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The World's Largest Black Tea Exporter

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Product Brief

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Report Highlights:

Kenya is the world's leading exporter of black tea and the United States is the world's third largest importer of tea. Kenya's tea exports earned the country \$1.45 billion in 2012, a four percent increase from the previous year. Production stood at 395.5 million kilograms (kgs) in 2012 from a cultivated area of about 180,000 hectares, and exports at 429.6 million kgs. U.S. consumption and east African supply have both been increasing over the last five years. This report provides background on the Kenyan tea sector including trade, auctioning, manufacture, and cultivation.

SECTION I: TEA SECTOR OVERVIEW

Kenya is the world's top exporter of black tea by weight. Tea exports compete with tourism and horticulture to be the country's top foreign exchange earner, a superlative it claimed in 2010 and 2012. Tea cultivation and manufacturing is present in 15 of Kenya's 47 counties and impacts a large proportion of Kenya's 44 million people. Tea provides income and employment to 600,000 smallholder households and 150,000 workers at tea estates.

Over 60% of Kenyan tea is grown by smallholders. The second largest share comes from estates owned by multinational corporations, and locally owned estates make up the remainder. Smallholders and small estates bring picked leaves to local factories, in which they may be shareholders, for processing into black tea by the "crush, tear, curl" method (CTC). At the factories, the tea is withered, sifted, CTCed, fermented, and dried, then sorted into different grades and bagged for delivery to warehouses near the Port of Mombasa on Kenya's coast.

Most Kenyan tea is auctioned by factory name and grade at the public Mombasa Tea Auction Centre, resulting in direct feedback of market prices to factories and farmers. The day before the auction, buyers taste different grades of teas produced by different factories to determine which are most appropriate for their companies' products. Tea that is purchased at the auction or sold directly by estates is exported by containers to processing facilities, where it is blended with teas from around the world.

The volume of tea sold at the Mombasa auction has risen six-fold since 1980, to 300,000 MT in 2011. The rise has been attributed to the introduction of higher-yielding plants and especially to the extension of land, by smallholders and estates, due to rising prices. Over the last decade, the average price of tea at the Mombasa auction has increased more than 50% from the 1990-2000 average. However, the East African Tea Trade Association (EATTA) forecasts a price correction, as land in tea cultivation in East Africa rises in yields. For more details see: [East African Tea Trade Association](#)

In 2012 the average price for black tea on the Mombasa auction was around USD 2.85 per kilogram, though prices vary significantly between grades, seasons, and locations. The Africa Tea Brokers Limited of Mombasa publishes auction and other prices on its website and in a weekly report. Unilever and Cargill play large roles in the Kenyan tea sector. Unilever owns estates from which it exports directly and is also usually responsible for the largest single share of purchases at the auction, around 15-20%. Cargill acts as a buying agent for Unilever and offers logistical services to several companies. They ship about 100 forty-foot containers of tea each week, or 25-30% of tea exports from Mombasa.

The low value-added bulk exports of Kenyan tea by the multinationals directly to their own processing

plants overseas limits farmers' ability to obtain higher prices.

Table 1: Top World Tea Exporters, 2010 (FAO)

Rank	Country	Quantity (MT)	Value (1000 USD)
1	Kenya	417,661	1,165,137
2	Sri Lanka	312,908	1,365,966
3	China	305,857	806,954
4	India	234,560	694,661
5	Vietnam	136,515	199,979

Table 2: Top World Tea Importers, 2010 (FAO)

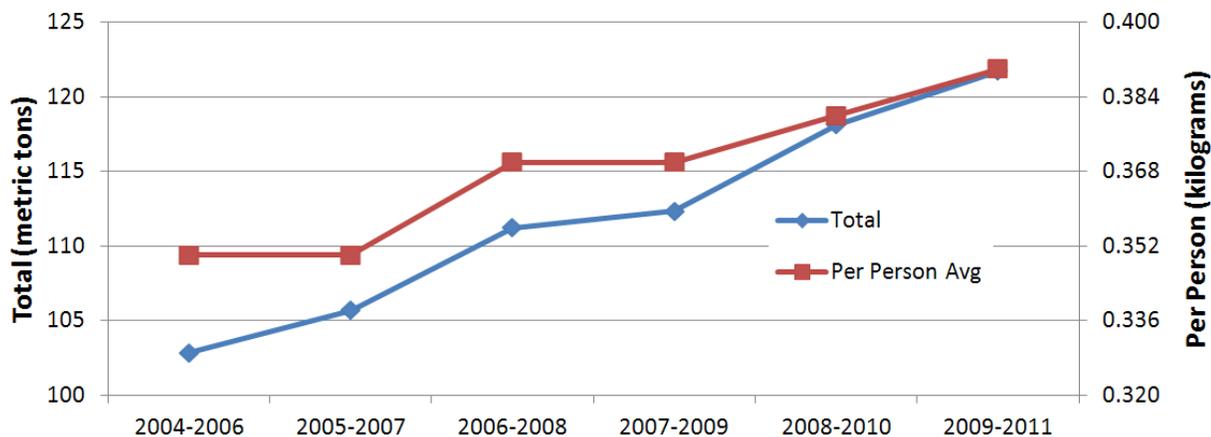
Rank	Country	Quantity (MT)	Value (1000 USD)
1	Russian Federation	181,619	563,106
2	United Kingdom	149,821	420,716
3	United States of America	126,868	400,729
4	United Arab Emirates	64,224	267,216
5	Pakistan	94,463	266,639

SECTION II: U.S. TEA TRADE WITH EAST AFRICA

The United States is the world's third largest tea importer, and total and average tea consumption in the U.S. has been increasing since at least 2005. Kenya's market share in the U.S. has been fairly static since at least 2006, although the US import statistics somewhat under value the amount of Kenyan tea sold in the U.S. as it is blended and transshipped through other countries under brands such as Lipton.

Malawi is increasing its tea production in the region as it seeks to diversify from tobacco as a cash crop. Other major producers in East Africa are Tanzania and Uganda. Most of the tea from the region is sold through the Mombasa tea auction; see Section V for more information.

Figure 1: U.S. Tea Consumption (International Tea Committee)



SECTION III: PUBLIC AND PRIVATE INITIATIVES IN THE KENYAN TEA SECTOR

Expansion into new markets is a fundamental part of the EATTA’s most recent five year strategic plan, and members of the EATTA have expressed specific interest in accessing the U.S. market. Between 60 and 70% of East African tea exports currently go to the UK, Pakistan, Afghanistan, Egypt and Sudan. The impact of destination markets’ political and economic uncertainty on sales has motivated stakeholders to seek expansion. Recent entrants include West and Central Africa and members of the Commonwealth of Independent States, including Russia.

The Kenya Export Promotion Council plans to open a warehouse at the Dubai Tea Trading Centre, where tea from around the world is warehoused, bought, blended and packed. It is unclear whether the centre would be more likely to attract direct sales from East Africa or, since it lacks its own public pricing mechanism, emerge as a new destination for tea bought at the Mombasa auction.

Almost all of Kenya’s tea is currently exported as a bulk commodity, so value addition has been prioritized by the EATTA and the government, including President Uhuru Kenyatta. Examples of tea value addition include manufacturing tea bags, instant tea, and read-to-drink tea, building a brand around the country of origin, and producing green, white, orthodox, purple, and other tea varieties.

SECTION IV: KEY EAST AFRICAN ORGANIZATIONS

The EATTA plays a significant role in the Kenyan tea sector. Formed in 1956, it is a voluntary organization comprised of over 150 corporate stakeholders from across the value chain, including producers, buyers (exporters), tea packers, warehouses, and brokers. Individual members include multinational corporations, large East African companies, independent factories and small brokerages.



The EATTA's most visible function is operating the Mombasa auction, and it also works on behalf of the East African tea industry to engage with government bodies, facilitate exchange among members, provide market information and access, hold conferences and exhibitions, and maintain professionalism. Its producer members come from nine countries.

The KTDA, a former government body privatized in 2000, plays a substantial role in the cultivation and processing of tea grown by smallholders. It provides management and technical services to the large majority of factories that are not run by estates, over 65 facilities.

The most prominent tea-related Kenyan government body is the Tea Board of Kenya (TBK), responsible for licensure, registration, research, promotion, information dissemination, and advising the government. The Kenyan government created the Nyayo Tea Zones Development Corporation in 1986 to limit human encroachment into Kenya's forestland by establishing buffer belts of tea and trees around forests. It generates revenue by selling tea and fuel wood.

SECTION V: THE MOMBASA TEA AUCTION CENTRE

The Mombasa tea auction is held every Monday and Tuesday, with teas from up to nine East African countries available to buyers from around the world. It is the second largest of eleven worldwide tea auctions, after Sri Lanka, and the largest auction of CTC tea. The auction serves as a method of price discovery worldwide, and gives local factories serving smallholders direct and gives local factories serving smallholders direct access to the world market. The volume of tea sold at the Mombasa auction climbed steadily between 1980 and 2011, increasing six-fold to over 300,000 MT. Of the tea sold at the Mombasa auction, 72% is Kenyan, 16% is Ugandan, and the rest comes from other countries in East Africa.

The day before the auction, buyers collect to taste the tea that will be offered in the same fashion that factory managers test their product. In a process called infusion, hot water is mixed with loose tea. The

result is referred to as liquor, and it is taken with hard, quick slurps to ensure that the tea spreads throughout the mouth. It is noisy, and a spittoon is employed. Information is gleaned not only from the taste of the liquor, but by appearance of the dry tea, wet residue, and liquor as it is mixed with milk to provide visual contrast.



Following the auction, each international buyer's tea is consolidated from warehouses in the Mombasa area and shipped by container to processing facilities for blending with tea from around the world. Only a small fraction of buyers are East African. Tea that does not receive a high enough bid to be sold returns to auction two weeks later, usually with a lower reserve price. An individual lot will be sold or removed from the market after two to four cycles. Black tea retains its flavor and quality for several years.

SECTION VI: CULTIVATION AND MANUFACTURING

Like most black tea, Kenyan tea is produced from the *Camellia sinensis var. assamica* plant, native to the Assam region of India. Tea production in Kenya followed the tastes of colonial-era Indian laborers, and farmers who experimented with tea at the turn of the 20th century found that the country's central highlands have an optimal tea-growing climate. Since then, tea production has spread to similar climatic areas around Lake Victoria and near Mount Kenya, and clones have become the primary method for



propagating tea.

Kenyan tea is mostly grown at elevations between 1,700 and 1,800 meters, and sometimes as low as 1500 meters. Tea plants last about seventy years and are pruned to their trunks every three years. Raising tea is nearly organic by default; the only required artificial input is N-P-K fertilizer. Each tea plant is cultivated every 1-3 weeks throughout the year, with yield varying by season. The bud at the end of each branch is broken off along with the two nearest leaves, which are softer and suppler than the rest of the bush. Picking is usually done by farmers or fieldworkers moving between rows of tea plants, though some estates use picking machines. Pickers collect the tea in baskets slung over their backs.

Farmers are paid by the weight of the tea that they deliver to the factory, and estates also pay pickers individually by weight. Smallholders and estate workers are also incentivized to deliver quality, since factories will not accept tea with too many twigs, broken leaves, or hard leaves; it is sent back to the farmer or picker for cleaning. To assess quality, factories use a multistage randomization process to get a sample for inspection.

Independent factories buy all of the tea that they process from out-growers, who also supply some of the tea to factories at estates. Farmers typically source their fertilizer from the factory, which deducts the expense from their payments over the course of the year. During the high season enough tea is picked to keep a factory running 24 hours a day, six days a week. In the chillier winter season, including June and July, tea plants grow much slower and factories finish production overnight.

Appendix I provides details regarding tea manufacturing post-production.

SECTION VII: ACKNOWLEDGEMENTS

This report relied on the expertise of the professionals at Cargill, the East Africa Tea Trade Association, and Kiambethu Tea Farm.

APPENDIX I: TEA MANUFACTURING POST-PRODUCTION

There are nine stages to manufacturing black tea from fresh leaves and buds and preparing it for sale:

1. Weigh Bridge. The tea is checked for quality before the truck is weighed, unloaded, and weighed again to calculate how much was delivered.



2. Wither. Tea is spread out in long bins with closed sides and an open top. A mesh surface through the middle of the bin holds the tea and creates a plenum beneath, through which air can be drawn or blown over the leaves by a large fan. When the weather requires, the air is warmed by blowing it through steam coils before it reaches the leaves. Weather also determines the length of the withering process, between 8 and 16 hours.
3. Sift. The withered tea passes through a machine that loosens it.
4. Crush, Tear, Curl. A series of rollers crush, tear, and curl the leaves, resulting in small pieces. This is the most common means breaking down tea leaves for black tea.
5. Ferment. The tea slowly passes over a series of belts, changing to a brown color as it ferments over 85-90 minutes. This is the most sensitive part of the tea-making process, when polyphenols in the tea undergo an exothermic conversion. Too much heat kills the enzymes, so time and temperature are tightly controlled to avoid killing the enzymes or over-fermenting. Temperature is controlled by blown humid air, which removes heat produced by fermentation.
6. Dry. Driers are used to reduce the moisture content to 3.3%. The color changes from brown to black, completing the process of transforming picked tea to black tea.
7. Sort. The sorting process is achieved with a series of sieves that separate the tea by size and shape, into grades. Different grades have different qualities and are desired by different markets. Black tea sold to consumers is almost always blended from different grades sourced from around

the world.

8. Taste. Every hour, two blends of the different grades as well as each individual grade are tasted, which gives information about most parts of production. This method is the same used at the Mombasa tea auction, described in Section V.
9. Pack. The tea is packed in bags that bear the factory or estate name and then sent to auction or directly to buyers.