WACOMP

WEST AFRICA
COMPETITIVENESS PROGRAMME
REGIONAL INVESTMENT PROFILE - SUMMARY

CASSAVA VALUE CHAIN

Funded by
the European Union

Implemented by:

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2022

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ACKNOWLEDGEMENTS

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The views expressed in this report are those of the authors and do not represent the official position of the International Trade Centre or the ECOWAS Commission.

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FOREWORD

ECOWAS COMMISSION

The regional investment profile on the cassava value chain is being developed with the support of the International Trade Centre (ITC) within the framework of the West Africa Competitiveness Programme (WACOMP), which is funded by the European Union (EU) and implemented by the United Nations Industrial Development Organization (UNIDO) and ITC Geneva.

The WACOMP programme aims to strengthen West Africa's economic competitiveness and develop various national and regional value chains, including cassava, mango, textiles and garments, and information and communication technology, and to improve the business climate in the region.

This investment profile is a compendium of information on the region's potential in the cassava value chain. It is designed to support the private sector in its search for new project ideas and facilitate investment decisions.

In this respect, its development contributes to the implementation of the West African regional industrialization policy, the EU investment policy and the ECOWAS trade policy.

Africa is the most important region for cassava production, accounting for 62.6% of global output. In West Africa, cassava is one of the most important tropical root crops; 52% of total cassava production on the continent is found in West Africa, compared to 25% in East Africa. The demand for and consumption of cassava-based food in the ECOWAS region is such that, despite the fact that the region produces more cassava than any other region in the world, West African nations do not currently play a leading role in the export of cassava and cassava products. The abundance of arable land suitable for expansion of cassava cultivation and a yield gap arising from a low level of adoption of Good Agricultural Practices (GAP) are key investment opportunities that could enable ECOWAS nations to participate meaningfully in the global cassava market.

The population of West Africa exceeds 397 million and the current supply of cassava-based products does not meet the market's needs. With the implementation of the African Continental Free Trade Area (AfCFTA), the needs of an African market of more than 1.4 billion people will be met.

The ECOWAS Commission welcomes the publication of this investment promotion tool for West Africa and would like to take this opportunity to thank its partners for their support and efforts in its design and production.

We wish future users of these profiles every success.

Mr. Mamadou TRAORE
Commissioner for Industry and Private Sector Promotion

EUROPEAN UNION DELEGATION TO NIGERIA AND ECOWAS

At the EU, we are delighted at the dynamic cooperation between ourselves, the regional economic communities (RECs) and the private sector across the region. The investment profile study is being supported by the West Africa Competitiveness Programme (WACOMP). This is one of our flagship programmes implemented in West Africa. As a programme dedicated to improving the competitiveness of the region in several value chains, it is imperative to showcase the potential of some of those developed value chains. In order to boost local and international investment and create jobs, especially for the youth in a world struggling and recovering from the COVID-19 pandemic, there is no better time than now to promote the investment opportunities in West Africa/ECOWAS.

We are, therefore, wholeheartedly in support of the publication of the ECOWAS investment profiles for mango, information and communications technology, textiles and cassava. Approximately 62% of global cassava production takes place in West Africa. With improved production, processing and packaging practices, the sector will enjoy tremendous growth.

Attracting investment and creating an enabling business environment is key to the successful diversification and development of the economies in the region and the whole continent. This is also true for the mango, ICT, textile and cassava value chains. Investment facilitation is at the heart of the EU Global Gateway initiative, which aims at EU institutions and EU member states jointly mobilizing up to €300 billion of investments in selected sectors. The EU is also partnering with Africa under the EU External Investment Plan (EIP). With this, the EU is committed to creating jobs, boosting economies and offering people a brighter future.

This report will provide investors with relevant information about how to take advantage of opportunities across the value chains, from production to the market. By taking strategic investment opportunities, investors will contribute to the region's economic development.

I would like to thank ITC and our other WACOMP partners for undertaking this very useful study of the investment profiles in four critical sectors (mango, ICT, textiles and cassava) that will boost and support investment in the public and private sectors, governments and the people of West Africa.

Cecile TASSIN-PELZER
Head of Cooperation, European Union Delegation to Nigeria and ECOWAS

1. Why invest in ECOWAS?

1.1. ECOWAS MACROECONOMICS

A RESOURCE-RICH REGION WITH A STRATEGIC POSITIONING

One of the region's advantages is its geographical location, as it is at the **crossroads of important routes** linking Europe, the Americas, and the rest of Africa. The region also enjoys a **vast array of natural resources**, ranging from the northern arid and semi-arid Saharan Desert and the Sahel to the southern tropical monsoon and rainforest. This largely untapped wealth provides vast opportunities for economic development.

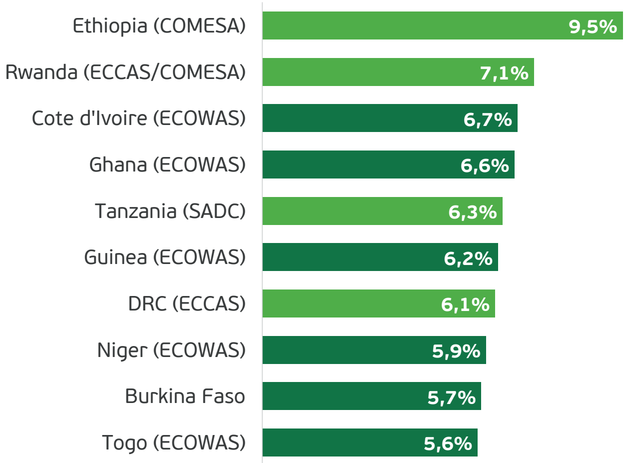
A PEACEFUL, SECURE AND STABLE REGION

The region has become a more peaceful place to live and do business. Although some countries of the region have recently faced political turmoil, others have been ranked by the World Bank among the most **politically stable and less violent** on the continent. The June 2015 establishment of the Mediation Facilitation Division (MFD) constitutes an important instrument for conflict prevention, management, resolution, peacekeeping and security. The region is also consistently ahead of the rest of the continent when it comes to the World Bank's indicators that capture **governance quality**.

LEADING TO A STRONG ECONOMIC PERFORMANCE

The region is home to six of the 10 **fastest-growing African economies** in the last decade, with an average growth of 5.6% (Togo) to 6.7% (Cote d'Ivoire). The ECOWAS region experienced the largest **increase in total exports**, with an average rate of 5.1% annually, to reach $196.2 billion in 2018 at constant prices (the third largest among the regional economic communities). Moreover, the region has always been an **attractive place for foreign investment**, as shown by relatively large inflows of foreign direct investment (FDI) that have positively responded to the improving regulatory environment. The increase by a factor of 2.2 in the region, or equivalently, at an annual rate of 9% in 2019, is by far the largest in Africa.

Real GDP growth of the fastest-growing African economies (2010-2019)



Source: Author, based on World Bank data.

36.8/100

World Governance
"Political Stability/No Violence"

55.8/100

World Bank
Index of Economic Freedom

1.2. ECOWAS INCENTIVES FOR INVESTORS

AN IMPROVING BUSINESS FRAMEWORK

The region is characterized by the free movement of goods and services through the removal of tariff and non-tariff barriers, a common external tariff, macroeconomic stability surveillance mechanisms and a single currency (CFA franc) for the subgroup of eight countries that make up the West African Economic and Monetary Union (WAEMU). The current business environment makes starting a business much easier and less costly in the ECOWAS region, on average, compared to other African regional economic communities (RECs). When it comes to physical (hard) infrastructure, according to the Africa Infrastructure Development Index, the region is trailing other RECs. However, there is noticeable improvement that suggests it is catching up, as it has embarked on ambitious regional and national infrastructure development programmes.

A THOUGHTFUL STRATEGY TO ATTRACT INVESTMENTS

As a way to attract FDI, increase exports, create jobs and generate productivity spillovers, each of the West African countries has developed at least one special economic zone (SEZ). The general goal is to strengthen the tendency for manufacturing and service industries to geographically concentrate in cities and industrial clusters, as a way to 'build resilient infrastructure, promote sustainable industrialization and foster innovation'.[1] While the qualitative performance of SEZs in Africa tends to be limited, these schemes still remain attractive and viable instruments for industrial policies.[2] When it comes to investment promotion, especially FDI, one of the key frameworks at the regional level is the ECOWAS Common Investment Code (ECOWIC), which applies to the rights and obligations of member states and investors.

WITH STRUCTURAL REFORMS TO KEEP ENHANCING THE BUSINESS AND INVESTMENT LANDSCAPE

Ongoing ambitious and profound reforms are rightly expected to structurally change the region's trade and investment landscape. These reforms are part of well-thought-out programmes. The West Africa Competitiveness Programme (WACOMP) seeks to strengthen the performance, growth and contribution of industry, regional trade and exports of selected value chains, and improve the business climate at national and regional levels. The West Africa Common Industrial Policy (WACIP) aims to accelerate the region's industrialization. The West Africa Quality System Programme (WAQSP) seeks to strengthen the quality infrastructure for greater effectiveness, enhanced competitiveness, and better intraregional and interregional trade participation. The Regional Strategic Framework for Private Sector Development aims to make the private sector a vibrant engine of economic growth. At the continental level, the African Continental Free Trade Area (AfCFTA) will further reduce trade barriers, facilitate the free movement of people and labour and the right of residence and establishment, and increase investment.

In the face of increased competition to attract international businesses, West African countries arguably have a strong card to play. To the extent that investors are well aware of all of these positive developments, international businesses ready to settle in the region will undoubtedly enjoy great returns, while being part of a collective journey towards greater economic and social vibrancy and the emergence of a dominant economic player in Africa and beyond.

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1 This is one of the UN Sustainable Development Goals (SDGs, the 9^{th}), and it is said to have been adopted at the urging of African delegations

2 Additional discussions can be found in Newman, C. and Page, J. (2017). 'Industrial clusters: The case for Special Economic Zones in Africa'. Wider Working Paper 2017/15. Retrieved from https://www.wider.unu.edu/publication/industrial-clusters-1.

2. Why and how to invest in the cassava sector in ECOWAS

2.1. ECOWAS WITHIN THE GLOBAL CASSAVA SECTOR

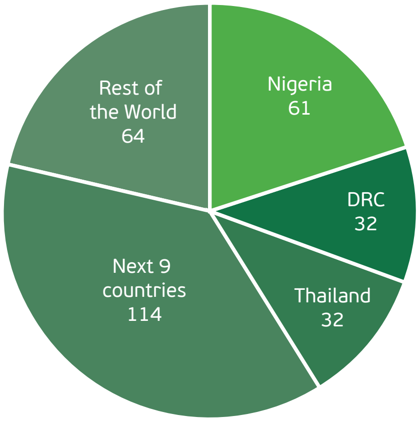
PRODUCED AND CONSUMED IN ALL ECOWAS COUNTRIES

The global production of cassava was more than 302 million tons in 2020, of which more than half was produced in Africa. On the African continent, 52% of total cassava production is done in West Africa, with Nigeria accounting for 23.4% of global production.

~ 30%
Of global cassava production is from ECOWAS

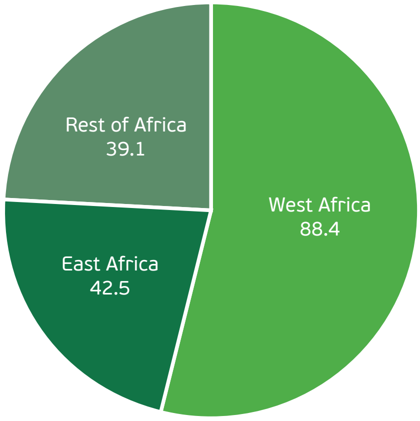
Cassava is used for a large variety of food and non-food uses. The leaves are relatively rich in protein, and the storage root is consumed as food and starch products and biofuels. New industrial uses are emerging, creating demand for the tuberous roots beyond local communities in West Africa.

Global cassava consumption in 2019 (in million tons)



Source: Produced from FAO data obtained from https://knoema.com.

Cassava production in Africa by region (million tons)

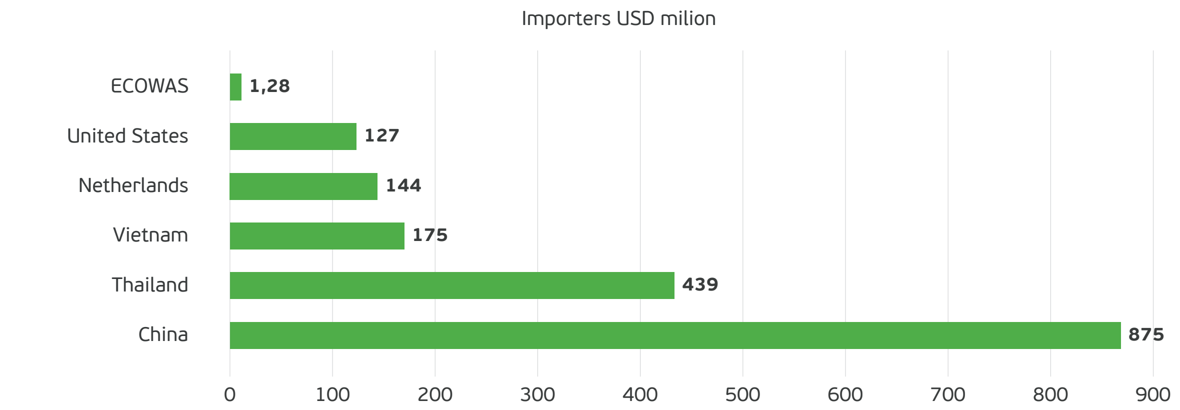


Source: Produced from data retrieved from https://www.globaltrademag.com/.

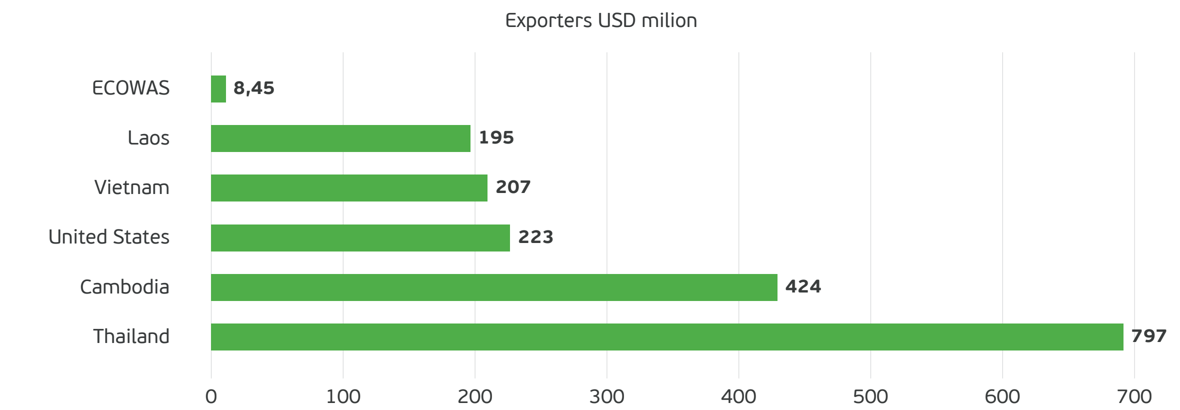
NO ECOWAS NATION IS A MAJOR PLAYER IN THE GLOBAL TRADE IN STARCH, FLOUR AND ETHANOL

Trade in cassava and cassava products in the ECOWAS region is currently dominated by smallholder farmers, small-scale marketers and processors who deal in traditional uses of cassava, supported by services provided by a range of transporters, input and agribusinesses. Research, extension and financial services are somewhat available, with limited influence on the performance of the global cassava and cassava products markets. ECOWAS' share of global export (or import) of cassava is less than 1%. This is mainly because most of the cassava produced is consumed locally as human food, but also due to the ECOWAS producers' inability to compete in the export market.

Other barriers to entry include the large scale of some of the markets, quality requirements, variability in price, and the established contacts between European and North American importers and the major exporters such as Thailand and Cambodia. The major importers of cassava are primarily China, Viet Nam and the Netherlands.



Source: Produced from data extracted from https://oec.world/en/profile/hs/cassava#.



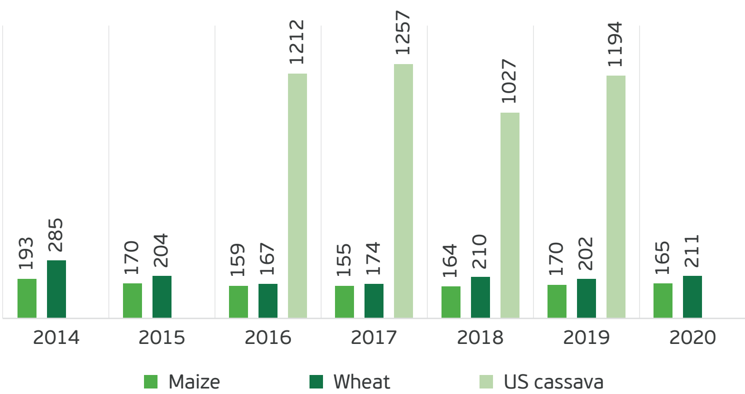
Source: Produced from data extracted from https://oec.world/en/profile/hs/cassava#.

ECOWAS contribution in the global ethanol trade is negligible at the moment despite the limited efforts in Nigeria through companies like Ekha Agro and Allied Atlantic Distilleries (AADL) to convert cassava starch to ethanol to meet a negligible part of local consumption.

2.2. GLOBAL COMPETITIVENESS AS A KEY CONSIDERATION IN EXPORT OF ECOWAS CASSAVA

Cassava export prices are broadly attractive for potential investors in the ECOWAS region. United States cassava flour was sold for $1,260/ton in 2017 and $1,030/ton in 2018. In 2019, the export price changed to $1,190/ton. Some of the best-performing markets in 2019 for US cassava were Barbados, Peru, Trinidad and Tobago, the Netherlands and Panama. The exports of cassava from the United States are categorized as: fresh, chilled, frozen or dried roots and tubers of manioc 'cassava', whether or not sliced or in the form of pellets (HS code 071410). In 2022, the approximate price range for United States cassava flour is between $1,190/ton and $1,030/ton. Food and Agriculture Organization (FAO) data suggests that imported starch costs between $818 and $940/ton on the global market. Given that fresh cassava roots could be purchased in the ECOWAS region for $14–$35/ton, native cassava starch could be produced locally for $264–$450/ton. (Note that 5 tons of fresh cassava roots are required to produce 1 ton of dried cassava starch. Other variable cost components are water (15%) and energy (20%)).

Global price trend for maize flour and wheat flour (2014–20) compared to cassava flour import price (2019)



Price of cassava flour in 2019

US import: **$1,110/ton**

Global import: **$198/ton**

Nigeria local: **$583/ton**

Thailand import: **$124/ton**

China import: **$219/ton**

Source: Produced from data extracted from https://oec.world/en and interviews.

2.3. OPPORTUNITIES AND STRATEGIC ACTIVITIES

Traditional cassava foods subsector	Key success factors: Traditional foods market
This sector is the largest user of cassava in West Africa. The market for high-quality, shelf-stable forms of traditional West African cassava-based foods is growing due to the demand for these foods in the diaspora.	▪ Product diversification (processing of multiple cassava products) ▪ Efficient fresh roots supply system ▪ Food safety – quality and impact certifications ▪ Productive alliances across the value chain ▪ Attractive packaging and modern marketing
Import replacement: Starch	**Key success factors: Starch substitution**
Most of the starch for industrial use in ECOWAS is imported. Increasing local cassava starch production to substitute for some of the imports can contribute to fixing the trade balance. The demand for cassava starch is also increasing in the countries of the subregion (Burkina Faso, Mali and Senegal, etc.), which stimulates exports of starches produced within the region.	▪ Maintain linkage with ECOWAS-based large consumers of starch ▪ Price competitiveness compared to imported starch ▪ Backward integration to ensure consistent supply of fresh cassava roots ▪ Valorization of waste for energy production
Import replacement: Wheat and maize	**Key success factors: Wheat and maize substitution**
Wheat flour is on the daily menu in many West African homes even though wheat cultivation is insignificant in the region. Maize is locally produced, but the demand for human consumption and the livestock sector greatly outweighs the local supply. Cassava flour is a good gluten-free alternative to wheat flour and a potential maize replacement, particularly in livestock feed.	▪ Price competitiveness against imported wheat and maize flours ▪ Backward integration to ensure consistent supply of fresh cassava roots
Import replacement: Ethanol	**Key success factors: Ethanol substitution**
The ECOWAS region relies mainly on imports to meet the ethanol demand in the beverage, foods, manufacturing and pharmaceutical sectors. The technical feasibility of producing ethanol from cassava is not in doubt and investors such as Allied Atlantic Distilleries in Nigeria and YUEN alcohol factory in Benin have become pioneers.	▪ Productive alliances across the value chain ▪ Hiring of highly qualified employees ▪ Valorization of waste for energy production
Fresh cassava roots supply to emerging processors	**Key success factors: Fresh cassava roots supply**
Current consumption of cassava matches the current level of production. Supply of fresh cassava roots to meet emerging demand is required as industrial uses compete with food uses.	▪ Productive alliances across the value chain ▪ Adopt Good Agricultural Practices (GAP) ▪ Forward integration (improved gari processing)

2.4. KEY POINTS FOR SUCCESSFUL INVESTMENT

DEVELOP AND NURTURE STRATEGIC ALLIANCES

Strategic alliances with cassava farmers, transporters (or aggregators) of fresh cassava roots, market actors as well as the research and development communities are important for growth of an investment in the sector. Trust, confidence and fairness are required to manage prompt delivery of fresh cassava roots, stifle possible incidences of side-selling and other malpractices as well as to keep to schedules and timelines for product and service delivery.

LOCATE INVESTMENTS TO GAIN FROM SEZS

Special economic zones (SEZs) provide key infrastructure such as roads, power and water that are crucial for the success of medium- to large-scale cassava investments. This opportunity is essential for the investor to lower production costs and be globally competitive.

NEARNESS TO RAW MATERIALS

The cost of fresh cassava roots is often 25%–45% of the total variable costs of cassava processing. Where the processing factory is located close to the source of fresh cassava roots, transportation costs (an additional 5%–10% of the total variable cost) can be saved. Note that fresh cassava root contains 60%–70% moisture content. This means that moving this volume of moisture (and an additional 10%–15% solid waste) across large distances between farm and factory should be avoided when feasible.

0.33%
ECOWAS share of world cassava exports in 2020

0.05%
ECOWAS share of world cassava imports in 2020

ECOWAS 2020 trade in starch
$1.7 million export
$51.3 million import

ECOWAS 2020 trade in wheat
$1.7 million export
$3 billion import

ECOWAS 2020 trade in maize
$10 million export
$214 million import

Source: Produced from data extracted from https://oec.world/en/.

WEST AFRICA COMPETITIVENESS PROGRAMME

COUNTRY PROFILES

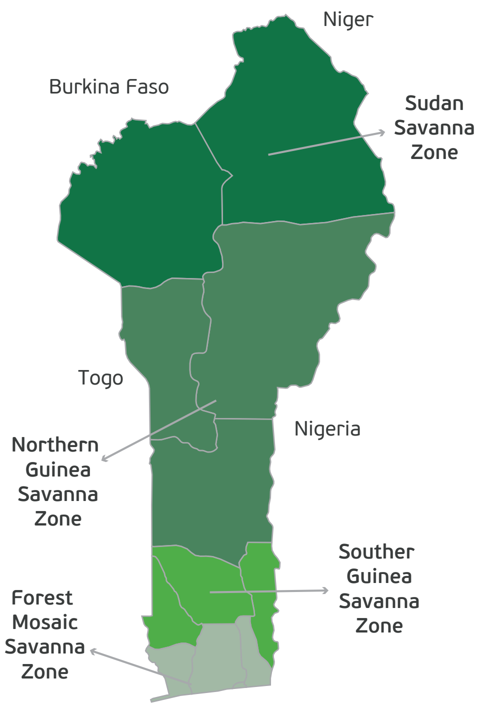
COUNTRY FOCUS:

BENIN

ECONOMIC INDICATORS

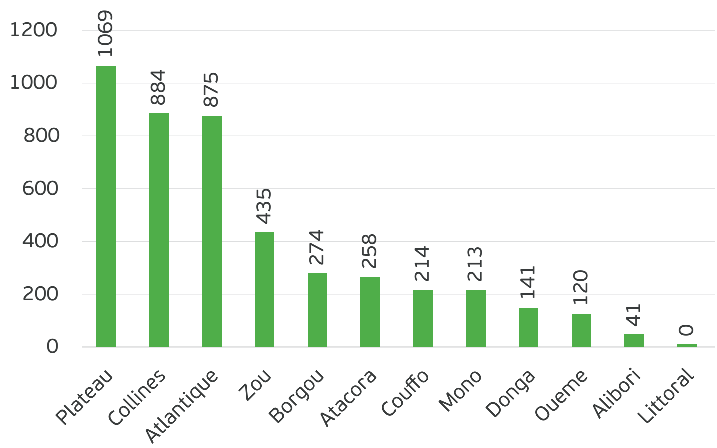
Benin is among the 10 most competitive and innovative economies in West Africa, with fairly good infrastructure and logistics systems. Starting a business takes an average of eight days and a total of five procedures are involved – the third-lowest figure in Africa. Government incentives to attract foreign investment include a one-stop shop for business information and support, modernization and professionalization of the public procurement system, a revision of the prices for transferring assets out of state ownership, the implementation of a simplified and more advantageous fiscal framework that is more adapted for SMEs (via a synthetic business tax), and measures to improve the energy infrastructure. A special economic zone (SEZ) was established in January 2020, located approximately 45km from Cotonou.

Demographics and territory	
Population	12.5 million
Area	112,760km²
Currency	CFA franc (XOF)
Languages	French (official); Fon; Yoruba; Goun; Bariba
Trade	
Main exported products	Cotton; cereals; meat and edible offal
Main imported products	Cereals; mineral fuel and oils; vegetable fat and oils
Economic dynamism	
GDP, nominal	$14.4 billion
GDP growth (real, 2014–19)	4.9%
FDI, inflows	$230.2 million
Gross domestic private investment	$3.67 billion



14t/ha
Average yield of cassava in 2021

4.5 million tons
Cassava production in 2020

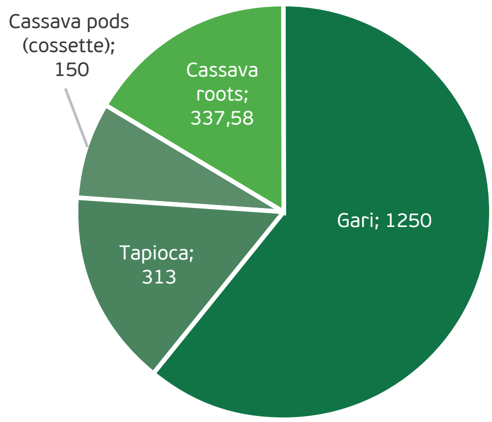


Source: https://www.researchgate.net/figure/Map-of-the-Republic-of-Benin-with-the-different-agro-ecological-zones_fig1_320426276.

CASSAVA PRODUCTION

Benin is ranked third among producers of fresh cassava roots in West Africa. The diversity in cropping systems ensures year-round production of cassava. Given its high perishability, fresh cassava is processed into various products, which are sold on the market. Approximately 90% of the cassava harvested each year is processed. Most of the processing units use artisanal methods. External trade in cassava products is organized around three poles: Nigeria, Sahelian countries and Central Africa countries. The most traded products are gari and cassava chips.

Estimated volume ('000 tons/year) of cassava products traded in Benin



Source: Field survey (2021).

Season calendar of cassava planting and harvesting in Benin												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Northern Benin												
Planting												
Harvest												
Southern Benin												
Planting												
Harvest												

SWOT

	Inputs and services	Production	Artisanal processing
Strengths	▪ Support and advice to cassava seed multipliers by the Territorial Agricultural Development Agency (ATDA) ▪ Existence of Niaouli Research Centre that works directly with producers ▪ Existence of companies distributing phytosanitary products and agricultural fertilizers	▪ Growing market and demand ▪ Availability of suitable land for cassava production ▪ Climate is favourable for cassava cultivation ▪ Several improved varieties, adapted and resistant/tolerant to major diseases and pests ▪ Availability of potassium-based fertilizers	▪ Experienced cassava processors available ▪ Existence of local workshops for the manufacture of cassava processing equipment in each agricultural development pole ▪ Willingness of the Grands Moulins du Bénin (GMB) to incorporate high-quality cassava flour (HQCF) into wheat flour for bakery and pastry products
Weaknesses	▪ Number of companies distributing plant protection products is insufficient ▪ Low number of cassava seed multipliers ▪ No organization at national level for cassava seed growers ▪ Low valorization of research results	▪ Rudimentary tools (hoe, cutter and knives, etc.) for cassava production ▪ Cassava harvesting is still done manually ▪ Seed system only functioning in projects and programmes ▪ Very low use of both mineral and organic fertilizers ▪ Annual bush fires	▪ Poor access to credit for production, processing and marketing activities ▪ High cost of electricity
Opportunities	▪ Establishment of a new coordination and monitoring mechanism of activities in the agricultural development poles	▪ Greater articulation between research and producers' needs ▪ Growing demand for starch by the textile industry ▪ Existence of support projects (the Smallholder Agricultural Productivity Improvement Program and the Agricultural Development and Market Access Support Project, etc.)	▪ Existence of a market not yet exploited ▪ Growing demand for starch by the textile industry ▪ Emerging markets for HQCF
Threats	▪ Climate change	▪ Economic crisis triggered by the COVID-19 pandemic	▪ Pollution of surface water due to the use of chemicals (fertilizers and pesticides)
	Industrial processing	**Logistics**	**Trade**
Strengths	▪ Existence of national, regional and international markets ▪ Growing demand for processed products	▪ Existence of a National Cassava Development Plan (PNDF)	▪ Existence of a growing market and demand ▪ Existence of a marketing organization in the Plateau region
Weaknesses	▪ Difficult access to inputs, equipment and credit ▪ High cost of electricity ▪ Little diversification of cassava-based products	▪ No structuring of other links in the value chains ▪ No umbrella organization	▪ Poor command of traceability and quality ▪ Weak interactions between actors in the different production links
Opportunities	▪ Growing demand for starch by the textile industries ▪ Proximity of the Greater Nigeria market ▪ Existence of support projects (the Smallholder Agricultural Productivity Improvement Program and the Agricultural Development and Market Access Support Project, etc.)	▪ Growing demand for starch by the textile industries ▪ Proximity of the Greater Nigeria market ▪ Existence of support projects (the Smallholder Agricultural Productivity Improvement Program and the Agricultural Development and Market Access Support Project, etc.)	▪ Growing demand for starch by the textile industries ▪ Proximity of the Greater Nigeria market ▪ Existence of support projects (the Smallholder Agricultural Productivity Improvement Program and the Agricultural Development and Market Access Support Project, etc.)
Threats	▪ Low compliance with quality standards (physical, nutritional and microbiological)	▪ Economic crisis triggered by the COVID-19 pandemic	▪ Economic crisis triggered by the COVID-19 pandemic

INVESTMENT OPPORTUNITIES

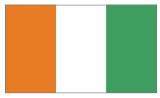
Production of fresh cassava stems and roots	Processing of cassava-based products	Manufacturing of new cassava-based products
▪ Widespread adoption of GAP by farmers is low ▪ Emerging demand for fresh cassava roots is high	▪ Quality, packaging and safety of cassava products is of concern, particularly among urban buyers and local elites wanting a safe and convenient form of traditional cassava products	▪ Use of cassava for the production of alcohol for pharmaceutical use and bioethanol has already been demonstrated ▪ Demand for alcohol and bioethanol in Benin or the ECOWAS region is high

CONTACTS

Territorial Agricultural Development Agency (ATDA)	ATDA is responsible for the promotion of the sectors (cassava in this case) in their agricultural development poles	Tel.: +22997310849; +22995139605; 61720812 E-mail: osogbossi@gmail.com
Agence de Promotion des Investissements et des Exportations (APIEX)	Agency supporting investments in Benin as well as exports from Benin	Tel.: (+229)21310704/21318650 http://www.gufebenin.org

COUNTRY FOCUS:

CÔTE D'IVOIRE



ECONOMIC INDICATORS

Côte d'Ivoire is the largest economy, GDP-wise, in French-speaking West Africa, third in the whole subregion, behind Nigeria and Ghana, and eighth in Africa. Overall, Cote d'Ivoire's business environment has matured substantially in the last decade. The economy's strong dynamism, the increasingly stable political and social environment, the friendliness of the legal and regulatory framework, and the readily available high-quality, low-cost inputs are among key factors that make the country a favourable destination for foreign investment

6.3 tons/ha
Average yield of cassava in 2021

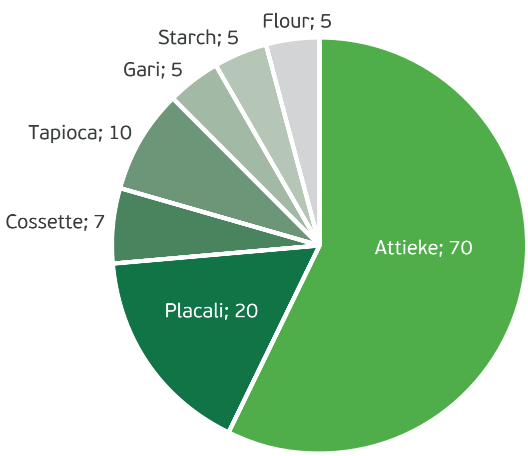
5.2 million t
Cassava production in 2020

Demographics and territory	
Population	25.7 million
Area	322,463km^2
Currency	CFA franc (XOF)
Languages	French (official); Agni; Baoulé; Mandé; Senofu
Trade	
Main exported products	Cocoa; mineral fuels and oils; edible fruit and nuts
Main imported products	Mineral fuels and oils; cereals; vehicles
Economic dynamism	
GDP, nominal	$58.8 billion
GDP growth (real, 2014–19)	7.4%
FDI, inflows	$1 billion
Gross domestic private investment	$10.9 billion

CASSAVA PRODUCTION

Côte d'Ivoire is the third-largest producer of cassava in West Africa behind Nigeria and Ghana. The cassava production system remains extensive and rain-fed, dominated by small-scale producers using low-yielding traditional varieties with little or no fertilizer on small (0.5–2ha) plots. Approximately 45%–50% of cassava produced is sold on urban markets. The country exports placali and attiéké to Mali and Burkina Faso (more than 4,000 tons of cassava and derivatives in 2014).

Estimated volume ('000 tons/year) of cassava products traded in Benin



Source: Constructed on the basis of data from Fonds Interprofessionnel pour la Recherche et le Conseil Agricoles (FIRCA) (2019), Mendez et al. (2017), field trip (2021) and Rongead (2015) using the Food and Agriculture Organization Corporate Statistical Database (FAOSTAT) (2021) and Office d'Aide à la Commercialisation des Produits Vivriers (OCPV) (2021).

Season calendar of cassava planting and harvesting in Côte d'Ivoire per region												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Forest zone and humid transition												
Planting												
Harvest (1st year)												
Harvest (2nd year)												
Transition zones and dry savannah												
Planting												
Harvest (1st year)												
Harvest (2nd year)												

Source: Fonds Interprofessionnel pour la Recherche et le Conseil Agricoles (FIRCA) (2019).

SWOT

	Inputs and services	Production	Artisanal processing
Strengths	▪ Existence of improved high-yielding varieties	▪ Existence of improved varieties with high potential yield and adapted to all production systems ▪ Available all year round and can be produced anywhere in the country	▪ Organization of actors in processors' associations/ cooperatives ▪ Availability of fresh roots (by producers)
Weaknesses	▪ Difficulty in obtaining products on the official market ▪ Insufficient number of nurserymen	▪ Use of poor planting material and equipment leading to low productivity ▪ Overproduction in the same period leading to low price of cassava ▪ Difficulty in accessing land for cassava cultivation around big consumption zones	▪ Low yields of artisanal processing units ▪ Use of archaic means for processing
Opportunities	▪ Existence of research programmes in varietal improvement and production techniques ▪ Strong demand from producers for certain inputs	▪ Possibility to cultivate cassava everywhere in the country ▪ Industrial use of cassava for bread flour, starch for food or textiles increasing domestic demand	▪ High urban demand for attiéké and placali (for export
Threats	▪ Unfair competition from cheaper off-the-shelf products (uncertain origin) on the market ▪ High cost of transport increasing inputs cost	▪ Difficult access to cuttings from improved varieties that meet users' needs ▪ Competition for cultivated land by export crops (rubber, cocoa and cashew) ▪ Distance of the large production zones from the large consumption zones	▪ Possible competition from small and large industrial processing units being installed

	Industrial processing	Logistics	Trade
Strengths	▪ Mastery of cassava industrial processing technology	▪ Organization of actors in associations/cooperatives ▪ Improved national road network quality	▪ Connection between exporters and importers of cassava and derived products through organization of meetings by the Chambre de Commerce et d'Industrie de Côte d'Ivoire (CCI-CI)
Weaknesses	▪ Difficulties in obtaining required quantity and quality of fresh cassava roots	▪ Inadequacy of the means of transport used ▪ Lack of technology for storing and preserving fresh cassava for a long period (e.g. three months)	▪ Lack of awareness of derivative products on the international market ▪ Very low export capacity of fresh cassava for its limited shelf life
Opportunities	▪ Introduction of 15% cassava flour in bread ▪ Emerging demand from industrial outlets (HQCF, starch, alcohol, textile fibres and plastic) ▪ Untapped capacity of cassava in animal feed	▪ Organization of actors in cooperatives to better organize transport of cassava	▪ Success of Ivorian cassava-based dishes in the subregion ▪ Emerging industrial uses of cassava ▪ Access to local and export market ▪ Increasing demand for cassava products in the subregion ▪ Continued rapid growth of urban markets ▪ Increasing demand for industry and animal feed
Threats	▪ Inadequate infrastructure	▪ Increased transaction costs due to the distance of the large production areas from the large consumption areas ▪ Poor condition of roads and service roads	▪ Competition from neighbouring countries to produce by-products ▪ Inadequate enforcement of competition laws

INVESTMENT OPPORTUNITIES

Contract farming	Village mini processing	Import substitution	Cassava trading
▪ Intensifying the use of new varieties and improved technologies	▪ Located near the production areas for the primary processing of fresh cassava ▪ Reduced transportation costs and post-harvest losses	▪ Cassava flour as a partial replacement for wheat in bakery, cookie and pasta products ▪ Market potential for starch is estimated at 3,200 tons/year	▪ Increasing demand for cassava products in the subregion (Burkina Faso, Mali and Senegal) ▪ Steady growth of urban markets, propelled by strong growth in the urban population

CONTACTS

National Centre for Agricultural Research	Conducting research programmes for the creation and introduction of new improved varieties	Website: https://cnra.ci/
The National Agency for Support to Rural Development	Oversees training and agricultural extension and training	Website: http://www.anader.ci/
Centre de Promotion des Investissements en Côte d'Ivoire (CEPICI)	CEPICI supports investors in all the steps of their investment.	Tel.: +225 27 20 3 11400 E-mail: infos.cepici@cepici.ci

COUNTRY FOCUS:

GHANA

ECONOMIC INDICATORS

Ghana is the most competitive economy in West Africa and eighth in Africa. This performance owes to its strong institutions and the largest extent of information and communications technology (ICT) adoption in West Africa, in addition to the depth of skills and innovation capacity. Along with the high quality and low cost of labour and energy and the business environment's friendliness and conduciveness, this makes Ghana one of the most favourable African destinations for foreign investors.

21tons/ha
Average yield of cassava in 2018

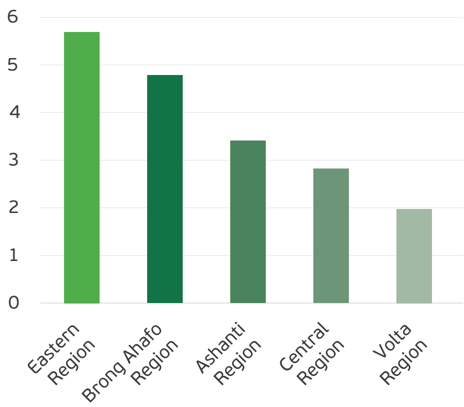
12.3 million t
Cassava production in 2020

Demographics and territory	
Population	30.4 million
Area	227,540km²
Currency	Ghanaian cedi (GH¢)
Languages	English (official); Akan; Ewe; Dagbani; Dangme
Trade	
Main exported products	Pearls; precious stones and metals; mineral fuels and oils; cocoa
Main imported products	Vehicles; electrical machinery and equipment; cereals
Economic dynamism	
GDP, nominal	$67 billion
GDP growth (real, 2014–19)	6.1%
FDI, inflows	$2.3 billion
Gross domestic private investment	$9.6 billion

CASSAVA PRODUCTION

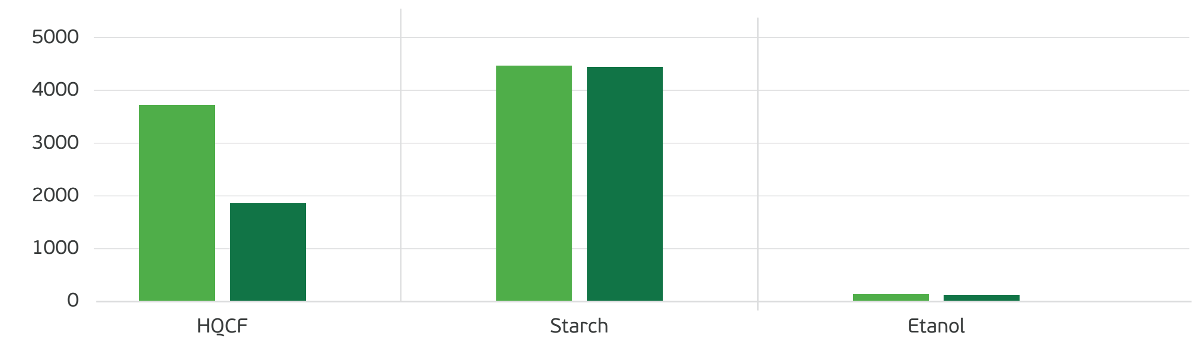
Ghana is ranked fourth globally (2019) in terms of production of cassava after Nigeria, Thailand and the Democratic Republic of the Congo. The main forms in which cassava is traded domestically are for making traditional foods such as gari, agbelima and kokonte. The total imports of cassava products into Ghana in 2020 is valued at $69,992,000, consisting mostly of ethanol ($69.14 million). The total exports of cassava products from Ghana in the same year is valued at $947,000 of starch and other forms.

Level of cassava production per region(million tons/year)



Source: Agriculture in Ghana: Facts and Figures (2019).

Domestic trade in industrial cassava products in Ghana (tons/year)



Source: Interviews with industry actors

Season calendar of cassava planting and harvesting in Ghana												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Planting (1st year)												
Harvest (2nd year)												

Source: Developed with data from http://www.fao.org/giews/countrybrief/country.jsp?code=GHA&lang=en.

SWOT

	Inputs and services	Production	Artisanal processing
Strengths	▪ Existence of institutions and government policies dedicated to improving the cassava sector	▪ Availability of high-quality varieties of cassava	▪ Existence of local equipment manufacturing firms producing small-scale processing equipment
Weaknesses	▪ Limited access to extension services ▪ Inappropriate storage structures and warehousing facilities that affect the quality of stored products ▪ Lack of certifications and standards	▪ Low adoption of improved technologies ▪ Limited access to improved planting materials ▪ High labour requirements during harvesting ▪ Low adoption rate of improved varieties ▪ Bulky products, attracting high transportation and labour costs ▪ Lack of organized production cooperatives or groups ▪ Short shelf-life of roots	▪ Inconsistent supply of fresh cassava roots (especially during lean season) affects production levels and processor profitability ▪ Inability to handle effluent/waste management ▪ Inefficient traditional processing equipment ▪ High cost of labour ▪ Very few cassava processors hold industry certification due to its cost, a lack of knowledge and a lack of interest ▪ High production costs due to high cost of utilities, raw materials, labour and transportation
Opportunities	▪ Emergence of commercial suppliers of improved planting materials ▪ Availability of recommended planting materials from the Ministry of Food and Agriculture's district agricultural development units (DADU)	▪ High demand for improved varieties from new industrial processors ▪ High demand for fresh cassava roots from industrial buyers ▪ Semi- or fully mechanized processing ▪ On-farm processing technologies	▪ Rising population and urbanization leading to high demand ▪ Rising incomes have potential for high demand ▪ Rising demand for cassava-based products in the local and export markets ▪ A growing and innovative trend in cassava processing equipment manufacturing ▪ The development of cassava-based industrial products
Threats	▪ High energy costs ▪ The absence of planting material cleaning programmes could harm key cassava root varieties, making them vulnerable to pests and diseases	▪ Intermediaries have assumed more power in the face of high industrial demand ▪ Erratic rainfall pattern ▪ Poor land tenure systems that affect producers' ability to make long-term crop development plans ▪ Price fluctuation in the sector caused partly by the occasional excessive supply affects producers' ability to plan and expand crop cultivation	▪ •High industrial demand by large-scale processors can lead to less supply to small- and medium-scale processors, as well as domestic consumers

	Industrial processing	Logistics	Trade
Strengths	▪ The availability of quality varieties that have high starch content ▪ A growing and innovative trend in cassava processing equipment manufacturing	▪ None	▪ Significant local and international demand for industrial cassava-based products
Weaknesses	▪ Inconsistent supply of fresh cassava roots (especially during lean season) ▪ Inability to handle effluent/waste management ▪ Inefficient traditional processing equipment ▪ High cost of labour ▪ Very few cassava processors hold industry certification due to its cost, a lack of knowledge and a lack of interest ▪ High production costs due to high cost of utilities, raw materials, labour and transportation	▪ Poor warehousing facilities affect the quality of stored products	▪ Demand fluctuations lead to some post-harvest loses, especially for fresh tubers ▪ Fresh cassava roots supply situations lead to low market margins ▪ Only specialized markets (supermarkets and exporters) have grades and standards ▪ Rotting of tubers is often experienced in cases where whole farms are bought by traders ▪ Urban markets are far apart geographically, leading to reduction in profits ▪ Cassava sector associations and networks are weak and poorly coordinated
Opportunities	▪ Rising population and urbanization, leading to high demand ▪ Rising incomes have potential for high demand ▪ Rising demand for cassava-based products in the local and export markets ▪ The development of cassava-based industrial products ▪ The general investment environment for doing business is approximately 60% conducive	▪ New needs in emerging urban market in centres of rising population	▪ Rising population and urbanization, leading to high demand ▪ Rising incomes have potential for high demand ▪ Traders now practice some level of processing to diversify their products (e.g. turning unsold roots into dried chips or agbelima)
Threats	▪ High competition from Thailand and Indonesia due to highly mechanized processing ▪ Seasonal changes in the supply of fresh cassava roots, coupled with price increases, affect processor profitability	▪ Long distance to markets ▪ Poor road network ▪ High transportation cost	▪ Increase in industrial demand could gradually decrease supply to wholesalers and retailers of fresh roots ▪ Rising competition from corn and barley that benefit from lower prices ▪ High competition from Thailand and Indonesia (highly mechanized processing) ▪ Price fluctuations in the sector caused partly by the occasional excess supply affect cassava producers' ability to plan and expand crop cultivation

INVESTMENT OPPORTUNITIES

Mechanized commercial farms	Production of industrial cassava products	Waste management systems	Agricultural mechanization
▪ Competitive production of high starch, high-yielding varieties of cassava for industrial use	▪ For competitive processing of ethanol, starch, glucose syrup, HQCF and chips from cassava ▪ High internal demand deficit for cassava-based products (96,000+ tons/year for HQCF, 85,000+ tons/year for starch, and 213m+ litres/year for ethanol)	▪ For professionally and sustainably handling liquid and solid wastes from emerging cassava processing industries	▪ For servicing commercial farmers in order to improve yields and reduce production cost ▪ An estimated tractor demand gap of 27,133 tractors

CONTACTS

Ghana Investment Promotion Centre	Agency supporting investments in Ghana	Tel.: (+233) 302 665125/6 Website: https://gipc.gov.gh
Ghana Export Promotion Authority (GEPA)	Agency supporting exports from Ghana	Tel.: + 233-302740909 E-mail: gepa@gepa.gov.gh

COUNTRY FOCUS:

LIBERIA

ECONOMIC INDICATORS

The low cost of business-related administrative processes has been a key element of Liberia's attractiveness to foreign investors. The country performs well in the institutional dimensions of voice and accountability (5th in West Africa) and political stability and the level of violence (6th). The business environment's friendliness and the increasingly stable and dynamic economy also contribute to make the country a favourable destination for international investors.

6.0 tons/ha
Average yield of cassava in 2019

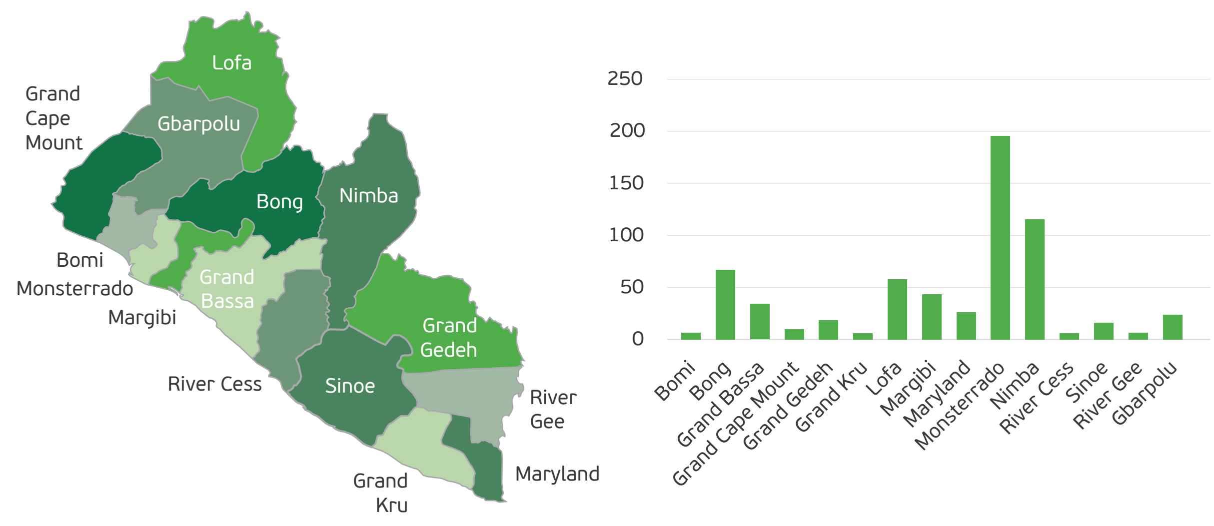
0.5 million t
Cassava production in 2020

Demographics and territory	
Population	4.94 million
Area	11,369km^2
Currency	Liberian dollar (LRD)
Languages	English (official); Mandé; Kwa; Mel; Vai; Kru
Trade	
Main exported products	Rubber; diamonds; gold; iron
Main imported products	Fuel; machinery; foodstuffs; manufactured goods
Economic dynamism	
GDP, nominal	$3.07 billion
GDP growth (real, 2014–19)	-0.05%
FDI, inflows	$137.8 million
Gross domestic private investment	$451.3 million

CASSAVA PRODUCTION

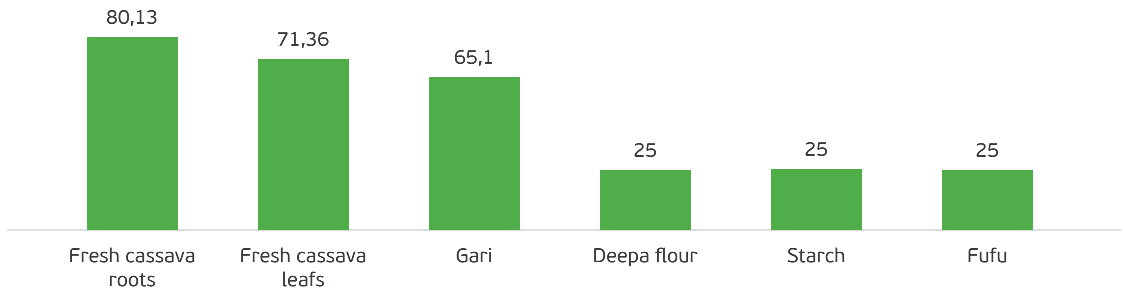
Liberia produces more than half a million tons of cassava annually, placing it at 43rd position globally among cassava-producing nations. Transactions in Liberia's cassava trade are dominated by artisanal and small-scale actors. Other than fresh cassava roots and leaves, gari is the most traded cassava product on the domestic market in Liberia. Domestic production (especially for gari and fufu flour) would need to increase by at least 200% to satisfy local demand.

Main cassava production regions in Liberia (tons/year)



Sources: FAO/World Food Programme (2006). Crop and food security assessment for Liberia. Working paper, p. 34.

Volume of cassava products traded in the domestic market in Liberia ('000 tons/year)



Source: Adapted from Caulibaly, et al. (2014). Regional Cassava Value Chains Analysis in West Africa.

Season calendar of cassava planting and harvesting in Côte d'Ivoire per region

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
South/south-east												
Planting												
Harvest												
North/central												
Planting												
Harvest												

SWOT

	Inputs and services	Production	Artisanal processing
Strengths	▪ Available customers	▪ Availability of improved varieties	▪ Availability of market
Weaknesses	▪ Limited funds for loans	▪ Lack of farm machines	▪ Poor financing
Opportunities	▪ Availability of inputs/services	▪ Good environmental factors	▪ Capacity building
Threats	▪ Inadequate information	▪ Lack of functional plant quarantine unit	▪ Long distance to market
	Industrial processing	**Logistics**	**Trade**
Strengths	▪ Availability of market	▪ Goods available	▪ Availability of products
Weaknesses	▪ Inadequate raw material	▪ Unexpected rise in fuel prices	▪ Low purchasing power
Opportunities	▪ Capacity building	▪ Service in demand	▪ Good agroecology
Threats	▪ Lack of spare parts	▪ Bad roads and bridges	▪ Bad roads

INVESTMENT OPPORTUNITIES

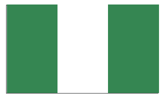
Cassava roots and stem	Processed cassava	Animal feed	Industrial uses
▪ Cassava planting materials (stems) are not readily available for farmers when needed ▪ Development priority would be to promote food security and food import substitution ▪ Destination markets include village markets, city markets, supermarkets, millers and processors. Waxed and vacuum-packed cassava are meant for export	▪ Gari, fufu, baby food, cassava bread, snacks (cassava chips) and biscuits, etc. targeting urban markets ▪ HQCF as substitution of imported wheat flour (HQCF is also a major component in the production of glucose syrup) ▪ Food-grade starch factories to produce quality starch needed by food and beverage industries for the production of hydrolyzed sodium glutamate, pasta and replacers for most dairy products	▪ Second most important use of cassava worldwide is animal feed ▪ At present about a quarter of the global production of cassava is utilized as feed ingredient for pork, poultry, cattle and fish farming, directly or indirectly through its incorporation into compound feeds. Within the EU, the largest markets for cassava in terms of feed are the Netherlands, Belgium, Spain, Germany and Portugal.	▪ Biofuels presently imported into Liberia required by industrialists and for transportation ▪ Glucose syrup from cassava (mainly imported) to substitute for the imported product

CONTACTS

Central Agricultural Research Institute (CARI	Institution mandated with conducting adaptive and applied research for enhanced productivity of food, feed, fibre and other agricultural products	E-mail: info@cari.gov.lr
National Investment Commission of Liberia	Agency supporting investments in Liberia	Tel.: (+231) 88 640 5511

COUNTRY FOCUS:

NIGERIA



ECONOMIC INDICATORS

Nigeria is the largest African economy and the 26th worldwide. As such, it represents a major economic and political player in the region and in Africa. This status rides on the sheer size of its economy and population (1st in Africa), the strength of its business dynamism (1st in West Africa; 6th in Africa) and the functioning and outcomes of its labour market (2nd in the region). The Nigerian economy accounts for more than two-thirds of the regional GDP. The sheer size of its economy, the friendliness of its business climate and the wide range of government incentives are key reasons for investors to do business in the country.

60 million t
Cassava production in 2021

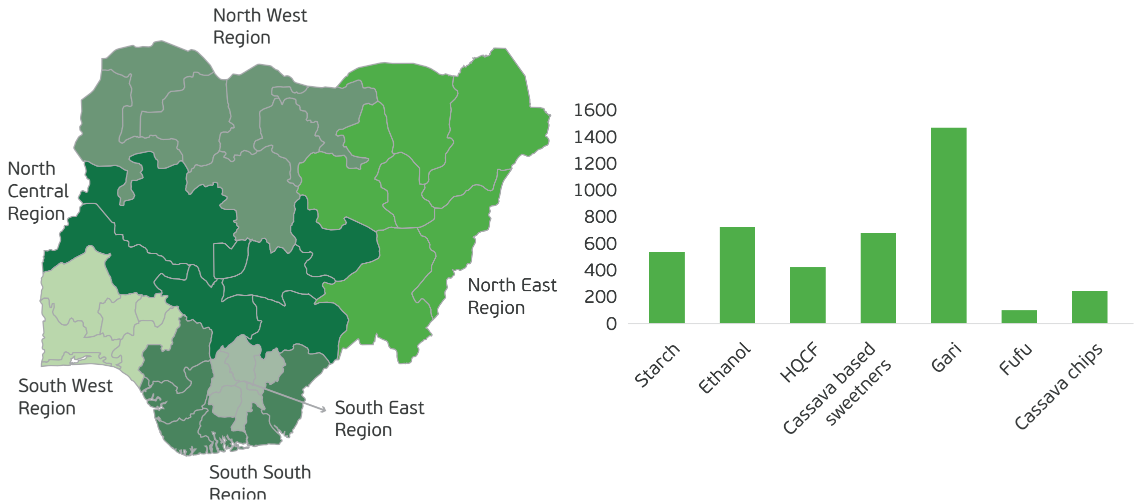
9.1 tons/ha
Average yield of cassava in 2020

Demographics and territory	
Population	201 million
Area	910,770km^2
Currency	Nigerian naira (NGN)
Languages	English (official); Hausa; Yoruba; Igbo; Fulfulde; Ibibio; Kanuri; Tiv
Trade	
Main exported products	Crude petroleum; petroleum gas; refined petroleum; cocoa beans; gold
Main imported products	Refined petroleum; wheat; non-fillet frozen fish; rubber tyres; raw sugar
Economic dynamism	
GDP, nominal	$448.1 billion
GDP growth (real, 2014–19)	1.18%
FDI, inflows	$3.3 billion
Gross domestic private investment	$110.2 billion

CASSAVA PRODUCTION

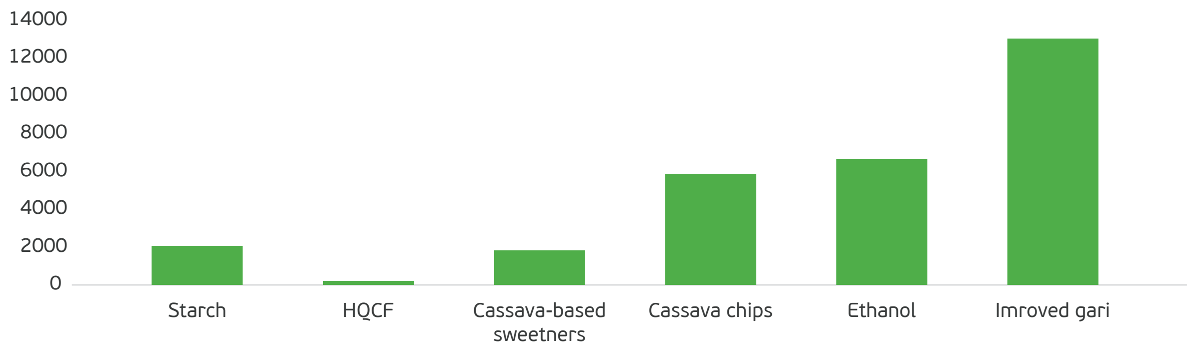
Nigeria is the leading global producer of cassava. However, it does not participate significantly in the global industrial processed cassava market/export. There is a huge market in traditional foods produced from cassava within the country. There is also significant local industrial demand for the derivatives and by-products of cassava.

Overview of domestic markets demand (USD million) for cassava products in Nigeria



Source: PricewaterhouseCoopers (2020). Field data based on interpersonal communication with actors.

Potential demand for fresh cassava roots (‘000 tons)



Source: PricewaterhouseCoopers (2020).

Season calendar of cassava planting and harvesting in Côte d’Ivoire per region

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
South-west												
Planting												
Harvest												
South-east												
Planting												
Harvest												
South-South												
Planting												
Harvest												

SWOT

	Inputs and services	Production	Artisanal processing
Strengths	▪ Existence of public and private service providers ▪ Existence of agro input dealers	▪ Climate is excellent for growing cassava ▪ Suitable land ▪ Familiarity with cassava cultivation	▪ Existence of cottage processing and small cassava processing, mostly to traditional products like gari, lafun, fufu and chips ▪ Availability of local fabricators of equipment and operators
Weaknesses	▪ High inputs costs ▪ High energy costs	▪ High raw material costs ▪ Smallholder farmers	▪ Inadequate processing equipment
Opportunities	▪ High-yielding cassava varieties by the International Institute of Tropical Agriculture (IITA) and the National Root Crops Research Institute (NRCRI)	▪ Experience in cassava production	▪ Urbanization creates demand ▪ Regional markets ▪ By-products (waste to wealth)
Threats	▪ Domestic price fluctuation ▪ Hike in price of inputs and services	▪ Pastoralist clash ▪ Poaching on cassava farms	▪ Inconsistencies in machine fabrication, operation and maintenance

	Industrial processing	Logistics	Trade
Strengths	▪ Existence of National Cassava Processors and Marketers Association (NCAPMA) and the Agricultural Machineries and Equipment Fabricators Association of Nigeria (AMEFAN)	▪ Nigeria has a core of well-informed and competent cassava scientists, facilitated by the IITA and NRCRI ▪ Seed producers network and donor-driven projects	▪ The presence of a relatively huge domestic market is Nigeria's greatest strength ▪ Central Bank of Nigeria (CBN) credit facilities and partnership with the Cassava Growers Association of Nigeria (CGAN)
Weaknesses	▪ Poor product quality ▪ Inadequate infrastructure ▪ High cost of cassava at factory gates	▪ High transportation costs ▪ Low-capacity development, especially women experts	▪ Fluctuation in market prices ▪ Inefficient market system
Opportunities	▪ Availability of improved processing technologies at SME level ▪ Pool of human resources and networks of professionals ▪ Existence of strong and emerging cassava industrial hub	▪ Large number of potential end users; i.e. bakers for HQCF and beverages for cassava starch	▪ Growing demand for cassava products ▪ Government inclusion and local content policy ▪ Savings in foreign exchange
Threats	▪ Relative prices of other food crops and products ▪ High cost of energy ▪ Smuggling	▪ Temporary excess supply ▪ Corruption	▪ Unpredictable changes in government policy ▪ Security in neighbouring countries

INVESTMENT OPPORTUNITIES

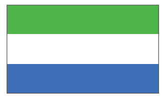
Cassava starch/HQCF	Ethanol	Packaged traditional products	Mechanized cassava cultivation
▪ The annual demand for cassava starch stands in excess of 300,000 tons, with the supply at approximately 10,000 tons ▪ Demand for high-quality cassava flour (HQCF) for bread, biscuits and snacks is estimated to be 500,000 tons/year, but supply of HQCF is less than 15,000 tons ▪ There are four large-scale cassava starch processing companies with an annual output of approximately 9,000 tons	▪ Nigeria needs more than 400 million litres of ethanol for industrial use ▪ Only one ethanol factory (installed capacity is 240 tons of fresh cassava roots per day) currently using cassava roots as raw material	▪ Emergence of more department stores and rural–urban migration ▪ High demand from African diaspora	▪ Shortage of farm equipment and machinery (e.g. in Ogun State, there are only four farm equipment hiring companies servicing more than 400,000 farmers)

CONTACTS

National Root Crops Research Institute (NRCRI)	National research institute that has the mandate for root crop research in the country	Tel.: +234 (0)8168983790 E-mail: info@nrcri.gov.ng
Nigerian Investment Promotion Commission	Agency supporting investments in Nigeria	Tel.: (+234) (0)9 2900059/(0)9 2900061 E-mail: infodesk@nipc.gov.ng

COUNTRY FOCUS:

SIERRA LEONE



ECONOMIC INDICATORS

The country is politically stable (5th in the region) and the government is effective and controls corruption (7th). Economic growth is driven by increased activities in agriculture and construction as well as the resumption of iron ore production and exports. Overall, Sierra Leone offers plenty of opportunities to foreign investors. These include favourable tax rates and other government incentives, and a relatively low-cost business climate.

13.1 tons/ha
Average yield of cassava in 2020

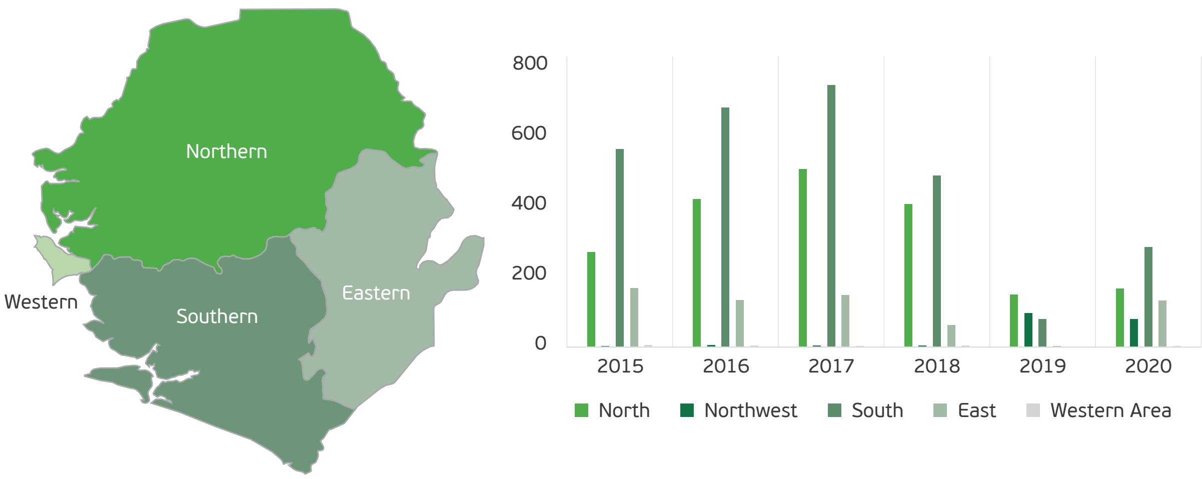
1.69 million t
Cassava production in 2020

Demographics and territory	
Population	7.81 million
Area	71,740km^2
Currency	Sierra Leonean leone (SLL)
Languages	English (official); Krio; Mende; Kuranko; Temne; Krim
Trade	
Main exported products	Diamonds; cocoa; coffee
Main imported products	Machinery and transport equipment; fuel; foodstuffs
Economic dynamism	
GDP, nominal	$4.12 billion
GDP growth (real, 2014–19)	-0.86%
FDI, inflows	$367.7 million
Gross domestic private investment	$329.6 million

CASSAVA PRODUCTION

Sierra Leone is the seventh among producers of fresh cassava roots in West Africa. Domestic production of cassava exceeds local consumer demand. Cassava production and processing is dominated by the traditional food market. Sierra Leone is not currently a player in the international trade in cassava products. Cassava processing is generally done at artisanal levels in rural or small towns.

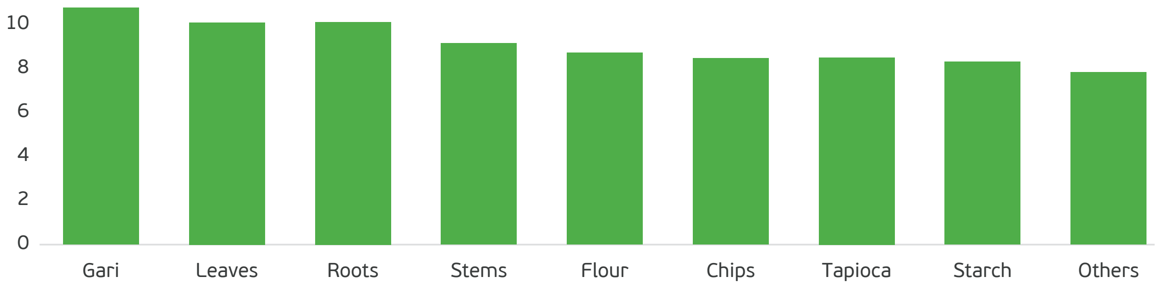
Cassava production output per region 2015-2020 ('000 tons/year)



Note: North-west was created in 2017. Sierra Leone now has five regions and 16 districts. Prior to 2017, Sierra Leone had four regions and 12 districts.

Source: Ministry of Agriculture & Forestry (MAF), Planning, Evaluation, Monitoring and Statistics Division (PEMSD) (2015–20).

Domestic market share (%) of cassava products traded in Sierra Leone



Source: Cassava value chain study report by the Sierra Leone Agricultural Research Institute (SLARI) and the Njala Agricultural Research Centre (NARC) (2013–16).

Season calendar of cassava planting and harvesting in Côte d'Ivoire per region

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
North and north-west												
Planting												
Harvesting												
South												
Planting												
Harvesting												
East												
Planting												
Harvesting												

Sources: Famine Early Warning Systems Network (2017); Comprehensive Food Security and Vulnerability Analysis (2020).

SWOT

	Inputs and services	Production	Artisanal processing
Strengths	▪ Availability of improved cassava varieties, credit and financial institutions, and relatively good access to technical and extension services	▪ Availability of large hectares of suitable land for cassava production, access to low-cost labour market, presence of a huge domestic demand for cassava, favourable climate conditions for planting cassava and a strong knowledge base and experience in cassava production	▪ Relatively good access to processing facilities across the major towns and cities
Weaknesses	▪ High cost of fertilizers and agrochemicals ▪ Insufficient training on cassava production	▪ Poor use/adoption of improved cassava varieties, and low yields due to declining soil fertility/ low use of fertilizers or lack of application of Good Agricultural Practices (GAPs) ▪ Limited access to agricultural machinery and equipment owing to high cost of hire and purchase	▪ Lack of specific and sufficient machinery to scale up processing ▪ Processors are yet to fully understand and implement the principles and practices of process control, good hygiene practices (GHP) and Good Manufacturing Practices (GMP)
Opportunities	▪ Presence of strong government and donor support (subsides)	▪ High market demand for fresh cassava tubers ▪ Cassava production is profitable and very competitive	▪ High market demand for fresh cassava tubers ▪ Cassava products are profitable and very competitive
Threats	▪ Outbreak of diseases like Ebola and other viruses	▪ Theft and poaching on cassava farms ▪ Crop–livestock farmer conflict ▪ Outbreak of recurrent bush fires and climate variation	▪ Lack of specialized technicians for repairing simple tools and machinery

	Industrial processing	Logistics	Trade
Strengths	▪ Low production cost ▪ Availability of labour	▪ Better access to labour, planting materials and other agricultural inputs ▪ The presence of research and development institutions (the Sierra Leone Agricultural Research Institute and Njala University provide competent scientists in cassava cultivation)	▪ Huge market demand for roots and traditional cassava by-products in urban areas and in the diaspora
Weaknesses	▪ Production process of cassava products is still mostly traditional ▪ Low-quality products dominate the local markets	▪ Poor linkage between farmers and processors leading to a mismatch in demand and supply ▪ High cost of operations due to poor infrastructure, limited energy supply and poor communication	▪ High transportation cost from farm to processing centres, owing to bad roads and increase in fuel price ▪ Lack of social capital as a result of distrust among value chain actors regarding business relationships ▪ Fluctuations in market price ▪ Limited access to international markets
Opportunities	▪ Knowledge of a diverse range of cassava-based products that can be produced locally	▪ There is potential for investment in improved transportation services, value addition and packaging ▪ There is a high demand for post-harvest technologies in major production and processing areas	▪ Market diversity and competition with food substitutes of cassava such as rice, potatoes and beans, etc. ▪ Seasonal opportunity that exists in the regional market for staple quality food product
Threats	▪ None	▪ Lack of proper management ▪ Potential for thefts	▪ Irregular tuber supply and temporary excess supply could affect cassava prices, causing producers to decide not to harvest roots ▪ Presence of informal/black market trade of cassava products to neighbouring countries, which affects market prices

INVESTMENT OPPORTUNITIES

Cassava production	Cassava processing	Cassava marketing
▪ Producing cassava locally is cheaper than importing it for processing or consumption ▪ Demand for fresh cassava tubers is growing in domestic, regional and international markets and smallholder cassava farmers have not been able to respond effectively	▪ Few enterprises are engaged in processing starch, high-quality cassava flour (HQCF), cassava chips and animal feed ▪ Processing equipment imported from Nigeria through development projects is gradually changing the commercial viability of medium- to large-scale cassava processing	▪ Sierra Leone has not explored its desired cassava market potential ▪ Markets for cassava based on its products are as follows: **fresh cassava** (waxed, root peeled, dried, instant boiled and vacuum-packed cassava); **processed cassava** products (gari, fufu, cassava/tapioca starch, cassava flour, cassava ethanol and high-maltose syrup) and **animal feed**

CONTACTS

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COUNTRY FOCUS:

TOGO

ECONOMIC INDICATORS

The Togolese economy's overall competitiveness rests on the extent of its innovative drive. Togo is the country where doing business is the easiest in West Africa, with an overall score of 62.3/100. Overall, a supportive environment for innovation, high-quality institutions, low-cost production factors and a business climate among the most competitive in the region are key reasons that foreign investors should consider Togo as a favourite place to do business in Africa.

1 million tons
Cassava production in 2020

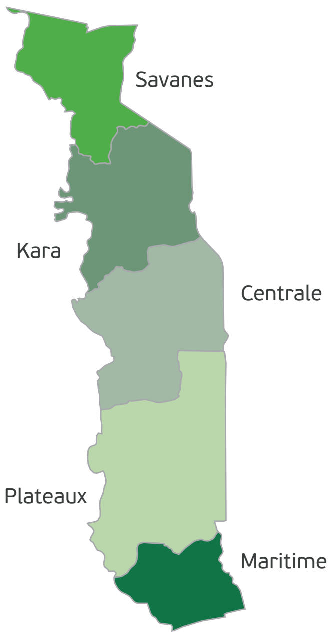
<10 tons/ha
Average yield of cassava in 2020

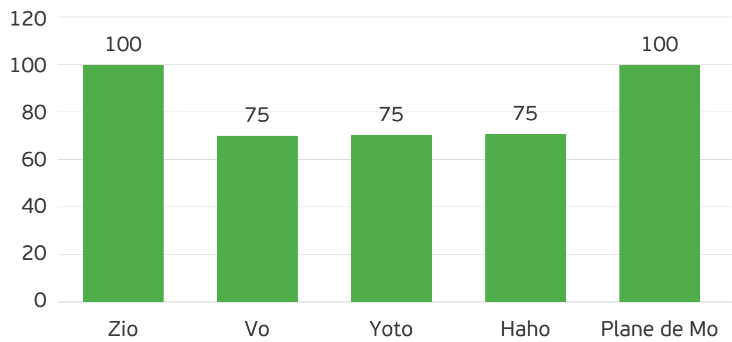
Demographics and territory	
Population	8.08 million
Area	56,785km^2
Currency	CFA franc (XOF)
Languages	French (official); Ewe; Kwa; Kabe; Wachi; Mina
Trade	
Main exported products	Refined petroleum; crude petroleum; electricity; calcium phosphates; raw cotton
Main imported products	Refined petroleum; motorcycles; crude petroleum; rice
Economic dynamism	
GDP, nominal	$7.22 billion
GDP growth (real, 2014–19)	5.18%
FDI, inflows	$133.3 million
Gross domestic private investment	$1.083 billion

CASSAVA PRODUCTION

Togo is a small producer of cassava in Africa. However, cassava is one of the most produced commodities in volume, occupying 8.9% of the total agricultural area. Cassava products are destined primarily for the domestic market. Cassava roots are consumed in the form of fufu or processed and preserved products such as gari, tapioca, starch, bread flour and pods, which are traded extensively.

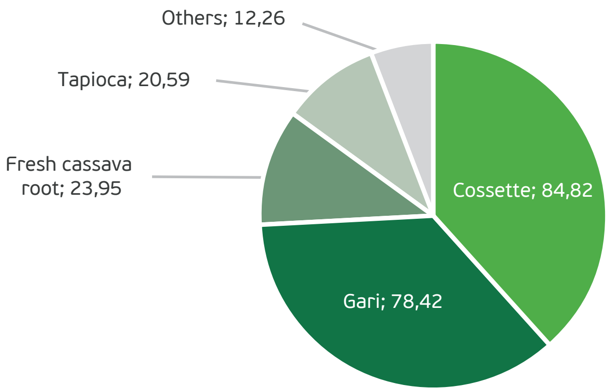
Estimated quantity of cassava grown ('000 tons/year) in the major growing prefectures of Togo





Source: Direction des Statistiques Agricoles de l'Information et de la Documentation (DSID) (2019).

Overview of the domestic markets for cassava products ('000 USD) in Togo



Source: Institut de Conseil et d'Appui Technique (ICAT) (2019).

Season calendar of cassava planting and harvesting in Côte d'Ivoire per region												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MARITIME												
Planting												
Harvesting												
PLATEAUX												
Planting												
Harvesting												
CENTRALE												
Planting												
Harvesting												

SWOT

	Inputs and services	Production	Artisanal processing
Strengths	▪ Available research knowledge of breeding, pest control and simple agronomy	▪ Soil fertility maintained (crop rotation; fallow)	▪ Processors' know-how
Weaknesses	▪ Limited adoption of Good Agricultural Practices (GAP)	▪ Producers' isolation and poor infrastructure ▪ Low yield	▪ Low-performance production equipment and transformation process
Opportunities	▪ Existence of domestic demand for inputs and services for the cassava sector	▪ Availability of fertile and suitable land	▪ New investors in industrial transformation into quality starch and flour ▪ New outlets for processed cassava
Threats	▪ • Cassava diseases are prevalent	▪ Cassava is susceptible to a large number of diseases, the most important of which are cassava bacterial blight, African cassava mosaic disease and anthracnose	▪ Competition from industries ▪ Threat of disappearance of artisanal units
	Industrial processing	**Logistics**	**Trade**
Strengths	▪ None	▪ Existence of a deep-water port that allows access to other ports and to hinterland countries	▪ Business climate conducive to investment
Weaknesses	▪ A weak industrial fabric ▪ Lack of qualified labour	▪ None	▪ Informal market domination
Opportunities	▪ Existence of a maritime and air hub ▪ Promotion of re-export activities ▪ State commitment to industrialization	▪ Industrial Plateforme Industrielle d'Adétikopé platform of Adétikopé and an industrial free zone	▪ Existence of an internal and external market for fresh cassava and its by-products
Threats	▪ International competitiveness	▪ Impassable tracks during the season for large vehicles	▪ International competition

INVESTMENT OPPORTUNITIES

Trading in gari and tapioca	Cassava production	Cassava processing
▪ Response to food security in Togo and in African countries in crisis	▪ Accessible fertile land suitable for cassava production ▪ Opportunity to modernize the entire production chain and improve yields	▪ Under-supplied local market for starch ▪ Bioethanol produced in small quantities compared to the market potential ▪ Import substitution in the animal feed markets for cassava chips in the north of the country

CONTACTS

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