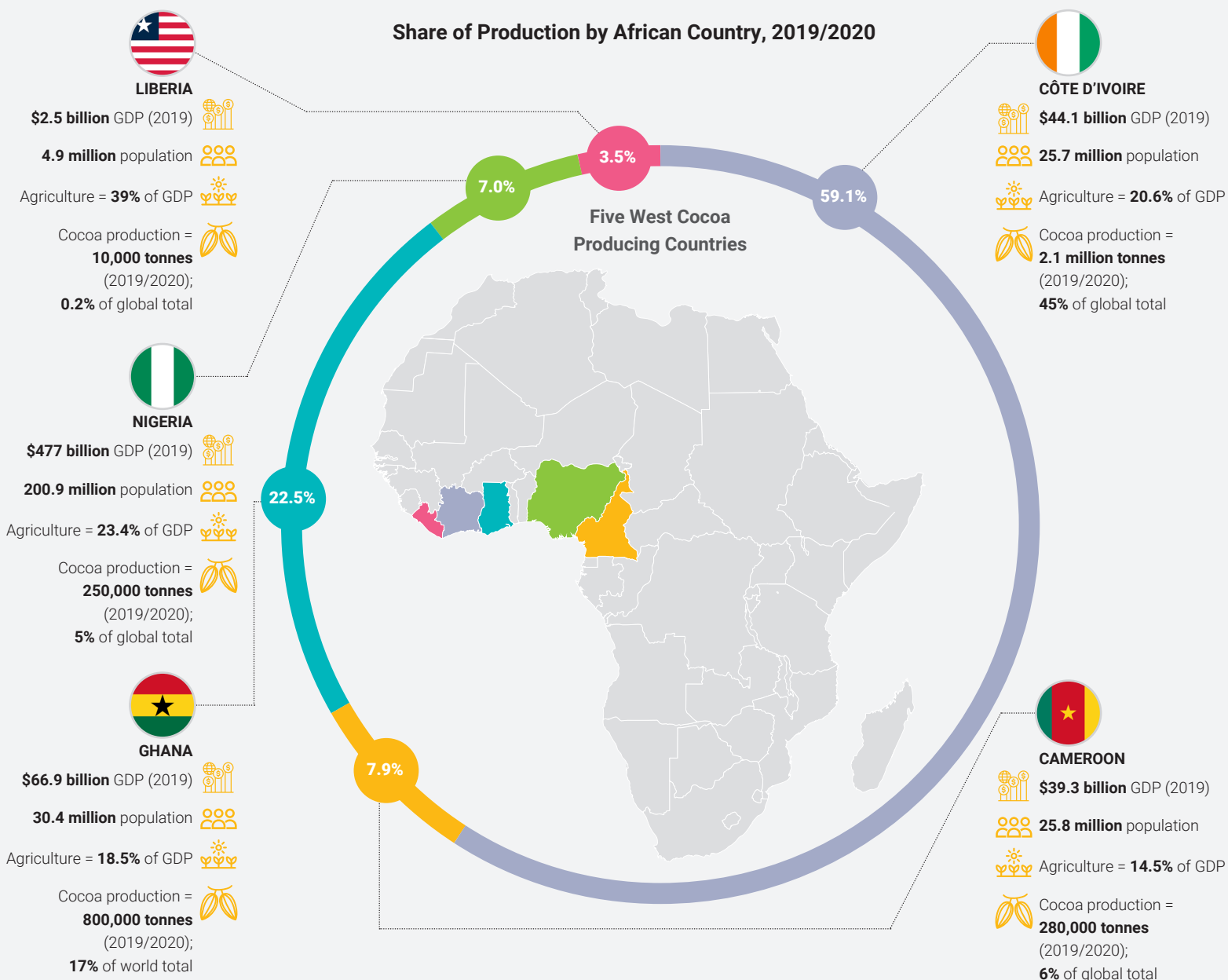


Industry Report: West Africa Cocoa Landscape

Cocoa is a major cash crop in West Africa, generating significant export revenue for producing countries and providing a source of income for about 20 million people. According to the International Cocoa Organisation (ICCO), some three-quarters of the world's cocoa originates from Africa, accounting for 3,556 tonnes of cocoa in the 2019/2020 season out of a global total of 4,697 tonnes. Other producing countries are found in South America and Asia.

Nearly all of the cocoa produced in Africa is concentrated in the Western region, mainly from Côte d'Ivoire and Ghana, the world's top two producers with a combined contribution of 62% of global cocoa output. The region regularly boasts four of the top five cocoa producers, with Cameroon and Nigeria taking the fourth and fifth spots between them, each with between 7% and 8% of global production. Other countries in the region also contribute smaller harvests, including Liberia, which is increasingly looking to cash crops such as cocoa to rebuild its economy.



Regional Cocoa Landscape

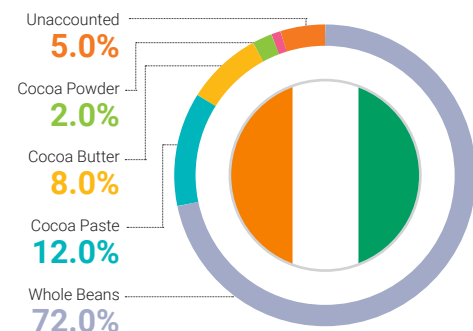
Cocoa-producing West African economies have thriving agricultural sectors which contribute strongly to GDP at rates between 14% and 40% depending on the economy. Agriculture is also a major employer in the region, with the cocoa sector in particular being largely cultivated by smallholder farmers who rely on cocoa as their primary source of income.

The economic contribution of cocoa is especially significant to the economies of Côte d'Ivoire and Ghana, both at the macro level and in terms of personal incomes for what are otherwise marginalised groups. In Ghana, the sector employs about 800,000 farm families and generates \$2 billion annually through foreign exchange earnings on the back of exports. In Côte d'Ivoire, cocoa is the largest export crop and accounts for 39% of exports in 2019, earning around \$5 billion annually and employing about 600,000 farmers along with another 6 million people across the full value chain.

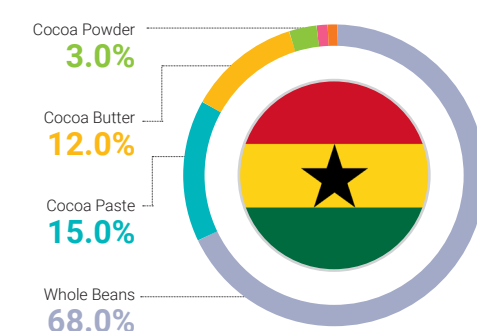
However, because cocoa produced in West Africa is largely sold as a raw commodity, producing countries retain only a small proportion of the global cocoa market's value, which stood at \$45 billion in 2019 and expected to reach \$61 billion by 2027. Côte d'Ivoire exports 72% of cocoa as whole beans, according to Customs figures, while in Ghana the figure is 68%. Processing is largely concentrated in goods at the lower end of the value chain, with chocolate and chocolate-flavoured foodstuffs largely serving the local or regional market.

In both Côte d'Ivoire and Ghana cocoa trade is highly concentrated among a small number of players, predominately global majors. The same is true of local processing capacity, though domestic players are working to carve out a niche for themselves. Farmgate prices are set centrally, with the two governments increasingly working together to exert influence over global commodity prices, including introducing a living income differential (LID) in late 2019 to support farmers' incomes. The implementation of the new pricing structure in the 2020/21 season led to a rise in farmers' earnings by 28%.

CÔTE D'IVOIRE



GHANA



Source: Country Customs

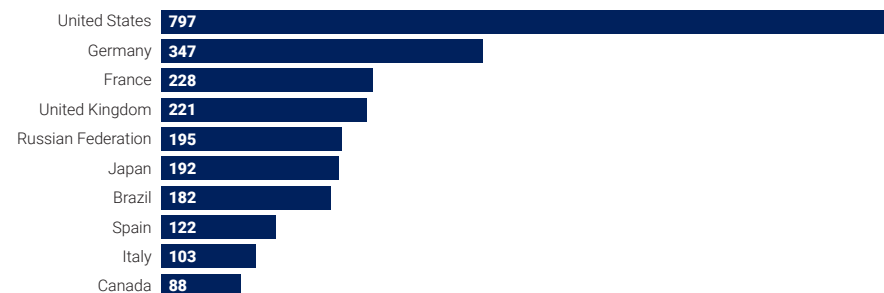
Value-adding activities such as grinding and processing mainly occurs in Europe, which accounts for about 77% of cocoa grinding. The major cocoa-grinding countries are the Netherlands and Germany which jointly account for 62.5% of European capacity. Consumption is likewise concentrated outside of Africa, with Europe and the Americas accounting for 77% of consumption at 45% and 32%, respectively.

Global Cocoa Production & Processing by Region, 2019/20 (000 tonnes)



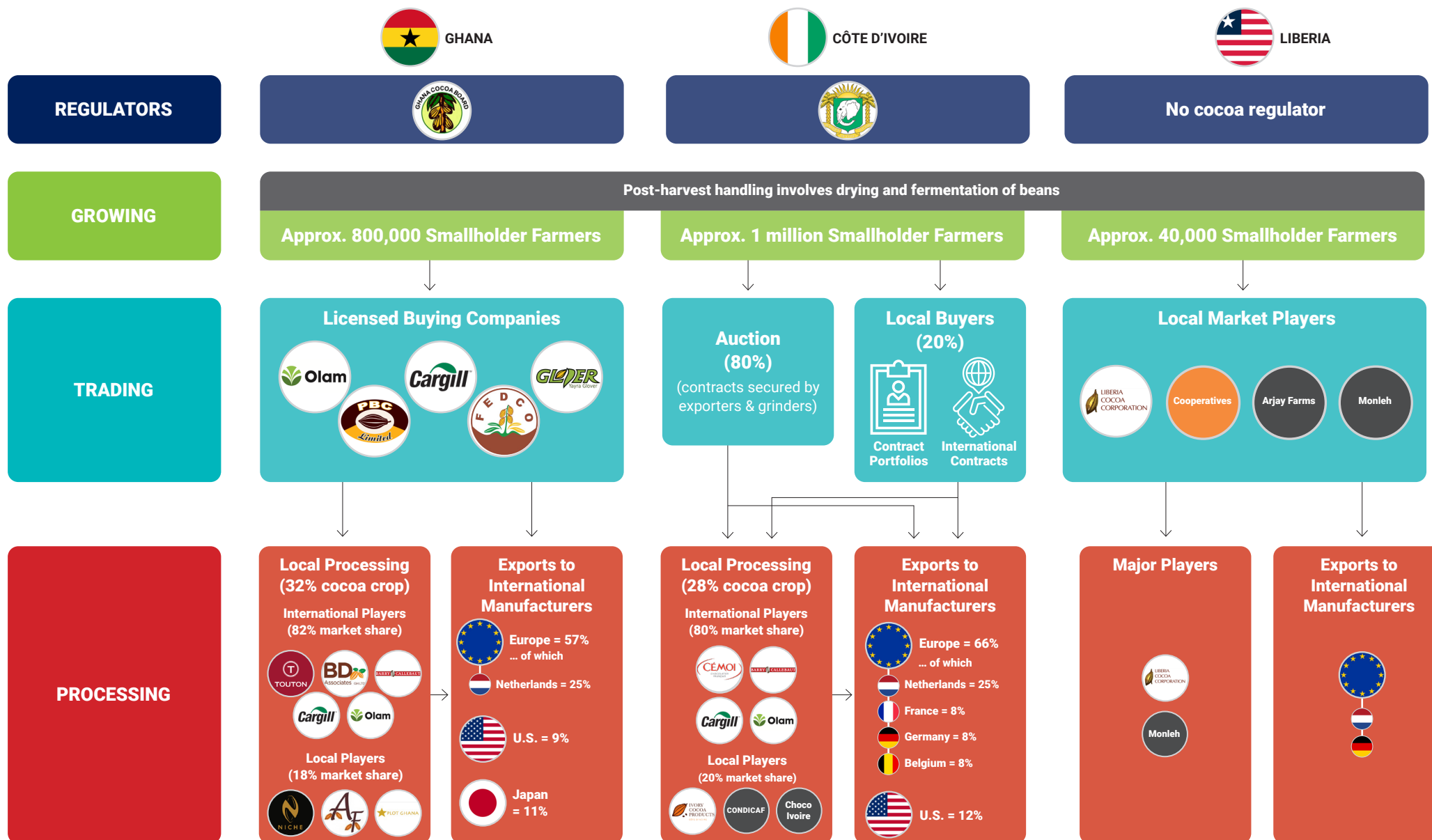
Source: ICCO

Top 10 consuming countries, 2019 (000 tonnes)



Source: ICCO

Regional Cocoa Value Chain



Moving Up the Value Chain

The global chocolate market is growing at an expected compound annual growth rate of 4% between 2021 and 2026, when it will be valued at \$176 billion. The strong market potential is driven by the rising popularity of organic and specialty chocolates, including single-origin, which have especially gained appeal in the top-consuming markets of Europe and North America. This has helped to make chocolate one of the most profitable segments of the confectionary industry.

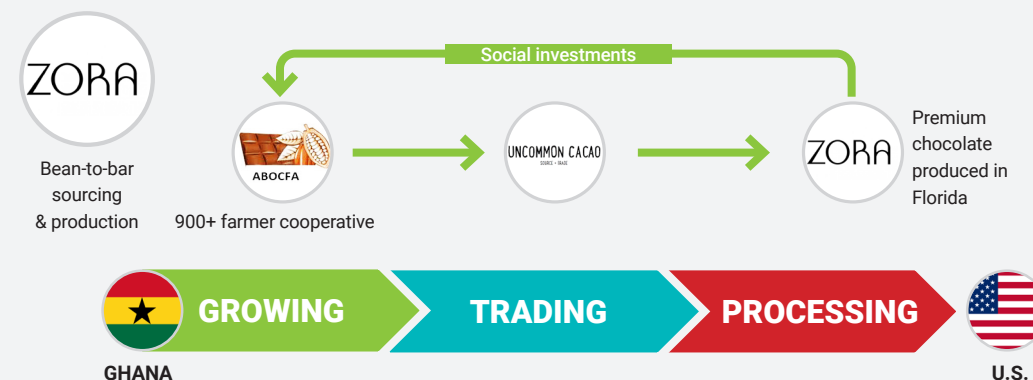
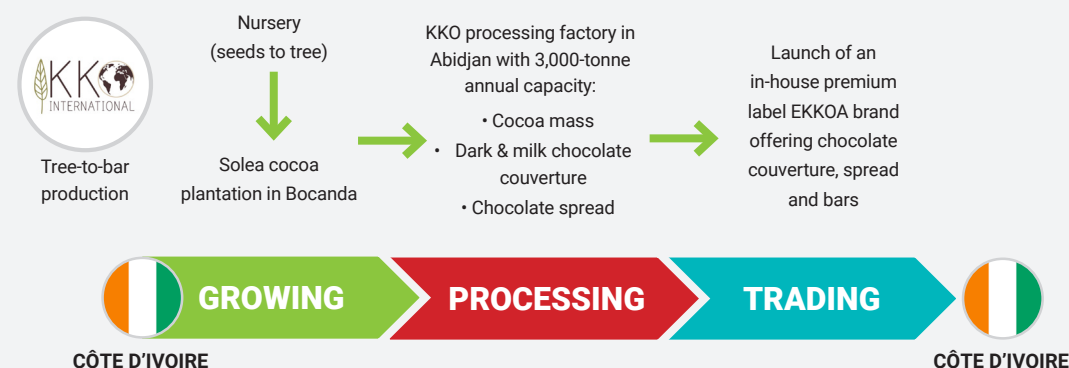
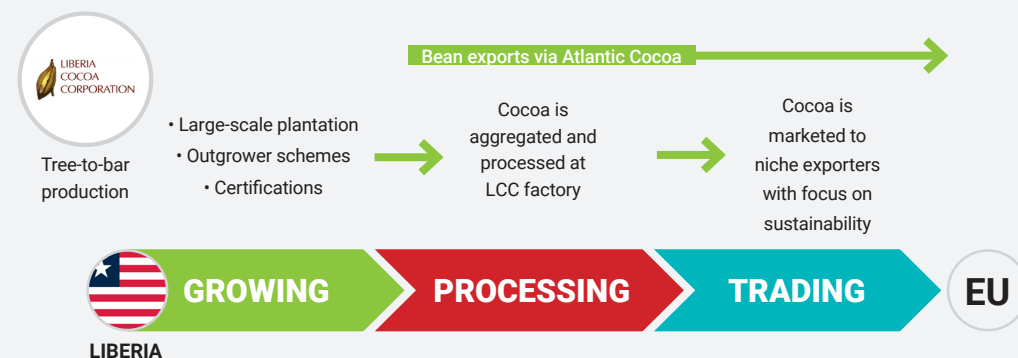
The shift to high-quality, ethically sourced chocolates in Europe and America has driven development of certification programmes based on farming methods and value chain sustainability. Market research reports that the organic chocolate market could grow at a rate of nearly 3% between 2020 and 2024 to reach \$127 million, with North America and Europe representing the top two markets.

The World Cocoa Foundation estimates that around 22% of cocoa traded worldwide is now certified by one or more standards, with organic and Fairtrade being a particularly sought after combination. Production of cocoa beans that were certified by both these standards rose by 39% globally between 2014 and 2018 to reach close to 34,000 tonnes, according to fairtrade.

This shift in consumer preferences is good news for West African farmers as both Fairtrade and organic beans fetch higher prices than conventional cocoa and bring other benefits such as reinvestment of profits in the local community and environmental protections. Additionally, although multinational chocolate producers have all developed sustainability schemes to tap into this growing market, there is also a significant market niche for small-scale producers whose beans tell a compelling story to a growing class of conscientious consumers.

The next step along this sustainable supply chain is bean-to-bar, or even tree-to-bar, a market that was worth \$11 billion in 2019 and expected to more than double in value by 2027. Often made in small batches, bean-to-bar denotes a production process that is overseen by the maker from beginning to end.

In West Africa, makers are moving into this space to retain more value from their cocoa at the farmer level. USAID, through the West Africa Trade & Investment Hub, is supporting three such businesses: SOLEA in Côte d'Ivoire, Zora Chocolates in Ghana and Liberia Cocoa Corporation.



Challenges & Opportunities



Challenges:

- **Income inequality:** Smallholder farmers in West Africa still live in poverty despite their contribution to the sector, with countries like Ghana having an income gap of about 50% of the income benchmark value. Most of the smallholder farmers operate on farms less than five hectares, with an average yield of 400 kg per hectare, according to the Swiss Platform for Sustainable Cocoa.
- **Child labor:** Use of child labor is common in many of the cocoa-producing West African countries. Families that produce cocoa often rely on child work due to high labor costs involved. A 2021 report by research organization NORC at the University of Chicago shows that there are about 1.6 million children laboring in the Ghana and Côte d'Ivoire cocoa industry, including hazardous tasks such as carrying heavy loads, climbing cocoa trees for harvesting, and using sharp tools to open cocoa pods.
- **Deforestation:** All cocoa-producing countries in West Africa are threatened by poor farm management, old plantations, soil degradation, and pressure from pests and diseases. In the absence of other options to increase efficiency, cocoa producers

often clear forest land to increase production. According to the Food and Agriculture Organization (FAO), West Africa is experiencing severe deforestation with yearly deforestation estimated at about 1.2 million ha per year, and environmental groups have reported that Côte d'Ivoire lost about 47,000 hectares of forest to cocoa production in 2020.

- **Climate change:** Cocoa production is affected by extreme weather conditions which are becoming more frequent and make certain regions less suitable for growing the crop. Cocoa yield and quality continue to be affected by long dry seasons, less rainfall, and the appearance of new pests and diseases. International non-governmental organizations like Rainforest Alliance are working with smallholder cocoa farmers dealing droughts, floods, and soaring temperatures.
- **Inadequate infrastructure & low access to finance:** Most farmers and local sector players lack access to financial resources, affecting their ability to purchase inputs to enhance production or to re-invest in their farm. Poor road infrastructure also increases the cost of moving harvested products and reduces revenues of the producers.

Opportunities:

- Development of large-scale plantations to reduce deforestation by diverting cocoa trees from forest land to farmland.
- Building partnerships/collaborations among cocoa players at a domestic or regional level to boost the industry. International organizations have a role to play in a more joined up market ecosystem, working in partnership with cooperatives to train farmers on modern farming techniques and inputs to increase their yield, improve sustainability and provide access to more markets.
- Increasing the market presence of local firms across the value chain to retain more value addition within the local economy. Currently, most of the cocoa produced in West African countries is exported in its raw form with only a small percentage being processed locally (29% in Côte d'Ivoire and 38% in Ghana).
- Attracting investments from existing international market participants and new players to help meet rising demand and bring new innovations to the industry.
- Tapping into growing consumer concerns about traceability and sustainability of cocoa via engaging with fairtrade and organic certifications.

Investment track record & co-investment opportunity



Investment in Ghana's Cocoa Sector

YEAR	SOURCE	AMOUNT	PURPOSE
2018	NETHERLANDS FMO	\$10 million	Loan to Niche Cocoa for a cocoa liquor processing facility
2019	U.S. Cargill	\$13 million \$3.4 million	Increase production capacity by 20% Support for sustainability programs
2019	GHANA AFC	\$30 million	15,000-tonne cocoa processing plant
2019	CHINA CA, GHANA COCOA BOARD	\$100 million	Public-Private Partnership 50,000-tonne cocoa processing plant in Sefwi Wiawso
2019	NETHERLANDS FMO	\$8.7 million	Debt financing to Niche Confectionary to add new lines of chocolate products

ZORA

What is Zora?

Zora is a profit-for-purpose company with a social impact embedded into the business model. Our goal is to create a unique brand of chocolate that celebrates and recognizes West African farmers. With Zora's launch, we are championing a radical change in the way the world sees West African cocoa, making it synonymous with equity, inclusivity and meaningful connection.

Why Ghana?

After working for a non-profit organization focused on research and education in the sector and a cocoa-producing company in the Dominican Republic, I noticed a disconnect in that about 70% of cocoa is sourced from West Africa, but no companies from the region play in the wider industry in terms of finished products or even through participation in conferences and panels that discussed the industry and its growth potential. Ghana is the world's second-largest supplier of cocoa and is a well structured market; its beans considered to be of high quality due to COCOBOD's strict



Fatima Zohra Hakam

Founder of Zora Chocolates, on the company's guiding principles

quality standards which are respected by producers. COCOBOD is also working on creating a system where cocoa is traceable and buyers can trace the source of cocoa. There have also been more discussions on value addition within the country, which shows some level of progress and aligns with Zora's vision.

How do your operations create impact?

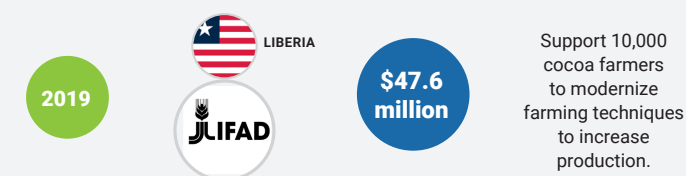
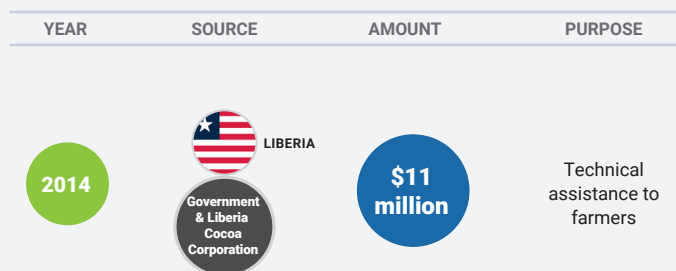
Zora works with a cooperative, ABOCFA farm, to source its cocoa and uses a female-operated importer to get the cocoa from Ghana to the U.S. where it will be processed into chocolate bars by our partner chocolate maker. The vision is to have a factory in Africa one day, because the goal is to create higher value added for cocoa farmers in source countries.

As the founder, I am concerned with how inequities between men and women can impact a woman's life, so we have chosen to support girls' education by sending one girl to school for one day with every bar of Zora chocolate purchased. To achieve this, Zora has partnered with a girls school in Ghana run by a non-profit called Cocoa360, and we plan to extend this service to other communities as the company grows.

Investment track record & co-investment opportunity



Investment in Liberia's Cocoa Sector



What is Liberia Cocoa Corporation?

Liberia Cocoa Corporation is essentially a tree-to-bar cocoa company and will operate from farm to factory. We are taking three approaches: first, development of a large-scale plantation in the northeast corner of the country; second, the creation of a smallholder outgrower scheme to build a wider base of knowledgeable producers with access to inputs; and third, create value addition through farmers by encouraging organic and fairtrade certifications to make cocoa sourced from the country more desirable.

Why Liberia?

I formerly worked at UNDP, where we were focused mainly on the agricultural sector with a goal of developing and improving people's livelihoods. This influenced the creation of Liberia Cocoa Corporation in 2009 based on research of profitable agricultural crops with short gestation periods. We chose Liberia based on its proximity to the two biggest producers and the fact that Liberia had a history of cocoa production pre-civil war. Liberia can't



Lu Tolbert

Founder & CEO of Liberia Cocoa Corporation, on finding a niche for the country's cocoa

compete with Ghana and Côte d'Ivoire on volumes so we are looking to meet a niche market segment based on organic and fairtrade certification. Our goals is to aggregate organic cocoa and export to select buyers with a focus on sustainability and traceability.









How will you use growth financing to increase your impact?

The financing we are seeking in WATIH will be used for operating capital, as we have already purchased most of the machinery and equipment we need and the processing space has been leased. Once we get the financing, we will be able to increase employment opportunities and support the livelihoods of a large number of farm families. So far, Liberia Cocoa Corporation has trained about 656 farmers in the northeastern area of Liberia, and we are targeting 3,500 farmers. With an average household size of 5.5 people, we expect to reach about 17,500 people as the business grows. As well as raising incomes, our skills training will build the capacity of farmers in use of equipment, tasting, roasting, drying, and fermentation, to help them add value to their beans.

Investment track record & co-investment opportunity



Investment in Côte d'Ivoire's Cocoa Sector

YEAR	SOURCE	AMOUNT	PURPOSE
2018	 CÔTE D'IVOIRE 	undisclosed	32,000-tonne cocoa processing plant in Tiassalé, and double capacity by 2021
2018	 CÔTE D'IVOIRE 	\$165 million over 5 years	48,000-tonne processing plant in San-Pedro; 48,000-tonne processing plant in Kribi, Cameroon and cocoa plantation in Bafia
2019	 SWITZERLAND 	\$60.9 million over 5 years	Expand capacity by 40% by 2022 via a new processing unit at its Abidjan plant
2019	 U.S. 	\$100 million \$7.7 million	Increase capacity of Yopougon plant by 50% Improve sustainability of supply chains



What is SOLEA?

SOLEA runs one of the world's largest, privately held cocoa farms in Côte d'Ivoire, with fully irrigated cocoa trees originating from in-house clonal gardens producing a steady supply of sustainable, high-quality beans. Our business model is about end-to-end traceability. We are launching an in-house premium chocolate label called EKKOA, offering couverture, spread and bars. By processing SOLEA's beans, we will be able to ensure total transparency of our production chain, guaranteeing products that are responsible and ethical.

This unique business model is rare within the sector (we estimate fewer than 4-5 companies worldwide). The aim is to address sector ills in West Africa (child labour, deforestation, low income, poor quality, low productivity) whilst proposing a premium chocolate product to consumers.

Why Côte d'Ivoire?

The cocoa sector remains riddled with poverty that is a direct result of low farm-gate prices imposed by the government for beans irrespective of the quality. Having analyzed this scenario, we concluded that the only way to improve profitability and procure a just price for a quality produce would be to move up the



Remy Allemame

CEO/Founder, SOLEA, on building a transparent value chain

supply chain and become producers of finished and semi-finished goods. We expect to multiply our revenues by 5-6 times thanks to the Tree-To-Bar approach and production site in Abidjan. The Tree-To-Bar approach also resolves another disconnect in sector: Côte d'Ivoire is the world's largest cocoa producer, but despite mass producing the beans, chocolate products are largely imported. Our objective is to supplant some imported products with traceable, local, ethical and Ivorian products.

How do your operations make an impact?

With explicit attention to gender parity, elimination of child labour, large-scale reforestation, and investment in rural infrastructure (healthcare, schools, roads, drinking water), SOLEA is a bellwether in West Africa.

Our business model ploughs resources directly back to the people we work with. The wider community becomes a landowner thanks to land title procured by SOLEA, and earns a 5% share of gross profits, a portion of which is set aside to fund community projects. Additionally, our employees benefit from salaries that are 30-35% higher than minimum wages for the agricultural sector. Furthermore, the establishment of our 3,000-tonne capacity factory will allow for the training and the establishment of personnel in an underdeveloped sector.