

Bringing Chocolate Home: Driving Local Economic Value Creation in the Global Chocolate Industry



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Executive Summary

Founded in 2011 by former Wall Street banker Poku. Niche Cocoa Industry Ltd. manufactures high quality, semi-finished cocoa products for export, including cocoa liquor, cocoa butter, cocoa cake and cocoa powder. The company is the leading privately operated cocoa processing company in Ghana, with Niche Cocoa processing around 10% of Ghana's cocoa. Niche Cocoa was awarded the Ghanaian President's National Awards for Export Achievement as Exporter of The Year in 2015, and in 2017, Niche Cocoa began producing chocolate for the local and international market. Niche Cocoa produces its cocoa products and confectionery for supply to the worldwide chocolate, ice cream and bakery industries. Semi-finished products include natural and deodorised cocoa butter, specialised cocoa liquor, and natural and alkalised cocoa powder. In confectioneries, Niche Cocoa is a bean-to-bar producer of refined chocolate, chocolate drinks and spreads. With an installed capacity of 60,000 metric tons per year, Niche Cocoa is the largest fully integrated cocoa processor in Ghana, with quality control and strict adherence to HACCP and FSSC22000 quality management system standards1. To tailor its products to the needs of customers around the world, Niche Cocoa offers cocoa products which are Halal, Kosher, Fair Trade, Organic, FDA, Ghana Standards Authority (GSA) and UTZ certified.

Ghana's economy is largely based on two export goods: gold and cocoa. Cocoa is the chief agricultural export of Ghana and Ghana's main cash crop, and after the Ivory Coast, Ghana is the world's second biggest cocoa producer with the world's highest-quality bulk cocoa beans exported from the country. Currently, annual per capita chocolate consumption in Ghana is only 0.5 kilograms, while abroad it is closer to 10. Meanwhile, around 70% of the chocolate in Ghana comes from abroad and only 30% is produced at home. A disconnect remains between Ghana's hold on the cocoa market abroad and cocoa consumed within the country – this is where Niche Cocoa and founder Edmund Poku comes in.

The cocoa market is incontrovertibly dominated by West African countries, owing to the favourable weather conditions these regions boast. Between 2017 and 2020, the global supply grew by nearly 5%, with Ivory Coast accounting for nearly 40% of the total global production. Combined, Ivory Coast, Ghana, Nigeria and Indonesia account for almost three-fourths of the total global output of cocoa, with Ivory Coast, Ghana and Cameroon the major exporters in the market. The rapidly growing demand for organic and sustainable chocolate, along with a higher nutritional content, is expected to further drive the cocoa market's growth. In addition, a rising demand for cocoa derivatives is a major factor in the industry's upward trajectory. Niche Cocoa aims to become the leading cocoa processing company in Ghana, prioritising and centring the cocoa farmer and their prosperity. Niche Cocoa further seeks to make Niche Cocoa Industry a leading multinational food player by 2025.



Chapter 1 – The Global Chocolate Industry at a Glance – A Booming Market

Today a staple of many cultures and cuisines, cocoa first originated in the Amazon. Its cultivation then spread throughout Central and Eastern Amazonian regions, and then north to Central America. In the 16th century, the Spanish began growing cocoa on a large scale, which was subsequently carried over to the British, French and Dutch West Indies (i.e., Jamaica, Martinique and Surinam) in the 17th century and then to Brazil in the 18th. After reaching Brazil, cocoa was transported to São Tome and Fernando Pó (today part of Equatorial Guinea) and then to other parts of West Africa, including the Gold Coast (now Ghana), Nigeria and the Ivory Coast. In acknowledgement of the significant contribution, cocoa had brought to the economic development of Ghana, in 1947 the government established the Ghana Cocoa Board (COCOBOD) as the main responsible for government agency development of the industry. Currently, there are seven cocoa-growing regions namely Ashanti, Brong Ahafo, Eastern, Volta, Central and Western North and Western South regions. The market is divided based on types into cocoa butter, powder, and liquor. In terms of applications, the industry is segmented into cosmetics, pharmaceuticals, food and beverages, and confectionery.

The cocoa industry has long been the mainstay of the Ghanaian economy, providing the second-largest source of export earnings and representing about 30% of Ghana's total export earnings. Ghana is presently the world's second-largest producer of cocoa beans, after the Ivory Coast. According to the Bank of Ghana, cocoa bean and products export receipts for the first quarter of 2011 are \$859.4

million, accounting for about 61% of total export earnings as compared with \$682.5 million at 48.8% in 20101. Over 520,000 metric tons of cocoa beans were exported from Ghana in 2020, while in the preceding year, exports of this farm product reached approximately 644,000 metric tons. Moreover, from 2010 to 2020, cocoa bean exports peaked, with more than 843,000 metric tons¹. Today, Ghana is a leading producer and exporter of cocoa worldwide.

There are four identifiable phases of cocoa production in Ghana: introduction and (exponential) growth (1888-1937); stagnation followed by a growth spurt after the country's independence (1938–64); near collapse (1965–82); and finally, recovery and expansion, beginning with the introduction of the Economic Recovery Program (ERP) (1983 to present). As one of Ghana's main exports, cocoa has featured prominently in the country's discussions on development, reforms, and poverty alleviation strategies since independence in 1957. After becoming one of the world's leading producers of cocoa, Ghana experienced a drop in production in the 1960s and 1970s, with the sector almost deflating completely at the beginning of the 1980s. Production recovered somewhat in the mid-1980s after the introduction of economy-wide reforms, and the 1990s marked the beginning of a revival, with production nearly doubling between 2001 and 2003.

The speciality cocoa market takes up less than 10% of the overall market, offering higher prices for cocoa exporters handling lower volumes of higher quality cocoa beans. Speciality cocoa refers to cocoa with

¹ https://www.statista.com/statistics/1304247/annual-cocoa-beans-export-volume-from-ghana/

different characteristics – in general, speciality cocoa is recognised as such if it includes aspects of good traceability, good genetics, unique origins, good harvest and post-harvest techniques, higher quality and certification. Within speciality cocoa, a special category exists for cocoa beans that have specific flavour attributes, namely: fine flavour cocoa. The world's average chocolate consumption amounts to an estimated 0.9 kilogrammes per capita per year, with European countries showing significantly higher averages. The largest chocolate consumers in the world are the Germans, followed by the Swiss, and Estonians. The average per capita chocolate consumption in Europe is estimated at 5.0 kilogrammes².

Ghana's favourable weather conditions are the primary driving factor for the country's cocoa market growth and success. In addition, the use of a handpollination method in Ghana has led to increased production. With spiking cases of heart disease, blood pressure, diabetes, and cancer, there has been a sharp increase in the intake of natural food products that are effective in preventing or alleviating these conditions. Cocoa is rich in antioxidants and dark chocolate contains minimal or no sugar, making it a beneficial dietary addition. With the growing demand for 'clean' label foods, the cocoa industry has seen a shift to more salutary ingredients and substitutions, such as using baking soda instead of alkalizing agents, making the brand suitable to be marked as clean. This is partially responsible for driving the growth of the overall cocoa market.

The COVID-19 pandemic created massive disruptions to the cocoa value chain and global sales volumes, with sales of specialty chocolates suffering the most during the COVID-19 pandemic as they were halted for months in Europe due to the closing of specialized stores and other sales channels. Although the pandemic brought a focus on sales of commercial chocolate qualities via supermarkets, European consumers are still increasingly seeking higher quality and higher cocoa content in their chocolate. As such, the long-term market prospects in Europe

still offer good opportunities for exporters in producing countries; Europe remains the world's largest chocolate manufacturer and export market. At present, Niche has a credit line of \$100Million from four financial institutions for cocoa beans purchase. Niche is advancing Ghana's economic development in the following important ways: Providing reliable source of foreign exchange for Ghana; Creating hundreds of stable, high quality employment opportunities; and increasing the level of manufacturing know-how and technical expertise in Ghana.

The COVID-19 crisis posed a serious threat to the cocoa sector. Ongoing market uncertainty has the potential to affect farmers' decision to create, renew, or maintain their cocoa plantations which might lead to a reduction in yield levels, that would in turn affect processing and chocolate companies in the long run. The income levels of cocoa farmers and cocoa workers worldwide would be affected by an exodus of farmers from the industry. In Ghana, the pandemic affected many cocoa export destinations. Due to the strict health and social measures taken by governments and, in some cases, the closure of ports of entry, the supply chain was disrupted, and the volume and value of exports reduced. Although the internal marketing of cocoa for the 2019-2020 crop year began in October 2019 and ended in February 2020 before COVID-19 became an issue in Ghana, there was an impact on exports.

The government of Ghana consequently set up a CAP fund of \$219 million to mitigate the impact of COVID-19 on businesses and households. Farmers are expected to continue receiving the guaranteed price for cocoa, which has stood 8.24 GHC per kilo since 2019. This figure came about after a raise of some 7.8%³.

2021/02/25/covid-19-effects-on-cocoa-sectors-in-ghana-and-cote-d%E2%80%99ivoire

² https://www.cbi.eu/market-information/cocoa-cocoa-products/speciality-cocoa/market-potential

https://www.agroberichtenbuitenland.nl/actueel/nieuws/

Asian markets are expected to show a fast-growing trend in chocolate consumption; the increased demand from consumer markets, like China, India, the United States, and Europe, are also driving the industry further. Chocolate production continues to be the main demand driver with demand for cocoa butter expected to rise, particularly in markets such as the United States and Europe, due to high consumer preferences. The primary driver for the rise in the grinding volume was the rising demand for cocoa powder from developing economies, like the Asia Pacific and Latin America.



Chapter 2 – Shifting Value Chain Dynamics for Cocoa – The Ghanaian opportunity

History of Cocoa in Ghana

According to urban legend, cocoa cultivation in Ghana was started by a blacksmith called Tetteh Quarshie, who returned to his farm in 1895 in the Eastern Region of Ghana with cocoa beans from the island of Fernando Po (now Bioko). Cocoa was first exported toward the end of the 19th century, with Ghana becoming the world's leading producer between 1911 and 1976. Due to the importance of cocoa in Ghana, in terms of both its effect on the lives of farmers as well as the effect on the Ghanaian economy, the government took control of the industry in the 1930s. In 1937, farmers in Gold Coast refused to continue selling cocoa at the disproportionately low prices set by European merchants and decided to withhold cocoa from the market. The strike continued for eight months, until the British government responded by setting up the Nowell Commission of Enquiry to investigate. The Nowell Commission report recommended that the government assist cocoa farmers by establishing a Marketing Board. Subsequently, the government created a buying monopoly over all the cocoa produced in Ghana. This body was initially under colonial control, and then the independent government, intended to protect farmers from price fluctuations. Although this monopoly failed to create stronger protections for farmers, they were able to acquire help from other bodies created by the government including COCOBOD, research institutes, and a quality control division.

In the 1970s, the world market price for cocoa plummeted two thirds, with Ghanaian farmers

receiving less than 40% of the world market price from COCOBOD. The situation was further exacerbated by droughts and bush fires at the beginning of the 1980s, with Ghana's production subsequently falling from a third of the world's value in 1972 to a slim 12% of the total world production. The World Bank and International Monetary Fund introduced a Structural Adjustment Programme to help stabilize the economy. The programme had a decidedly negative effect on the lives of farmers with living and farming costs rising, although the programme did partially reform the internal cocoa market. This liberalisation process included providing private companies with licenses that allowed them to trade cocoa.

Today, Ghana is the second most important cocoa producer in the world. Together with Côte d'Ivoire, in 2016 the country produced around 52% of the world's total. About 700,000 small-scale farms supply three quarters of the total cocoa produced in Ghana⁴. Currently, cocoa production takes place in seven regions: Ashanti, Brong Ahafo, Eastern, Volta, Central and Western North and Western South regions⁵.

The role of cocoa production is essential in Ghana: it is the first agricultural exports commodity, an important cash crop, a source of foreign exchange, and tax revenues. Cocoa production has risen steadily, more than doubling in the last twenty years from 403,000 tons in 1996 to 858,720 in 2016⁶. COCOBOD, the government-owned cocoa marketing

⁴ Vellema et. Al, 2016

⁵ Cocobod, 2018

⁶ FAOStat, 2018

board, and its supporting measures to production are considered the main factors of this positive trend. Despite the recent increasing trend, cocoa yields are still well below the potential, with Ghana and Côte d'Ivoire experiencing similar limitations to their production capacity. The average cocoa farm is small, 2 ha or less, while most farmers are aging (>50 years old), as well as their cocoa trees.

The primary factors that have contributed to the increase in Ghana's cocoa production are the support measures taken by (the government-owned cocoa marketing board) COCOBOD. These measures have included increases in farm gate prices, the introduction of free pest and disease control programmes, the introduction of packages of hybrid seeds, fertilizers, insecticides and fungicides, improved marketing facilities and the repair of roads in cocoa-growing areas. An important factor is also the expansion of the cocoa growing area, especially in the Western Region.

Ghana Socio-Economic Context

Ghana sits on the Atlantic Ocean and borders Togo, Cote d'Ivoire, and Burkina Faso. It has a population of about 31 million people and a GDP (Gross Domestic Product) per capita of 2,328USD, making it one of Africa's leading economies. In the past two decades, Ghana has taken major strides towards democracy under a multi-party system, with its independent judiciary gradually winning public trust. Ghana consistently ranks in the top three African countries for freedom of speech and press, and the country's economy has grown steadily since 1984, at a rate widely considered to be among the most impressive in Africa. The growth rate averaged 4.7% between 1983 and 2000, and 7.2% from 2000 until 2013, reaching an all-time high of 14.4% in 2011 with the start of oil production. Because of steady growth and the rebasing of the economy, Ghana became a lower- middle income country, as per capita GDP increased from US\$501.9 in 2005 to US\$1,604.9 in 2012⁷. Over the past quarter of a century, the number of people in poverty has dropped significantly, from 52% in 1992 to 24% in 20138. There have also been notable improvements in education, health and other indicators. Ghana's

rapid growth was stymied by the COVID-19 pandemic, the 2020 lockdown, and a sharp decline in commodity exports with an overall GDP as low as 0.4%. The economic slowdown had a considerable impact on households, with the poverty rate estimated to have slightly increased from 25% in 2019 to 25.5% in 2020.

Ghana's economy has effectively rebounded from the COVID-19 induced slowdown. The economy is projected to recover gradually over the medium term to average 5.1% yearly in 2021-23, due to commodity price growth and strong domestic demand⁹.

Profile of Cocoa industry in Ghana

The Ghana Cocoa Board (COCOBOD) is a Ghanaian government-controlled institution that fixes the buying price for cocoa in Ghana. Through it, farmers are meant to receive protection from volatile prices on the world market through price-fixing. In the early 1990s, COCOBOD liberalized and privatized cocoa marketing, raising prices for producers and introducing a new system to provide incentives for private traders. COCOBOD also agreed to pay traders a minimum producer price as well as an additional fee to cover buyers' operating and transportation costs and to provide profit. COCOBOD also continued to handle overseas shipment and the export of cocoa to maintain quality control. As well as putting in place marketing reforms, the Ghanaian government also sought to restructure cocoa production. In 1983, farmers were provided with seedlings to replace trees lost in the drought and trees more than 30 years old (about a fourth of the total trees in 1984). Until the early 1990s, an estimated 40 hectares were added to the total area of 800,000 hectares under cocoa production each year. The government also attempted to increase Ghana's productivity from 300 kilograms per hectare to compete with Southeast Asian productivity. Renewed emphasis was placed on extension services, drought and disease research, and the use of fertilisers and insecticides.

Yield growth beginning in the early 2000s was mainly a result of a series of COCOBOD's measures including the "Cocoa High-Tech" program, launched in

⁷ socialwatch.org

⁸ worldbank.org

⁹ worldbank.org

2002/2003, which was accompanied by the provision of fertilizers to cocoa producers to increase outputs and the National Cocoa Rehabilitation Programme. The latter Programme has the major objective of improving the productivity and supporting the sustainability of cocoa plantations nationwide in the short and medium term, through rehabilitation and the replacement of old plantations with improved hybrid varieties. Seedling production has been significantly extended, with 50 million hybrid cocoa seedlings provided for free to farmers in 2015, and 60 million in 2016. This positive trend is hoped to result in a new level shift upwards; IPRs should be subsequently adjusted as experts estimate potential yields equal to about double of the current yield.

Ghana's cocoa beans are mainly exported for processing into cocoa butter, liquor, and powder for chocolate confectionery, and then used in cosmetics and beauty products. Representing a global value chain, cocoa has become the country's most

important agricultural export commodity and a vital contributor to Ghana's development. The livelihoods of a third of the population depend upon the cocoa sector, directly or indirectly. In contrast to other cocoa-producing countries, however, Ghana has only partially liberalized its cocoa market; COCOBOD continues to function as a major actor, setting prices and minimum standards, and licensing buying companies. It has five subsidiary departments to promote the production, processing, and marketing of cocoa.

The demand and consumption of chocolate are strongly concentrated in the United States and Europe, while among the top ten cocoa producers, only Brazil is also in the top ten of consumers. With China, India and Russia becoming important consumers of cacao products, the expansion of the demand in these countries and other emerging economies, has resulted in an increased concern from the industry about the future supply of cocoa¹⁰.

¹⁰ Janssen & Riera, 2016; Li Fan & Di Mo, 2016



Chapter 3 – The Case of Niche Cocoa – From Wall Street to Chocolate Giant

When Niche Cocoa entered the cocoa processing market as a private domestic company in 2007, the industry was still nascent with just the government and some multinationals processing cocoa locally. Ghana was at the time processing only around 15% of the cocoa harvested in the country and the rest was being exported, with ample opportunity available for Niche Cocoa to enter the market. The prevailing consensus at the time was that it would be impossible for an individual to break in and establish their own processing plant. Setting up a successful processing business would require an established value chain for the finished or semi-finished product to reach end users. As Niche Cocoa developed its preliminary business plan, its founding team came to realise that Niche Cocoa would be able to sell its product to third parties who could then reach end users instead of selling the cocoa bean directly to international markets. Since 2017, Niche Cocoa has further expanded by gaining partial ownership of one of the largest melting plants in Germany, which allowed the brand to access European end-user chocolate manufacturers.

While this model has mostly served Niche Cocoa well, barriers to entry for other local private processors remain high. Raising money in a multinational industry, either through private equity or banks, is often prohibitively costly and difficult for those who are not well connected or do not possess a high level of capital. Acquiring the permit to purchase cocoa beans from the government is also complicated and expensive. While many Ghanaian artisan chocolate producers have entered the consumer market in recent years, no other "bean-to-bar" producer has been able to replicate the path Niche Cocoa has taken, a sign that the government

could do more to allow other players to enter the market.

Founder Edmund Poku began working as an investment banker at Goldman Sachs after completing his MBA. Not long after, one of Poku's professors called him, urging him to follow up on his MBA thesis and set up a private cocoa processing company in Ghana. The stress of working on Wall Street quickly led Poku to begin rethinking his initial business idea. He then packed his bags and proceeded to relocate to Accra to set up his cocoa business. After a series of false starts offset by an unwavering determination to bring his idea to fruition, Poku sought out financing and established Commodities Processing Industry Limited (CPI), which produced only cocoa mass or cocoa liquor with an annual cocoa processing capacity of 8000 metric tons (MT).

Niche Cocoa: The Journey to Becoming a Leading Exporter of Cocoa from Ghana

Niche Cocoa Industry, Ltd. is the leading privately operated cocoa processing company in Ghana, established in 2011. Niche Cocoa began as a small enterprise, and today the company is the largest fully integrated cocoa processor in Ghana. In part, this has been a result of Niche Cocoa's ability to successfully supply its cocoa products across various countries, Niche Cocoa did the work necessary to receive adequate certifications across various countries. These include Halal, Kosher, Fair Trade, Organic, FDA, Ghana Standards Authority (GSA) and UTZ. Niche Cocoa and Poku aim to drive Ghana's industrialisation, create employment opportunities and increase technical know-how in the country and improve the livelihood of the cocoa farmer by paying

premium and putting in place market opportunities for previously underserved segments of the population. Finally, Niche Cocoa's school feeding programme is intended to provide students with an introduction to the taste of chocolate, with the aim of improving the consumption of chocolate in Ghana over time.

Niche Cocoa: Driving Local Economic Value Creation

Niche Cocoa's production is not the company's only objective, although the company has actively prioritized sustainability and ongoing support for the country's cocoa farmers. Niche Cocoa aims to support cocoa farmers in Ghana through an agreement which has two co-adjutants to purchase certified beans. Niche Cocoa has contributed to the Ghanaian economy by making Ghana the secondlargest producer of cocoa beans in the world; Niche Cocoa processes about 10% of the total cocoa produced in Ghana, generating high-quality semifinished cocoa products and confectionery for supply to the worldwide chocolate, ice cream and bakery industries. Semi-finished products include natural and deodorised cocoa butter, specialised cocoa liquor, and natural and alkalised cocoa powder.

In confectioneries, Niche Cocoa is a bean-to-bar producer of refined chocolate, chocolate drinks, and spreads. With an installed capacity of 60,000 metric tons per year, Niche is the largest fully integrated cocoa processor in Ghana. With its state-of-the-art quality control and strict adherence to HACCP and F55C22000 quality management system standards. The safety and consistency of all products is assured. This focus on excellence led to Niche Cocoa receiving the Presidential National Award for Exporter of the Year in 2013, 2014, and 2015. The chocolate consumption of an average Ghanaian is about 0.5 kilogrammes a year, while on the international market, it is nearly 10 kilogrammes per individual. Meanwhile, when it comes to chocolate on the Ghanaian market, around 70% has been imported into the country while only 30% is produced within Ghana; this has created enormous potential for bean-to-bar production in Ghana, which Poku has identified and seized upon.

Niche Cocoa's Context

Niche Cocoa is a wholly owned Ghanaian firm. With an investment of more than 20 million USD, Niche Cocoa operates within the free zones enclave in Tema. Niche Cocoa's main challenge is the inability to purchase cocoa beans during the main crop season as they are expensive. Niche Cocoa also struggles to compete with multinational firms that purchase beans during the main crop season. In order to address some of the major challenges experienced in the Cocoa sector, Niche Cocoa has ensured that 100% of its employees are Ghanaian employees, thereby playing an active role in fighting unemployment in the country. Niche Cocoa has also made a conscious effort to promote gender equality, by heavily investing in its female staff. Niche Cocoa prioritizes strong founder involvement, with Poku intentionally acting as a hands-on founder who personally hires each worker himself.

Most cocoa farming families live in extreme poverty; it is estimated that the income gap is about half of the living income benchmark value. Low financial literacy and lack of access to financial services are major obstacles to lifting farmers out of poverty. Without access to savings systems, loans or microcredits, farmers have no means to buy high-quality cocoa plants and input supplies to re-invest in their farms. Niche Cocoa has sought to cut out middlemen from its cocoa purchasing process by instituting a payment system that allowed farmers to be paid directly without middlemen. This enabled the farmers to retain as much profit as possible

Social Impact: Solar Project and School Feeding Program

As a result of the dumsor (i.e., power outages) which began a couple of year ago in Ghana, Niche Cocoa invested in solar panels to power most of its offices in factories. Niche runs a comprehensive Environmental and Social Management System. The core E&S risks associated with cocoa bean production occur at the farm level, which Niche Cocoa mitigates through engaging with farm cooperatives via sustainable cocoa sourcing programs. This includes cocoa bean traceability, sponsorship of community service projects and paying premium prices to sustainable cocoa smallholders. The investment will enable Niche

Cocoa to expand its engagement with cocoa farmers to eliminate environmental and social risks at the farm level and to introduce renewable energy use at the factory.

Meanwhile, in collaboration with Sidel, Niche Cocoa embarked on a project to provide packaged chocolate milk drinks to the Ghanaian school children daily under the country's recently launched 'Ghana School Feeding Programme'. The project aims to serve approximately 5.6 million children across 261 districts in a total of 9,350 schools, both

primary and secondary, on 100 school days each year. This move would help children in Ghana gain access to nutritious drinks and develop the taste of chocolate. The government of Ghana under its School Feeding Programme intends to serve the free cocoa drink to 5.6 million pupils at the kindergarten, primary and junior high levels. That programme is expected to receive a massive boost with the introduction of the Niche Cocoa range of chocolate milk drinks.

Chapter 4 – Growing Demand at Home

While cocoa processing has created relatively high-quality jobs, it remains a capital-intensive industry that has resulted in few jobs compared to the amount of investment required. It has been estimated that approximately 4,000 permanent jobs would be created in cocoa processing if 40% of cocoa was processed prior to being exported. Most of these jobs would be skilled jobs, but the skills composition would be directly influenced by the kinds of processing technology deployed. Ghana's export revenue from cocoa has been rising in recent years; in 2018 the total export value was \$3.2 billion, a 34% increase from 2017 and up 71% from 2016, according to TradeMap data.

Trade is highly concentrated, with Malaysia and the Netherlands accounting for just over half of the market. The United States, Germany and France round out the top-five trading partners, representing 69% of cocoa export earnings. Approximately 80% of exported cocoa is sold in its raw form to be processed in importing countries; less than 20% of Ghana's cocoa is processed in-country, either for local consumption or semi-processed for export.

The International Cocoa Organization (ICCO) forecasts a 10% increase in global cocoa production and a 25% increase of the cocoa price over the next decade¹¹. By this estimate, total cocoa production will be around 4,700,000 tons in 2022-2023, with a

supply deficit of 100,000 tons. If West Africa seeks to preserve its current world market share, a 10% increase in production is needed in the next decade. To achieve this, more cocoa must come from a higher yield. With proper maintenance and chemical inputs, 50-100% higher yields are feasible. Still, farmers are frequently unable to make these investments due to being trapped in a vicious circle of inadequate financial means, low input use, high crop losses and low yields.

Other external production limiting factors are loan and credit facilities, a reliable input and output delivery system and appropriate technical advice. Various large-scale rehabilitation and replanting projects are being carried out in Côte d'Ivoire and Ghana on the assumption that if farmers receive a fair share of the predicted higher world cocoa price and can benefit from the government support schemes, a 10% higher cocoa output from West Africa can be achieved in the next decade. The key industry players in the Ghana cocoa sector are COCOBOD, cocoa farmers, license buying companies, cocoa processing companies, international buyers, and civil society organizations. The cocoa sector is highly regulated due to its economic importance as an export revenue generator. The government is involved in almost all aspects of the industry, most prominently through COCOBOD.

Table 1: Global consumption volume of cocoa in 2016, by region

Global consumption 2016	1000 MT		Billions (USD)
Europe	1852	46.4%	69.61
US	732	18.3%	27.51
Rest of Asia	351	8.8%	13.19

¹¹ https://www.icco.org/statistics/

Global consumption 2016	1000 MT		Billions (USD)
Rest of America	333	8.3%	12.52
Brasil	189	4.7%	7.10
Japan	176	4.4%	6.61
Africa	154	3.9%	5.79
China	82	2.1%	3.08
Australia	76	1.9%	2.86
India	46	1.2%	1.73
Total	3991		150

Source: Statista

Table 2: Projected Market share of global African player in the worldwide chocolate market

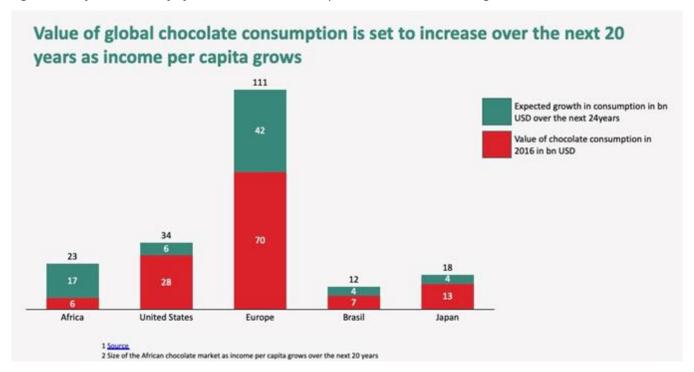
Forecasted volume of chocolate market in 2040	MT	6,436,542
Total volume of raw cocoa grown in top 3 cocoa growing nations in Africa	MT	3,778,250
Amount of chocolate processed from 1MT of raw cocoa	KG	500
Proportion of raw cocoa processed by global African chocolate manufacturer	%	50%
Total volume of chocolate manufactured by global African player	MT	3,778.25
Market share of global African player in the worldwide chocolate market	%	5.87%
Top 3 African countries - Cote d'Ivoire, Ghana, Cameroon		2,622,545
CAGR		2.20%
Forecasted volume 2040		6,436,542.4
		58.7%

Source: Bioversity International, AFG analysis

It is estimated that by 2040 the rate of Global consumption of chocolate would have increased significantly from 6 bn USD to 17 bn USD creating a market of 23 bn USD in Africa. Interestingly, there would be a demand and growing consumption around the world in key markets with Europe mainly showing a growth of 42 Bn by 2040. The analysis below shows the projected value of African chocolate consumption in 2040 with the global evolution in key markets indicated as well.

Source: Statistica, AFG analysis

Figure 1: Projected value of African chocolate consumption in 2040, also showing Global Evolution





Chapter 5 – The Role of African Cocoa Processors in the Global Chocolate Future

In 2020, the amount of cocoa used in confectionary applications reached 2,087.4 thousand tons, accounting for 55.42% of the market share ¹². In 2020 - 2021, Ghana was estimated to have produced about 1,047 thousand metric tons of cocoa beans, the most ever produced by the country ¹³. The global cocoa and chocolate market is projected to grow from \$48.29 billion in 2022 to \$67.88 billion by 2029, at a CAGR of 4.98% in the forecast period ¹⁴. Just under two million tons of cocoa (per annum) comes from Côte d'Ivoire; Ghana follows with 0.97 million tones. In Côte d'Ivoire and Ghana, cocoa accounts for 61 and 66 % of family income ¹⁵.

Niche Cocoa seeks to increase cocoa consumption in Ghana on a large scale, particularly in the wake of its recent expansion into confectionery production. With 10,000 tons per year capacity of cocoa powder and redefined chocolate products, Niche has moved up the value chain to become Ghana's leading beanto-bar producer. Niche Cocoa's newfound capacity of 60,000 tons per year is the result of world-class equipment installed by some of the leading manufacturers of agro-processing machinery. This capacity affords Niche the economies of scale needed to thrive in the global cocoa processing industry.

Currently, the global value of the cocoa industry stands at 150 billion USD15. Estimates put the industry at a 2.3% growth rate over the next decade. Over the next two decades, it can be expected that the value of African chocolate consumption will increase threefold, amounting to 23 billion USD over the next two decades as income per capita grows (according to AFG projections, shown below). The market is projected to grow at a CAGR of 3.4% between 2021 and 202616. Niche Cocoa intends to purchase 60,000MT of cocoa beans in 2022/23, with forward sales of the product to leading cocoa customers. To eliminate price risk, products will be priced to customers on a back-to-back basis with cocoa beans purchased from CMC.

NICHE Cocoa Services (GmbH) has also recently acquired 100% stake in Cotterell Cocoa Services GmbH (CCS), a melting and deodorizing factory and operates now as NCS GmbH. NCS is an approved supplier of liquid deodorized cocoa products to the European cocoa and chocolate participants with a capacity of 150 MT/day of cocoa liquor and 100 MT/day of deodorized cocoa butter, certified to FSSC 22000, Halal, Kosher, Fair and Organic standards NCS will provide end-to-end supply chain traceability, including in the sterilization process of cocoa liquor. Along with its expansion into European markets, NICHE Cocoa Services (U.S.) was stablished in

¹² https://www.globenewswire.com/news-release/2022/03/01/2394562/0/en/Global-Cocoa-Market-Size-Estimation-2022-Analysis-By-Industry-Share-End-User-Demand-Growth-Factors-CAGR-of-2-3-Industry-Statistics-Overview-Leading-PlayersCallebaut-Cargill-Nestle.html

https://www.statista.com/statistics/497844/production-of-cocoa-beans-in-ghana/

¹⁴ https://www.fortunebusinessinsights.com/industry-reports/cocoa-and-chocolate-market-100075

¹⁵ https://www.kakaoforum.de/en/news-service/country-profiles/cocoa-producing-countries/ 15 https://www.cacaonet.org/global-strategy/where-we-are-today 16 marketwatch.com

Wisconsin, U.S. in 2021 as a subsidiary of NICHE Cocoa Industry, LTD, where it will pulverize cocoa cake into cocoa powder for industrial customers in

the U.S. NCS will be certified and audited as per end customer requirements, respectively.

Table 3: Estimated number of jobs moved to Africa in the chocolate industry

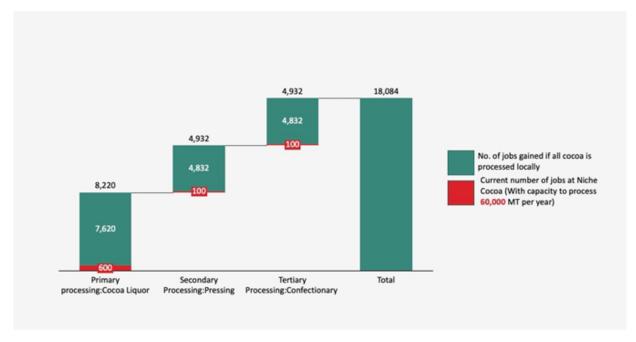
How would jobs shift in the chocolate industry between Africa and the West?	
# of jobs in the chocolate manufacturing industry today	41,526
Projected Market share of large African chocolate player	5.87%
Estimated number of jobs moved to Africa in the industry	2,438

Source: AFG analysis

Over recent years, due in part to government policies, investment in cocoa processing has increased significantly, with ten processing companies currently active in Ghana. This has led to a spike in local demand for cocoa beans, to the extent that there has at points been an insufficient

supply of "light crop" (cocoa beans that are smaller in size, not exported and therefore sold locally at a discount)¹⁶. Ghana supplies about one-fifth of all cocoa beans, for which it earns about \$2 billion a year, less than one fiftieth of the value of the chocolate that is manufactured, branded, and sold¹⁷.

Figure 2: Analysis shows – 8,220 jobs (1% of formal jobs in Accra) will be created if all processing is done in Ghana



¹⁶

https://www.ilo.org/employment/Whatwedo/Projects/sector-trade-policies/WCMS 654161/lang--en/index.htm

¹⁷ https://www.latimes.com/business/story/2019-12-17/africa-big-chocolate

Figure 3: A large African cocoa processor could command 6% of global cocoa market

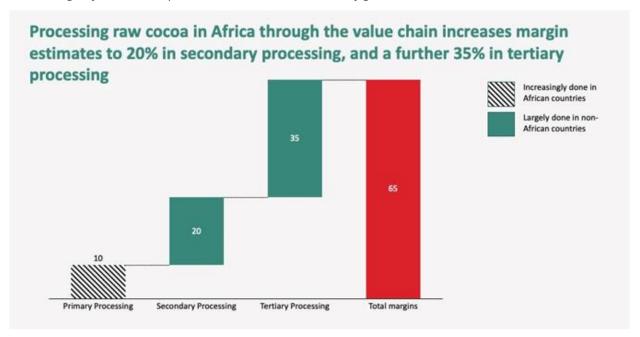
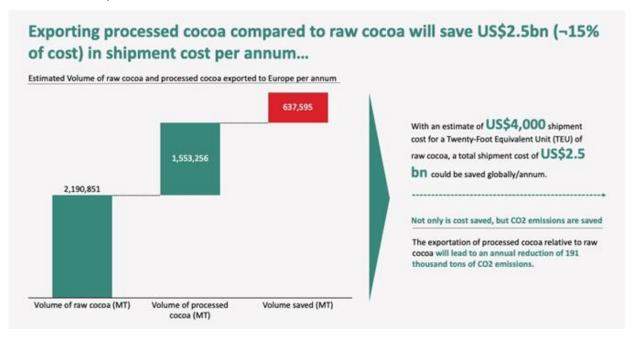


Figure 4: US\$2.5bn in shipment cost and 191,000 tons of CO2 emissions will be saved globally per annum if processed cocoa is exported



Source: CBI Ministry of Foreign Affairs, Statista, AFG analysis

From Cocoa Beans to Chocolate Bars

Cocoa beans require several processing phases to get the beans from cocoa pods into chocolate and other cocoa-based products. Cocoa beans undergo a long journey to get from the hands of the farmers who harvest them to the final consumers. Cocoa beans come from the cacao tree. The cocoa belt is found around the equator, with most cocoa trees flourishing within 10° of the equators. Cacao trees require a humid climate with a lot of rain, experiencing optimal growth in the partial shade of large rainforest trees. The cacao tree is an evergreen that grows to be between 15 and 25 feet tall. The

fruit, called a pod, grows directly from the trunk and can reach 4 to 12 inches in length. The pods ripen into an array of colours including red, yellow, and purple. Each pod contains 20 to 60 cocoa beans, enveloped by the sweet pulp. As cacao trees are able to tolerate the shade of taller rainforest trees, the rainforest does not need to be destroyed to grow cocoa; each tree produces only 50 to 60 pods a year, yielding 15 to 20 pounds of beans. A single pod, however, can contain 20 to 40 beans, and with around 400 beans required to make a pound of chocolate¹⁸.

Harvest typically takes place twice a year, from November to January and May to July. The fruit is specially handpicked to protect the trees, and when harvested, the pods are opened, and their seeds removed. The beans and pulp are then placed into fermentation boxes. The process of inducing fermentation generates heat, which requires the beans to be continuously stirred. Following the fiveday fermentation process, the beans become brown, the bitterness disappears, and the rich flavour begins to develop. Following fermentation, beans still contain too much water to be turned directly into chocolate. The beans are then spread out in the sunshine to dry. Most beans are sundried for up to two weeks before being inspected and separated. Roasting usually takes place at 210° F for 10 to 15 minutes. Roasting sterilizes the beans and enhances their flavour. Winnowing entails removing the shells from the beans. What is left over is the "nib," the most coveted part of the bean. Nibs are then ground by machine or between stones. A liquid mass forms: this is cocoa liquor. With additional grinding and sugar, chocolate comes to life.

 $^{^{\}rm 18}$ https://www.rainforest-alliance.org/resource-item/chocolate-from-bean-to-bar/



Chapter 6 – Bean, Bar, and Beyond

Each year, the cocoa-chocolate value chain generates billions of dollars that provide dividends for producing countries as well as for national and international companies worldwide. Cocoa is obviously an industrial crop of immense economic significance, but the economic benefits yielded by this industry do not necessarily carry over to the cocoa producers themselves.

Most cocoa farming families live in extreme poverty, with an income gap of about 50% of the living income benchmark value¹⁹. Cocoa production in Ghana, as in most parts of the world, is threatened by deforestation and the loss of biodiversity seen in its aging plantations, poor farm management, soil degradation and increasing pest and disease pressure²⁰. Cocoa production is also increasingly and direly threatened by climate change. As extreme weather events become more frequent, many regions become ultimately less suitable for cocoa growing. Low financial literacy and lack of access to financial services are also substantial obstacles to lifting farmers out of poverty; without access to savings systems, loans or micro-credits, farmers have no means to buy high-quality cocoa plants and input supplies to re-invest in their farms. Most cocoa equivalents are imported to Switzerland in the form of cocoa beans, cocoa butter, and cocoa paste. Only a small proportion of cocoa bean equivalents are imported in the form of semi-finished and finished cocoa products.

One policy option could be to sell export size beans at lower prices to local companies, that would in turn be able to work at capacity. However, this would imply a loss of revenue for the government. Samuel Takyi of COCOBOD has asserted that it would not be attractive to sell the main crop at a discount to local processors, with ample demand internationally at premium prices. With increased local processing of cocoa beans, to boost employment creation in Ghana, the sector would need to enter the next phase of value addition, manufacturing cocoa products such as chocolate and cocoa-related products. This would create additional local demand for other inputs like milk, sugar and packaging materials, increasing employment in the sector²¹.

When it comes to making cocoa farming attractive to youth and increasing cocoa's production, it is expected that the government's seven tree crop initiative "Planting for Export and Development" which includes cocoa, will re-energize the sector. Following the mandate, every district has been given the mandate to produce a cocoa nursery for free seedling distribution to facilitate cocoa production. In addition, the COCOBOD has employed about 8,000 hand pollinators on farms and outsourced sprayers, creating employment in the logistics sector. COCOBOD also provides financial resources to these minor agencies to prepare the cocoa for export.

Much like the story of creator and founder Edmund Poku, who has evolved Niche Cocoa into something that would have been difficult to anticipate from inception – from Wall Street to spearheading the largest fully integrated cocoa processor in Ghana – cocoa's journey is unknown. The beauty in the unknown, however, is that the future may delight us

https://www.sciencedirect.com/science/article/pii/S0264 837722001697 21

https://www.ilo.org/employment/Whatwedo/Projects/sector-trade-policies/WCMS_654161/lang--en/index.htm

¹⁹ https://www.kakaoplattform.ch/about-cocoa/challenges-in-the-cocoa-sector

with its myriad surprises and ability to challenge us creatively into creating something wonderful. While the future of Niche Cocoa is to be decided, the leaps and bounds that both cocoa beans and Niche Cocoa have taken thus far in order to reveal their bounty, is a masterclass in optimism. Whatever is ahead for the company, the magic is decidedly in the journey itself.

Discussion Points:

- Why is chocolate consumption low in Africa and what can be done?
- How has Niche Cocoa set itself apart and become a major player in the industry? How is Niche cocoa playing
 a role in eliminating or reducing the challenges being experienced in the sector?
- What will the market growth rate, growth momentum, or acceleration market carry during the forecast period?
- Which are the key factors driving the cocoa market?
- What was the size of the emerging cocoa market by value?
- What will be the size of the emerging cocoa market in 2027?
- Which region is expected to hold the highest market share in the Cocoa market?
- What trends, challenges and barriers will impact the development and sizing of the Global cocoa market?
- What are the sales volume, revenue, and price analysis of top manufacturers of the cocoa market?

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Appendix: Economic pricing analysis

Breakdown		Tonnes to Metric Tonnes		
Total imports of cocoa bean by Europe in 2020 (tonnes)	2,300,000	2,086,525	Source	
Assume a growth rate of 5% in 2021	5%	5%		
Total imports of cocoa bean by Europe in 2021 (tonnes)	2,415,000	2,190,851		
Total European imports of semi- finished cocoa products (tonnes) - 2020			Growth rates (YoY) 2020	Assumed growth rate of 2021
Cocoa butter	657,000	596,020	4.70%	4.90%
Cocoa paste	669,000	606,907	3.70%	3.90%
Cocoa powder	324,000	293,928	1.00%	1.20%
		1,496,855		
Distance between Ghana and Germany in km by sea	4,919.92			
CO2 per metric ton of goods shipped per kilometer (kg)	0.02			

Breakdown		Tonnes to Metric Tonnes	
Carbon Emissions per MT of shipment via sea from Ghana to Germany (kg)	79.4		