



NIGERIA

Shutterstock

POLICY REFORMS AND INVESTMENT PRIORITIES IN THE CASHEW NUTS VALUE CHAIN

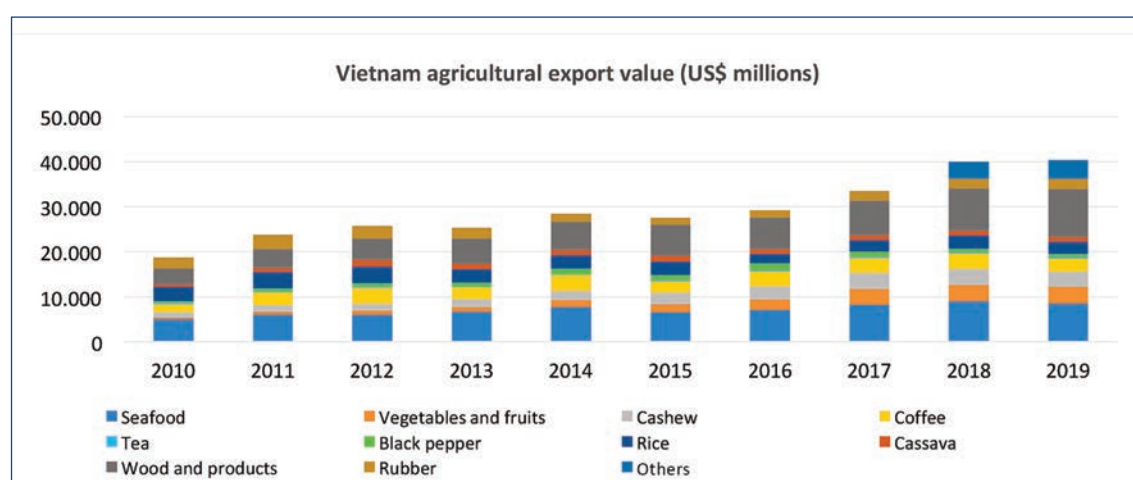
Policy note, July 2021

This note aims to summarize policy reforms and investment priorities to increase the productivity and competitiveness of the cashew nuts value chain. The note discusses critical challenges faced by value chain actors, outlines the reforms and investments required to address challenges, and draws and shares granular lessons on successful models of cashew nuts value chain development based on the Vietnam experience. The note was prepared by Elliot Mghenyi and draws largely upon the World Bank report¹ titled “Transforming Agribusiness for Inclusive Recovery, Jobs Creation and Poverty Reduction: Policy Reforms and Investment Priorities,” authored by Elliot Mghenyi, Cora Dankers, James Thurlow, and Chidozie Anyiro.

Benchmarking Nigeria against Vietnam

Key message # 1. Nigeria can draw important lessons from Vietnam on reforms and investments to enhance the competitiveness of cashew nuts value chains.

- Vietnam has emerged as a global leader in agribusiness and a major exporter of cashew nuts and several other commodities and products that are important in Nigeria’s agribusiness sector. In 2019, Vietnam generated exports of cashew nuts, seafood, vegetables and fruits, cassava rice, coffee, tea, black pepper, wood and wood products, and rubber worth about US\$40 billion – with cashew nuts alone contributing about US\$3.3 billion in export earnings.
- Vietnam’s competitiveness in these value chains is founded on productivity growth in the on-farm and off-farm segments, and better coordination of investments across value chains.
- Access to remunerative export markets has increased returns to investments for agribusinesses, created jobs in agribusiness value chains, raised the incomes of farmers, and increased foreign exchange earnings and public revenues.
- The rise in agricultural wages and farmer incomes contributed to about 75 percent of the poverty reduction in rural areas between 2010 and 2018.
- The strong performance of agricultural value chains in Vietnam has ushered a model of structural transformation that could serve Nigeria very well. It has uplifted the rural economy as farm incomes have been invested in rural sectors and created job opportunities outside farming. Labor released from farming has been productively absorbed in the rural non-farm sector, which differs from the usual pattern where labor migrates to urban sectors leaving rural sectors without skills and a lack of services and goods necessary to catalyze rural development.



Source: World Bank, 2020.

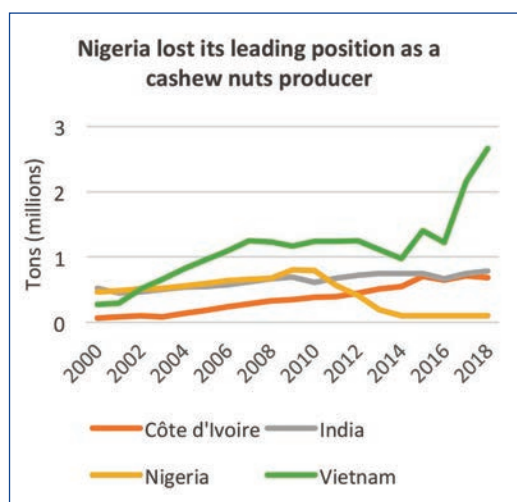
¹ The report can be accessed at <https://imagebank2.worldbank.org/Search/33064869>

Critical Challenges Facing Value Chain Actors

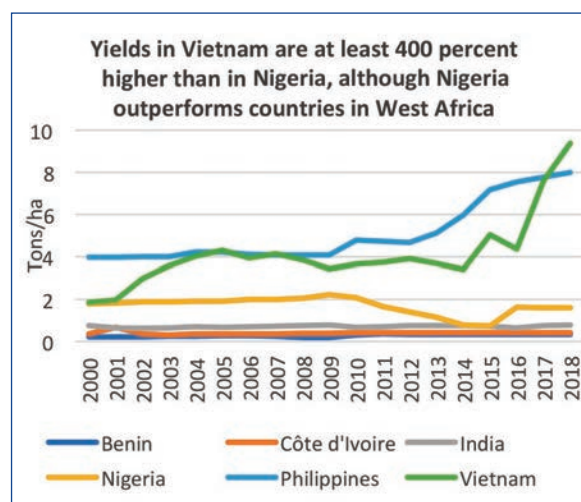
(a) Production Constraints

Key message # 2. Nigeria lost its leading position as a cashew nuts producer because of a lack of improvements in production technology. In particular, old cashew trees were not optimally replaced with new and higher-yielding varieties. However, production in Nigeria is expected to increase going forward as the age distribution of cashew trees indicate that at least 40 percent of trees were planted within the last 10 years and have not yet reached peak production.

- Cashew nuts production occurs in 27 states in Nigeria. Kwara is the leading state in production volumes, but most of the exported cashew nuts are produced in the South West region.
- Nigeria was among the leading cashew nuts producers in the early 2000s. However, it now ranks 13th in the world and 8th in Africa. Vietnam is now the world's largest producer, accounting for 45 percent of global production.
- Nigeria currently produces about 240 thousand tons of cashew nuts annually, with a gross production value of US\$15 million in 2018, which is a fraction of Vietnam's annual gross production value of US\$4.2 billion.
- Cashew nut yields in Nigeria are lower than they were two decades ago. Production dropped rapidly between 2010 and 2014, driven by a 67 percent contraction in area harvested and a 62 percent decline in yields.
- In contrast, yields have grown rapidly in Vietnam since 2014, driven by a strong push by the government to develop and disseminate high-yielding and early-maturing varieties, including dwarf varieties that allow high-density planting of up to 500 trees/ha compared to the conventional density of 200 trees/ha.



Source: FAOSTAT



Source: FAOSTAT

(b) Trade Constraints

Key message # 3. Nigeria mostly exports unprocessed raw cashew nuts (RCN), which account for 93 percent of cashew exports. Only 7 percent of exports include value added. In contrast, processed cashew nuts account for 99 percent of Vietnam's exports with only 1 percent being RCN.

- Nigeria formally exports RCN and processed cashew nuts to more than 30 countries. Vietnam and India are the major export destinations.
- The quality of RCN from Nigeria is lower than Vietnam's and far lower than that of Guinea Bissau, which is the world leader in terms of quality. The quality of cashew nuts is measured using the kernel outturn rate (KOR) and nut count (small nuts). The KOR for Nigeria is 45-48 lbs/bag, which is comparable to the quality level in Benin, Ghana, and Ivory Coast, but lower than that of Vietnam (KOR 48-52) and Guinea Bissau (KOR 50-54).
- A low KOR is partly caused by a high nut count (relatively small nuts), high percentage of empty shells, and peeling difficulty. Both KOR and nut count are a function of a combination of variety, climatic conditions, soil characteristics, and crop husbandry practices.
- RCN from Nigeria tend to have high moisture content because nuts are not properly dried, resulting in a price discount and in some cases outright rejection of consignments. For example, about 37,000 tons exported to Viet Nam were rejected on arrival in 2018.
- On average, RCN from Nigeria are sold at a price discount of 14 percent compared to RCN from Benin.
- Nigeria saves its best quality RCN for domestic processing – the 7 percent of total exports. The relatively small quantities of kernels processed in Nigeria are often priced better than Vietnam's.

(c) Coordination between Farmers and Processors

Key message # 4. Vertical coordination is weak in Nigeria (as well as in Vietnam), despite the existence of the National Cashew Association of Nigeria (NCA), whose purpose is to bring together farmers, exporters, processors, and other stakeholders.

- Contract farming arrangements and outgrower schemes are rare in both Nigeria and Vietnam. However, Olam International – and probably other companies – supports farmers with seedlings of high-yielding varieties as well as training.
- Farmer organizations in Nigeria tend to be weak, and even cooperatives tend to pursue short-term goals rather than growth-oriented investments in productive assets, enforcement of quality standards, and the establishment of long-term relationships with buyers and suppliers.
- There is a lot of competition for RCN in the local buying agent and trader part of the value chains, especially in Nigeria. The competition often leads to farmers facing pressure to harvest immature nuts – leading to poor quality RCN. Because of weak coordination, the problem of pre-mature harvesting is often compounded by a delay in drying the nuts once harvested, leading to poor peeling quality.

(d) The Enabling Environment

Key message # 5. The enabling environment for the cashew nuts sub-sector in Nigeria needs to improve significantly to enhance the competitiveness of the value chain.

- The Nigerian Export Promotion Council (NEPC) supports the export of cashew nuts with various subsidies. However, the process to obtain subsidy has high administrative costs that may exceed the value of the subsidy and needs to be streamlined.
- The Nigeria Export Levy (NXP) and the Nigeria Export Supervision Scheme (NESS) both charge a fee on exports leading to claims of “double taxation.” It’s important that exporters are provided with more clarity on how the respective fees are used to enhance cashew exports from Nigeria.
- There is need to develop a specific policy for cashew production and a strategy to promote the commodity. Furthermore, the cashew value chains actors lack awareness about the grades and standards developed by the Standards Organization of Nigeria (SON), hence a need to involve these stakeholders in the ratification of the grades and standards.
- Provision of technical support in the form of extension services is weak. The mandate for research and promotion of cashew nuts production was transferred to the Cocoa Research Institute of Nigeria (CRIN) and the Tree Crops Development Units (TCDUs) of the states are focussed on providing cashew seeds to interested farmers.



Comparison of Costs and Margins

Key message # 6. Nigeria has cost advantages in cashew nuts production despite the higher yields in Vietnam.

- The cost of cashew nuts production is significantly lower in Nigeria, even without considering the opportunity cost of land, which is certainly higher in Vietnam because farmers there have more alternative value chains that compete with cashew nuts for land.
- Assuming average yields for both countries and excluding planting costs, the estimated cost of production is US\$4.48/kg of RCN in Vietnam and US\$0.6/kg to US\$1.96/kg in Nigeria, depending on the location of production.
- The main cost advantages arise from lower hired labor costs and low use of variable inputs, especially fertilizers and other agrochemicals. Hired labor costs are up to over three times higher in Vietnam than in Nigeria, accounting for 43 percent of total costs in Vietnam and 13 percent to 21 percent in Nigeria.

Comparison of cost of production per kilogram of raw cashew nuts between Nigeria and Vietnam based on average farm size and yields on mature trees

	Nigeria (Enugu)	Nigeria (Kwara, Ogun and Oyo)	Vietnam (Binh Phuoc)
Fertilizer	0.176 (8%)	0.068 (3%)	1.282 (27%)
Transportation	0.040 (2%)	—	0.256 (5%)
Labor	0.300 (13%)	0.564 (21%)	2.531 (31%)
Agrochemical cost	0.088 (4%)	0.040 (1%)	0.412 (9%)
Mechanization	—	1.021 (38%)	—
Other	—	0.280 (11%)	—
Total costs	0.6	1.96	4.476
Gross margins	1.724	0.712	0.191
Total revenues	2.328	2.672	4.668
Yield (kg/ha)	786	417	1,215

Key message # 7. Cashew nut processing costs are lower in Nigeria than in Vietnam, but processors in Vietnam earn better margins because their selling price for processed kernels is higher.

- The kernels processed in Vietnam fetch higher prices because the quality is better and the conversion rate from RCN to kernels is somewhat higher – 28 percent in Vietnam compared to 25 percent in Nigeria.
- The cost of processing is lower in Nigeria primarily because RCN are cheaper, costing US\$2.83 per kg of kernel equivalent compared to US\$4.86 in Vietnam.
- Weak transportation and energy infrastructure diminish the competitiveness of processors in Nigeria as evidenced by the cost of transport, energy, and operating costs being remarkably higher in Nigeria. For example, transport costs are four times higher in Nigeria due to a weak roads network and long distances. The lack of regular supplies of electricity in Nigeria causes the industry to also use generators, which leads to a relatively higher cost of power.

- Labor costs are lower in Vietnam because the technology of intermediate processing has evolved significantly over the years, transitioning from the use of manual labor in shelling and peeling to the development of a competitive range of equipment for all processing stages.
- Despite increased mechanization, the cashew processing industry in Vietnam is a major employer with each facility employing 2,000-3,000 people on average and the largest facilities employing about 12,000 people.

Cashew nut processing costs in Nigeria and Vietnam

	Nigeria	Vietnam
RCN	2.83 (60%)	4.86 (73%)
Labor	0.44 (9%)	0.24 (4%)
Transport	0.18 (4%)	0.04 (1%)
Electricity	0.03 (1%)	0.05 (1%)
Generators	0.04 (1%)	0 (0%)
Operating costs	0.71 (15%)	0.58 (9%)
Total Costs	4.24	5.76
Margin	0.52	0.91
Revenues	4.75	6.67

Note: All costs, revenues, and margins are in US dollars per kg of kernel equivalent. Percentage values in parenthesis are shares of cost elements in revenues.

Lessons from Vietnam on Actions Needed to Develop the Cashew Nuts Value Chain

Key message # 8. It's imperative to continuously improve the technology of production through research and development coupled with effective dissemination systems that enable farmers to access planting materials and technical advice.

- Efforts to develop new cashew nuts varieties are hampered by the grossly insufficient budgets allocated to CRIN – the federal agency responsible for varietal development. For example, the total budget allocated to CRIN for cashew nuts varietal development in financial year 2021 was less than Naira 5 million. It's not possible for CRIN to invest in significant programs with such a low budget and hence the need to rationalize allocation of resources.
- CRIN is working only on cashew seeds partly because of a limited budget. Experience from other countries show that a combination of strategies is needed to increase production and productivity of cashew nuts orchards. These include grafting, cloning and orchard rehabilitation (pruning, fertilization, etc.). Grafted plants mature early and can bear cashew nuts within 18 months, which is significantly earlier than the 4 years it takes for new seedlings to bear nuts. Clonal materials are more stable in terms of on-farm performance and characteristics of the nuts produced.

Key message # 9. A strategy for increasing processing of cashew nuts in Nigeria should include reducing barriers to imports of RCN from neighboring West African countries to increase capacity utilization and viability of processors.

- This approach has been successfully adopted and executed by Vietnam. A large share of the US\$2.6 billion value of kernels processed in Vietnam consists of RCN imported from West Africa.
- Nigeria enjoys stronger economic relations with the major cashew nuts producers in West Africa than India or Vietnam and can harness the mechanisms of ECOWAS to establish partnerships with actors in the region.
- Deliberate efforts are needed to encourage RCN imports from West Africa. Currently, RCN imports to Nigeria attract import duties of 20 percent – the same as imports of processed kernels. This tariff regime needs to be reconsidered to provide incentives for expanding processing in the country, including by rationalizing import duties for RCN relative to processed kernels.
- One of the foremost challenges faced by processors is working capital constraints to procure supplies that are enough for year-round capacity utilization. This problem arises because harvesting occurs at the same time throughout Nigeria, which implies that local processors must purchase all their annual RCN supplies within a short window. The cashew nuts industry could work with the financial sector to develop a financing facility with repayment schedules that reflect the cash flows cycle in domestic processing.
- However, emerging processors in West Africa would be entering the global market at a time when global kernel prices are falling (supply has just caught up with demand) and must face competition from established processors in Vietnam. The processors in Vietnam enjoy first-mover advantages and scale economies, having invested when global demand for kernels was soaring and competition from other parts of the world was not significant.

Key message # 10. Investors in cashew nut processing could aim to “move up the value chain” and develop niche, branded and differentiated cashew nut products, including organic and fair-trade labeled products, for direct selling to supermarkets in western countries.

- The business model of processors in Vietnam centers on intermediate processing for bulk shipments for final processing in the USA and Europe.
- The emerging processors in West Africa could aim to “move up the value chain” and deliver processed kernels to consumer markets in the USA and Europe if final processing costs are competitive in West Africa relative to Europe and the USA.
- Various business models could be considered, such as franchising and joint ventures. Perhaps a more rewarding option would be to develop niche, branded and differentiated cashew nut products, including organic and fair-trade labelled products, for direct selling to supermarkets in western countries.
- These strategies call for strong public-private partnerships to improve the business enabling environment, reform policies that discourage imports of RCN from neighboring countries, develop infrastructure (especially roads and energy) in clusters where processing can efficiently occur, etc.

Key message # 11. A key lesson emerging from Vietnam is that Nigeria needs to improve the enabling environment for the cashew nuts sub-sector.

- Despite the many challenges in the cashew nuts value chain, there is no specific sector policy to address the issues and encourage coordinated actions among the various stakeholders. A sub-sector specific policy should be developed to enable the value chain to achieve its potential, including grades and standards that reflect the attributes desired by the global cashew nuts markets.
- In contrast, Vietnam has prepared a sector-specific policy strategy to guide all aspects of development of the cashew nuts industry, including standards for trading of RCN. The standards were developed by the Ministry of Agriculture in collaboration with VINACAS and are the world's first specialized standards for raw cashew nuts. They serve as a basis for grading and quality inspection to support trading and handling disputes of RCN. They are intended to help the Vietnamese cashew industry adapt to market demand by enhancing the quality and safety management of RCN imports.
- Nigeria could also draw lessons from the tariff regime established in Vietnam. The regime aims to encourage imports of RCN and discourage imports of processed kernels to create incentives for the domestic processing industry. Since 2010, the import duty for RCN has been 5 percent or lower for most origin countries (most favored nation rate) and zero percent for members of the Association of Southeast Asian Nations (Cambodia and Indonesia), while the import tax on cashew kernels is significantly higher at 25 percent (MFN).
- Similar policies are being implemented in neighboring Cote d'Ivoire, where cashew nuts production and processing has more than doubled in the last 20 years. Cote d'Ivoire has since 2013 discouraged exports of RCN through a levy of US\$50 per ton. The funds are used to subsidize exports of processed kernels, with each ton processed locally receiving US\$720. Cote d'Ivoire has also been aggressively improving farm productivity through a multi-pronged approach that includes varietal development, cloning, grafting and orchard rehabilitation.
- It is necessary to improve coordination between the Cocoa Research Institute of Nigeria (CRIN) – which has mandate for research and promotion of cashew nuts production – and the Tree Crops Development Units (TCDUs) of the states, which focus on providing cashew seeds to interested farmers.



