



**WEST AFRICA  
COMPETITIVENESS PROGRAMME  
REGIONAL INVESTMENT PROFILE - SUMMARY**

# **MANGO VALUE CHAIN**



Funded by  
the European Union

Implemented by:





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March 2022

## ACKNOWLEDGEMENTS

This investment profile has been prepared under the framework of the West Africa Competitiveness Programme (WACOMP) which is funded by the European Union. WACOMP is implemented by the International Trade Centre and the United Nations Industrial Development Organization (UNIDO) in collaboration with the Commission of the Economic Community of West Africa (ECOWAS). WACOMP covers all ECOWAS member States plus Mauritania. WACOMP focuses on four selected value chains, namely mango, textile/garments, information and communication technology and cassava. It aims to strengthen the competitiveness of West African Countries and enhance their integration into the regional and international trading system, through an enhanced level of production, transformation and export capacities of the private sectors in line with the regional and national industrial and SME strategies.



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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 mango value chain is being developed within the framework of the West Africa Competitiveness Programme (WACOMP) funded by the European Union and implemented by the United Nations Industrial Development

Organisation (UNIDO) and the International Trade Centre (ITC) in 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 clothing, and information and communication technology, and to improve the business climate in the region.

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

Its development is part of the implementation of the West African regional industrialisation policy, the EU investment policy and the ECOWAS trade policy.

With a production of more than 1700,000 tons of mangoes per year, the region is the largest mango producer on the continent and one of the largest mango producers in the world. Only less than 20% of the mangoes produced are nowadays processed, thus offering multiple opportunities for trade, investment and manufacturing of mango products.

West Africa's population now exceeds 397 million and the current supply of processed mango products is not yet sufficient to meet the market's needs. With the implementation of the African Continental Free Trade Area (AfCFTA), the aim is to satisfy an African market of more than 1.4 billion people.

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 us, the Regional Economic Communities (RECs) and the private sector across the region. The investment profile study is being supported by 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 becomes imperative to showcase the potentials of some of those developed value chains. In order to boost investment (local and international), create jobs especially for the youth in a world struggling and recovering from the COVID 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 publications of the ECOWAS Investment Profiles for Mango, Information and Communication Technology (ICT), Textile and Cassava. We note that, about 4% of global mango production takes place in West Africa and a substantial percentage of the produced mangoes are exported to Europe and other parts of the world.

With improved production, processing and packaging practices the sector will enjoy tremendous growth.

Attracting investment and creating a business enabling environment is key to the successful diversification and development of the economies in the region and indeed 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 the EU institutions and EU Member States jointly mobilising up to EUR 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 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 be contributing to the economic development of the region.

I would like to thank the ITC and our other WACOMP partners for undertaking this very useful study of the investment profiles in 4 critical sectors (Mango, ICT, Textile and Cassava) that will boost and support investment in the public and private sectors, the 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.

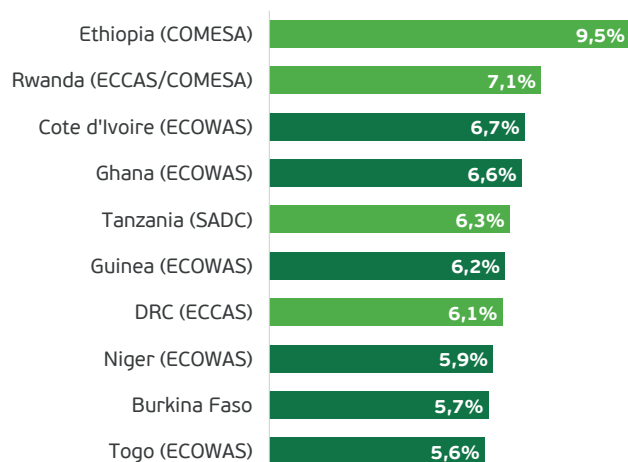
### A PEACEFUL, SECURE AND STABLE REGION

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 notably 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 African Infrastructure Development Index, the region is trailing other RECs, but 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'.<sup>1</sup> While the qualitative performance of SEZs in Africa tends to be limited, these schemes still remain attractive and viable instruments for industrial policies.<sup>2</sup> 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 African 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 Strategic Framework for Private Sector Development Strategy 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.*

1 This is one of the UN Sustainable Development Goals (SDGs, the 9th), 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#:~:text=The%20case%20for%20Special%20Economic,to%20learning%20and%20technology%20transfers.>

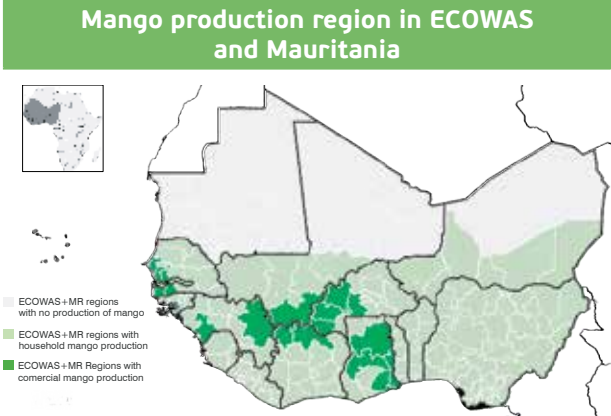
# 2. Why and how to invest in the mango value chain in ECOWAS

## 2.1. ECOWAS WITHIN THE INTERNATIONAL MANGO SECTOR

### A CONSIDERABLE PRODUCTION SPREAD OVER THE ENTIRE REGION

Thanks to their robustness, adaptability and high productivity, mango trees **occupy almost all rural and urban areas** of the ECOWAS region. As is visible in the figure below, almost all of the commercial production is concentrated between the 750 mm and 1,500 mm isohyet lines, which correspond to semi-arid Sahelo-Sudanese climate.

The **amplitude of mango production** in West Africa (ECOWAS and Mauritania) was estimated to have a total production of more than 2,380,000 tons of fresh mangos in 2020, accounting for approximately 4% of global production. ECOWAS production is mainly concentrated in the second quarter of the year, with few competitors on the European market during this period, as the other big producers at this time of the year (Mexico and India) are further from Europe.



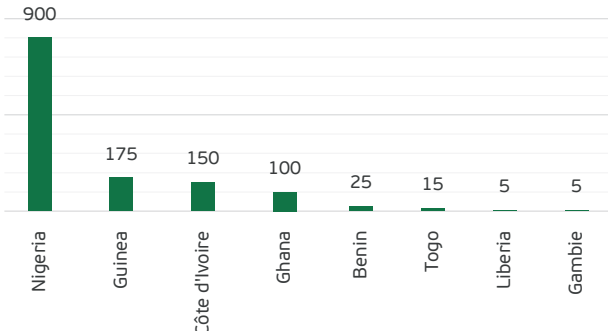
Source: Nitidae consultant.

**2.38 million t**  
ECOWAS mango production

**4%**  
Of world production

## 2.2. PRODUCTION WITH A STRONG TRADE POTENTIAL

Estimated mango production in West Africa (in thousands of tons)



Source: Consultant, based on industry interviews.

However, in most producing countries, like in West Africa, the **major part of production is not marketed**, even in domestic markets. Nevertheless,

in 2019, with 90,000 tons exported, ECOWAS was the 7th mango-exporting origin worldwide. Global mango trade (excluding re-exportation) grew very fast and continuously in the last 20 years, with an average annual growth of 7.2% (+75,000 tons/year). The **growth of ECOWAS mango exports** in the same period has been slightly higher, with an average pace of +8.3%/year (+4,500 tons/year). ECOWAS' market share of global trade went up from 4.2% in 1999 to 5.1% in 2020. Another success for ECOWAS is the increase of the value of its exports. The annual value of exports grew by an average of 12%/year in 1999–2019, reaching more than \$165 million.

**7th**  
mango-exporting origin worldwide

**+8.3%**  
Average growth of ECOWAS mango exports since 1999

## 2.3. OPPORTUNITIES AND STRATEGIC ACTIVITIES

<p><b>Exports of fresh mango</b></p> <p>The main subsector of the mango value chain in terms of value is the export of fresh mango. The first option for an investor interested in export of fresh mango is to only invest in trade, buying existing supply from small and medium farmers (bigger farmers are generally exporting themselves or are already bound by contract to an exporter). The second is to invest in a big mango plantation to directly manage production. Both options can be combined, which could make the business even more profitable and less risky.</p>	<p><b>Exports: Key success factors</b></p> <ul style="list-style-type: none"> <li>Quality management at harvest, selection, and handling and packaging level</li> <li>Transport time: Regulate the flow to avoid any loss, quality decrease or variation of stock</li> <li>Coordination with other exporters to balance the supply in destination markets</li> </ul>
<p><b>Mango puree and juice</b></p> <p>The mango puree and juices subsector is a dynamic part of the mango market. Indeed, in the leading ECOWAS country, Mali, several companies achieved success in this market. The global demand for tropical fruit juices has been increasing in the past few years. Mango beverages are one of the fastest-growing fruit juice categories, outpacing carbonated drinks in terms of volume growth.<sup>3</sup></p>	<p><b>Mango puree and juice: Key success factors</b></p> <ul style="list-style-type: none"> <li>Product diversification (processing of several tropical fruits)</li> <li>Multi-customer centric</li> <li>Food safety – quality and impact certifications</li> <li>Vertical integration and/or productive alliances</li> <li>Attractive packaging and modern marketing</li> </ul>
<p><b>Dried mango</b></p> <p>Dried mango is a dynamic subsector with quick growth in specialized ECOWAS countries. Two countries have become hubs for processed dried mangoes: Burkina Faso and Ghana. They both show strong sector development, with new companies and facilities opening every year. The dried mango subsector is fuelled by a dynamic demand, mainly on the export market, led by the European Union and the United States.</p>	<p><b>Dried: Key success factors</b></p> <ul style="list-style-type: none"> <li>Valorization of spotted/damaged mangoes rejected by fresh exporters</li> <li>Hiring of highly qualified employees</li> <li>Valorization of waste for energy production</li> <li>Product diversification (processing of several tropical fruits)</li> </ul>
<p><b>Certification: Organic and Fairtrade mango</b></p> <p>Organic and Fairtrade certification add a lot of value to fresh mango exports and processed mango products. The large majority of the market for certified mango is the export market, especially for the European Union and the United States. The most dynamic market for certified mango is the organic certification, a market growing by more than 10% yearly. Mango is the 2<sup>nd</sup> most-consumed organic-certified fruit in Europe. The other market for certified products is Fairtrade, with a yearly growth of approximately 8% since 2015.</p>	<p><b>Certification: Key success factors</b></p> <ul style="list-style-type: none"> <li>Investing in farmer organizations' identification and support for collective certification</li> <li>Partnership with development agencies and NGOs</li> <li>Partnership with other companies to develop 'organic sourcing areas' on several products (e.g. mango, cashew, sesame and shea)</li> </ul>

**2<sup>nd</sup>**  
organic  
fruit most  
consumed  
in Europe

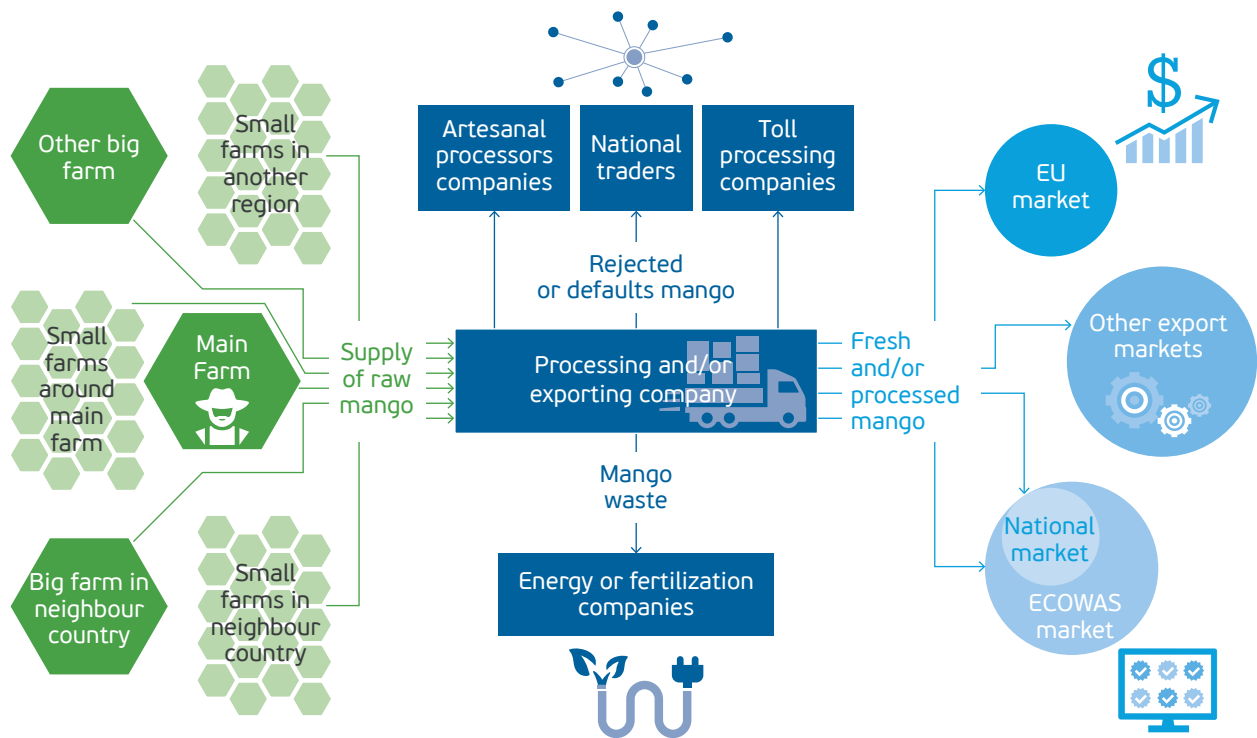
## 2.4. KEY POINTS FOR SUCCESSFUL INVESTMENT

### DIVERSIFY PROCUREMENT AND MARKET

Due to a short production period in all mango production areas worldwide, perishability of the fruit and risks inherent to any agribusiness investment, the concentration of procurement on one simple production area or focusing marketing on one single

market are not suitable strategies for the middle and long term. As schematized below, successful investments are built on a diversity of suppliers and outlets.

Figure 26: Diversification strategies in the mango value chain



Source: Consultant.



## INVESTMENT IN QUALITY

With several fruit flies attacking mango in Africa, quality needs to be preserved from the field to the packaging/processing plant. With strict controls all along the value chain, investors can limit losses during conservation and transport and, therefore, rejection of containers. Export of fresh and processed mango need important investments in **quality control** to be successful. Pricing and ability to negotiate advantageous contractual terms with clients abroad are often strongly based

on reputation and guarantees of the quality of the product delivered. Quality is also an opportunity to get premiums. Even if **food safety certification** is not mandatory under European legislation, most established European importers will require some type of food safety certification. In the fruit juice industry, the most recent development is SGF certification<sup>4</sup> which is aimed at increasing safety, quality and fair competition in the fruit juice sector through industrial self-regulation.





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**WEST AFRICA  
COMPETITIVENESS  
PROGRAMME**

**COUNTRY  
PROFILES**

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## COUNTRY FOCUS:

# CÔTE D'IVOIRE



## 1. ECONOMIC INDICATORS

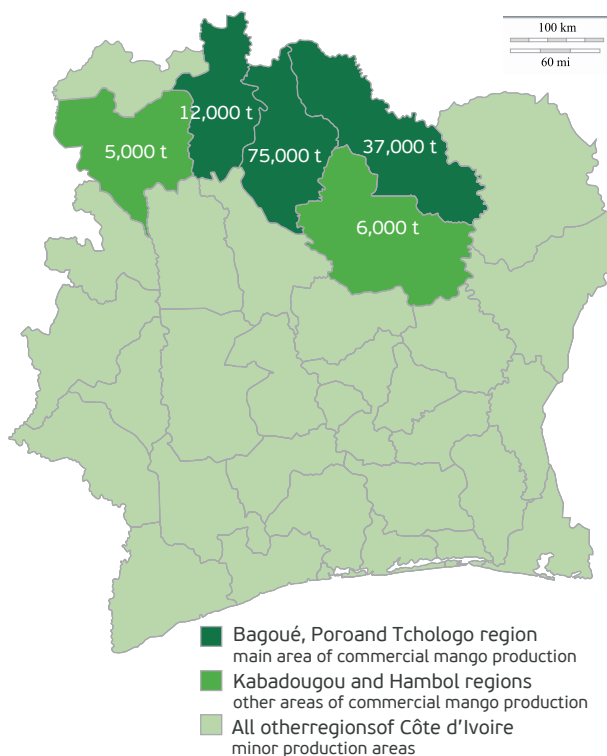
Demographics and territory	
Population	25.7 million
Area	322 463 km <sup>2</sup>
Currency	CFA franc (XOF)
Languages	French (official), Agni, Baoule, Mande, Senofu

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

It is the largest economy, GDP-wise, in French-speaking West Africa, 3rd in the whole subregion, behind Nigeria and Ghana, and 8th in Africa. Overall, Côte 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 Côte d'Ivoire a favourable destination for foreign investment

## 2. MANGO PRODUCTION BY REGION



Source: Consultant, based on data from Food Products Marketing Assistance Office (OCPV), customs and industry interviews.

Côte d'Ivoire is the largest mango exporter in West Africa. Mango cultivation is spread all over the country, but commercial production is concentrated in the northern regions. Quantities of mango marketed in Côte D'Ivoire experienced a sharp and continuous growth from the 1990s to 2016. Mango exports have been relatively stable in the last years.

### Outlets of the marketed production 2019

**7 t/ha**

Average yield.

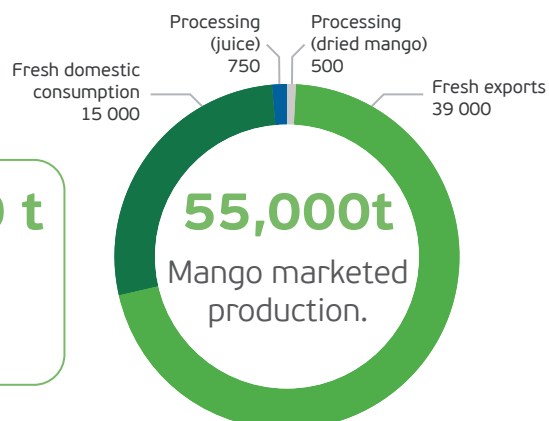
**+51%**

Mango exports growth 2019 vs 2015.

**150,000 t**

Mango production.

37% of the mango production is marketed



Export season (March - April) Production season (March - Juillet)

Source: Consultant, based on data from the Food Products Marketing Assistance Office (OCPV), customs and industry.



### 3. SWOT

Côte d'Ivoire's mango sector			
<b>Strengths</b>			
<b>MANGO PRODUCTION:</b> <ul style="list-style-type: none"> <li>Favourable pedoclimatic conditions</li> <li>Available nurseries</li> </ul>	<b>FRESH MANGO:</b> <ul style="list-style-type: none"> <li>High demand</li> <li>Ivorian mango appreciated in comparison to other origin</li> <li>Location and seasonality for EU market</li> </ul>	<b>DRIED MANGO:</b> <ul style="list-style-type: none"> <li>Can be stored longer (12 and 18 months), good taste, vitamins and multiple uses</li> <li>Growing export demand</li> </ul>	<b>JUICE:</b> <ul style="list-style-type: none"> <li>Long storage</li> <li>Appreciated by local middle class</li> </ul>
<b>Weaknesses</b>			
<b>MANGO PRODUCTION:</b> <ul style="list-style-type: none"> <li>No technical supervision</li> <li>Diseases</li> <li>Ageing orchards</li> <li>Low yields</li> <li>Weak value chain</li> </ul>	<b>FRESH MANGO:</b> <ul style="list-style-type: none"> <li>Seasonality and short export season (two months)</li> <li>Low labour qualification</li> <li>Fruit flies</li> <li>Exports concentrated on one market (EU)</li> </ul>	<b>DRIED MANGO:</b> <ul style="list-style-type: none"> <li>Raw material seasonality</li> <li>Limited command of the drying process</li> <li>No cold room for storage</li> <li>High investment costs</li> <li>Lack of technicians and spare parts</li> </ul>	<b>JUICE:</b> <ul style="list-style-type: none"> <li>Seasonality</li> <li>High investment</li> <li>Low availability of skilled workers</li> <li>High prices for lower classes</li> </ul>
<b>Opportunities</b>			
<b>MANGO PRODUCTION:</b> <ul style="list-style-type: none"> <li>Growing international demand</li> <li>Growing processing sector</li> <li>Increasing number of exporting companies</li> </ul>	<b>FRESH MANGO:</b> <ul style="list-style-type: none"> <li>Low-cost raw material</li> <li>Good demand</li> <li>Emerging markets</li> <li>Fruit quay</li> <li>Road infrastructure</li> </ul>	<b>DRIED MANGO:</b> <ul style="list-style-type: none"> <li>Growing international demand</li> <li>Low-cost labour</li> <li>Raw material available in large quantities</li> </ul>	<b>JUICE:</b> <ul style="list-style-type: none"> <li>Growing local consumption from middle class</li> </ul>
<b>Threats</b>			
<b>MANGO PRODUCTION:</b> <ul style="list-style-type: none"> <li>Speculation</li> <li>No treatment for fruit flies</li> </ul>	<b>FRESH MANGO:</b> <ul style="list-style-type: none"> <li>Storage facilities limited</li> <li>No strict quality control</li> <li>Export delay</li> <li>Rigid contract agreement</li> </ul>	<b>DRIED MANGO:</b> <ul style="list-style-type: none"> <li>Low-quality final product</li> <li>Default due to quality</li> </ul>	<b>JUICE:</b> <ul style="list-style-type: none"> <li>Final product high prices</li> </ul>

### 4. INVESTMENT OPPORTUNITIES

Dry mango processing	Packaging and export of fresh mango	Processing of fresh mango into puree and juice
<ul style="list-style-type: none"> <li>Significant production with undeveloped local processing</li> <li>Mangoes rejected for export</li> <li>Possibility of fruit diversification</li> </ul>	<ul style="list-style-type: none"> <li>Leverages good infrastructure</li> <li>'Origin Côte d'Ivoire' well appreciated in European markets</li> </ul>	<ul style="list-style-type: none"> <li>There is still little competition</li> <li>Diversity of tropical fruits available</li> <li>Good industrial ecosystem and export infrastructures</li> </ul>

### 5. CONTACTS

Interprofessional Fund for Agricultural Research and Advisory Services (FIRCA)	FIRCA mobilizes resources from agricultural sectors, the State and development partners to finance sector development programmes.	Tel: (+225) 07 08 91 25 94 E-mail: info-cdg-fadci@firca.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 Email:infos.cepici@cepici.ci

## COUNTRY FOCUS: SENEGAL



### 1. ECONOMIC INDICATORS

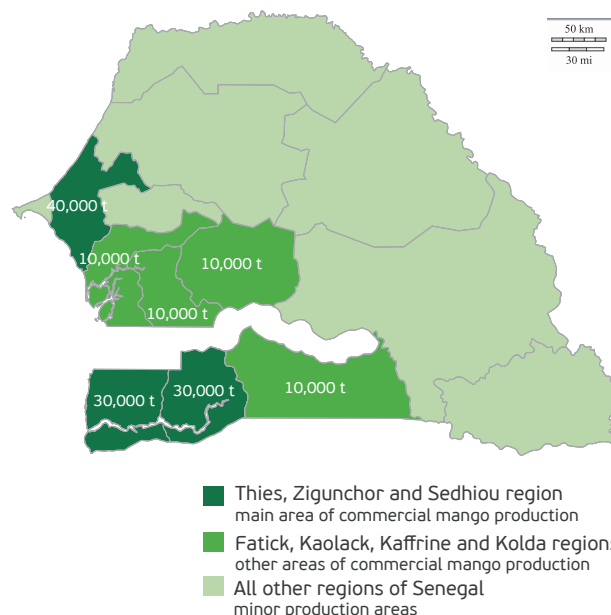
Demographics and territory	
Population	16.3 million
Area	192 530 km <sup>2</sup>
Currency	CFA franc (XOF)
Languages	French (official), Wolof, Mandinka, Jola (Diola), Pular, Serere

Trade	
Main exported products	Mineral fuels and oils; pearls, precious stones, and metals; fish and crustaceans
Main imported products	Mineral fuels and oils; cereals; vehicles

Economic dynamism	
GDP, nominal	\$23.6 billion
GDP growth (real, 2014–19)	6.4%
FDI, inflows	\$4.2 billion
Gross domestic private investment	\$5.8 billion

Senegal is the 10<sup>th</sup> most competitive economy in Africa and 3<sup>rd</sup> in West Africa, largely thanks to its strong and historically renowned institutions. The Senegalese economy's competitiveness and innovative drive, the institutional and legal framework's strength and stability, and the business climate's conduciveness contribute to making the country a viable destination for foreign investors.

### 2. MANGO PRODUCTION BY REGION



Source: Consultant, based on industry interviews.

It is estimated that the mango sector generates a direct income to 25,000 people in Senegal. **Smallholders** are the most common. They own 70% of mango areas, and these small-scale orchards average 1–10 ha. **Intermediary orchards** have a mango acreage of 10–50 ha. This model is growing in Senegal, as fresh mango exporters without mango plantations rely on them for supply. **Commercial orchards** are managed by companies. Acreage is more than 50 ha of mango trees, with yields reaching 20–40 tons/ha

#### Outlets of the marketed production 2019

**5 t/ha**

Average yield.

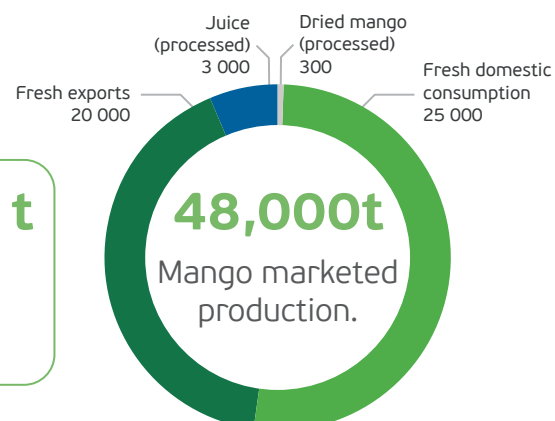
**+10%**

Mango exports growth 2019 vs 2015.

**130,000 t**

Mango production.

37% of mango production is marketed



Source: Consultant, based on industry interviews and customs stats.

### 3. SWOT

Senegal's mango sector			
<b>Strengths</b>			
<b>MANGO PRODUCTION:</b> <ul style="list-style-type: none"> <li>Production period delayed in comparison to other producing countries</li> <li>Low chemicals use</li> <li>Cooperation between producers and exporters</li> </ul>	<b>FRESH MANGO:</b> <ul style="list-style-type: none"> <li>Existing conditioning centres</li> <li>Existing certified analysis laboratory</li> <li>Senegalese mango appreciated</li> <li>Favourable export window</li> </ul>	<b>DRIED MANGO:</b> <ul style="list-style-type: none"> <li>Local variety in Casamance</li> <li>Positive experience from some individual entrepreneurs</li> <li>Good conservation</li> </ul>	<b>JUICE:</b> <ul style="list-style-type: none"> <li>All-year availability of aseptic bag</li> </ul>
<b>Weaknesses</b>			
<b>MANGO PRODUCTION:</b> <ul style="list-style-type: none"> <li>Old orchards (35 years old on average)</li> <li>Most orchards poorly maintained</li> <li>High losses</li> <li>Low level of certification</li> <li>No market knowledge</li> </ul>	<b>FRESH MANGO:</b> <ul style="list-style-type: none"> <li>High farm gate prices</li> <li>High losses in conditioning centres</li> <li>High logistical costs in Ziguinchor</li> <li>Low subregional connections</li> </ul>	<b>DRIED MANGO:</b> <ul style="list-style-type: none"> <li>Low level of production and consumption locally</li> <li>Low valorization of sub-product</li> <li>Kent most used</li> </ul>	<b>JUICE:</b> <ul style="list-style-type: none"> <li>Lack of skilled workers</li> </ul>
<b>Opportunities</b>			
<b>MANGO PRODUCTION:</b> <ul style="list-style-type: none"> <li>Growing demand for fresh mango</li> <li>Growing pulp production</li> </ul>	<b>FRESH MANGO:</b> <ul style="list-style-type: none"> <li>Growing organic product demand not satisfied at importer level</li> </ul>	<b>DRIED MANGO:</b> <ul style="list-style-type: none"> <li>Existing innovation for processing and sub-product valorization</li> <li>Growing cosmetic industry in Senegal and international demand for natural ingredients</li> </ul>	<b>JUICE:</b> <ul style="list-style-type: none"> <li>Potential to create new product</li> <li>Existing innovation for processing and sub-product valorization</li> <li>Growing cosmetic industry</li> </ul>
<b>Threats</b>			
<b>MANGO PRODUCTION:</b> <ul style="list-style-type: none"> <li>Land pressure</li> <li>Fruit flies</li> </ul>	<b>FRESH MANGO:</b> <ul style="list-style-type: none"> <li>Rejection</li> </ul>	<b>DRIED MANGO:</b> <ul style="list-style-type: none"> <li>Technologies badly used and costly (no stocks and bad quality)</li> </ul>	<b>JUICE:</b> <ul style="list-style-type: none"> <li>High prices</li> </ul>

### 4. INVESTMENT OPPORTUNITIES

Service providing to mango sector	Mango juice processing in Casamance	Temperature-controlled infrastructure for export of fresh mango
<ul style="list-style-type: none"> <li>Rapid growth leading to a strong demand for modern services such as nurseries, watering systems, grafting, pruning and tree care services</li> </ul>	<ul style="list-style-type: none"> <li>New Agropole south of Ziguinchor to host fruit processing plants and particularly target the mango value chain</li> <li>Improving export infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>Demand driven by growing exports</li> <li>Opportunity to provide cold chain linkage between export infrastructure and production areas</li> </ul>

### 5. CONTACTS

Agence Sénégalaise de Promotion des Exportations (ASEPEX)	Agency supporting export from Senegal	Ndiassé Ngom Tel.: 773605596
Agence de Promotion de l'Investissement et des Grands Travaux (APIX)	Agency supporting investments in Senegal	Tel.: (+221) 33 849 05 55 E-mail: <a href="mailto:infos@apix.sn">infos@apix.sn</a> Website: <a href="http://investinsenegal.com">http://investinsenegal.com</a>

## COUNTRY FOCUS:

# MALI



## 1. ECONOMIC INDICATORS

Demographics and territory	
Population	19.7 million
Area	1.2 million km <sup>2</sup>
Currency	CFA franc (XOF)
Languages	French (official), Manding, Soninke, Bomu, Bozo, Dogon, Fula and Senufu, etc.

Trade	
Main exported products	Pearls, precious stones and metals; cotton; live animals and animal products
Main imported products	Mineral fuels and oils; vehicles; electrical machinery and equipment

Economic dynamism	
GDP, nominal	\$17.5 billion
GDP growth (real, 2014–19)	5.2%
FDI, inflows	\$494 million
Gross domestic private investment	\$3.9 billion

Mali's economy has been on a sustained growth trajectory, with rates averaging more than 5% in 2016–20. This is largely thanks to a robust agricultural sector and a thriving mining sector. The readily available skilled labour force and energy at a competitive cost, the economy's dynamism, strong government incentives, its pivotal cross-border trade position in the subregion and sound and open banking and financial system represent key elements of Mali's attractiveness for foreign capital seeking favourable business destinations in West Africa.

### Outlets of the marketed production 2019

**5 t/ha**

Average yield.

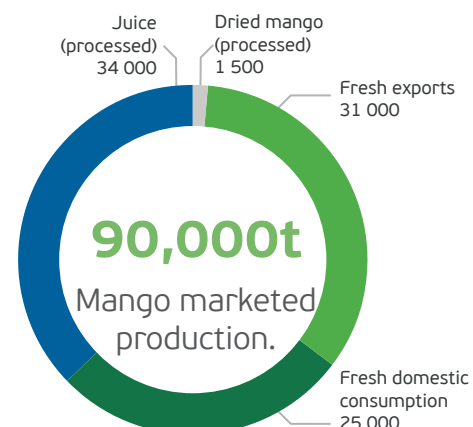
**+57%**

Mango exports growth 2019 vs 2015.

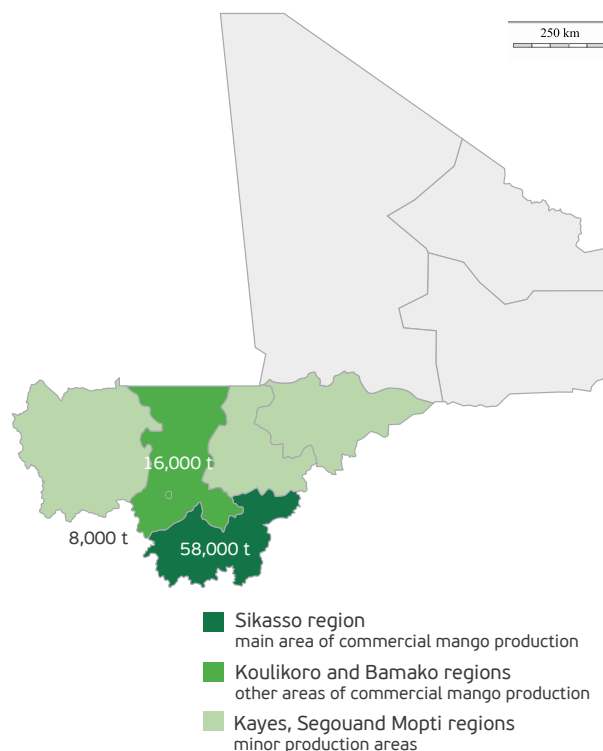
**350,000 t**

Mango production.

26% of mango production is marketed



## 2. MANGO PRODUCTION BY REGION



Source: Consultant based on industry interviews.

Mango is the largest fruit crop in Mali, with approximately 100,000 hectares cultivated by more than 5,000 commercial mango farmers. Producers are mostly **smallholder farmers** with diversified crops, for whom mango represents an essential income source. Only a handful of **commercial and professional orchards** exist, of 20–100 ha, with a high planting density of 400 trees per hectare and drip irrigation in some cases.

### 3. SWOT

Mali's mango sector	
<b>Strengths</b> <ul style="list-style-type: none"> <li>Favourable agroecological conditions</li> <li>Strategically located with (seven) neighbours</li> <li>Member of WAEMU, ECOWAS and the Organization for the Harmonization of Business Law in Africa (OHADA)</li> <li>Growing national market: mango is the main fruit consumed by both urban and rural consumers</li> </ul>	<b>Weaknesses</b> <ul style="list-style-type: none"> <li>Low level of training for nurseries</li> <li>Poor inbound transportation</li> <li>Poor outbound transportation</li> <li>Inadequate and lacking storage infrastructure</li> <li>Lack of adequate and diverse packaging</li> <li>Difficulties accessing affordable and adapted financing</li> </ul>
<b>Opportunities</b> <ul style="list-style-type: none"> <li>Potential intensification of mango orchards within the framework of climate protection funds</li> <li>Potential for product diversification</li> <li>Adoption of renewable energies</li> <li>Taking full advantage of the African Growth and Opportunity Act (AGOA) to penetrate American market</li> <li>Growing local demand for mango juice currently unmet</li> </ul>	<b>Threats</b> <ul style="list-style-type: none"> <li>Ageing and destruction of orchards, and soil erosion</li> <li>Lack of education of farmers</li> <li>Malian mango's quality reputation not good</li> <li>European standards are becoming stricter in terms of food safety</li> <li>Political instability</li> </ul>

### 4. INVESTMENT OPPORTUNITIES

Organic mango production	Organic mango processing	Storage, transportation, logistics and packaging
Organic mango production: mango orchards are ageing, land is accessible and low cost and, in many production areas, use of chemicals is uncommon.	Organic mango processing: the two national processing companies are unable to supply the strong demand and there is room for other investors in this sector.	Storage, transportation, logistics and packaging: most packaging materials are imported and infrastructure for packaging and exportation of fresh mango is still insufficient in comparison with the high production and strong international demand.

### 5. CONTACTS

Interprofession Filière Mangue	National mango association	Moctar Fofana Tel.: +223 66 73 54 12
Agence pour la Promotion des Investissements (API Mali)	Agency supporting investments in Mali	Tel.: +223 20 22 95 25 E-mail: info@apimali.gov.ml Website: https://apimali.gov.ml/

## COUNTRY FOCUS:

# BURKINA FASO



## 1. ECONOMIC INDICATORS

Demographics and territory	
Population	20.3 million
Area	273 600 km <sup>2</sup>
Currency	CFA franc (XOF)
Languages	French (official), Mossi, Mooré, Dioula, Peul, Fulfuldé, Gourmantché

Trade	
Main exported products	Pearls, precious stones and metals; cotton; edible fruits and nuts
Main imported products	Mineral fuels and oils; vehicles; electrical equipment

Economic dynamism	
GDP, nominal	\$15.7 billion
GDP growth (real, 2014–19)	6.2%
FDI, inflows	\$208 million
Gross domestic private investment	\$4.1 billion

Burkina Faso's economy has embarked on a strong growth trajectory. In the five years prior to the COVID-19 pandemic, the growth rate was 6.2% on average, the 4th largest in West Africa and 8th in Africa. Strong growth and a stable macroeconomic environment in the general context of improving institutional quality and security are key contributing factors that make Burkina Faso one of the favourable subregional destinations for investors.

### Outlets of the marketed production 2019

**5-10 t/ha**

Average yield.

**+56%**

Mango exports growth 2019 vs 2015.

**150,000 t**

Mango production.

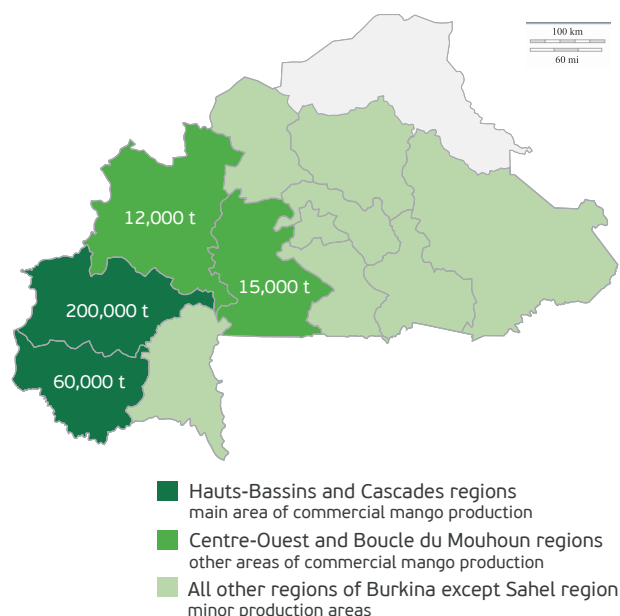
44% of mango production is marketed



Production season (February - August)

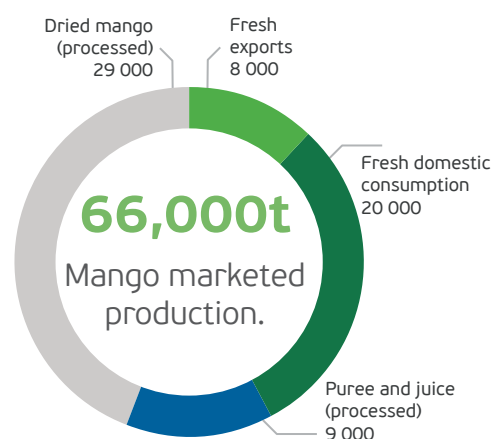
Source: Consultant, based on data from customs and industry.

## 2. MANGO PRODUCTION BY REGION



Source: Consultants, based on industry interviews.

According to Association Interprofessionnelle Mangue du Burkina (APROMAB), the mango sector generates a turnover of more than XOF 15 billion per year. Mango remains **the top fruit** in Burkina Faso and constitutes 56% of national fruit production.<sup>5</sup> Annual mango production relies mostly on **small-scale producers** (15,000–20,000 farmers). A large number of these producers are organized in **cooperatives** or producers' associations



### 3. SWOT

Burkina Faso's mango sector	
<b>Strengths</b> <ul style="list-style-type: none"> <li>▪ Good spread of production</li> <li>▪ Experienced sector in dried products</li> <li>▪ Growing organic market in Europe</li> <li>▪ Presence of service providers in the various fields led by the mango sector's actors</li> </ul>	<b>Weaknesses</b> <ul style="list-style-type: none"> <li>▪ Low access to agricultural inputs and materials</li> <li>▪ Expensive and difficult to find packaging on the market</li> <li>▪ Lack of market knowledge for processed mangoes</li> <li>▪ High cost of export logistics</li> <li>▪ Lack of trust between actors</li> <li>▪ Very weak institutional and management capacity of professional organizations</li> <li>▪ Insufficient financing of the sector</li> </ul>
<b>Opportunities</b> <ul style="list-style-type: none"> <li>▪ Beginning of the structuring of service providers</li> <li>▪ Growing organic market in Europe</li> <li>▪ High potential for organic certification</li> <li>▪ Openness of stakeholders to experiment with new technologies</li> </ul>	<b>Threats</b> <ul style="list-style-type: none"> <li>▪ Pests and diseases (fruit fly and mealybug)</li> <li>▪ Farm gate price fluctuation</li> <li>▪ Strong fresh mango exports competition from other West African countries</li> </ul>

### 4. INVESTMENT OPPORTUNITIES

Innovative production schemes	Valorization of mango by-products and waste	Equipment and maintenance services
In the context of dynamic exports and the processing sector in Burkina Faso, investment in innovative production models with a part of self-production on modern and large orchards and a part of outgrowing with smallholder farmers in a radius of a few tens of kilometres around the plantation can be an excellent investment.	With the strong growth of mango processing in Burkina Faso, the quantity of mango waste has been growing fast. Mango rejections, peels and kernels are almost always evacuated as waste, while they could be used for energy purposes in a landlocked country with a high fuel cost.	Supply of processing equipment and maintenance services for the growing processing sector: while the sector is already wide and quickly growing, most of the processing equipment and maintenance services are imported individually by each processing company. Supplying such equipment locally could be very lucrative.

### 5. CONTACTS

Agence pour la Promotion des Exportations (APEX)	Agency supporting export from Burkina Faso	Tel.: (+226) 25311300/01 E-mail: info@apexb.bf
Association Interprofessionnelle Mangue du Burkina (APROMAB)	National mango association	Tel.: (+226) 20 98 09 89 E-mail: apromaburkina@yahoo.fr



## COUNTRY FOCUS:

# GHANA



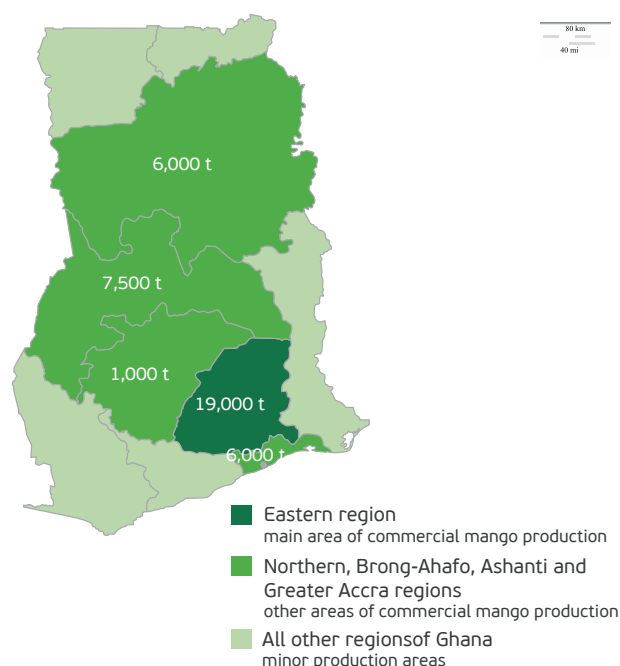
## 1. ECONOMIC INDICATORS

Demographics and territory	
Population	30.4 million
Area	227,540 km <sup>2</sup>
Currency	Ghanaian Cedi GHS
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

## 2. MANGO PRODUCTION BY REGION



Source: Consultant, based on industry interviews.

Ghana is the most competitive economy in West Africa and 8<sup>th</sup> 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

The mango value chain is estimated at **\$28 million**, representing 7% of the total revenue generated from the horticulture industry. Approximately 81,000 ha are under mango cultivation in Ghana. There are approximately 2,000–3,000 mango producers, and **medium-scale farms** (12–40 ha) and **commercial farms** (more than 40 ha) dominate production.

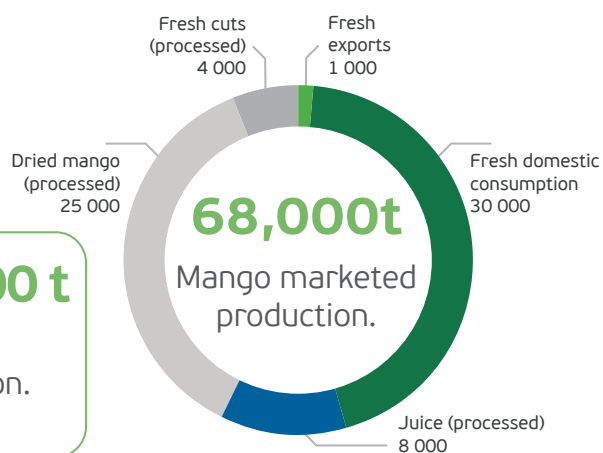
### Outlets of the marketed production 2019

Average yield of commercial mango farms:  
**4 tons/ha to 7 tons/ha**  
(small farms)      (big farms)

**+27%**  
 Mango exports growth 2019 vs 2015.

**99,000 t**  
 Mango production.

69% of mango production is marketed



Source: Consultant, based on industry interviews.



### 3. SWOT

Ghana's mango sector	
<b>Strengths</b> <ul style="list-style-type: none"> <li>Strong producers' associations and associations' organization and the Tree Crops Development Authority (TCDA) that coordinate mango activities both at the national and regional levels</li> <li>Producers have good appreciation of the relevance of good agricultural practices and international certifications</li> <li>Past and ongoing involvement of development partners</li> <li>The southern zone benefits from two harvesting seasons</li> </ul>	<b>Weaknesses</b> <ul style="list-style-type: none"> <li>Poor access to finance for production due to the perceived risks and seasonality of agriculture and agriculture-related businesses</li> <li>Low productivity</li> <li>Poor post-harvest practices in fruit handling and transportation</li> <li>Difficulty of operators to maintain international certifications due to the associated costs</li> <li>High dependency on external support</li> <li>Lack of irrigation</li> </ul>
<b>Opportunities</b> <ul style="list-style-type: none"> <li>The sector has well-established international beverage processing firms</li> <li>EU mango imports are still growing</li> <li>Mango and fruit processors in Ghana are always on the lookout for mangoes for processing purposes</li> <li>Presence of community pack house</li> </ul>	<b>Threats</b> <ul style="list-style-type: none"> <li>High prevalence of the bacterial black spot (BBS) disease</li> <li>Post-harvest loss due to inadequate storage facilities</li> </ul>

### 4. INVESTMENT OPPORTUNITIES

Innovative mango production in association with other fruit crops	Mango and fruit processing	Mango cultivation with drip irrigation
Innovative production, with intercropping systems including several fruits to enable continuous production throughout the year and supply the processing sector with several types of fruits.	Take advantage of the fruit processing sector's fast growth in Ghana by investing in processing of puree, juices, slices or dry mango complemented by same activities with other fruits (among others, pineapple, coconut, guava, papaya, passion fruit and avocado). Ghana provides an attractive agro-industrial ecosystem.	Strong demand for mango from the processing sector and low supply during the off season (particularly February–March and September–October). Thanks to drip irrigation and floral induction, it is possible to produce mango in the counter-season in the central and southern dry belt in Ghana. This production can target national processors, but also fresh export and national fresh markets.

### 5. CONTACTS

Papaya and Mango Producers and Exporters Association of Ghana (PAMPEAG)	National mango association	Bassam Aoun Tel.: +233 (0) 244 375 131 E-mail: bef_farmevelyn1991@yahoo.com
Ghana Export Promotion Authority (GEPA)	Agency supporting exports from Ghana	Tel.: + 233-302740909 E-mail: gepa@gepa.gov.gh





