve quality, yields and post-harvest management. Other donor supported interventions such as UNDP's Inclusive Markets Facilities (NFM), DFID GEM4, etc.

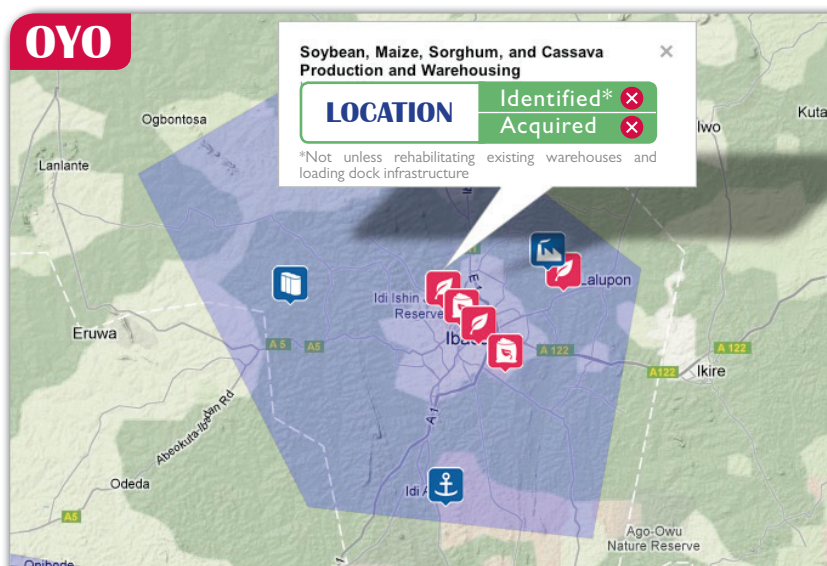
REQUIRED COMPLEMENTARY INVESTMENTS

- Financing for bulking and storage infrastructure will be an important complementary activity.
- The Bank of Agriculture may be able to play a role in lending for farm inputs and machinery for the agribusiness sector.
- Investment in equipment and machines that help maximize the output of the several irrigation dams would support this investment and clustering of small and medium farms in the area.
- Investments in Modular Compressed Natural Gas (CNG) power plants that target the various industrial and business parks within the cluster.

PUBLIC SECTOR ROLE

- The state government needs to finalize its agricultural policy and ensure proper attention is provided to the need for input supply.
- The GoN needs to play its role in regulating the agro inputs and output market to enforce standards and quality measures and provide incentives to protect future investments.

VALUE CHAIN: Soybean, Maize, Sorghum, Cassava



WHY OYO? Located in the Southwest of the LAKAJI corridor, Oyo State is the largest state by landmass, covering an area of about 28,000 square kilometers and its topography makes it well drained with rivers flowing from upland areas. The state's equatorial climate and relatively high humidity favors the cultivation of crops like cassava, yam, maize, rice, plantain, millet, cocoa, oil palm and cashew. There are several Government Farm Settlements located in Ipapo, Ilora, Sepeteri, Eruwa, Ogbomosh, Iresaadu, Ijaiye, Akufo and Lalupon which could be the bed rock for outgrowers.



22. POULTRY FEED AND SERVICES

Expanding the availability of high quality poultry feed and services will support the growth of poultry producers of all sizes.

\$2 million \$3 million

INVESTMENT VALUE

DEAL TYPE GREENFIELD JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING CAP-EX WORKING

MARKET OPPORTUNITY

With Nigeria's growing population and a shift in consumption patterns (from home-cooked meals to convenience and served meals at restaurants and cafeterias) poultry consumption has increased by as much as 30% annually. Given import bans on poultry, this growing consumption must be satisfied entirely by local poultry producers of all sizes. This creates a stable market for poultry feed, veterinary services, and day old chicks, particularly for ventures targeting small and medium sized poultry producers who do not have their own feed mills, veterinary and chick producing capabilities.

Existing investors in the poultry feed and supply industry located in Oyo are seeking partnerships and/or equity investors to expand and diversify their operations. Main opportunities reside in developing more affordable

and accessible technical packages and veterinary services targeting small and medium sized poultry producers.

INVESTMENT REQUIRED

Possibility for greenfield investments or equity partnership with existing poultry companies. Investments would fund operational expansion, development and branding of new technical packages, rebranding and expanding distribution infrastructure.

The next step is to conduct a full survey of the existing poultry farms and operations and identify what products and services are lacking, which ones could be profitably provided, and where best to locate those facilities.

SUPPORTING INITIATIVES

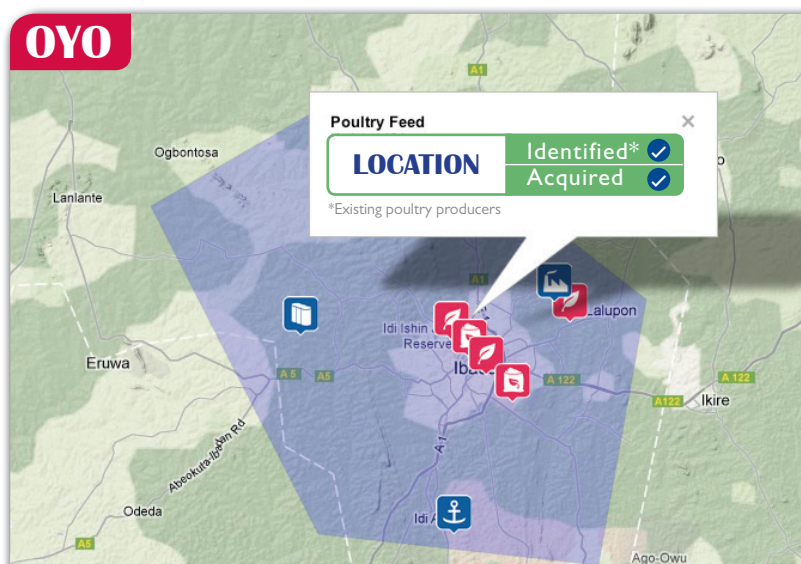
- There are several Government Farm Settlements located in Ipapo, Ilora, Sepeteri, Eruwa, Ogbomosho, Iresaadu, Ijaiye, Akufo and Lalupon which could be the bed rock for out-growers.
- There are a number of major rivers located within the state (the Ogun, Oyan, Otin, Ofiki, Sasa, Oni, Erinle and Osun rivers) on which a number of irrigation dams have been built.
- The National Strategic Grain Reserve Silo in Monatan, Ibadan, was recently rehabilitated and presents possible grain storage opportunities for interested partners, as well as opportunities to establish more nucleus farm estates.
- A number of government warehouses exist that could be used by investors to distribute farm inputs.

REQUIRED COMPLEMENTARY INVESTMENTS

- Improved standards for poultry feed provider packaging would be an important, complementary investment.
- Financing for farmers adopting new feed processing facilities will be an important activity in order to move forward with this investment. The Bank of Agriculture may be able to play a role here, as it is interested in lending for farm inputs and machinery for the agribusiness sector. Similarly, a number of commercial banks are interested in supporting projects that support large firms to consolidate their supply chains.
- Investments in Modular Compressed Natural Gas (CNG) power plants that target the various industrial and business parks within the cluster are another complementary investment.

PUBLIC SECTOR ROLE

- The GoN can develop policies to control the activities of migrant cattle herders that graze their cattle on cultivated farms of other farmers, which has been a source of conflict.
- Investments in Modular Compressed Natural Gas (CNG) power plants that target the various industrial and business parks within the cluster are appropriate, complementary investments, which can be later privatized.



WHY OYO? Located in the Southwest of the LAKAJI corridor, Oyo State is the largest states by landmass, covering an approximate area of about 28,000 square kilometers. The state shares boundaries with Ogun State, Kwara State, Osun State, and the Republic of Benin, and its topography makes it well drained with rivers flowing from upland areas. The state's equatorial climate and relatively high humidity favors the cultivation of crops like cassava, yam, maize, rice, plantain, millet, cocoa, oil palm and cashew by its crop holders who together constitute about 4% of national figures and cultivated 0.578m ha of land in 2010.



23. AGRICULTURAL EQUIPMENT MANUFACTURING

Acquisition of Leyland, a recently-privatized truck and tractor assembly plant, presents an attractive investment opportunity to increase the factory's productivity and meet the growing demand for tractors and trucks in Nigeria.

\$40 million \$50 million

INVESTMENT VALUE

DEAL TYPE GREENFIELD JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING CAP-EX WORKING

MARKET OPPORTUNITY

Nigeria's growing agriculture sector is driving robust demand for agricultural equipment. Demand for tractors over the next 10 years is estimated at 200,000 units Nigeria and across the West African region. Nigerian Federal and State Governments are expected to procure over 5,000 tractors over the 10 years, which could be locally sourced. As the GoN moves to limit intervention in the agricultural tractors, trucks and equipment supply markets, investments in the sector are becoming more attractive. One immediate opportunity to move into this market is the acquisition of Leyland, a privatized truck and tractor assembly plant. The factory is currently working at 5% capacity, and new investors are sought to increase productivity. A new investment in the project could involve production of Leyland-branded equipment, or contract manufacturing for international equipment companies.

Given that the local agro-equipment manufacturing and supply sector remains underdeveloped with room for new players and investment, a Leyland acquisition could be a strategic play for a leading equipment original equipment manufacturer (OEM) interested in developing or expanding a footprint in the fertile Nigeria and ECOWAS market.

INVESTMENT REQUIRED

Investments required would include acquisition and rehabilitation of Leyland's physical assets, as well as re-training staff, rebranding and working capital provisions.

The next step is conducting a full market survey of the type of farm equipment and implements that are in greatest demand and that could be semi or fully fabricated in Nigeria and distributed/supported through local dealerships.

SUPPORTING INITIATIVES

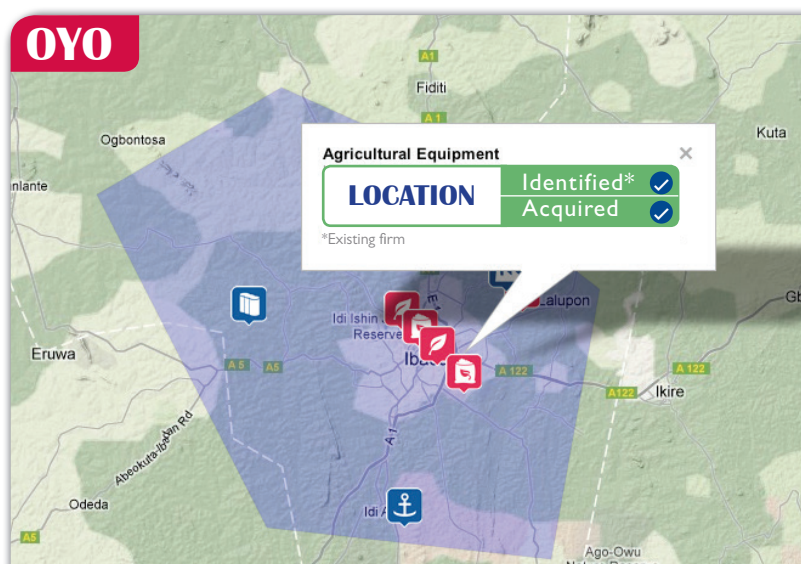
DFID's Mai-Karfi project also supports market system reforms to respond to emerging demands. The market-led focus of this project could be further deepened and complemented in Kano to maximize impact. Mai-Karfi developed a tractor leasing project with First Bank in Oyo State and it may be willing to expand this program in Oyo and other states working through other of banks.

REQUIRED COMPLEMENTARY INVESTMENTS

- Poor power supply inhibits investment in agribusiness but also presents opportunities for independent power generation for existing business parks. Investments in Modular Compressed Natural Gas (CNG) power plants that target the various industrial and business parks within the cluster can address the issues of power insufficiency in the state. Government policies can support the privatization of these plants after they are established.

PUBLIC SECTOR ROLE

- Government at the state and local levels often wait for Federal legislation on issues, but this need not be so. States can develop legislation that promotes and expands the emergence of local agricultural service markets, including agricultural tractors and equipment. States can play a role in protecting investor interests while promoting competitive markets. Improved contract enforcement and legislation protecting investors' interests would represent significant improvements in the agribusiness enabling environment.



WHY OYO? Leyland is located in Ibadan, close to major agricultural production centers of Oyo, Kwara and Niger States. Oyo's farmers constitute about 4% of national figures and cultivated 0.578m HA of staple crops in 2010.



24. COCOA PRODUCTION AND AGGREGATION

Moving from strictly smallholder production to an integrated model with anchor commercial plantations is the logical future of this industry.



MARKET OPPORTUNITY

Global cocoa output needs to rise by an estimated 25-30%, or 1-1.5 million tons, by 2020 in order to keep pace with demand. That demand is surging on the back of increased chocolate consumption in emerging markets. While cocoa is Nigeria's largest agricultural export in both volume and value (est. \$900 million in 2012), Nigeria is underperforming its potential for both total output and value addition. Cocoa yields in Nigeria (~350kg/ha) are half of those in Ghana and only ~10% of exports are in the form of processed powder, butter and cake. The strong global market outlook presents attractive opportunities in both segments: cocoa bean exports and processed cocoa products for domestic and global markets. There is also an opportunity to improve margins through quality improvements, as Nigerian cocoa generally trades at a discount to neighboring markets.

Cocoa produced in Oyo State, as in most of Nigeria, is predominantly cultivated by small scale farmers. Cocoa beans of Nigerian origin fall short of market quality standards due largely to poor on-farm processing techniques. Tree age is also providing cocoa trees with low yields; many are well over 70 years old and are not commonly replaced. Nigerian cocoa farms yield an average of approximately 350kg/ha, 1/2 of what farmers are achieving in Ghana and only 1/3 of yields in Cote d'Ivoire. These challenges invariably translate into opportunities for investments in this

value chain. Investments in nucleus plantations of high yielding and early maturing varieties of cocoa with smallholder clusters surrounding them could prove a lucrative investment if the market outlook remains stable and the investor is able to secure a reliable buyer. Investments could be limited to production of cocoa beans for direct export or sale to processors in Nigeria (currently operating below capacity), or involve vertical integration down to the processing level.

INVESTMENT REQUIRED

Investments in nucleus plantations of new varieties of cocoa that matures in eighteen months are required. This would also include investments in planting, maintenance and postharvest handling equipment and facilities. A smallholder integration program to supplement anchor farm production could draw on technical assistance and grant resources from donor and GON programs. If the vertically-integrated approach is taken, investment in plant and equipment for processing would be required, as well.

Next steps include investigating the ability to increase and improve the production of cocoa, as well as establishing new processing facilities and/or expanding existing ones.

SUPPORTING INITIATIVES

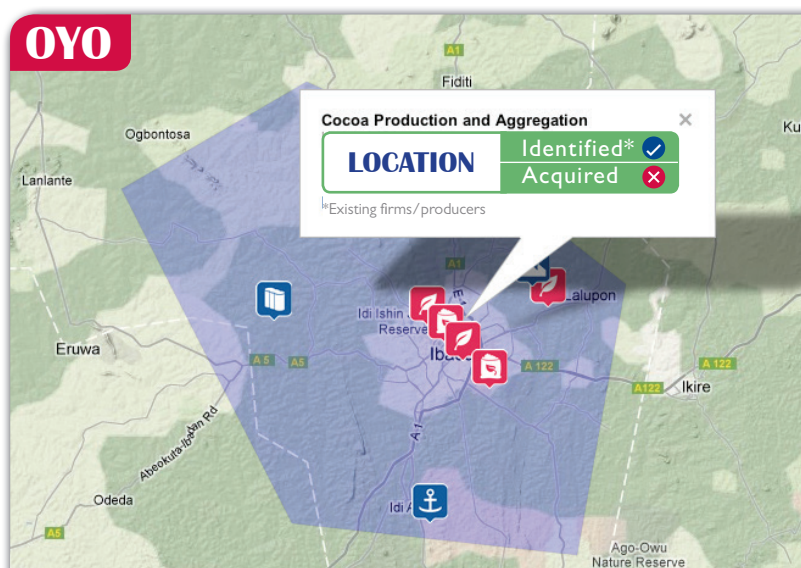
- Oyo is home to the Cocoa Research Institute of Nigeria (CRIN), which has developed eight new improved cocoa varieties which yield up to 2000kg/HA over the current 450 kg/HA.
- The GoN is setting up modalities for rapid multiplication of the improved cocoa seedlings. Through the GoN's Growth Enhancement Support (GES) scheme, support will be provided via inputs to existing and new plantations.
- The GoN at the Federal level is creating an SCPZ in Oyo, and the State is rehabilitating numerous business parks.
- USAID's MARKETS II project is providing support to small farmers to increased productivity and quality.

REQUIRED COMPLEMENTARY INVESTMENTS

- Investments in the multiplication and distribution of the new varieties of cocoa by seed companies is required to boost the development the market for cocoa seedlings.
- Investments in peri-urban processing centers where cocoa beans can be processed into cocoa powder and butter for the export and domestic markets, as well as investments in confectionery industries.

PUBLIC SECTOR ROLE

- Perhaps the most important role governments at the state and federal levels could play is to liberalize the processes of licensing and entry of energy providers into this market, and to facilitate land allocation.



WHY OYO? The Oyo South is the traditional Cocoa production belt of the State and as such it is a location of preference for investors. Cocoa is produced in 20 (twenty) local government areas in Oyo State, with Ibarapa North, Central and East, Akinyele and Omoniya accounting for a significant quantity of the state's total production.



25. CASHEW PRODUCTION

Rehabilitation of old cashew plantations at the Ikere Gorge Dam provides a joint venture opportunity to increase productivity and meet growing demand for cashews.

INVESTMENT VALUE

\$15 million \$25 million

DEAL TYPE

GREENFIELD

JOINT VENTURE

PARTNERSHIP

EQUITY PARTNERSHIP

PRIVATIZATION

ACQUISITION

FINANCING

CAP-EX

WORKING

MARKET OPPORTUNITY

Global cashew production has surpassed 1.5 million tons. The market for cashews has been growing at a pace of 5% for the past 15 years. Due to its low cholesterol and high unsaturated fat content, global demand is expected to increase for this “health in a nutshell” product. India, Vietnam and Brazil account for the majority of the world market for processed cashew, with all 3 countries processing 100%+ of their domestic raw cashew production. India supplements domestic production with imports, primarily from Africa, which are then re-exported raw. Brazilian companies have started to do the same and processors from both countries have started to invest directly in processing facilities in West Africa. Meanwhile, existing Nigerian processors have restructured old debts and are starting to increase their exports, but face issues with reliability and quality of supplies. This presents a great opportunity for an organized nucleus-outgrower cashew production scheme.

The Odua Investments Company Limited inherited most of the assets and liabilities of the commercial concerns of the old Western Region Government (now Ekiti, Ondo, Ogun, Osun, Oyo and parts of Lagos), among which is the 200 HA+ Ikere George Dam Cashew Plantation

and Odua Cattle Ranch both at Isenyin. Odua Farms is the Agricultural investment arm of the company, with over 70,000 HA of available land, some of which is under cultivation. The company has a history of working in partnership with investors. Odua Farms is seeking a partnership with both local and/or international investors to reactivate its cashew farms and service companies, including the Ikere George Dam Cashew Plantation, to export early maturing varieties of cashews and other associated products.

INVESTMENT REQUIRED

Re-establishing an old plantation with new and early maturing varieties of cashew for export would involve the extraction or mining of existing and unproductive trees, requiring investment in heavy machines and equipment, training, inputs, and credit to smallholder farmers in allied cooperatives.

Two opportunities exist that need to be further explored, one is for additional planting and production of cashew and the other is aggregating existing production and establishing processing plants to increase the amount of value-added processed cashews that are exported. A full market study, cost estimate and business plan would need to be formulated.

SUPPORTING INITIATIVES

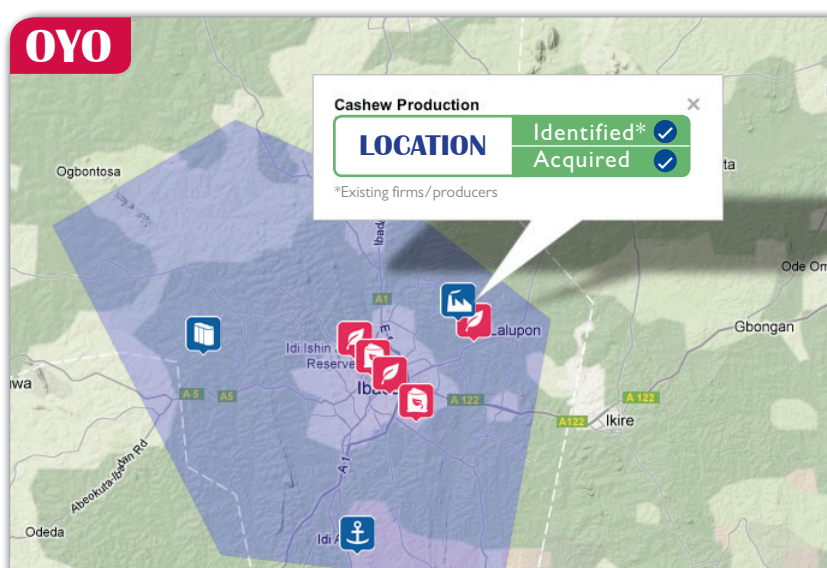
- The USAID-supported African Cashew Alliance (ACA) can be tapped into for improvements of quality and standards, technical assistance, and also for support in accessing financing for potential investors in cashew processing.

REQUIRED COMPLEMENTARY INVESTMENTS

- Investments in the multiplication and distribution of the new varieties of cashew by seed companies would help boost the development the market for cashew seedlings. Encouraging the private providers in so doing would ultimately assist in creating a sustainable market for this service.

PUBLIC SECTOR ROLE

- The GoN needs to play its role in regulating the agro inputs and output market to enforce standards and quality measures.
- There are opportunities for independent power generation for existing business parks. Investments in Modular Compressed Natural Gas (CNG) power plants within the cluster can address the issues of power insufficiency in the state. Government policies can support the privatization of these plants after they are established.



WHY OYO? The Odua Investments Limited Cashew Estate is located in Ikere, Isenyin which is semi Savannah in vegetation. On the estate is located a multipurpose dam. Isenyin about 50km from Ibadan. The state's equatorial climate and relatively high humidity favors the cultivation of crops like Cassava, Yam, Maize, Rice, Plantain, Cocoa, Oil Palm and Cashew by its crop holders who together constitute about 4% of national figures, cultivating 0.578m. A number of major rivers are located within the state on which a number of irrigation dams have been built (e.g. the Ogun, Oyan, Otin, Ofiki, Sasa, Oni, Erinle and Osun rivers.)



26. GREENFIELD COLD STORAGE AND LOGISTICS HUB

Linking existing fish and poultry processors to Lagos and export markets, investors can capitalize on fast-growing markets for processed and packaged foods Greenfield Cold Storage and Logistics Hub.

\$5 million \$10 million

INVESTMENT VALUE

DEAL TYPE

GREENFIELD

JOINT VENTURE

PARTNERSHIP

EQUITY PARTNERSHIP

PRIVATIZATION

ACQUISITION

FINANCING

CAP-EX

WORKING

MARKET OPPORTUNITY

The growing Lagos market for processed foods is constrained by the limited availability and quality of third party logistics (3PL) solutions, particularly cold chain. Some major producers, processors, packagers and distributors of a number of food products are seeking to outsource their logistics in order to focus on core operations. Growing segments that require cold-chain solutions include poultry, fish, processed frozen foods fruit juices, dairy beverages, vegetable oil and prawns. The aquaculture sector, in particular, has been growing rapidly in Nigeria, which consumes 4 million tons of fish per year and is starting to export farm-raised catfish to global markets. Domestically-produced and imported goods for the booming Lagos market and export segments like aquaculture require full-package cold logistics solutions.

3PL investments are most needed in multi-temperature medium-sized cold storage facilities with blast freezing or Individual Quick Freeze (IQF)

technology, which will allow storage of multiple products such as fish, as well as frozen foods and poultry. Shipping company Maersk advises that refrigerated (reefer) container shipments into the port of Lagos have been on the increase, with 80 containers of frozen fish alone entering the port every week. Maersk would like to offer customers a seamless 3PL service, whereby they are able to offload refrigerated containers and unload product directly into the cold store facility on site, after which it is prepared for distribution to Lagos and other cities.

INVESTMENT REQUIRED

An initial investment in this range makes sense given sample volumes. The investment would likely require construction of facilities, and the size of investment will depend on the scale of the infrastructure.

SUPPORTING INITIATIVES

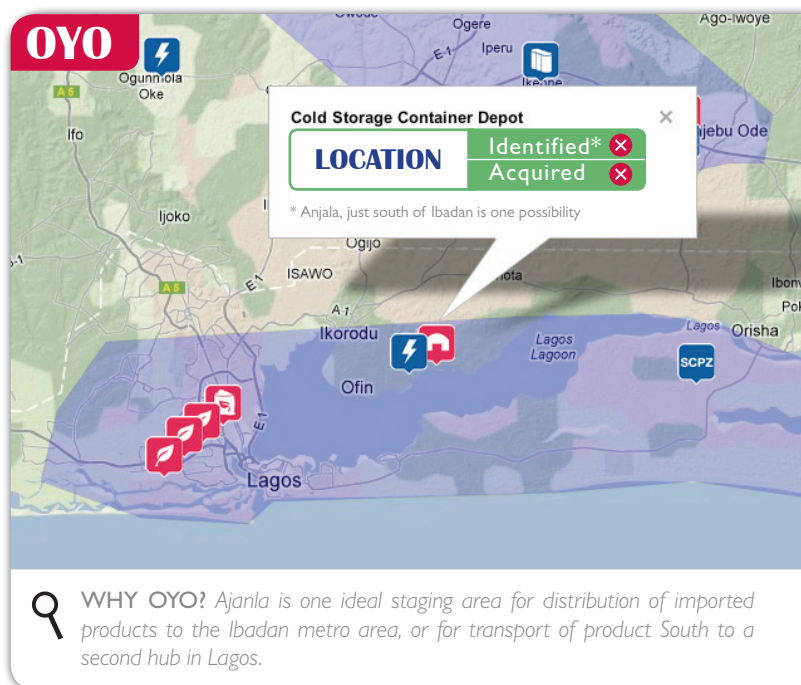
- The USAID Nigeria MARKETS II project is supporting the aquaculture industry at the inputs, production and processing levels. Project-supported processors could be linked into the project as additional customers for cold storage and distribution solutions.

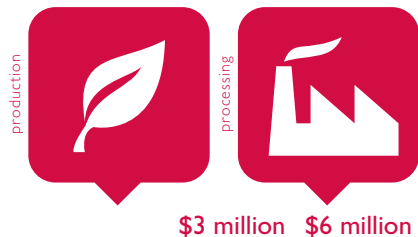
REQUIRED COMPLEMENTARY INVESTMENTS

- Poor power supply inhibits investment in agribusiness but also presents opportunities for independent power generation for existing business parks. Investments in Modular Compressed Natural Gas (CNG) power plants that target the various industrial and business parks within the cluster can address the issues of power insufficiency in the state. Government policies can support the privatization of these plants after they are established.

PUBLIC SECTOR ROLE

- Reliability of power supply will be the chief concern of 3PL providers investing in cold storage and logistics solutions. In order to support these investments, interested state governments will need to commit to extension of power supplies to this logistics hub.





INVESTMENT VALUE

DEAL TYPE GREENFIELD JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING CAP-EX WORKING

MARKET OPPORTUNITY

Poultry (including boilers and eggs) is one of Nigeria fastest growing food markets. National sales of poultry are estimated at 1,500 tons per week and more than 35 million crates (30 eggs) of eggs are sold weekly, not including consumption of poultry products at the village level. 40% of that volume is estimated to be consumed in and around Lagos, equaling 400 tons of flesh and 8 million crates of eggs per week. With import bans on poultry products, this growing consumption must be satisfied fully through local poultry producers of all sizes. Currently, large operations such as Obasanjo Farms, CHI Farms and Zartec supply 80% of the urban southwest market, leaving a niche for smaller producers located closer to the consuming public.

Opportunities exist for greenfield investments in poultry and egg production or joint ventures and equity investments in existing operations in the Lagos region. The profitability of these ventures can be enhanced

through associated investments in feed production and growing day-old chicks.

INVESTMENT REQUIRED

The size of the investment will vary based on anticipated scale of production, whether the investment includes feed production or whether it is a greenfield investment or acquisition/joint venture. Since poultry production costs are closely tied to the cost of feed, investors will need to develop linkages with reliable sources of feed, or in the case of feed production, maize and soybean.

In order to move forward, a full feasibility study would need to be conducted, including a market demand survey and supporting business plan with financial analyses.

SUPPORTING INITIATIVES

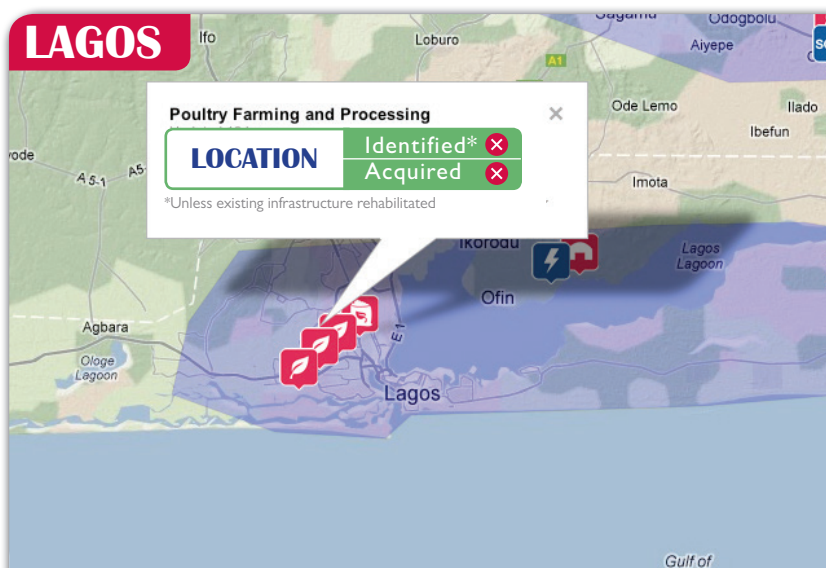
- The Lagos State Government is seen as investor-friendly to value-added processing agriculture industries, in particular those that contribute to food security. Poultry and egg imports are currently banned, providing a cushion to investors.

REQUIRED COMPLEMENTARY INVESTMENTS

- Lagos State continues to invest in improving its infrastructure in the form of the electric grid and improved roads.

PUBLIC SECTOR ROLE

- Providing affordable grid power will be an important, long-term investment to support continued investment by the GON.



WHY LAGOS? Lagos State is ideally located for poultry growing and egg laying farms due to the proximity to the major consuming area of greater Lagos and Ogun State. By locating just outside the city, access to the market is easy as is availability of electricity. Moreover being close to the main north-south thoroughfare known as the LAKAJI Corridor, makes it easy to ship in maize and soybean from the north necessary for the production of poultry feed.



28. AQUACULTURE

Changing income and consumption patterns provide an opportunity to invest in fish farming to meet growing demand for fish.

\$2 million \$5 million

INVESTMENT VALUE

DEAL TYPE **GREENFIELD** **JOINT VENTURE** PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION **FINANCING** CAP-EX **WORKING**

MARKET OPPORTUNITY

Fish constitutes over 40% of the animal protein intake by the average Nigerian, and nationally Nigeria consumes over 2.5 million tons of fish each year. Though rapidly growing, Nigeria's aquaculture sector is not yet able to keep up with demand: the country produces under 1 million tons of fish per year, making it the largest frozen fish importer in Africa. Fish farming in the Ketu-Ereyun fish farm estate in Epe is currently being subsidized by the Lagos State Government on 60 hectares (with 482 plots) in a public-private partnership(PPP) to produce hygienically packaged fish (tilapia and catfish) for the local, regional and international markets. Development of these estates also creates opportunities to offer cold chain solutions and investments, as well as provision of inputs (maize and soybean) for fish food.

INVESTMENT REQUIRED

The amount of the investment will vary based on the size of production facilities, ponds managed, and the extent to which the cold chain distribution is integrated into the investment. As fish farming costs are very heavily tied to the cost of feed, it is essential to establish competitive sources of maize and soybean for the feed to control those costs.

A full feasibility study would need to be conducted, to include a market demand survey and supporting business plan with financial analyses.

SUPPORTING INITIATIVES

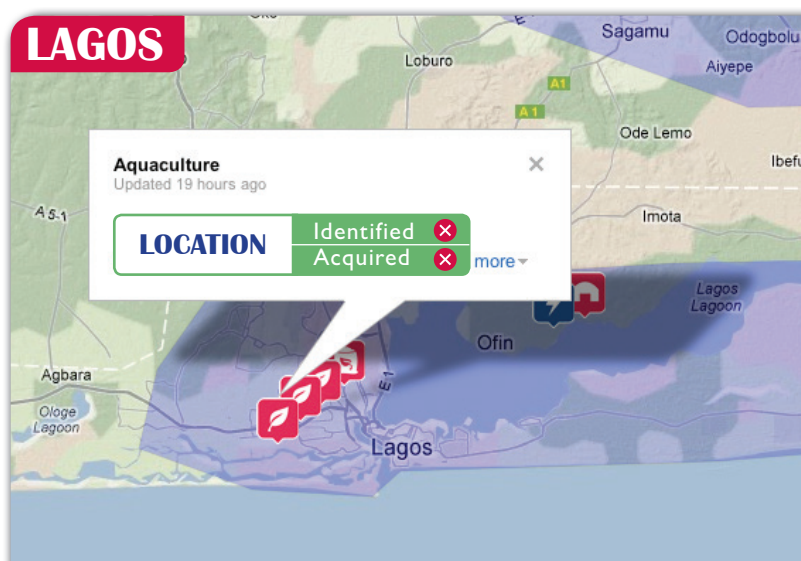
- The Lagos State Government is seen as investor-friendly to value-added processing agriculture industries, in particular those that contribute to food security.
- The GON's Agricultural Transformation Agenda is designed to create an enabling environment to increase sustainable production to over 1 million tons through aquaculture to meet current production shortfalls, generating an estimated 500,000 jobs in the next five years. Specifically, the Lagos State Government has developed the Ketu-Ereyun fish farm to attract investors around this unique SCPZ created specifically for this purpose. With the heavy infrastructure of pond preparation and provision of electricity to the SCPZ, the Lagos State Government has an attractive value proposition to offer potential investors in aquaculture.
- The USAID project MARKETS II is focused on aquaculture in Lagos State and seeks opportunities for tying in independent small fish farm operators in the area to the more robust commercial fish farms with their input and support services.

REQUIRED COMPLEMENTARY INVESTMENTS

- Investments in cold chain infrastructure and to process maize and corn into fish food are additional, critical investments to solidify the aquaculture value chain's expansion.

PUBLIC SECTOR ROLE

- Providing affordable grid power will be an important, long-term investment to support continued investment in aquaculture.



WHY LAGOS? Lagos State is ideally located for aquaculture due to the proximity to the major consuming area of greater Lagos. The location just outside the city and the concentration of input and supporting services around the Epe SCPZ, simplifies access to the market, as does availability of electricity. Location near the main north- south thoroughfare known as the LAKAJI Corridor also facilitates transport of maize and soybean from the north necessary for the production of the pelletized fish food.



29. VEGETABLE PRODUCTION

Increasing incomes and changing consumption patterns provide an opportunity for new, small farmers to invest in producing high quality, fresh horticultural products, such as tomatoes, cucumbers, peppers and onions.

\$500,000 \$2 million

INVESTMENT VALUE

DEAL TYPE **GREENFIELD** **JOINT VENTURE** PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING **CAP-EX** **WORKING**

MARKET OPPORTUNITY

Changing consumption patterns among a growing middle class are driving demand upward for fresh vegetables. Currently, thousands of tons of fresh horticultural products are trucked daily from the north of Nigeria to serve the huge urban market of Lagos. Much of this produce does not make it to the consumer: inadequate transport, packaging, and handling practices contribute to perishable loss of fresh produce approaching 50%. Inefficiencies in the logistics chain also increase transport costs, which are inevitably passed onto consumers in higher prices. Growing produce closer to Lagos through new gardening kits, such as that offered by Dizengoff, will improve product quality and reduce the costs of getting produce to market.

INVESTMENT REQUIRED

The amount of the investment will vary based on the size of the farming operations established and the extent of vertical integration (i.e. acquiring delivery vehicles with cold chain requirements).

Most critical at this stage is establishing the size of the market and the most profitable products in order to formulate the most appropriate business and financing plan.

SUPPORTING INITIATIVES

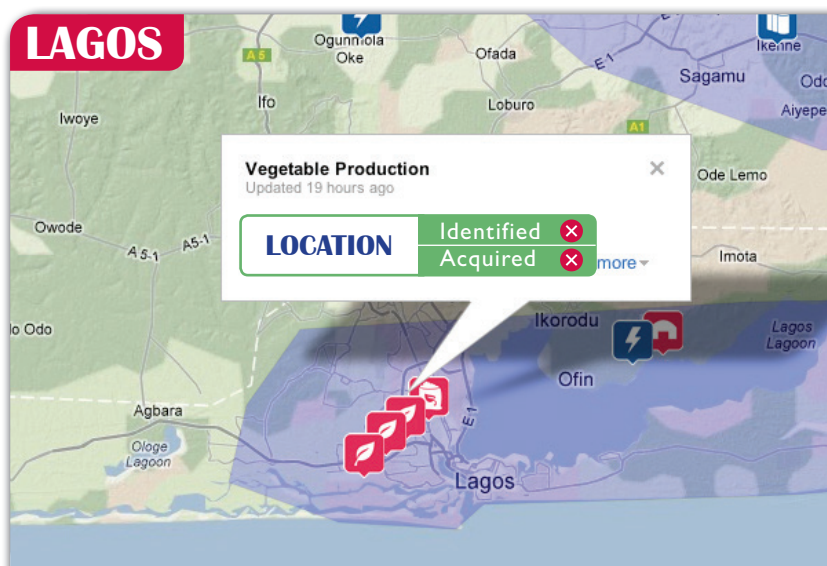
- The Lagos State Government is strongly encouraging the formation of “agropreneurs” and has instituted the “Lagos Agricultural Youth Employment Scheme” (LAYES) to train 100 graduates every 6 months in farm management and operations. These graduates will be excellent candidates for starting such urban gardening and peri-urban horticulture farming ventures.
- New growing kits for 1 acre sized lots developed by Dizengoff can facilitate entry into tomato production by small farmers. The kits come equipped with a drip irrigation system that allows year round production for maximum profit.

REQUIRED COMPLEMENTARY INVESTMENTS

- Adequate infrastructure is critical for keeping production costs low. Establishment and maintenance of roads from vegetable gardens to markets will reduce costs further for small farmers.

PUBLIC SECTOR ROLE

- Providing affordable grid power and access to clean water will be important, long-term investments to support continued investment in horticulture in Lagos State.



WHY LAGOS? As the highest density city in Nigeria with an estimated 20 million inhabitants, with its growing middle class and large business traffic, Lagos is a major consumer of fresh horticultural products. Locating production of horticultural products in and on the perimeter of the city will minimize transport costs and provide maximum freshness of goods to consumers. The urban and peri-urban potential location of new farming operations will allow entrants access to excellent input and support services as well as electricity and water, offered by Lagos.



30. AGRICULTURAL EQUIPMENT MANUFACTURING

The opportunity to team with Techo-Quip, manufacturer in mineral and agro-allied equipment, presents an attractive investment opportunity to increase the factory's productivity and meet the growing demand for agricultural equipment for production plants in the food processing space in Nigeria.

\$2 million \$6 million

INVESTMENT VALUE

DEAL TYPE GREENFIELD **JOINT VENTURE** PARTNERSHIP **EQUITY PARTNERSHIP** PRIVATIZATION ACQUISITION FINANCING CAP-EX **WORKING**

MARKET OPPORTUNITY

Demand for agricultural equipment is robust and likely to expand further, given the expansion of agriculture in Nigeria and the wider ECOWAS region. In addition, Nigeria's local content requirements for equipment manufacturing create a market for equipment assembly. There is an opportunity for a leading agro-equipment company or equity fund to tap into this dynamic market through a partnership with Techno-Quip. Techno-Quip Ltd specializes in design, manufacturing installation and maintenance of machines used in harnessing the nation's abundant agriculture, solid minerals, agro-allied and industrial resources, and has pioneered research and production of over 40 industrial plants and machinery. Some examples of equipment produced include: automatic garri fryers, fragrance production plants, briquetting plant (sawdust compressor), cabinet dryers, cassava derivatives plants, chipping machines, complete rice production plants, detergent powder plants, fruit juice powder plants, palm kernel processing plant, and soya milk plants. Techno-Quip is poised to drive local technology development and production in Nigeria while exporting to a regional market which is not optimally serviced by equipment fabricators. An investment in the company could involve expanded development/production of TechnoQuip-branded equipment, a partner's OEM

production, or contact manufacturing for strategic partners. With strong roots in the large Nigerian market, a joint venture or equity investment in this firm offers excellent potential to ramp up exports throughout the ECOWAS region.

INVESTMENT REQUIRED

The amount of the investment will vary based on the size and rate of expansion of its facilities and distribution network enabled through any outside investment or strategic partnership. It will also largely depend on the size of the deals it can generate and service.

Next steps include conducting a full market survey of the type of farm equipment and implements that are in greatest demand and that could be semi or fully fabricated in Nigeria and distributed/supported through local dealerships. Once domestic markets are well supplied and on the strength of those sales, the potential to export into the ECOWAS region will be a very tempting and achievable target, and should also be a part of the market survey.

SUPPORTING INITIATIVES

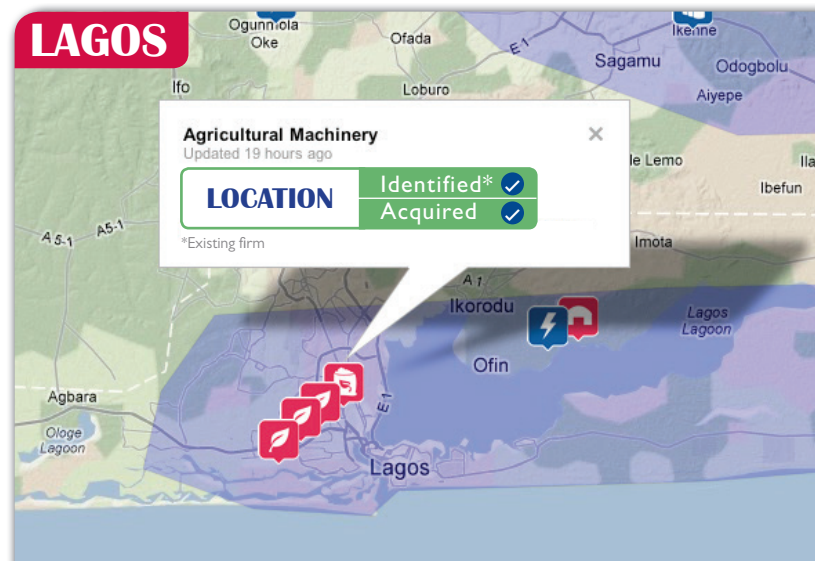
- The Lagos State Government has a number of initiatives aimed at training young graduates with industrial skills and offers attractive investment incentives for fabricating industries.
- The Lagos State Government is seen as investor-friendly to value-added processing agriculture industries, in particular those that contribute to food security.

REQUIRED COMPLEMENTARY INVESTMENTS

- The most important requirement for a fabrication industry is the provision of affordable and reliable grid electricity.
- For the export component, receiving financing from financial sector actors (such as NEXIM and others), as well as assurances of import duty exemptions for product entry into ECOWAS states, are also important.

PUBLIC SECTOR ROLE

- Providing affordable grid power and improvements in road infrastructure will be important, long-term investments to support continued growth of the manufacturing sector.
- Playing a more active role in applying agreed-upon ECOWAS trade facilitation policies across Nigeria will also facilitate increased investment in this sector.



WHY LAGOS? Lagos State is ideally located for a fabrication business requiring easy access to electricity, skilled labor and to raw materials and specialized parts that may need to be imported. The urban location also provides easy access to financial institutions and customers, often having home offices in Lagos. Moreover, being located on the main north south thoroughfare known as the LAKAJI Corridor, facilitates trucking products north to the agricultural markets as well as west through Benin into other ECOWAS countries.

VALUE CHAIN: Infrastructure (mineral and agro-allied equipment)



31. COLD STORAGE FACILITY

Increased client demands for cool/cold logistics and handling services presents an attractive opportunity to build a new cold storage facility in Lagos at an Inland Container Depot.

\$3 million \$7 million

INVESTMENT VALUE

DEAL TYPE **GREENFIELD** JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING **CAP-EX** WORKING

MARKET OPPORTUNITY

There is a lack of supply of cold storage facilities in Nigeria country-wide. With increasing consumer demands for proteins like poultry and fish, temperature-controlled logistics needs far outweigh supply.

APM Terminals-Lilypond (APMT), a member company of MAERSK, currently runs an Inland container Depot (ICD) located in Ijora, Lagos. MAERSK handles about 70% of the reefer containers carrying imports into Nigeria. According to APMT executives, there has been a noticeable shift within their customer base into break bulk shipping. Moreover, there is a considerable amount of frozen fish coming into Nigeria from China and India. Specifically, APM cites about 80 containers of frozen fish (FFE) coming into the port per week. With an increasing amount of frozen and cool product coming into Nigeria, APMT has identified a significant demand for cold storage facilities at the Port in Lagos. A new cold storage facility near the ICD will respond to client demands for cool/cold logistics and handling services. Greenfield or joint venture opportunities are possible for this investment.

INVESTMENT REQUIRED

The estimated investment required for a small to moderate sized cold storage facility is between \$3-7M. This capital would be used toward facility design, construction and purchase of equipment.

The next step for this investment is the completion of a cold storage feasibility study, which would include i) a market assessment to determine specific clientele and propose volumes to be stored in facility; ii) a business and operational plan for facility; and iii) draft designs of facility. Also important for realizing this investment would be cold storage operations training (for APM staff and other cold storage operators at point), and discussions with the GoN government to understand and integrate newly adopted National Food Safety policies and regulations into facility operations.

SUPPORTING INITIATIVES

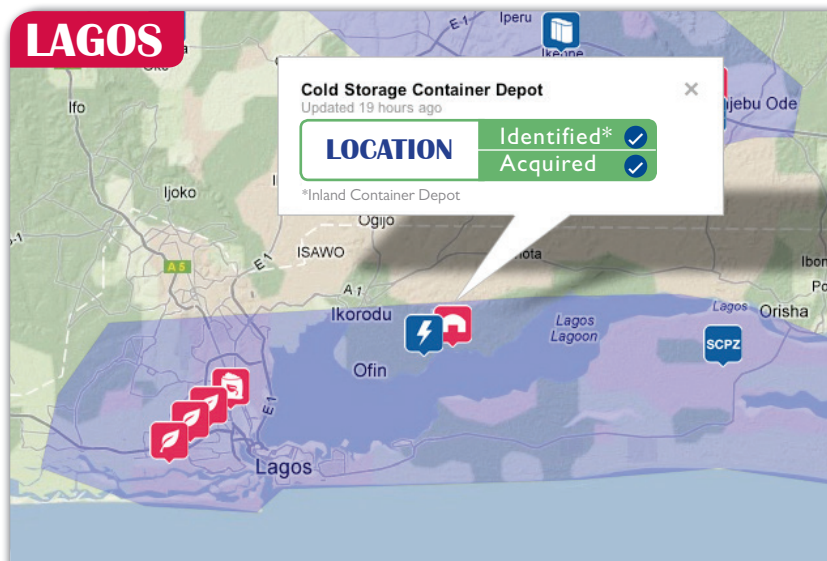
- The Lagos State Government has a number of initiatives aimed at training young graduates with industrial skills and offers attractive investment incentives.
- The Lagos State Government is seen as investor-friendly to value-added processing agriculture industries, in particular those that contribute to food security.

REQUIRED COMPLEMENTARY INVESTMENTS

- Financing for basic equipment needed for cold storage operations, including: Warehouse Management Systems (ICT); freezers, ammonia or freon refrigeration systems, forklifts, pallets, and refrigerated trucks.

PUBLIC SECTOR ROLE

- Providing affordable grid power and improvements in road infrastructure will be important, long-term investments to support continued growth of the logistics sector.
- The public sector will have to support additional construction with building permits.



WHY LAGOS? Lagos port (encompassing Apapa and Tin Can ports) is the largest port in Nigeria relevant to agriculture, importing and exporting most of the country's agricultural goods. The inland container terminal in Ijora, Lagos near the Apapa Port, has increased cargo throughput from zero to 47,000 TEUs over five years. The proposed facility could be co-located in or near the Inland Container Depot which is on about 12 hectares of land near the Apapa Port.



32. FARMNET COMMODITIES EXCHANGE PLATFORM

Intelligent kiosks using ICT platforms can significantly streamline the sourcing of bulk grains from small farmers.

\$100,000 \$200,000

INVESTMENT VALUE

DEAL TYPE **GREENFIELD** JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING **CAP-EX** WORKING

MARKET OPPORTUNITY

Most Nigerian grain producers are operating in a fragmented fashion on small plots of land spread throughout the country, and are challenged by weak infrastructure and at times, exploitative intermediaries. Achieving scale in aggregation of these products by large buyers is therefore challenging, expensive and inefficient.

In India, several initiatives have been developed to successfully alleviate this problem. In particular, there are initiatives that use rural internet kiosks operating an ERP platform as field-based commodity exchanges. This model relies on rural kiosks, which are little more than a computer with an internet connection and the appropriate software, often located in one farmer's home and connected to the internet by a small satellite dish. Farmers from the surrounding community can visit the kiosk in person to obtain information on up to date prices, good farming practices, and to place orders for agricultural inputs like seeds and fertilizers. Farmers can bring product samples to the kiosk, and pending review of product quality by the kiosk manager, can arrange a purchase contract on the spot at a pre-arranged price with a buyer, providing security and predictability for both the supplier and buyer. Products that can be purchased in this manner include soybeans, wheat, coffee, and prawns. In India, kiosks are run by a trained farmer, and often serve farmers in the surrounding 10 villages (or a 5km radius). The kiosk manager bears some operating cost of the kiosk,

but earns a service fee for transactions done via his computer terminal. Aggregation still takes place in warehouse hubs managed by middle-men and other intermediaries, who disburse credit, cash, provide aggregation and transportation services.

A similar model tailored to the Nigerian context and developed by a local software firm or agribusiness would have important socio-economic impacts and generate increased productivity. This is an interesting investment opportunity to streamline aggregation and sale of agricultural products throughout the country.

INVESTMENT REQUIRED

The estimated investment to create this ICT platform and business model by an enterprising software developer or agribusiness firm is relatively low, and estimated at anywhere between \$100,000 - \$200,000. Once the IT platform and business model is developed for one pilot product, the IT platform can be sold and rolled out in collaboration with an innovative agribusiness firm, or a set of these.

The next step is to raise capital to finance the development of this tool, and to find an agribusiness partner that is willing to work with a developer to refine and implement the product.

SUPPORTING INITIATIVES

- NEXTT is already speaking to potential investors in developing this platform. We are also exploring possibilities of co-financing from public programs, both in Nigeria and India.

REQUIRED COMPLEMENTARY INVESTMENTS

- The deployment of cheap rural internet connectivity will improve the effectiveness and profitability of this investment opportunity, though it will work quite well through private satellite use.

PUBLIC SECTOR ROLE

- The GON should consider incentives for agribusiness firms that utilize innovative, ICT solutions to increase involvement of farmers, in particular young farmers, or "agropreneurs". Along these lines, the Ministry of Agriculture might consider in the development and adoption of this sort of technology based innovation.





33. LIVESTOCK CENTERS

Replicating an innovative model to provide a “one-stop-shop” to livestock farmers is an attractive potential investment that will help satisfy the increasing demand by Nigerian consumers for meat.

\$1 million \$3 million

INVESTMENT VALUE

DEAL TYPE **GREENFIELD** JOINT VENTURE PARTNERSHIP EQUITY PARTNERSHIP PRIVATIZATION ACQUISITION FINANCING **CAP-EX** WORKING

MARKET OPPORTUNITY

Livestock is the most valuable commodity traded in West Africa. Livestock travels primarily north-south, for slaughtering in southern states. The mobile nature of the business means that most livestock tending and trading is done without the benefit of ICT tools, which could lower transaction costs, improve practices, increase transparency, and be used to reduce risk. Noting both the nature and potential of this industry, international firm Intel built a livestock center through a public-private partnership with the Gombe State government. This livestock center consists of fields, shops, sleeping quarters, an animal health center, a livestock marketplace, an abattoir, and a transport terminal. It is fully equipped with ICT, and designed to provide everything a herder would need to conduct business and stay for several days. In the center, ICT platforms facilitate sales transactions and logistics services, allow for better treatment of animal diseases, and lead to improved productivity.

The investment was attractive to the Gombe state government because it simplified the collection of taxes from livestock transactions. Similar models could be replicated in other locations throughout Nigeria, particularly in existing livestock operations, to stimulate tax revenue, internet use and efficient livestock trading.

INVESTMENT REQUIRED

An initial investment of \$1-3 million is estimated to be required to create a similar center.

The next step to move the investment forward is finding a partner to host a center, either a state government, a company, or both. Intel is willing to engage with new partners, as is NEXTT.

REQUIRED COMPLEMENTARY INVESTMENTS

- The deployment of cheap rural internet connectivity will improve the effectiveness and profitability of this investment opportunity, though it will work quite well through private satellite use.

PUBLIC SECTOR ROLE

- The GON or state governments can support similar investments by entering into similar public-private partnerships, facilitating construction permits, and providing needed infrastructure (i.e. water, electricity grid provision, Internet or Satellite access, etc.).



4. ENABLING ENVIRONMENT CONSIDERATIONS

Nigeria's agricultural sector was largely liberalized in the 1980s when marketing boards for major commodities were disbanded and prices were allowed to float. The market response hoped for in the wake of liberalization, however, never materialized. A strong currency, underinvestment in key infrastructure and a general focus on the oil economy at the expense of other sectors led to an across-the-board decline in production. More recently, Nigeria's government has put in place a range of policies to encourage a private sector-led revival of agriculture, including:

- Channeling capital through commercial finance institutions in support of agriculture – early \$2 billion of central bank financing for concessionary lending, credit guarantees, insurance and other instruments have been committed under the Commercial Agricultural Credit Scheme (CACS) and NIRSAL.
- Protecting domestic producers from competition – High tariffs and outright bans on products such as rice and poultry have been put in place in recent years, while quota schemes such as the President's mandate for wheat flour producers to blend their products with high-quality cassava flour provide guaranteed markets for domestic goods.
- Incentivizing technology adoption – In addition to rolling out a fertilizer voucher scheme that allows farmers to purchase inputs at a subsidized rate from private agro-dealers, the government is also reviewing the effectiveness of water management schemes designed to support adoption of irrigation technology by farmers, particularly in the North.
- Staple crop processing zones (SCPZs) and export incentive schemes – Dedicated processing zones for staple crops have been set up in multiple locations that offer tax incentives and enhanced access to supporting infrastructure, while exporters can benefit from outright rebates in some cases and duty credits on imports in others.

The above programs have created a much more favorable climate for investment in Nigerian agriculture than has been the case in decades. As these initiatives catalyze growth and investment in the sector, there remain challenges posed by the absence of service providers in key areas, including logistics, agronomy, inputs and finance, as well as by a lack of basic market information needed to facilitate smooth transactions between buyers and sellers. As production and exports of agricultural goods declined, so too did these critical enabling services, which will require similar reinvestment.

In the infrastructure space, there are acute deficits that reflect a lack of sustained, public investment in maintaining the dams, roads and bridges that are already part of the country's landscape. Outside of limited private investment in production and processing capacity, underinvestment in public infrastructure is the most severe constraint to increased agricultural output.

Physical infrastructure constraints requiring public investment:

- Poor road conditions
- Unavailable and/or unreliable electricity
- Lack of warehousing/storage facilities (including cold storage)
- Unexploited irrigation potential
- Unexploited rail and inland waterway systems
- Overcrowded port facilities

Initiatives of the Nigerian Federal Government to address the above obstacles include (but are not limited to):

- A National Infrastructure Master Plan – nearly complete and will point to all the major interstate highways that are essential.
- Major investments in the electricity distribution sector with a “Bulk Electricity Trade” system developing alongside local distribution companies.
- Rail system from Lagos to Kano has been partially rehabilitated and has launched operations.
- Federal Government targeted investments in agriculture, beginning with a network of 25,000 and 100,000 ton silos.

Large donors such as the African Development Bank and the World Bank are also directing resources towards Nigeria's physical infrastructure improvements, with investments underway in roads, power and dam rehabilitation.

Overcoming the physical infrastructure shortcomings requires creative public-private partnerships at both the federal and state levels. Among the states along the corridor there is uneven attention being paid to investing in the sort of physical infrastructure required to improve agricultural competitiveness.

“Soft” obstacles limiting agricultural competitiveness that require public action or investment:

- Lack of clarity concerning land ownership
- Shortage of agriculture financing
- Limited availability of inputs (seeds, planting material and fertilizer)
- Roadblocks, both formal and informal, along the main corridor route
- Limited space for public-private dialogue

Some initiatives of the Nigerian Federal and State Governments to address the above obstacles include:

- FMARD agenda to convert the perception of farming from one of a traditional way of life to farming as a business.
- Support from Federal and State governments to assist investors in land acquisition and production
- Promotion of Staple Crop Processing Zones (SCPZs), 13 of which have been identified to date, that will link farmers to processors and encourage aggregation, value addition and industrialization. Four of the SCPZs fall within the LAKAJI Corridor, including Lagos (poultry processing and fish farming), Ogun (cassava flour and starch in Ossosa), Niger (rice in Badeggi) and Kano (rice, sorghum and horticulture).
- Commitment to support investments and PPPs in the development of critical infrastructure such as power, irrigation, rail, roads, communications and water around the SCPZs.
- Federal Ministry of Agriculture reform of its fertilizer subsidy, moving to a voucher-based scheme, targeting expansion from 55,000 to 20 million, adding 5 million farmers per year over the next four years.
- FMARD and the Central Bank of Nigeria (CBN)'s Nigerian Incentive-Based Risk Sharing in Agricultural Lending (NIRSAL) initiative, which encourages banks to lend to the agricultural sector via partial risk guarantees in the range of 30-70% depending on the level of risk.
- Increased and fruitful public-private dialogue around agricultural development via the Community of Agricultural Stakeholders of Nigeria (CASON).



5. VISION FOR AN AGRICULTURAL GROWTH CORRIDOR INITIATIVE AND POSSIBLE INSTITUTIONAL FRAMEWORK

NEXTT's vision for building the agribusiness industry along the LAKAJI corridor involves creating a platform for coordinating and maximizing the impact of investments along the corridor by the private sector, federal and state governments and donor agencies. It addresses the critical lack of infrastructure as well as the need for projects of sufficient scale to be competitive in both domestic and international markets.

The Corridor vision centers on investments in processing, aggregation and related infrastructure in targeted clusters, giving farmers access to assured markets and supporting the transition from subsistence to commercial models of production that will increase incomes in rural areas. As farming becomes more profitable, it can absorb Nigeria's youth population more readily, launching a new class of "agropreneurs". As entrepreneurial farming takes root, consolidation of existing small farms will ensue, so investments in downstream, value added logistics and processing are required to serve as important job replacement mechanisms.

Building partnerships within and between clusters of production, processing and service-oriented agribusiness will help create a sense of scale and viability that facilitates the participation of financial investors and service providers in agricultural development along the corridor. Where project finance is still prohibitive for commercial lenders and investors, development finance institutions and funds can play an important role.

To make the above vision operational, a level of public-private coordination with respect to agricultural development and investment is required that has eluded Nigeria in the past. The corridor construct provides a tangible platform for this collaboration. Interested stakeholders can consider the formation of an Agricultural Growth Corridor Advisory Council alongside the existing LAKAJI Corridor Management Group (CMG) to serve as a platform for collaboration between the public and private institutions investing in projects along the corridor. The Advisory Council could serve in an advocacy and coordination capacity, improving the investment environment along the corridor and attracting new investment (domestic and international). The initial investments identified in this report provide a starting point for investment attraction efforts and point to where public investment is needed.

The Advisory Council should be broadly representative, including:

- Private companies across the full spectrum of sectors (farming, processing, packaging, trading, import & export, shipping, ICT providers, etc.)
- Banks and financial sector stakeholders
- Each of the concerned State Governors and/or their representative drawn from the state economic development team (i.e. reps from State Ministries of Agriculture, Transport, Investment, Export Promotion, etc.)
- Representatives from Federal ministries of Trade and Investment, Agriculture, Transport and Public Works
- National Trade Associations such as the Nigerian Association of Manufacturers, constituted of private companies as members
- National Para-Statals such as the National Shippers Council

The Advisory Council should also feature a smaller, but inclusive executive body, as well as an operating secretariat. Initial membership will constitute the Executive Committee to whom the Secretariat will report as it builds out its membership and activities. In advocacy groups of this sort, the strength lies in properly managing the strength and influence emanating from as large and powerful a group as possible with a respective Executive Body; in other words, the ultimate power of the group flows from the perceived strength of the general membership.

Based on experiences in East and Southern Africa, a "Catalytic Fund" may be useful as part of the overall LAKAJI Agricultural Growth Corridor Initiative. A fund could play the role of financing project preparation and structuring via grants on a cost-share basis, likely requiring soft funding from donors or government institutions. A Catalytic Fund could also consolidate the myriad financing options available to agricultural entrepreneurs, and could consolidate investment plans for consideration by multiple financiers, simplifying the process of seeking funds and providing access to a vetted pipeline of projects for financiers.



6. CONCLUSION

Nigeria has all the potential and motivation to become food self-sufficient again, while creating a more inclusive agricultural economy that provides employment opportunities for its growing population. The country faces none of the more complex barriers (limited financial, natural and human resources) suffered by many of its West African neighbors. In short, the time is right for Nigeria to align its sizable investors and motivated government into a constructive dialogue to meet the agribusiness challenges of the decades to come.

This “investment blueprint” provides an initial set of existing opportunities to assist in jump-starting this process. To continue this discussion, USAID’s NEXTT project will host a meeting in Nigeria in August 2013, to bring together stakeholders in this process and review the findings of this assessment to develop next steps.

CONTACT

For more information on these and other investment opportunities on the LAKAJI Agricultural Growth Corridor, please contact the NEXTT Project::

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