



State of
**COCONUT
COMMODITY
MARKET**

in Kenya

SME Market Opportunity Outlook

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Acronyms

- AFA** - Agriculture and Food Authority
- FAO** - Food and Agriculture organization of the united nation
- GDP** - Gross Domestic Product
- KNBS** - Kenya National Bureau of statistics
- SME** - Small Medium Enterprise
- OEC** - Observatory of Economic Complexity

Introduction

SMEs in Kenya contribute 33 percent to Kenya's GDP, employ over 30 percent of the population as well as constitute 98 percent of all businesses (KNBS 2016). Despite their important role to Kenya's economy SMEs continue to experience high mortality rate of 75 percent within 3 years of inception. Factors contributing to the high mortality rate are challenges in; access to finance, access to market, technology adoption, management skills, unsupportive policies and information among others.

Although SMEs play a critical role in terms of contribution to GDP and employment; there are still challenges in terms value captured due to operation in low value sectors leading to poor pay for employees as well as marginal economic growth. Current top SME sector distribution is; wholesale-retail, motor vehicle-cycle repair, accommodation and food services (KNBS 2016) with high value sectors of agriculture and manufacturing trailing.

The coronavirus pandemic has compounded challenges SMEs face accelerating mortality rate to over 90 percent despite commendable efforts by the Kenyan government to support SMEs through tax and non-tax incentives.

With the economic growth estimated to grow at less than 3 percent; efforts must be made to catalyze and support traditional as well as non-traditional economic sectors that contribute highly to economic development. Traditional sectors include; tourism, manufacturing, horticulture among others while nontraditional sectors include startups and agritech among others.

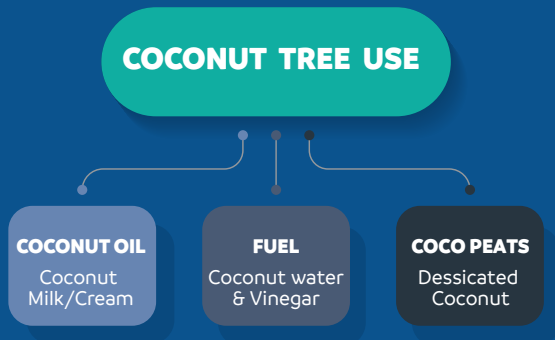
The study focuses on coconut sub sector as an economic development opportunity worthy of support as well as a business opportunity for SMEs to explore.

The study examines global trends as well as takes stock of current state in Kenya and provides recommendations to improving the sub sector.

Overview

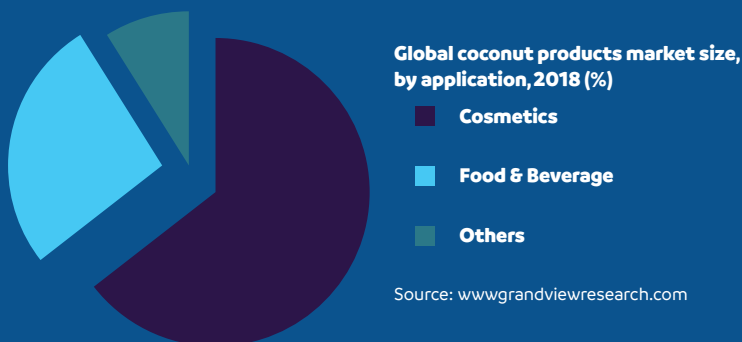
The Coconut tree is considered one of the most useful plants on earth due to the number of products that can be extracted from the tree (Table 1). The seed or the fruit is consumed as food or for making cooking oil in its various forms, directly or processed while at the same time useful in the cosmetics industry (Table 2). The husk and shell is an efficient fuel and charcoal material with the trunk and leaves used in the construction industry.

Table 1 : Coconut Tree use



Analysis by: Viffa Consult

Table 2-Global coconut product distribution



Coconut is part of the palm tree family typically found in coastal tropical regions with high humidity, consistent exposure to direct sunlight and regular rainfall of between 1,500 to 2,500 mm annually. In perfect weather and sandy soil conditions, a coconut palm tree produces its first fruit in six to 10 years, yielding an average of 75 fruits per year. The tree reaches its peak production in about 20 years.

Global Market Size

In 2018, approximately 61M tones of coconuts were produced worldwide with an export value of \$30.38B compared to \$49.4B in 2009, the highest it has reached in recent times. Over the last decade, the global market has decreased at an average annual rate of -0.1 percent due to, among other factors, lower production growth.

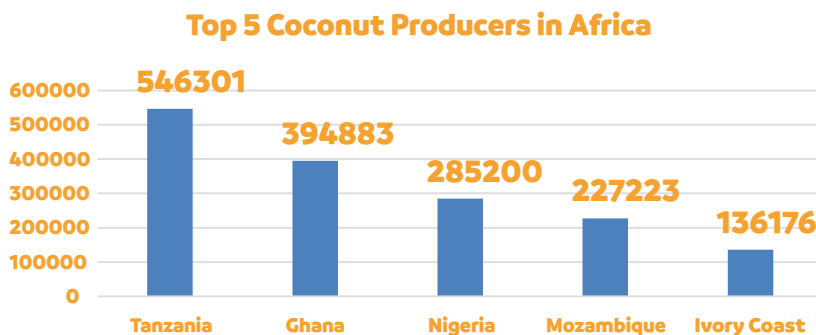
The coconut global market is projected to expand by 17.8 percent CAGR over the next five years to 2025 propelled by the increased awareness of the benefits and use-cases of coconut products. The food, beverage and cosmetic industries are increasingly investing in research and development of new ways of extracting benefits from the fruit hence driving the demand for coconut (Grandview Research)

Over half (52 percent) of coconut exports in 2018 were sourced from Indonesia. The Southeast Asia country produced 19M tonnes, exporting 290,000 tonnes. The country also ranks as the highest consumer of the tropical fruit, using up nearly all its production. Thailand exported 700,000 tonnes in 2018 followed by Vietnam at 57,000. Cote d'Ivoire, Malaysia, the Netherlands, Mexico, Guyana and India have a combined global market share of 17 percent.

Africa Market

In 2018, Cote d'Ivoire (Ivory Coast) shipped 42,545 tonnes of coconut earning the West Africa nation \$13.92M. Combined with Brazil Nuts and Cashews, Cote d'Ivoire cashed \$1.17B mainly by exporting to Vietnam which ordered \$745M worth of coconuts, Brazil nuts and cashews from Cote d'Ivoire. For coconuts specifically, Cote d'Ivoire exported to the Netherlands, Burkina Faso, Italy, Russia and France (OEC). However, in terms of production, Tanzania topped Africa with a production of 546,301 tonnes in 2018, followed by Ghana with 394,883 tonnes (FAO) . Nigeria, Mozambique and Cote d'Ivoire wrapped the top five producers of coconut in the continent in 2018 with 285,200, 227,223 and 136,176 tonnes respectively. Other African countries that have significant land under coconut plantation include Kenya, DRC, Madagascar, Cameroon, Senegal and Guinea.

Table 3: Top coconut producers in Africa



Source: FAO

Analysis: Viffa Consult

Kenyan Topography

In 19th century, coconut plantations were owned and managed by Arab traders and white settlers but they are now a small-scale farmer's crop. Over 90 percent of coconut trees in Kenya are in the ages of 20-60 years, considered to be the productive age while 80 percent of coastal farm households derive their livelihood directly or indirectly from the coconut tree. There are two types of coconut trees in Kenya; the East African Tall and Dwarf variety.

Kenya produced 92,560 tonnes of coconut in 2018 from 82,921 hectares (about 200,000 acres) of plantation. In 2019, coconut acreage increased to 86,843 and output jumped to 109,889 tonnes with a value of Sh6.8B compared to Sh4.7B in 2018. Kenya exported 832 tonnes of coconut to Tanzania, Egypt, Rwanda and the USA earning the country Sh589 million. The country imported Sh732M worth of coconut products from India, Thailand, Malaysia and the Philippines to meet the country's demand.

Majority of the coconut trees are found in the Coastal counties of Kwale and Kilifi. Tana River, Mombasa and Lamu counties have less than 10 percent of the total acreage under Coconuts. Taita Taveta has a small but growing acreage of coconut trees. Kenya has over 10.2 million trees which are in fruit bearings stage which produced 251.8 million pieces of mature coconuts (Agriculture and food Authority). Other areas that have the potential for coconut production include Busia and Homa Bay along Lake Victoria and Tharaka Nithi county.

Contribution to GDP

Improving the crop's value chain is expected to boost earnings from the current annual income of Sh12 billion to Sh25 billion. The crop contributes an estimated 1.5 per cent to the agricultural production and 0.4 per cent to Kenya's GDP. More than 120 products are sourced from coconut, supporting families in nutrition, housing and health. An estimated 100,000 farmers depend on the crop for survival. In 2017, Kenya produced 124,000 tonnes of coconut (KNBS 2018 Economic Survey). The average yield in 2019 improved from 34 nuts per tree from 28 nuts in 2018 largely due above average rainfall, though this still much lower than recommended yields due to poor agronomic practices. The higher supply in 2019 pushed farm gate prices to decline from an average of Sh15 in 2018 to Sh10 in 2019.

Products in the Market

The coconut palm tree is used as a cash crop and food crop but Kenya has categorized it as a cash crop. All the parts of the tree, from the roots to the leaves can be commercially exploited to extract different products.

Illustration 1: Coconut products and by-products produced in Kenya

Product	Current State	Opportunity
Mature Coconut	In 2014, 10 percent of the coconuts were consumed at the farm level, 60 percent were sold to traders, 23 percent were sold to consumers while 5 percent were sold to processors. Only 0.79 percent were sold through cooperatives.	Based on global coconut product distribution; value addition aligned to cosmetics offers the highest value followed by coconut oil
Coconut Seedlings	The Coconut Development Authority initiated a project to supply quality seedlings to farmers during the 2011/12 season which resulted in the production of 251,798 seedlings with a market value of Sh12.5M. Supporting nursery operators with technical expertise and offering higher price per seedling would motivate farmers to expand and venture in seedling production	

Product	Current State	Opportunity
Tender Coconut	Commonly known as Madafu in Kenya, tender coconuts are 7 to 8 months old, valued for their sweet water and delicious kernel (flesh). They are sold as refreshments informally by the road-sides by hawkers in the coastal towns and in hotels. Tender coconut has a short shelf of between 24-36 hours. Kwale County produces over half (55 percent) of Madafus in a Sh260M market as of 2012.	Value addition towards vinegar which has a longer shelf life and higher profit margin.
Brooms	It is estimated that over 5.8M brooms were made from coconut leaves in 2012. They are valued for the long functional life and ease of making them. There is a large portion of brooms sold directly to consumers (48 percent) which points to market inefficiencies in an under-performing market estimated at Sh. 120M	
Coconut Wood	The tree trunk is a hardwood quality used for construction, fine furniture and production of artefacts. The density of cocowood ranges from heavy to weak and is a good substitute for common hardwoods. Trees older than 60 years old are harvested for wood because they are past the productive age. However, the potential of cocowood as an alternative source of hardwood is limited by the lack of knowhow by the farmers.	
Palm Wine	This is a white and sweet alcoholic drink made from coconut palm through fermentation of the sap. It is the crop's main product constituting 60 percent. Due to the short shelf life, Palm Wine is mainly consumed at the coast. 153M litres of palm wine were produced in 2012 with the sub-sector estimated to be over Sh7B. 82.6 percent of the wine is sold through traders.	Building a strong brand based on quality under cooperative or private company to capture more value beyond coast region

Product	Current State	Opportunity
Coconut Thatch	Also popularly known as Makuti, coconut thatch, is a sustainable and green material used for roofing purpose made from weaving the leaves of a naturally wilting tree. The aesthetics of Makuti roofs and the ability to keep houses and hotels cool in the warm coastal weather has over the recent past driven the demand for coconut thatch. The value of the Makuti segment is estimated at Sh1.7B with Kilifi taking the lion's share at 68.5 percent followed by Kwale at 23.18 percent.	Building a strong brand based on quality under cooperative or private company to capture more value beyond coast region.
Other	Husks, fibre, briquettes, tooth picks, door mats, coco peats	

Processed Products

• Virgin Coconut oil

Virgin Coconut Oil Processors

Name	Location
Serendi Kenya	Diani, Msambweni
BICODE	Kaloleni
New Hope Women Group	Kilifi
Tarumbete Women Group	Kisauni
Jibana Farmers Co-op	Kaloleni

• Desiccated coconut, cream and milk

Processor:

Coconut Holdings Ltd (Kentaste) is the largest processor of coconut products in Kenya. It employs **40 staff** and works with over **18,000 small-scale farmers**. It has two factories in Kwale and Kilifi.

• Copra oil

Copra is high in oil and protein content (65% oil, 25% protein).

Copra Oil Processors

Name	Location
Swaleh Aboudh	Gondoni
Amua Self Help Group	Kilifi, Chonyi
Malindi Industries	Malindi
Sherif Abas Alwy	Lamu West
Minara Oil Processors	Mombasa, Bondeni
Eastern Industrial (Lola Lola)	Changamwe
Honest Copra Oil	Majengo, Mtwapa

Table 4: Kenya Coconut Product Distribution

Product	Units	Volume	Value (KES)	% Contribution
Wine	Litres	153,311,377	7,236,523,322	59.0%
Mature Nuts	Pieces	246,416,329	2,693,340,495	22.0%
Makuti	Pieces	131,926,990	1,745,615,617	14.2%
Immature Nuts	Pieces	24,775,202	260,971,955	2.1%
Tree Trunks	No. of Trees	168,224	188,670,295	1.5%
Brooms	Pieces	5,800,179	119,640,071	1.0%
Seedlings	No. of Seedlings	325,395	16,269,730	0.1%
		Total	12,261,031,484	100%

Source: 2013 Coconut Survey

Number of people employed in the sub-sector

The sub-sector supports over 100,000 farmers and provides direct and indirect income to people in the chain including seedling farmers, harvesters, de-huskers, wine tappers, traders, processors, transporters among others. The processors employ about 150 people according to the Coconut Census of 2013.

Challenges

- I. Coconut farmers in Kenya lag behind in husbandry and agronomic practices, and adoption of new farming technologies.
- II. Lack of technical support from government agencies has resulted in below average yields coupled with inadequate rainfall and quality seedlings
- III. Processing of coconut products is fragmented, small-scale and informal which makes it difficult to measure the output and value of products. Inaccurate and unavailable data compound the complexity of tracing the wide variety of coconut products.
- IV. Coconuts, from seedlings to fully grown trees, are highly susceptible to pests and diseases.
- V. Marketing of products produced by farmers and lack of finances to expand their operations is a deterrent to the growth of the coconut subsector. This is compounded by perennial low prices and price fluctuations.
- VI. High county taxes, exploitation by middle-men, prohibitive licenses and permits to exploit the coconut trees.
- VII. Processors and manufacturers have often closed or reduced operations due to inadequate supply of raw materials or/and high cost of raw materials.

Recommendations

- I. Developing and promoting a hybrid variety which has intermediate characteristics but with a higher nut yield than the two varieties found in Kenya. Hybrid variety takes three years to mature producing 200 to 300 nuts per year compared to 30 – 80 nuts for the Tall variety and 40 – 60 nuts for the dwarf variety. It is not yet commercially available in Kenya though there are tests going on at the KALRI station in Kilifi.
- II. Small scale coconut farmers to aggregate under cooperatives to produce at scale, add value as well as sell either in bulk or under joint brand.
- III. Tax incentives to manufactures of coconut products at scale reducing the reliance on imports which the Ministry of Trade estimates that Kenya could save more than Sh8B annually on imports if it increases oil production from coconuts.
- IV. Expansion of extension and subsidy services to help farmers navigate the delicate production phase. For instance, the acreage in 2019 increased marginally as a result of new plantings undertaking by farmers as a result of favorable prices for coconut products. A subsidy seedling program by the Agriculture and Food Authority through the Nuts and Oil Crops Directorate motivated famers to dedicate more land for coconut expansion.
- V. Investment in research and development, a coconut information system, value chain mobilization, marketing, financing and progressive regulation.
- VI. Farmers through cooperatives must align with global market trends and add value towards cosmetics, coconut oil among others to create and capture more value.

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