



ECOWAS RICE FACTBOOK

GROWAFRICA



CONTENTS

FOREWORD	2
PREFACE	3
STATISTICS ON RICE CONSUMPTION, PRODUCTION AND IMPORTS IN ECOWAS COUNTRIES	4
BOTTLENECKS IN VALUE CHAIN PROCESSES	7
RICE INITIATIVES IN THE ECOWAS REGION	8
POLITICAL ECONOMY OF RICE IN ECOWAS COUNTRIES	16
INVESTMENT OPPORTUNITIES AND BUSINESS MODELS ACHIEVING ZERO IMPORTS	20
PADDY GENERATION BUSINESS MODELS IN WEST AFRICA	22
REGIONAL TRADE RELATIONS	26
KEY CONSTRAINTS AND RECOMMENDATIONS FOR ACHIEVING SELF-SUFFICIENCY	31
PROPOSED ECOWAS REGIONAL RICE DEVELOPMENT STRATEGY	32



FOREWORD



“The importance of Africa’s agriculture in contributing to food and nutrition security, poverty reduction and overall economic growth is well documented.

In 2001 when the African Union (AU) adopted the New Partnership for Africa’s Development (NEPAD), agriculture was recognized for its role in stimulating economic growth and ensuring food security on the continent.

To further emphasize the need to develop agriculture for its broad benefits, in 2003 African Heads of State and Government adopted the Comprehensive Africa Agriculture Development Programme (CAADP) in Maputo, Mozambique. The main objective of CAADP, in line with NEPAD’s goal for agriculture, is to help African countries reach a path of higher economic growth through agriculture-led development, which eliminates hunger, reduces poverty and food insecurity, and enables expansion of agricultural exports.

In 2014 the Malabo Declaration recommitted to ending hunger, creating wealth and jobs, halving poverty, boosting intra-African trade, and enhancing resilience. As a result of high level political commitment by African Heads of State and Government, CAADP planning at national level has gained momentum in recent years.

Though much progress has been made, we must recognize that the public sector alone cannot transform the continent’s agriculture: it needs a vibrant private sector. In this regard, NEPAD’s program, Grow Africa, works to increase private sector investment in agriculture, and accelerate the execution and impact of investment commitments in priority commodity value chains of which rice is considered to be a strategic staple in West Africa.

Incubating and supporting commodity value chain platforms in support of National Agriculture Investment Plans forms the core of Grow Africa’s work.

Recently, Grow Africa has made significant progress in its preparations to roll out the Country Agribusiness Partnership Framework (CAP-F) which will provide a structured and effective framework for creating agribusiness partnerships between the private sector and national governments with a robust mutual accountability mechanism. With the advent of CAP-F, Grow Africa is now well positioned in its quest to increase private sector participation in contributing to Africa’s agricultural transformation.”

Ibrahim Assane Mayaki

CEO, NEPAD Agency

PREFACE

Rice is an important staple in West Africa, with consumption set to grow by 70% to 24 million metric tons by 2025. Rice has become a highly strategic commodity in West Africa and is the largest source of food calories in Africa. Economic Community of West African States (ECOWAS) countries imported around 9 million tons of milled rice in 2014, representing a cost of €4 billion. To avoid risks of civil unrest and the scenarios of increased, global food prices, there is an urgent need to increase rice production, processing, value-addition, and marketing in West Africa to achieve self-sufficiency.

Currently, the region depends on imports from Asia to fulfil about half of its consumption need. ECOWAS initiated a regional offensive to reach rice self-sufficiency by 2025. The Regional Offensive for sustainable and sustained recovery of rice production in West Africa Programme was approved by the ECOWAS Council of Ministers in June 2014. This Offensive aims to reduce imports to zero by 2025.

This factbook and our joint collaborative spirit aims to support the Rice Offensive in order to drive and bolster a regional public-private partnership, which makes self-sufficiency in rice and economic prosperity a reality in West Africa.

This factbook is an initiative of Grow Africa and Alliance for a Green Revolution in Africa (AGRA). The factbook is a briefing document on key rice parameters in the ECOWAS region vis a vis;

- Statistics on rice consumption, production and imports in ECOWAS countries.
- Perception of the rice market in the 15 ECOWAS countries.
- Rice initiatives in ECOWAS countries.
- Bottlenecks in the rice value chains.
- Political economy of the rice industry in ECOWAS countries.
- Regional trade relations.
- Projection of required investments by private and public sector, AGRA and GROW AFRICA, with proposed entry points.
- Opportunities and business cases aimed at attracting anchor investors.

Grow Africa

Grow Africa works to increase private sector investment in agriculture, and accelerate the execution and impact of investment commitments. The aim is to enable countries to realise the potential of the agriculture sector for economic growth and job creation, particularly among farmers, women and youth. Grow Africa brokers collaboration between governments, international and domestic agriculture companies, and smallholder farmers in order to lower the risk and cost of investing in agriculture, and improve the speed of return to all stakeholders.

AGRA

AGRA is an alliance led by Africans with roots in farming communities across the continent. AGRA strives to develop uniquely African solutions designed to meet African farmers' specific environmental and agricultural needs so they can sustainably boost production and gain access to rapidly growing agriculture markets.

AGRA envisions Africa that can feed itself and the world. Its staff and partners are dedicated to changing the reality of agriculture in Africa, from farming as a solitary struggle to survive, to farming as a business that thrives.

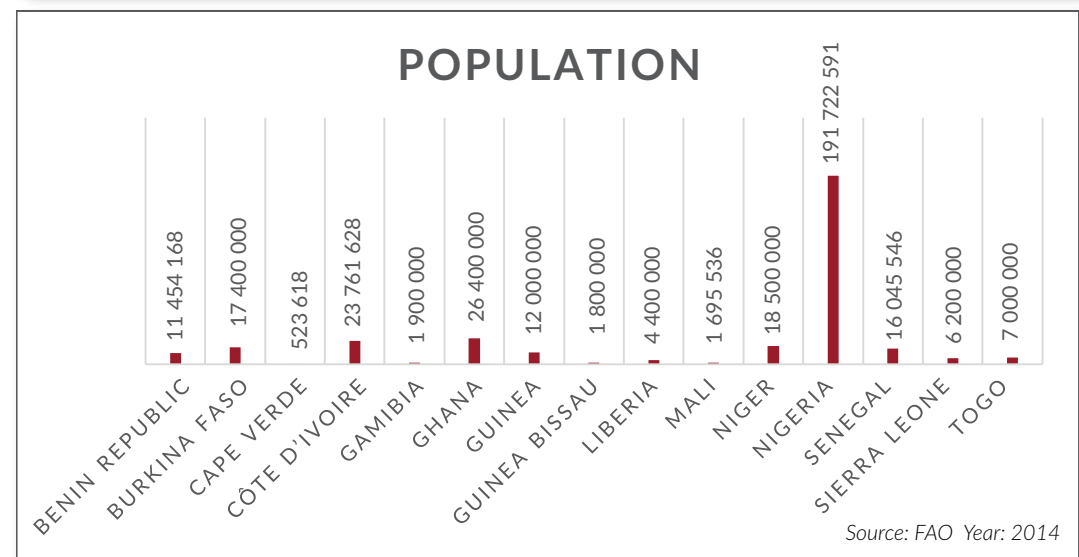
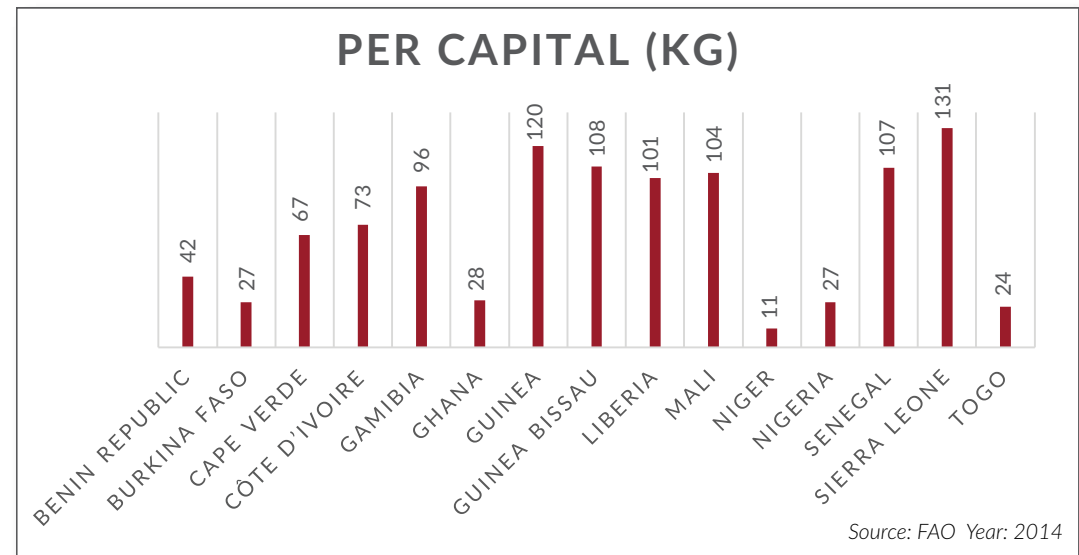
STATISTICS ON RICE CONSUMPTION, PRODUCTION AND IMPORTS IN ECOWAS COUNTRIES

OVERVIEW OF LOCAL RICE PRODUCTION & COMPETITIVENESS IN ECOWAS COUNTRIES

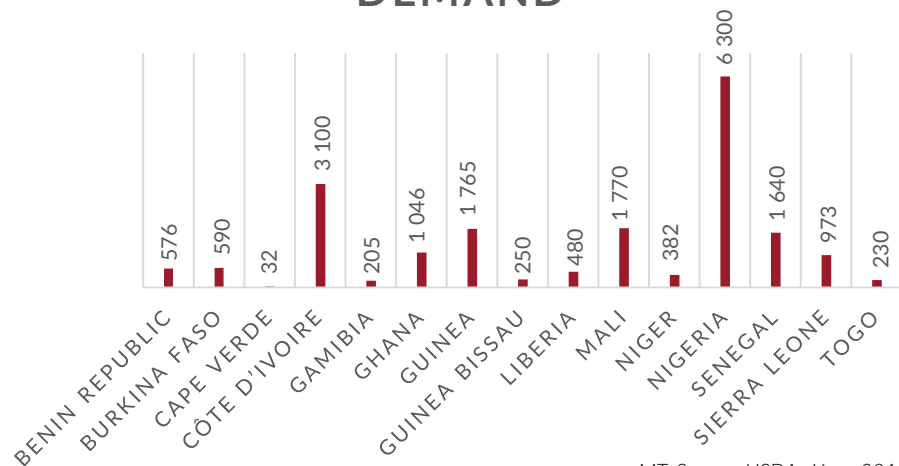
Rice is the fastest growing food source in Africa. Growth rate for rice demand in West Africa far outstrips the sub-region's population growth. This trend is predicted to continue for the next years due to population increase, urbanization and changes in consumption patterns. In west Africa, local production covers 60% of the current demand. Yield growth rate lag far behind population growth rates. Africa's total rice output is projected to grow by 2.9% per year, driven by 1.1% annual growth in area and 1.8% annual improvement in yields.

ECOWAS total rice consumption grows by 3.0% per year as population grows by 2.3% and per capita use by 0.7% annually (Source: World Rice Outlook). Domestic rice production is competitive vis-à-vis rice imports. Competitiveness can be enhanced through identifying the causes of yield gaps, reducing them, and enhancing productivity through improved management practices. A major constraint to rice productivity in ECOWAS region is the weak linkages between the rice value chain actors.

ECOWAS countries imported around 9 million tons of milled rice in 2014, representing a cost of €4 billion.

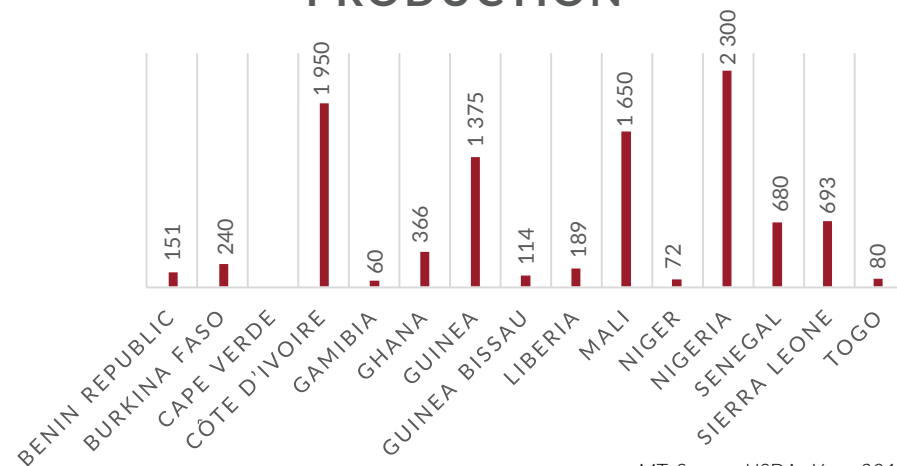


DEMAND



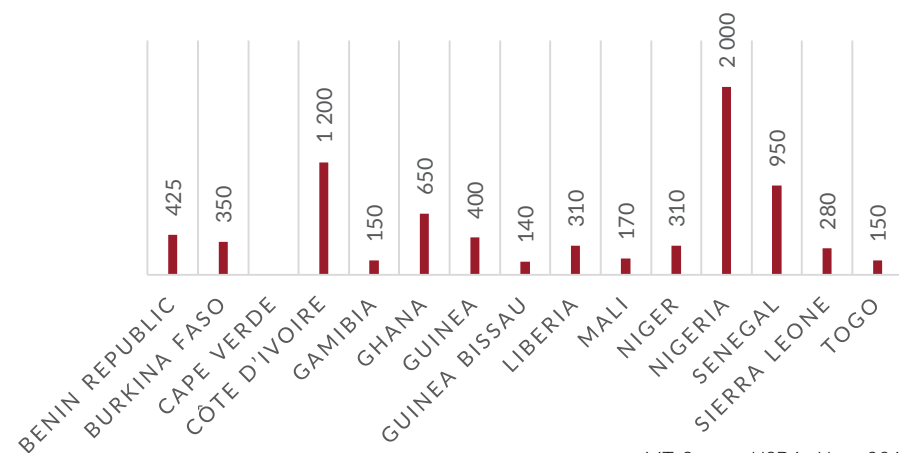
MT, Source: USDA, Year: 2016

PRODUCTION



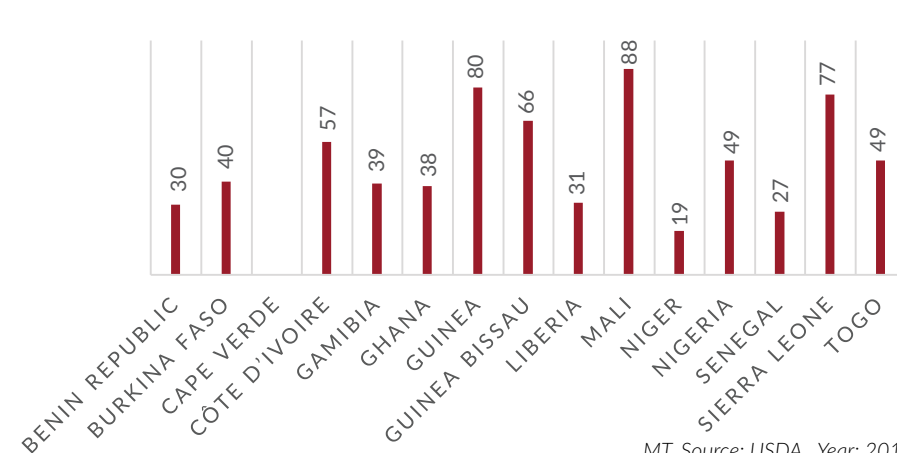
MT, Source: USDA, Year: 2016

IMPORT



MT, Source: USDA, Year: 2016

SELF-SUFFICIENCY RATIO



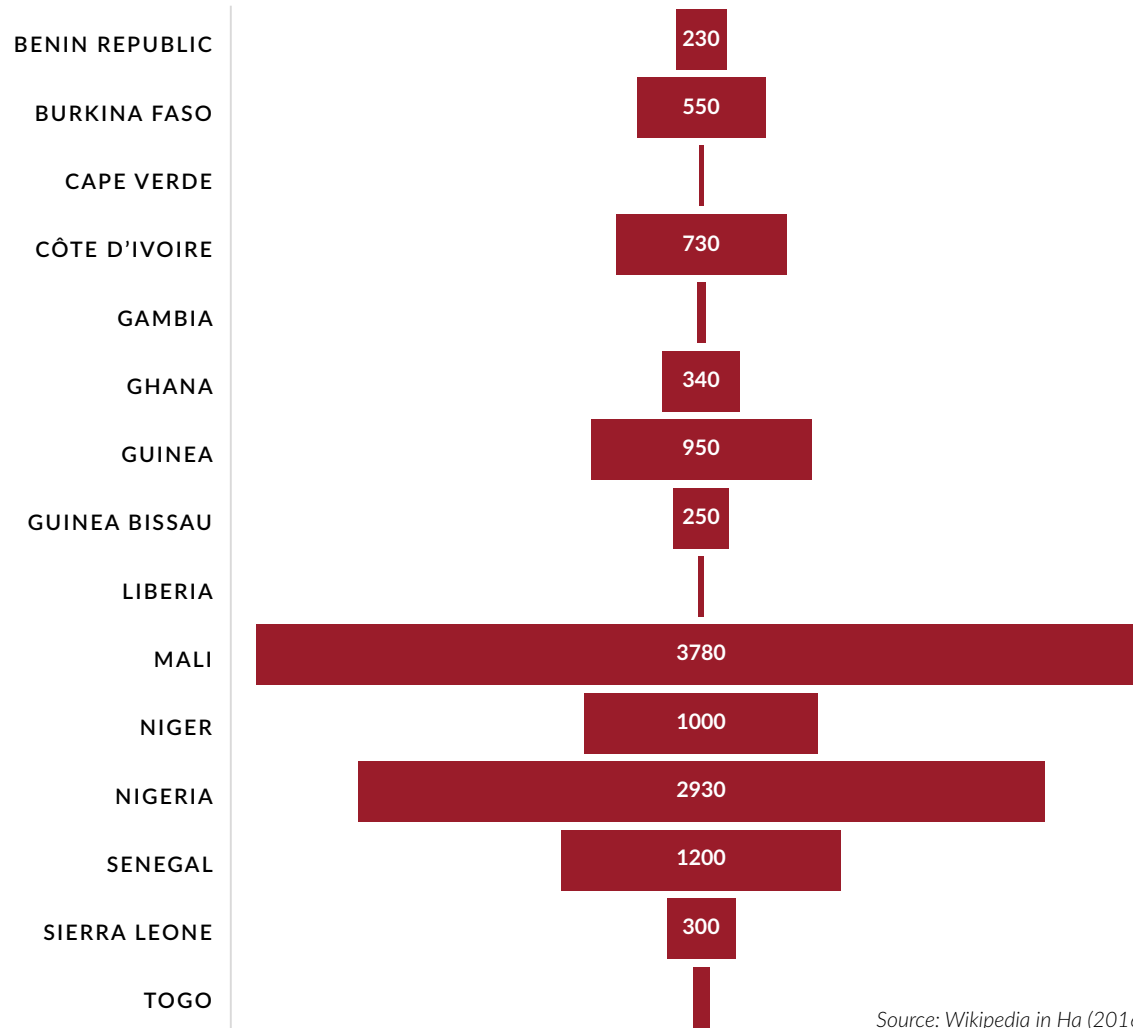
MT, Source: USDA, Year: 2016

Regional markets are exposed to transboundary sustainability pressures requiring public-private collaboration across borders.

Source: World Rice Outlook

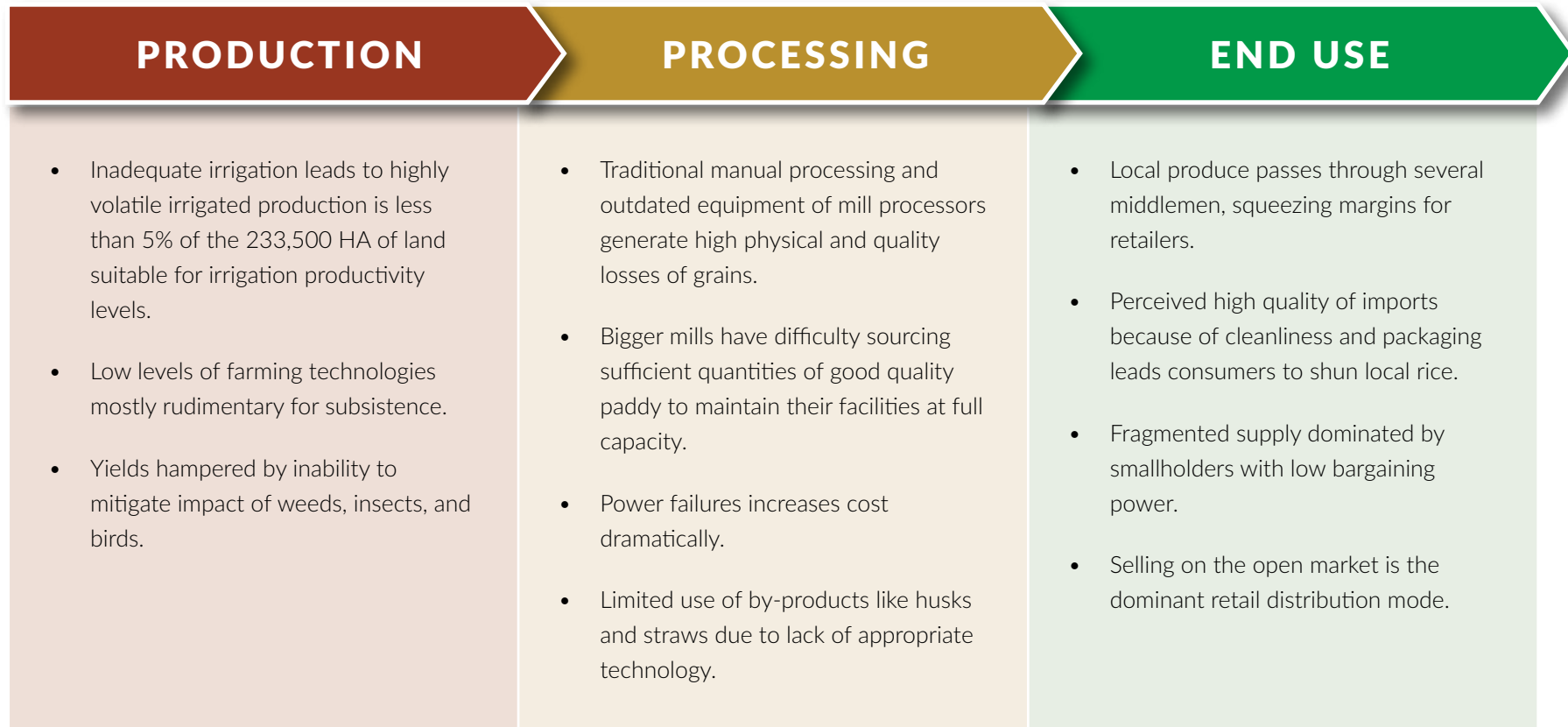
Rainfed upland rice is generally grown on level or sloping, unbundled fields. Yield is 3 MT per HA in upland, and up to 6 MT per HA in lowland/swamp. Irrigation, rainfall and underground water distinguish the rice growing regions. Yields are lowest in rainfed upland and highest in irrigated lowland. Irrigation, research, farming and processing technology Investments are key in order to increase cultivated land area to increase activity and to release certified high yielding varieties to Increase productivity.

IRRIGATED LAND IN ECOWAS COUNTRIES



Source: Wikipedia in Ha (2016)

BOTTLENECKS IN VALUE CHAIN PROCESSES



RICE INITIATIVES IN THE ECOWAS REGION



RICE OFFENSIVE

The regional offensive for sustainable and sustained recovery of rice production in West Africa programme was approved by the ECOWAS Council of Ministers in June 2014. This offensive aims to reduce imports to zero by 2025. This requires an investment of \$470M.

The rice offensive has 4 pillars which are;

- To increase rice production & yield.
- To process & valorise local rice production.
- To promote regional local rice market.
- To improve rice environment and policy.

S/N	DRIVERS to ZERO IMPORTS:	POTENTIAL STRATEGIC PARTNERS (PUBLIC SECTOR)	POTENTIAL STRATEGIC PARTNERS (PRIVATE SECTOR)
1	Increase rice production & yield	Africa Rice, GEMS4, CARI, AGRA	
2	Process & valorise local rice production	AFDB, Africa Rice, IITA	SATAKE Netherlands
3	Promote the regional local rice market	WFP, USAID, DIFID, AFD	Google, Facebook
4	Improve the rice development environment	ECOWAS, Worldbank, IFC	NOTORI, YARA
5	Availability & accessibility of certified inputs	ECOWAS, AGRA, AfDB	Bayer, Syngenta
6	Equipment sourcing facilities	Rabobank, AFDB	Mahindra, Jain
7	Innovative process technology	Africa Rice, IITA, IFPRI	
8	Integrated local processing systems	Africa Rice, JICA	Avnash, Dangote, Elephant, Dangote, Intervalle, Olam, Stallion
9	Standardisation of local rice	Africa Rice, Worldbank, ECOWAS	
10	Capacity development of regional actors	Gems4, Grow Africa	
11	Gender & youth dimensions are considered	Africa Rice, AfDB, NEPAD	Synapse Centre Senegal, Mastercard Foundation
12	Environmental dimension considered	TFA2020, Grow Africa, DIFID	Syngenta, Jain

FARM-TO-MARKET ALLIANCE would like to support the Rice Development Project in West Africa. It has accomplished significant successes in East Africa and the partnership alliance sees excellent potential to apply these learnings and her joint resources to address the challenges of Rice in West Africa <https://www.growafrica.com/groups/farm-market-alliance>

WFP

Supplier of value chain management in at least one country.

Potential off-taker in Senegal, Côte d'Ivoire and Burkina Faso.

WFP has repeatedly been urged by national governments to purchase rice locally, yet has found quality, consistency of supply and pricing insufficient.

AGRA

Potential supplier of extension services and cooperative development.

AGRA has signed an MoU with intervalley which makes targeted operations in Senegal and Côte d'Ivoire an option.

AGRA takes a strong interest in taking the FMA to scale and believes the west Africa rice initiatives is a way to do so.

GROW AFRICA

Rice has been designated a spearhead supply chain in west Africa in the new strategy for Grow Africa.

Grow Africa has effectively liaised with the ECOWAS rice offensive and has been asked to co-lead on this initiatives in the form of a public-private partnership.

BAYER

Bayer has indicated an interest to supply a selection of its hybrid/dryland rice seeds of the ARIZE portfolio to the programme; these varieties have been optimised for West African crop conditions.

Bayer sees this programme as one of the ways to grow its business volume in rice seeds.

SYNGENTA

Syngenta has indicated an interest to supply crop protection and a selection of its hybrid rice varieties to the programme.

Syngenta's focus in rice is primarily on crop protection and yield optimisation.

YARA

Rice is not considered a strategic crop for Yara.

However, Yara has shown interest to supply fertiliser, especially as part of its recent business development in Côte d'Ivoire.

RABOBANK

Rabobank is interested to finance equipment and land preparation services, especially using export credit agencies.

Rabobank can also supply trade and commodity finance services and bridge loans e.g. for committed but not yet disbursed AFDB finance.

Rabobank considers to increasingly focus on rice.

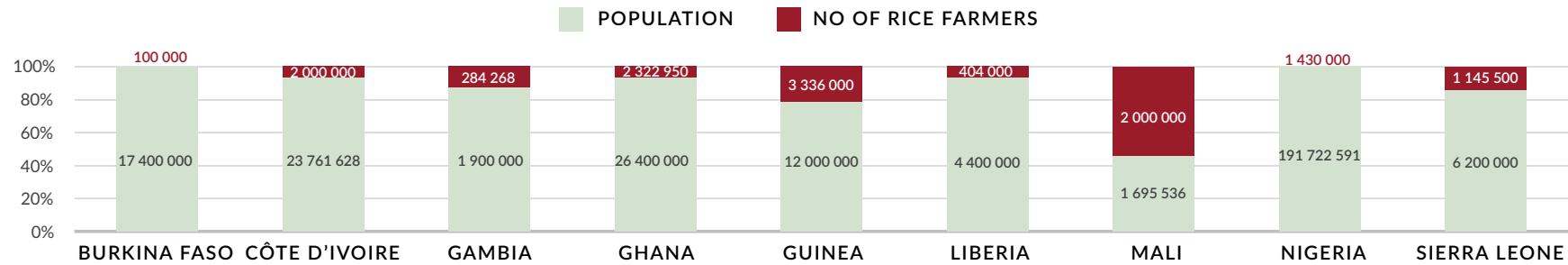
IFC

IFC is in general supporting the Market to Farmers platform and has a strong agricultural representation in West Africa.

Preliminary discussion on the investments in the rice sector have been held and it has gained strong interest from IFC's agricultural division.

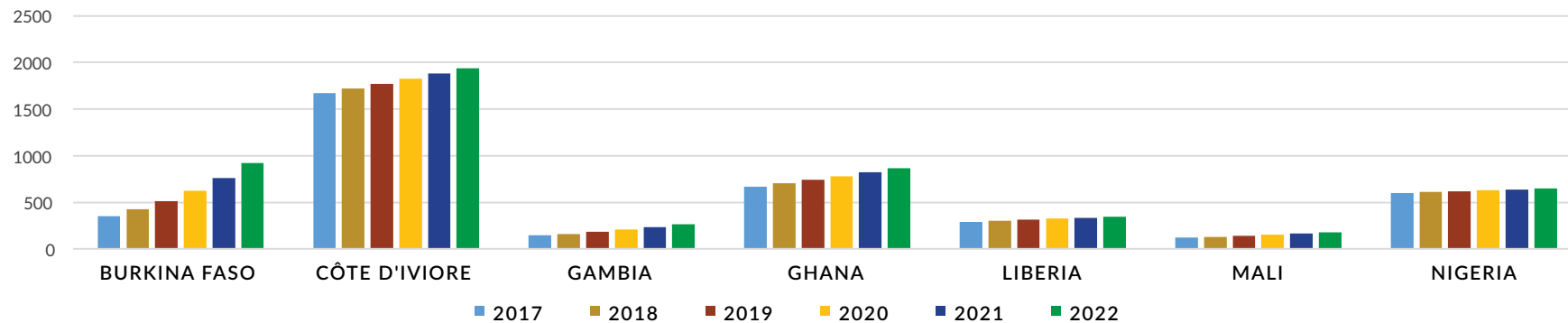
Source: Dalberg Intervalle Rabobank study

POPULATION VS FARMER-POPULATION



Source: NRDS, FAO (2014)

RICE PROJECTED DEMAND AND LOCAL PRODUCTION GAP ANALYSIS IN 7 ECOWAS COUNTRIES



Source: Worldbank (2015)

- Projected demand vs local production gap consistently growing in Burkina, Ghana, Mali, Côte d'Ivoire, Liberia & Gambia.
- Nigeria gradually closing demand gap with increased local production.



CARD (COALITION FOR AFRICAN RICE DEVELOPMENT) started an initiative to increase production of rice in Sub-Saharan Africa (SSA) from 14 MT in 2008 to 28 MT in 2018 doubling production level in 10 years.

This initiative is to increase rice production by 14 million MT, increase cultivated land area from 7.34 million HA to 9.73 million HA, increase yield per unit area from 1.94 to 2.93 MT/HA, also to increase production from 14.246 to 28.55 million MT.

This initiative to generate 500 researchers, 1,000 technicians and 11,000 extension staff dealing with rice.

The CARD initiative runs in Benin Republic, Burkina Faso, Gambia, Ghana, Guinea, Liberia, Mali and Senegal.

CARI (COMPETITIVE AFRICAN RICE INITIATIVE) started in 2013 with the sole aim of reaching 150,000 farmers, addressing coordination failure, creating better linkages among rice value chains.

CARI Initiative has location in Burkina Faso, Ghana and Nigeria.

This initiative aims to increase expected economic returns for stakeholders, increase the competitiveness of African small-scale rice producers, millers and other actors in the value chain and contribute to poverty reduction. This initiative is financed by Bill & Melinda Gates Foundation and German Ministry for Economic Cooperation and Development and Walmart Foundation. It was executed by GIZ & TECHNOSERVE.

NRDS-JICA INITIATIVE works to increase rice production and improve the rice value chain. With a target of 1.4 million tons of paddy rice by 2018.

AGRIC PROMOTION POLICY-GREEN ALTERNATIVE

- Import Substitution (Rice).
- Self-Sufficiency.
- Food & Nutrition Security Improving Yield/HA.



CONTINENTAL INVESTMENT PLAN ON RICE SELF-SUFFICIENCY IN AFRICA (CIPRISSA)

has the aim of achieving continental rice sufficiency by 2025. The initiative is executed by African Development Bank (AFDB) and Africa Rice.

This initiative aims to strengthen the currently implemented programmes of the countries involved by providing new impetus through sustained massive dissemination of the technologies and innovation to users.

CIPRISSA runs in the following ECOW-AS countries; Côte d'Ivoire, Mali, Nigeria, Senegal and Sierra Leone.



PROJECT SEED SCALING PROJECT

LOCATION LIBERIA

FUNDING AFRICA RICE

DURATION September to November 2016

201 Farmers (147 male 54 female)

201 Farmers participated in the project (147 male and 54 female), 11 technicians and extension agronomists (9 male 2 female). The project was funded by USAID and implemented by Africa Rice to address the important issue of good quality rice seed production, to increase rice production and achieve rice self-sufficiency in the country. During the project, there were four training sessions for out-growers related to seed production, processing, certification and marketing. The training programme focused on the importance of good quality seed; different categories of seed; why farmers should use good quality seed; land preparation and water management; time of planting; soil fertility management; threshing, drying cleaning packaging and storage. A lot of participants affirmed that it was an important workshop to share knowledge.



PROJECT **RICE BREEDING PROGRAM**

LOCATION BURKINA FASO, CÔTE D 'IVOIRE, GHANA, MALI, NIGERIA AND SENEGAL.

FUNDING Africa Rice supported by Republic of Korea

The project involved the development of a new generation of productive and stress-tolerant rice varieties to meet the pressing needs of African rice farmers and consumers. The joint initiative is at an opportune moment as the demand for rice is growing at more than 6% per year in Africa faster than any other food staple. Rice harvest in Africa is predicted to reach an all-time high of about 29.7 million tons in 2016 according to FAO. Based on the low yields of African rice which is lower than the average rice yield worldwide at around 4 tons per hectare. The republic of Korea with the resources of germplasm known as tongil-type rice that has yield potential of 6-8 tons per hectare of milled rice has changed from an importer to an exporter of rice. And it is believed that it could be used to develop a new generation of rice varieties for Africa. Several improved varieties obtained from the crosses between elite Korean and African varieties are currently being tested.



PROJECT **TRAINING IN FABRICATION OF ASI RICE THRESHER**

LOCATION SIERRA LEONE.

FUNDING Africa Rice in conjunction with the Sierra Leone Agricultural Research Institute (SLARI),

The project organised a training workshop from February 1 to 10, 2017, to strengthen the capacity of local manufacturers to fabricate the ASI rice thresher, which is one of the important improved post-harvest technologies for rice in sub-Saharan Africa. The manual rice threshing carried out mostly by women leads to heavy post-harvest crop losses. The ASI thresher was developed by Africa Rice and its partners to speed up post-harvest processes, produce a higher quality product, increase the marketability of local rice and lessen the burden on women. The aim of the project was to train local equipment manufacturers in the fabrication and out-scaling of this technology to the rice sector. The scientists were satisfied with the overall performance and output of the thresher and found that the rice was well threshed with little or no grains remaining on the straw.



PROJECT RICE SECTOR DEVELOPMENT IN WEST AFRICA
LOCATION BENIN, BURKINA FASO, CÔTE D'IVOIRE, GUINEA-BISSAU, MALI, NIGER, SENEGAL AND TOGO.
FUNDING West African Economic and Monetary Union (UEMOA) and implemented by Africa Rice

The project aimed at identification, production and distribution of rice varieties adapted to climate change, rice crop management practices to increase productivity, good post-harvest practices, introduction and adaptation of equipment, promote functional and sustainable contractual arrangements between the different rice value chain actors, capacity building, development of regional instrument for providing information for food security. Africa rice and its partners are implementing the project activities through the task force and the rice sector development hub mechanisms.



PROJECT GROWTH AND EMPLOYMENT IN STATES (GEMS4)
LOCATION NIGERIA
FUNDING United Kingdom Department for International Development (DFID),

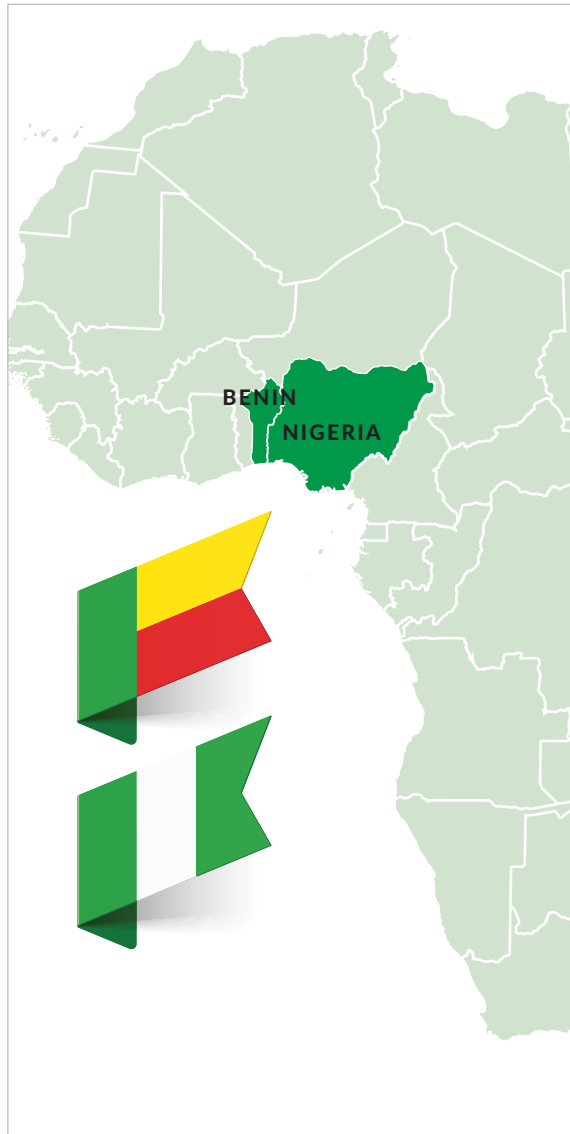
The project is a mapping exercise of rice producing clusters in Nigeria. A primary objective was to provide a more comprehensive information on paddy production in Nigeria which will support the development of supply chains from proximate rice clusters around existing commercial rice mills or proposed new plants in the country. The mapping was implemented through researchers and enumerators' visits to rice producing locations in eighteen states in Nigeria. Focus group discussions were held with farmers, which was followed by verification surveys. Yield estimation was done according to recall methodology. 18 states were selected based on their contribution to national production.



PROJECT RICE ADVICE APPLICATION BY AFRICA RICE
DURATION 2016-2017
LOCATION NIGERIA AND MALI 200 Service Providers 16,000 Farmers
FUNDING Japanese Embassy in Benin, GIZ-CARI

The project trained 200 service providers with 16,000 farmers benefiting from the project. Farmers were happy with the significant improvement in yield and income that rice advice brought to them and were eager to continue with the service. What made the project successful was the use of media tools for promoting rice advice, which includes the production of a promotional video, the creation of a Facebook page and the development of a dedicated website. During the review of the project, the board was pleased that nearly all the projects targets was achieved and even surpassed in some cases. The project aim was to boost rice productivity, maximize rice farmers' investment potential and catalyse youth empowerment, contributing to food security and social stability in the two countries.

POLITICAL ECONOMY OF RICE IN ECOWAS COUNTRIES



NIGERIA AND BENIN

- In Nigeria, 180 million people are estimated to consume nearly 6 million tons of rice per year. Just over half, or about 3.1 million tons, is imported despite a tariff of 70%. Over half of imports in 2015 entered Nigeria from neighbouring Benin where the duty is only 12%. Most of Benin's rice imports, up to 30,000 truckload per year, are routed via transit shipments through Niger to the north-west of Nigeria.
- Nigeria consumes parboiled rice exclusively, but Benin prefers white rice. This explains why the 85% share of Benin imports that are parboiled are bound for Nigeria via smuggling
- 60% of Nigeria's overseas rice purchase comes in bulk vessels from the three largest rice re-processors in Thailand with bagging at the Nigerian ports.
- 40% is vessel loads of break bulk bagged rice originating in south-eastern or north-western India.
- Nigerian government has allowed these companies to pay only 30% import duty if they invest in domestic milling capacity. As a result, the small group of companies that accounts for most imports also own a major share of the modern milling capacity.
- Stallion group is Nigeria's largest rice importers. Stallion has also made the largest investment in domestic rice milling with the capacity of 430,000 tons per year in three locations. The company is buying from 300 rice cooperative and another 8,000 to 9,000 farmers.
- Stallion plans to increase milling capacity to 1.5 million MT.
- Stallion is targeting 1.5 million tons of domestic rice milling capacity.

Source: World-Grain.com (2017)



MALI

- Mali has made the most progress of any country in West Africa toward self-sufficiency in rice.
- Farmers now grow 1.4 million tons, mostly in the zone a few hundred kilometres west of Bamako, known as office du Niger.
- Annual import has declined to only 100,000 tons according to USDA estimates.
- City dwellers now mainly consume local rice varieties that are preferred for their freshness and aroma.
- Network of canals could be extended to increase irrigated rice area by several times to 1 million hectares.
- Double cropping and yield increases have been achieved due to new varieties and better fertilizer application.
- Mali may become a large surplus producer by the end of the decade with exports flowing from the country to its border countries on three sides.

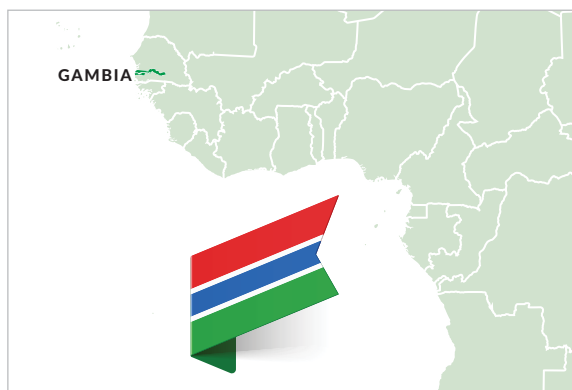
Source: World-Grain.com (2017)



SENEGAL

- Low-cost bulk shiploads of 100% and 50% broken rice from Brazil and Uruguay make up about three quarters of Senegal's annual imports of 1.4 million tons. About 100,000 tons is re-exported.
- Large-scale irrigation schemes in the Senegal river valley shared with Mauritania on the northern bank have allowed national production to gain ground.
- Average farm size is small at just one to two hectares but mechanized service providers help raise productivity through tractor tilling and combines harvesting for a fee.
- Policy makers in Senegal have struggled to overcome the dichotomy of low cost, good quality foreign rice exclusively.

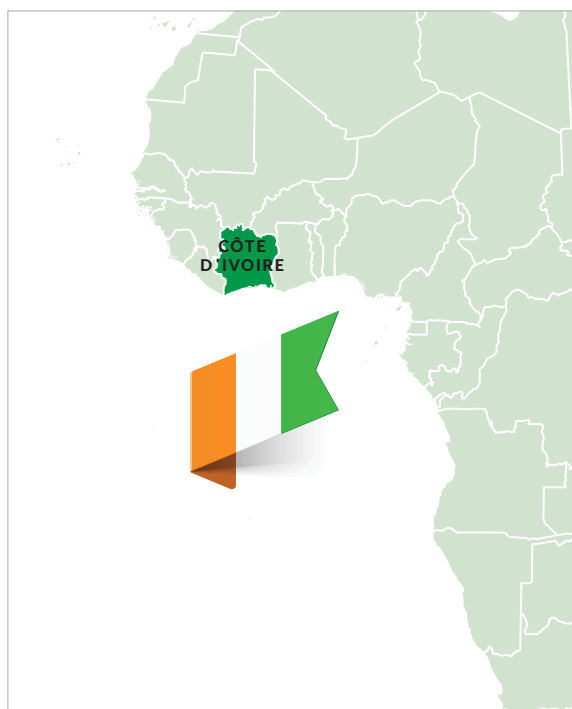
Source: World-Grain.com (2017)



GAMBIA

- The Gambian government is now requiring the 10 largest licensed rice importers to purchase the surplus domestic production based on their share of imports. If a company accounts for 10% of imports, it must buy 10% of the commercially available local rice at government-dictated prices for inclusion in their distribution channels.
- There is a second rice production zone in the south-western Casamence region of Senegal sandwiched between Gambia and Guinea Bissau. Where paddies are carved out of mangrove swamps and long-handled wooden hoes are used to laboriously turn the earth in a subsistence farm economy with little mechanisation.

Source: World-Grain.com (2017)



IVORY COAST

- Côte d'Ivoire's success as one of the world's leading exporters of cashews and cocoa has faced challenges with its development as a rice producer despite optimal growing conditions for the cereal.
- Subsistence farming of rice is widely practiced in all corners of the country but for cash crops as farmers prefer the more lucrative cultivation of export commodities.
- A handful of major food companies import 1 million tons of mostly high quality rice from a wide range of origins for the sophisticated consumers of Abidjan. Long grain Thai and Vietnamese varieties are preferred with perfumed rice and are gaining share.
- Since 2012, the Ivorian government has been engaging in a state planning exercise in order to bolster domestic production. The country has been divided into zones that are being granted as concessions to private operators. These include the largest rice importers as well as some foreign investors. Each concessionaire will have a semi-exclusive right to install industrial rice mills in its zone and procure from local farmers.
- The ministry of agriculture's Rice Council ONDR is managing an ambitious scheme to place 30 rice mills with financing from Exim bank. However, private sector players have pushed back suggesting too much intervention creates uncertainty in the sector and hinders them from going ahead with investment plans. Therefore, a national Rice Platform has been launched by ONDR together with Grow Africa in July 2017, creating a stronger PP-basis for aligned partnership.

Source: World-Grain.com (2017)

GHANA

- The business environment in Ghana is not very regulated.
- Avnash Industries Ghana Ltd, is now building one of the largest industrial rice mills on the continent. The Buhler-equipped mill located in the centre of the country will have a capacity of 500 tons paddy per day. The challenge is the ability to secure enough local rice to keep the mill turning.
- 40% devaluation of the Ghanaian currency that accompanied the crash in petroleum. Importers took big Forex-related losses and incoming volumes have dropped by 30% year on year.
- Ghana is another country where parboiled rice is important. It is the only place in West Africa where U.S. rice is eaten, but the major importers report that low global prices could mean no shipment from the Gulf of Mexico in the coming year.
- Singapore-based Olam group is one of the leading importers in the country.
- Private sector investment in a number of modern mills in the northern rice production zone has made well-cleaned, sorted and graded domestic rice now available, even though production costs remain much higher than in major export origins.

Source: World-Grain.com (2017)

GAMBIA AND GUINEA BISSAU

- The Gambian government issued a decree in early 2015 stating that importation of rice would be banned starting in 2016.
- The country of less than 2 million imported 140,000 tons in 2014, while the domestic crop did not exceed 40,000 tons.
- Planting has been expanding at a steady but slow pace with much effort put into research and development of new varieties.
- The country's only industrial rice mill, built in 2011, was never commissioned due to fallout between the private business group and government partner in the joint venture.
- In nearby Guinea Bissau, cashews are by far the largest cash crop. The principle exporters of the raw nuts are also the leading rice importers.
- Gambia and Guinea Bissau get the largest share of their rice from South America in 100% or 50% broken form arriving in bulk vessels and bagged at dockside during discharge. Louis Dreyfus Commodities dominates the supply from South America to these countries and others in West Africa.

Source: World-Grain.com (2017)



INVESTMENT OPPORTUNITIES AND BUSINESS MODELS ACHIEVING ZERO IMPORTS

PRODUCTION

- Certified Seeds
- Farming Technology

Paddy aggregation strategies must be fine tuned.

In 2014 the west African region imported over 9 million MT of rice representing over 40% of rice consumption, there is a huge investment opportunity to increase rice production to enable substitution of 9 million metric ton of imported rice that came into the west Africa market in 2014. This will be a major step in achieving the rice offensive object of zero import over the next 8 years.

MILLING/ PROCESSING

- Milling Equipment
- Threshers
- Bags & Bagging Equipment

If production is to be increased by 9 million MT, there must be commensurate facility for milling and bags to bag the milled rice.

WAREHOUSING

- Inventory Technology
- Beams
- Forklift
- Pallets

The 9 million MT processed rice will need to be housed, therefore there is an investment opportunity for warehousing.

TRANSPORTATION

- Haulage & Logistics in Organization to Handle

The 9 million MT rice will also need to be transported for distribution. There is therefore an investment opportunity for the transportation sector.

OTHER INVESTMENT OPPORTUNITIES

PRIVATE

Private sector partners include financial, strategic and technical partners.

Partnerships with smallholder producers through an out-grower scheme and option for farmers to have ownership stake in rice mill.

Strong diffusion and adaptation of technology across value chain.

PUBLIC

Governments to secure financing for the development of public infrastructure needed to facilitate agricultural development.

Adaptation of climate and environmentally smart practices.

DONORS

Strategic partnership across value chain for efficient and integrated management of production, harvesting, processing, distribution.

Not-for-profit project management company implementing a replicable model.

BUSINESS CASE STUDY: FARM TO MARKET ALLIANCE

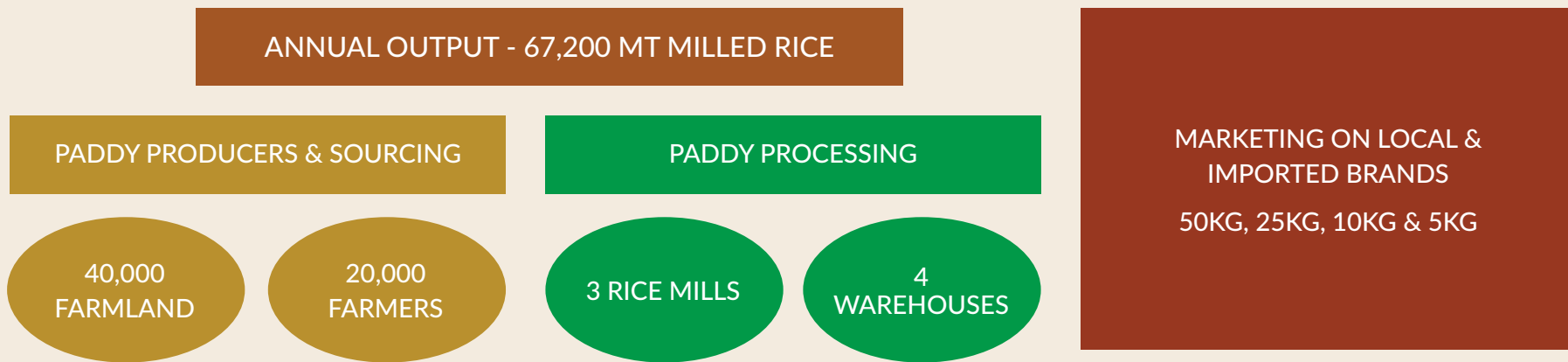
Under the Farm to Market Alliance it was concluded that a PPP approach with a \$350M investment will result into 250K MT per year reducing Senegalese imports with 25% and creating over 30.000 jobs.

Sources: Dalberg Rice Study and Rabo Rice Study.

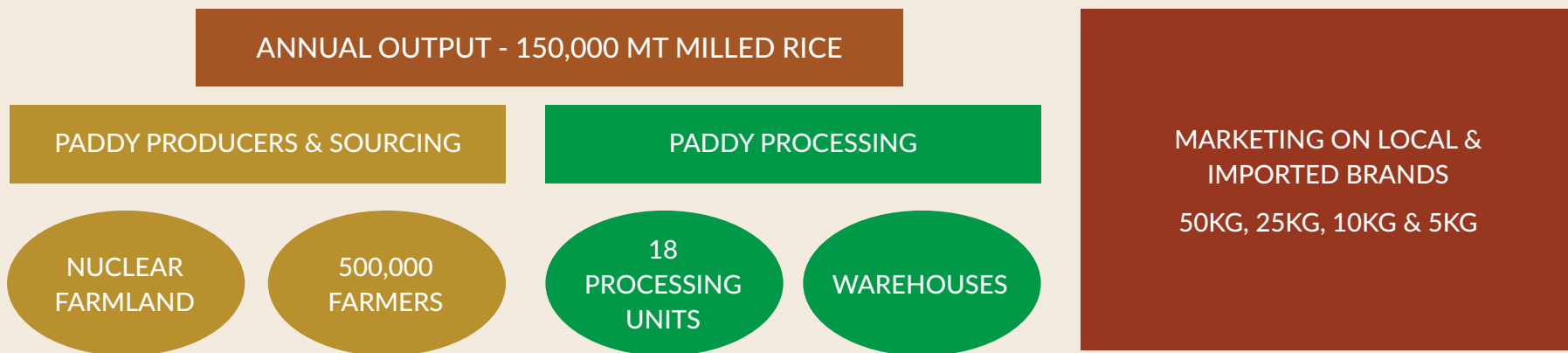


PADDY GENERATION BUSINESS MODELS IN WEST AFRICA

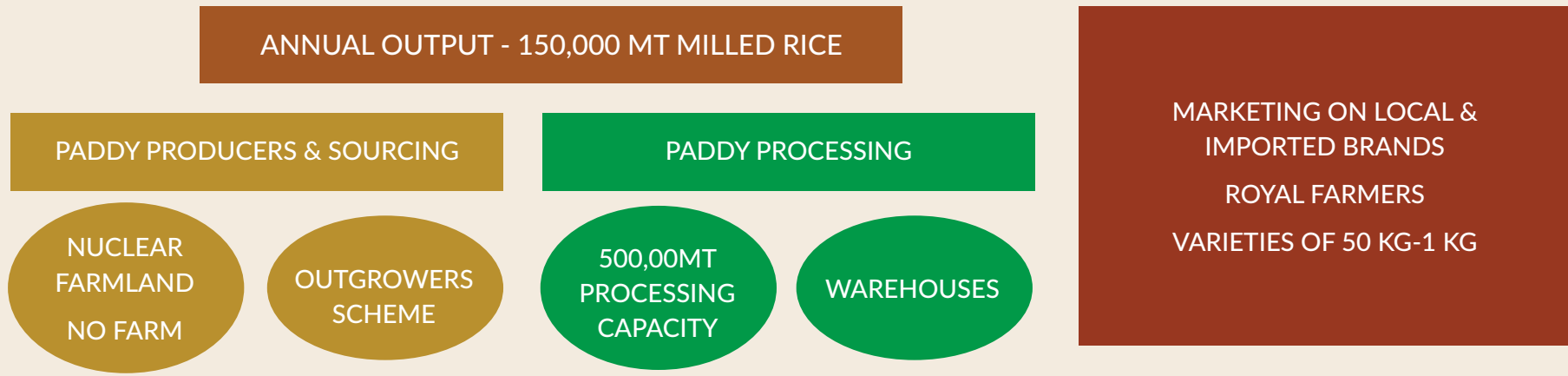
ELEPHANT GROUP BUSINESS MODEL-NIGERIA



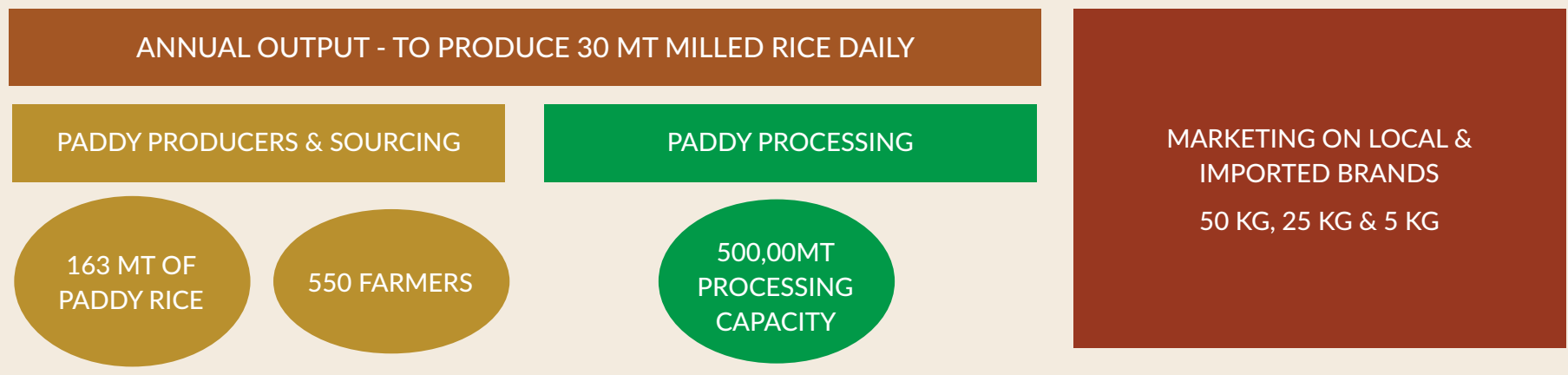
OLAM RICE BUSINESS MODEL-NIGERIA, BURKINA FASO, GHANA



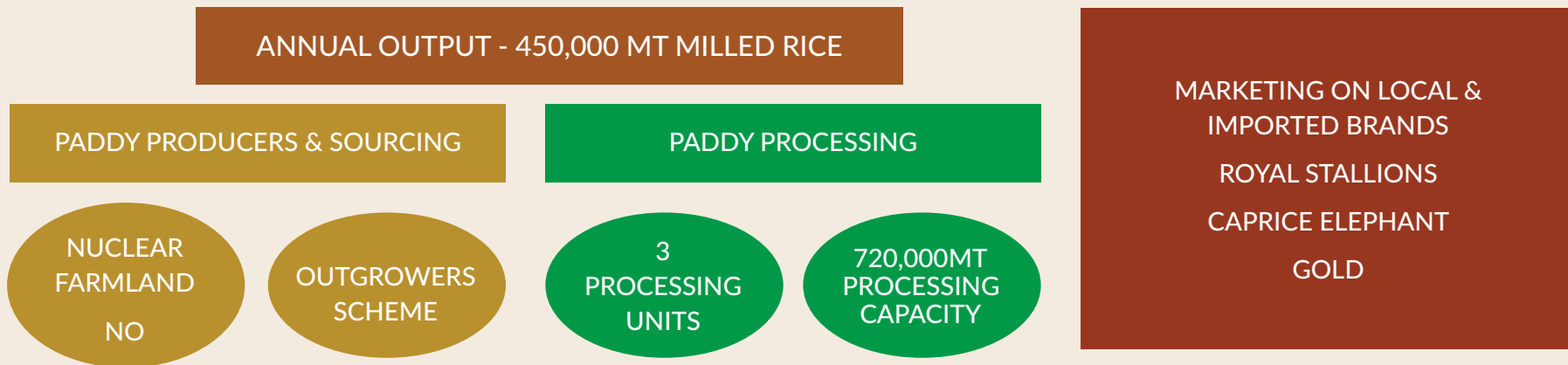
AVNASH BUSINESS MODEL-GHANA



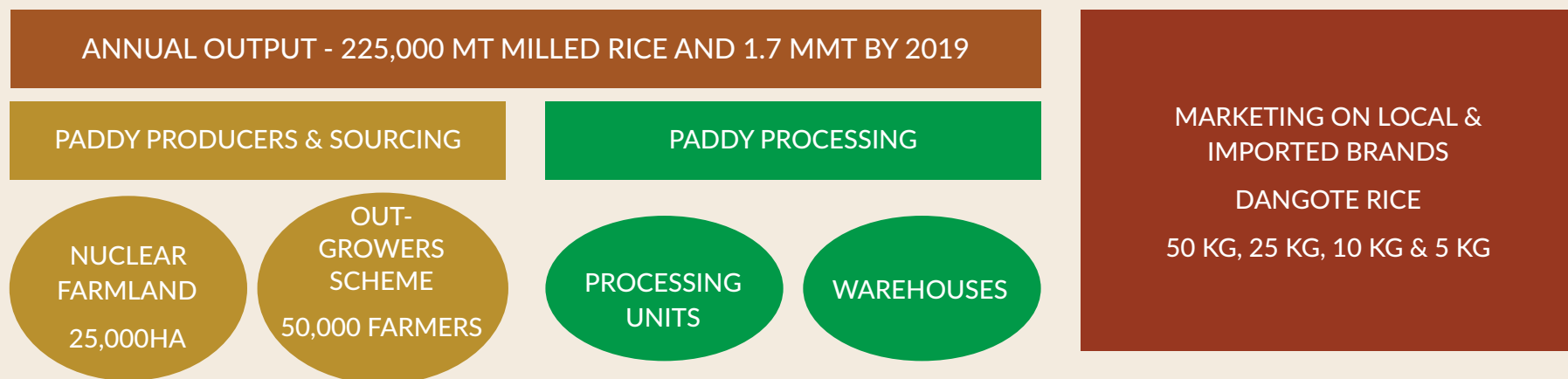
FABRAR RICE BUSINESS MODEL-LIBERIA



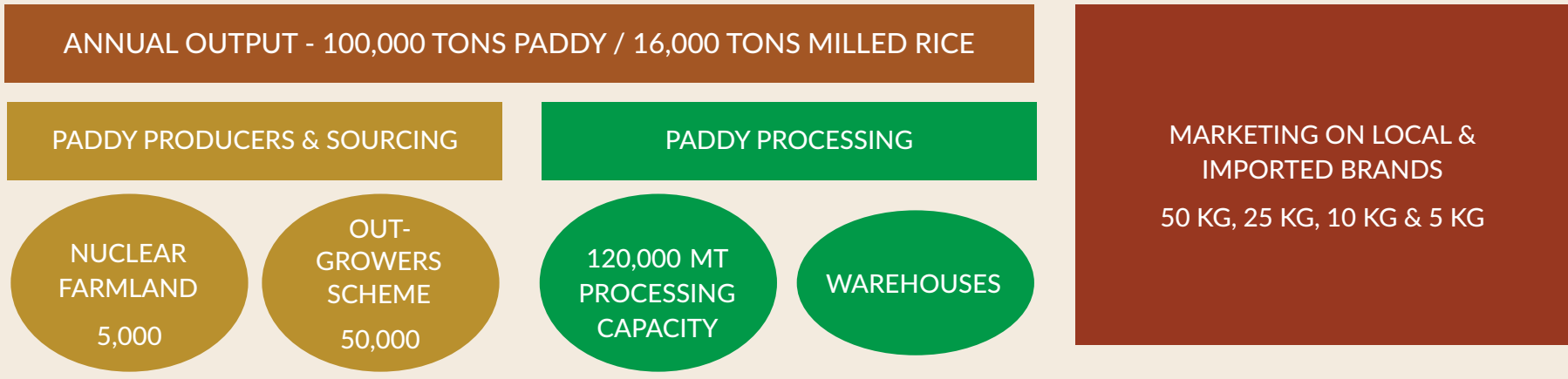
STALLION RICE BUSINESS MODELS- NIGERIA, NIGER, BENIN REPUBLIC, CÔTE D'IVOIRE, SENEGAL, GHANA



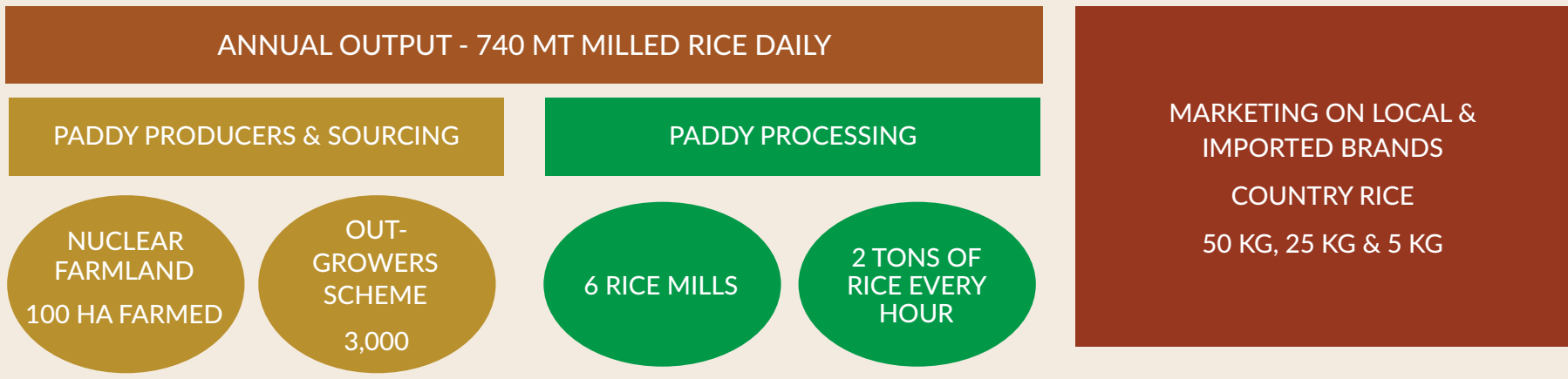
DANGOTE RICE BUSINESS MODEL-NIGERIA



WACOT RICE BUSINESS MODEL-NIGERIA



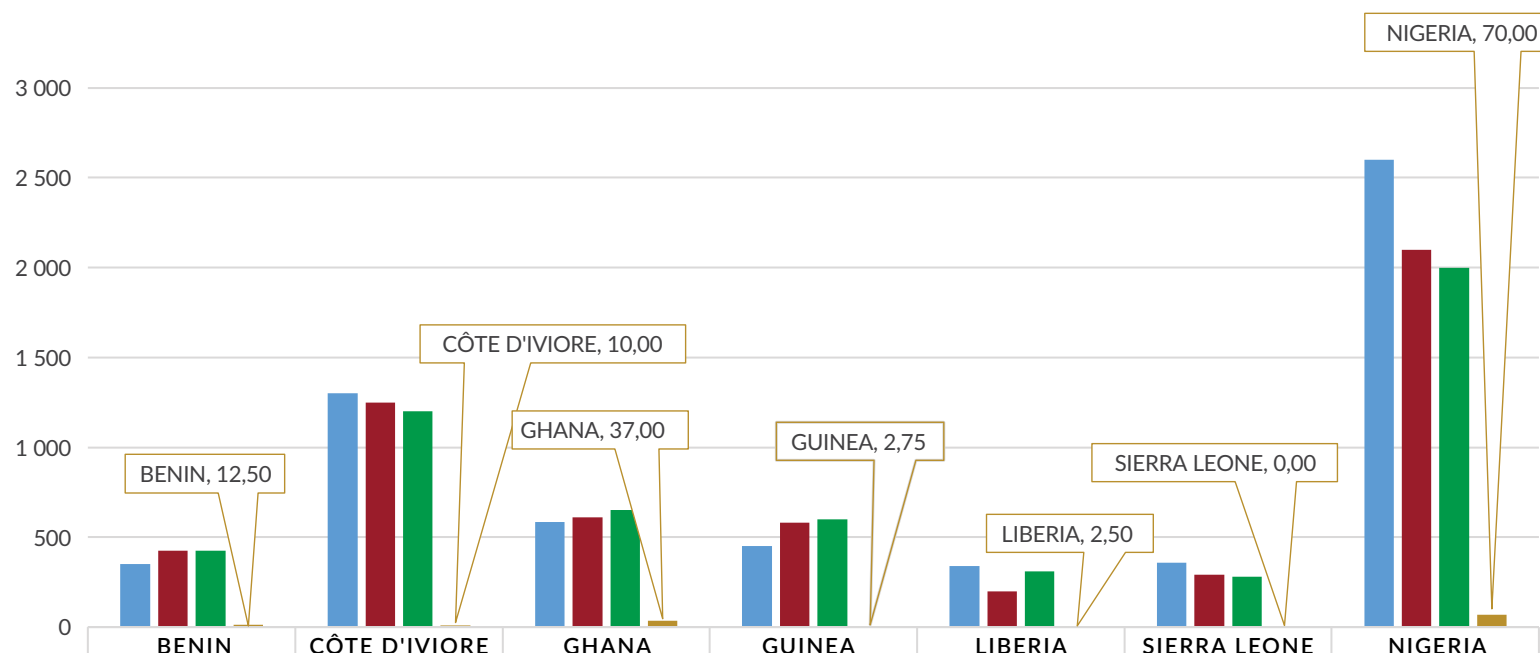
MOUNTAIN LION RICE BUSINESS -MODEL-SIERRA LEONE



REGIONAL TRADE RELATIONS

IMPACT OF DUTY & TARIFF ON IMPORTS

(SIGNIFICANT DROP IN IMPORTS IN NIGERIA, CÔTE D'IVOIRE AND SIERRA LEONE OVER 3 YEARS)

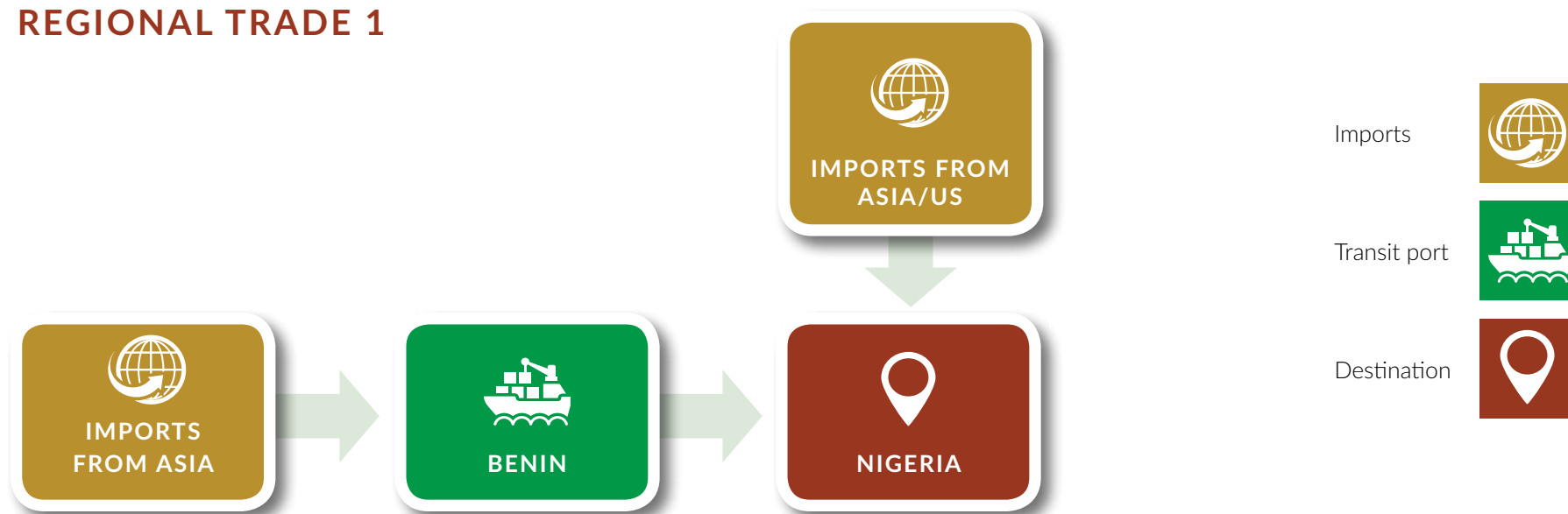


	BENIN	CÔTE D'IVOIRE	GHANA	GUINEA	LIBERIA	SIERRA LEONE	NIGERIA
2014 IMPORT '000MT	350	1300	585	450	340	360	2600
2015 IMPORT '000MT	425	1250	610	580	200	290	2100
2016 IMPORT '000MT	425	1200	650	600	310	280	2000
TARIFF %	12,50	10,00	37,00	2,75	2,50	0,00	70,00

■ 2014 IMPORT '000MT ■ 2015 IMPORT '000MT ■ 2016 IMPORT '000MT ■ TARIFF %

Source: Worldbank (2016)

REGIONAL TRADE 1



The flow of rice imported from major Asian origins to Benin for onward shipment to Nigeria is a key component of regional rice trade in all West Africa. They sell this rice to local wholesalers who sell from their warehouses in Cotonou to the Nigerian traders who buy by the truckload for shipment. ECOWAS data indicate Benin imports 0.9 MMT per year of which over 0.5 MMT is sold into the Nigerian market. Port of Cotonou statistics show about 2.4 MMT of cereals arriving at the port in 2014, over half of which is rice. USDA data show about 700,000 MT of net rice and wheat imports. Therefore about 1.7 MMT of grains, almost all wheat and rice, were transited to neighbouring countries. Rice made up over two-thirds and wheat the other third. In addition to lower duties, another reason for the large volumes of cereals transited through Benin is quicker turnaround at the port and a good highway to the north, with less congestion than in Nigerian corridors out of Lagos. Shippers Council of Niger data shows 1.2 MMT of rice transported from the Port of Cotonou to Niger in 2014 but just under 900,000 MT in the first 11 months of 2015, so volumes to Niger are likely to be down 25% for all of 2015. This is attributed to decline in

demand from Nigeria and the end of the rice ban in 2015. The southern border between Cotonou, Benin, and Lagos, Nigeria, was re-opened to rice imports in November 2015 after a lower duty on rice land-crossings into Nigeria was put in place. At a lower duty, rice is still entering Nigeria through unofficial land borders but at lower quantities. Rice is by far the most important commodity for the Benin Food Importers Association.

(Source: GAIN report)

REGIONAL TRADE 2

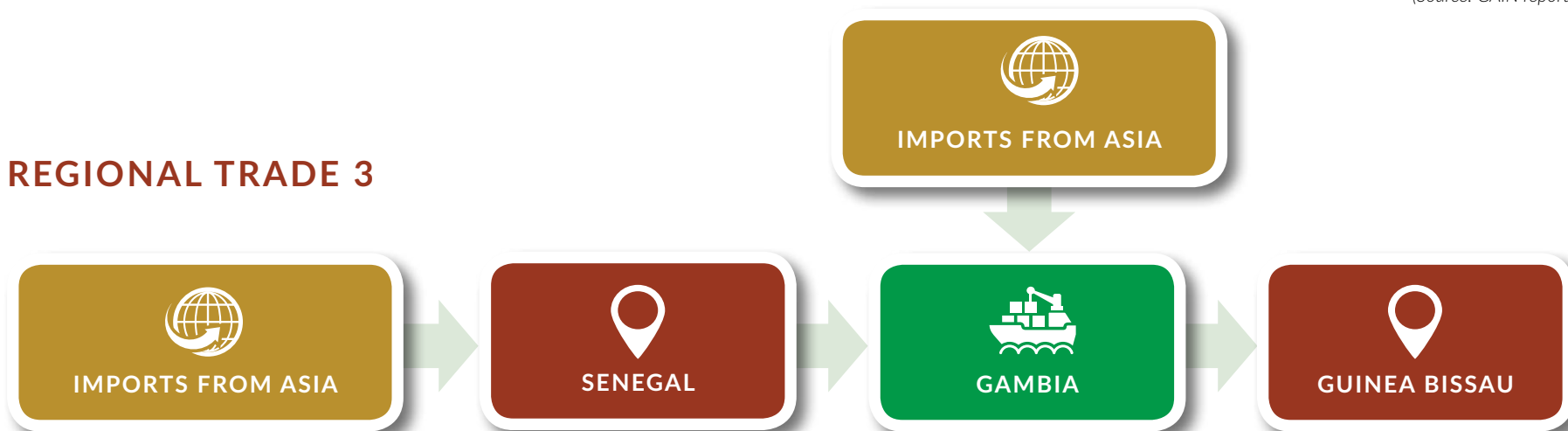
Trammo Inc. reports re-exporting up to 20% of the rice brought into Abidjan to client in Mali, Burkina Faso, Niger and Chad, but this totalled only about 15,000 MT in its first year since import tariffs on rice are relatively low, the port is efficient and the road network is satisfactory. There is little cross border trade or smuggling of rice imported from neighbouring countries into Côte d'Ivoire unlike the case of Nigeria.



World Food Programme (WFP) also conducts some regional trade; in the past, it has procured rice from stocks available in Côte d'Ivoire with Louis Dreyfus (LD) company for delivery in Niger, Mali and Chad. One such purchase was 10,000 MT of rice.

(Source: GAIN report)

REGIONAL TRADE 3



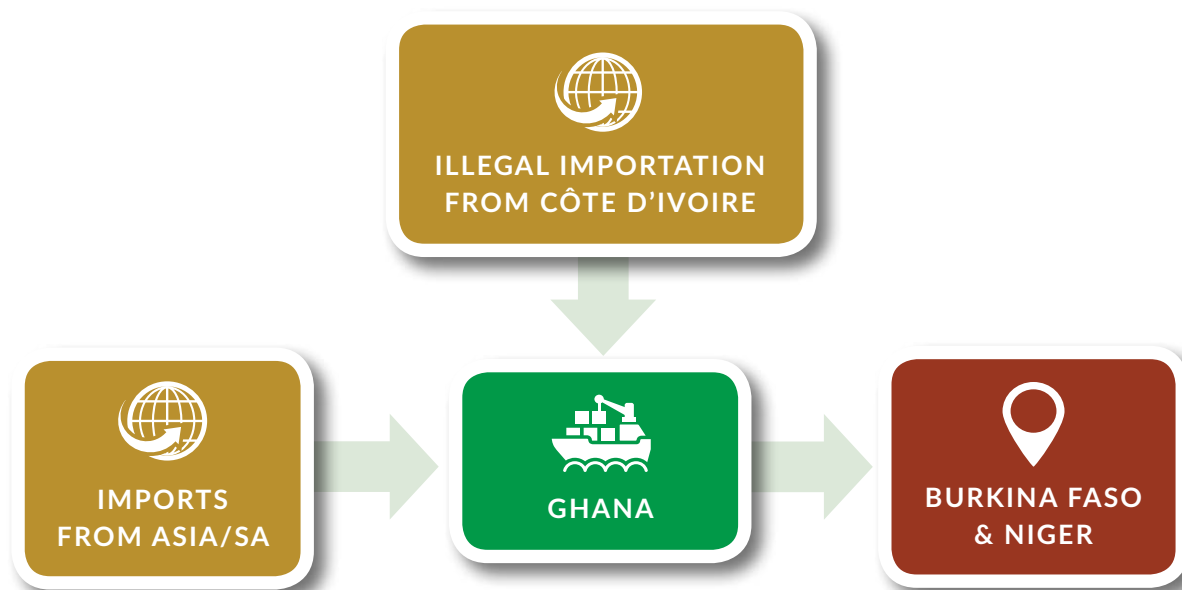
When Senegal maintained much higher import duties of rice than Gambia, up to 30% of the rice imported to Gambia was re-exported to Senegal in illegal cross border trade. Senegal has now reduced its import tariff on rice, and the cross-border trade has declined. There is some cross-border trade to Guinea Bissau of rice imported from Asia or South America through Gambia's port of Banjul.

(Source: GAIN report)

REGIONAL TRADE 4

Ghana is a corridor for movement of imported rice from the port of Tema or Takoradi to land locked Burkina Faso and Niger. Ghana imports little rice from neighbouring countries, although there are reports of illegal smuggled rice (as much as 100,000 MT) from Côte d'Ivoire into Ghana, due to preferential tax structure between the two countries. As a response to the illegal land border imports, the ministry of trade and industry has lifted a ban on importing rice through land borders, effective as of 1 August, 2016.

(Source: GAIN report)



REGIONAL TRADE 5

Some rice imported from Asia or south America may transit onward from port of Conakry to Mali or Burkina Faso and do not count as Guinean trade. Some rice is traded across border to Sierra Leone. It is not clear how much of the rice exported is imports or domestically produced, but it is more likely to be imports since small quantities of domestically grown rice is commercialised.

(Source: GAIN report)



REGIONAL TRADE 6

Mali has the potential to greatly expand its production and become a rice supplier to neighbouring countries in West Africa, replacing imports by sea. Better quality and lower production costs are a prerequisite for this trend

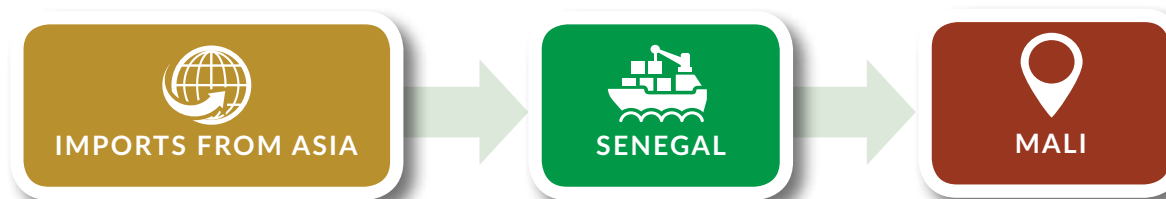


to take place. There is cross-border trade with Senegal, Guinea, and Abidjan of rice imported from Asia and South America.

(Source: GAIN report)

REGIONAL TRADE 7

Senegal is a corridor for rice and other commodities imported to landlocked Mali, which has a system of import tariffs and licenses for rice to protect its large domestic rice industry. This results in an unknown amount of illegal cross-border trade in rice from Senegal to Mali. Much of this trade may



be limited to supply the western most areas of Mali, since most of the country is almost self-sufficient in rice. Total cross-border trade volumes could be 20,000 to 30,000 MT.

(Source: GAIN report)

REGIONAL TRADE 8

There is limited regional trade of rice between Cape Verde and its neighbours. According to comrade, in 2014 0.32% of the rice imported to Cape Verde came from Senegal and Côte d'Ivoire.

(Source: GAIN report)



KEY CONSTRAINTS AND RECOMMENDATIONS FOR ACHIEVING SELF-SUFFICIENCY

CONSTRAINTS

- Yield
- Access to inputs
- Machinery (traditional manual processing and outdated equipment)
- Land and water management

RECOMMENDATION

Introduction of high yielding disease resistant short duration varieties.

Decision support on fertilizer management through technology.

- Provision of non-motorised, mechanical seeders and weeders
- Power tillers and locally made attachments - a motorised machine for land preparation and transportation of agricultural inputs and crops
- Rice reapers - a motorised machine which cuts rice straws at harvest for threshing. Improved rice milling
- GEM parboiling technology - non-motorised equipment which enhances grain quality and improves energy efficiency

Improving land and water management in inland valley lowlands. The 'smart-valleys' approach developed in Benin and Togo doubled farmers yields to 4 T/HA. Inland valleys, with an estimated surface area of 190 million HA in sub-Saharan Africa, will play a crucial role in boosting Africa's rice production in Africa. Irrigation could be extended to about 24 million HA.



PROPOSED ECOWAS REGIONAL RICE DEVELOPMENT STRATEGY

- Launch a Regional Rice Leadership Working Group to bring all initiatives together in a cohesive and complimentary way with the aim to achieve an effective Public-Private Partnership towards self sufficiency in rice.
- To support ECOWAS in the rapid implementation of the ECOWAS Agriculture Development Fund or Fond Régional pour l'Agriculture et l'Alimentation (ECOWADF/FRAA) whose councils are responsible for "Strengthening the capacities of the Actors" and "Endorsing Agri-Business".
- Support Africa Rice and her Agricultural Training Centres across the ECOWAS area to capitalise their experiences e.g. their specialised rice training centre in St Louis in Senegal.
- Regional rice commodity exchange quality and price control agency to develop parameters for local and export quality. The exchange will also organise internet marketing/auctions.
- Regional women in agriculture forum to synthesise women about rice export potentials, contributions to food security, to develop more female rice farmers and millers.
- Youth development programme to identify, mobilise and employ young graduates' services within the rice sector, either as entrepreneur of their own or as employees in the services of others, a) employment in sale sector, b) producing certified seeds, c) provide harvesting or threshing services, d) marketing rice based products, e) provide rural advice using ICT based management tools, introducing modern rice farming techniques.
- Development of cross borders logistics strategy to link market actors and position ECOWAS for rice exports.





Grow Africa Secretariat

Tel: +27 11 256 3534

www.growafrica.com

info@growafrica.com

NEPAD Headquarters

230, 15th Road, Randjespark, Midrand,

Johannesburg, South Africa



The contents are the responsibility of Grow Africa and do not necessarily reflect the view of USAID or the United States Government



