

Promoting Trade and Investment in Green Products Between Kenya and China: Organic Tea



Client: World Wildlife Fund

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Project Introduction

The client (World Wildlife Fund, or “WWF”) retained a group of students from the International Development program of the Johns Hopkins University – Paul H. Nitze School of Advanced International Studies (SAIS) to conduct research and write a report on the potential of increasing the trade of, and investment in, organic tea between Kenya and China. Students performed substantial desktop research and traveled to Nairobi and Mombasa, Kenya, as well as Beijing, China, to conduct in-person stakeholder interviews and site visits. This report is expected to support WWF’s work with the Forum of Africa-China Cooperation (FOCAC), an entity that aims to improve commercial ties between Africa and China.

The team that created this report would like to thank stakeholders interviewed in Beijing, China, primarily: China Tea Marketing Association, the Green Food Development Center or Organic Food Certification Center, Organic and Beyond and the University of International Business and Economics. In addition to that, the team would like to thank the client for its support during the completion of this preliminary report. Special thanks to Dr. Hu Tao, Jingyu Ji, Daniel Riley, Tracy Wang, Yiting Wang and Philip Odhigambo.

Executive Summary

Originally brewed in China over 5,000 years ago, tea is the world’s second most popular drink after water. Tea is also major crop around the world and particularly Kenya, where it provides the livelihood for about 10% of the country’s population. China, one of Kenya’s trade partners and key investor in infrastructure projects, is a large tea consumer. Organic tea presents an opportunity to enhance commercial cooperation between China and Kenya that promises to further develop Kenya’s economy in a sustainable way, while providing clear health benefits for Chinese tea drinkers. This report surveys the current state of trade of and investment in between Kenya and China of Kenyan organic tea. This report then focuses on the growth of demand for organic products in China, primarily driven by food safety scares. The second section of the report describes the challenges facing increased cooperation in tea trade and outlines recommendations for overcoming them.

The final recommendations include: (1) strengthening tea safety standards and organic certification in China, while promoting organic practices and certification in Kenya; (2) improving business relations between the China and Kenya Tea sectors, organic market actors; (3) promoting investment in Kenyan organic tea, greater domestic value addition and use of Mark of Origin; (4) preferential tariff structure for organic products and organic tea from Kenya in China; and (5) promoting health benefits of tea in China and abroad through research.

I. Current State of Trade and Investment Between Kenya and China of Kenyan Organic Tea

An introduction to the world's second most popular drink

The consumption of tea in modern times began in China. Legend has it that emperor Shen Nung (2737-2697 BC) began the tradition when dry leaves fell into a cup of boiling water while he rested. Known as a “healer” at the time, Shen Nung had decreed that water be boiled before drinking (Saber, 2010). The water in which the leaves fell turned brown, which intrigued the emperor, who proceeded to drink it. He enjoyed it so much that he ordered that tea trees would be planted extensively, lauding the infusion with the people and helping make it a staple across the land. Other records of tea's history claim Buddhist monks brought tea plants in China after returning from India, but most accounts coincide on the idea that drinking tea spread from Yunnan to other parts of China and then to the rest of the world (Saber 2010).

The second most popular drink in the world after water, tea is made from the dried leaves of the *Camellia sinensis* plant, left to infuse in hot water. Tea is suited to higher altitudes, and is usually grown between 300 to 2,000 meters above sea level. Tea connoisseurs consider tea grown at higher altitudes as a better quality product (Saber 2010). Ideal temperatures range 10-24C and rainfall at 200 to 230 centimeters per year (Saber 2010). These specific requirements mean that high quality teas can only be grown in particular locations places around the world that meet these requirements.

There are six types of tea: white, yellow, green, oolong, black and pu'er. White, yellow and green teas are “unfermented;” oolong is semi-fermented and black tea is fermented. The term “unfermented” refers to the tea's processing, in which fresh leaves are dried or steamed after picking to avoid oxidization. Black tea is completely fermented and it is called that way because the tea turns a very dark color. It was first produced in China during the Ming dynasty (1368-1644) (Saber, 2010). Over time, tea was produced in China and sent to the West, where demand in Europe and the Middle East was high.

Tea is a major crop around the world. The area cultivated with tea around the world in 2014 was 3,799,821 and equivalent to 5,561,339 tons of production that same year (FAOSTAT 2014). Many large players dominate the world tea market. About 85% of global tea production is sold by multinationals, like Unilever, which controls 12% of the world market, Tata Global Beverages, which controls 4% of the market and Twinings, which accounts for 3% (Potts et al. 2014).

The benefits of organic tea production and consumption

Organic tea presents an opportunity to enhance trade and investment between China and Kenya that promises to further develop Kenya's economy in a sustainable way, while providing health benefits for Chinese tea drinkers.

Organic agriculture, as defined by the International Federation of Organic Agriculture Movements (IFOAM), is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than use of inputs with adverse effects. It also combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved (IFOAM). Organic agriculture standards vary by country, but both the European Union and the United States' standards include strict limits on the use of chemical synthetic pesticides and fertilizers, as well as genetic engineering.

Organic tea, therefore, is tea grown following a specific set of standards and regulations that promote social and environmental wellbeing. In addition to that, organic teas can promote economic development because organic agricultural products often fetch a higher price than their conventionally grown counterparts. This allows farmers and workers involved in the organic tea production process to receive higher prices for their tea and higher wages for their work. Thus, organic tea has the potential to increase incomes and returns to labor (Rundgren 2006).

In addition to that, organic tea has a number of benefits, such as lower traces of pesticides that are harmful to people's health. Although some pesticides may be removed during the tea processing, some conventional tea may retain traces of pesticides. Conventional tea testing has often found traces of pesticides that are banned in some countries in the tea testing. A chemical testing of tea conducted for CBC News Canada by a private analysis company found eight of the ten popular brands tested had pesticide residue above the legal limits (Griffith-Greene 2014). The pesticides found included endosulfan and monocrotophos, which are banned in some countries because of their adverse health and environmental effects (Griffith-Greene 2014). These can also have pernicious effects on the health of the farmers that work in tea processing. In Kenya, reports of high content of fluoride on tealeaves have led to rejection of tea exports (Marete 2015). In addition to indicating a lower quality product, high fluoride content in tea leaves is toxic in high levels and can be the result of intensive fertilizer use (Fluoride Action Network).

Organic tea also has many positive effects on the environment: firstly, it contributes to improved soil quality because it reduces the amount of exposure of soil to harmful herbicides and pesticides. This reduces the negative impact of fertilizers and herbicides

on ecosystems through agricultural runoff, which helps preserve the life of flora and fauna around plantations. Tea is a perennial monoculture plantation crop that produces tea for up to thirty years. As such, the plant is susceptible to many pests and in some countries, it depends on pesticides; therefore, organic tea presents an opportunity to grow it in a more sustainable way (Gurusubramanian et al. 2008). The Kenyan tea growers have an inherent advantage of using pest resistant tea varieties and growing in agro-climatic conditions that reduce the vulnerability to pest attacks (Tea Board of Kenya, 2016).

Studies have found that organic tea plantations contribute to better soil health. For example, an analysis that compared organic and conventional tea production showed that soil pH, total organic carbon and nitrogen contents were higher in organic fields than all conventionally grown pairs, which signals that the soil quality was better with organic agriculture (Han et al. 2013). Furthermore, the amount of soil organic carbon and microbial biomass carbon were also higher in soils that were managed with organic practices (Han et al. 2013). Han et al. also found that the organic carbon content in organic fields was 7.2 percent higher than in conventional ones, so that soil with organic tea would sequester one percent more of carbon per year than regular tea (Han et al. 2013). In addition, the biomass carbon, ninhydrin-nitrogen, and ratios of biomass carbon to total organic carbon, biomass ninhydrin-nitrogen to total nitrogen were significantly higher in organic fields in most of the comparison fields (Han et al, 2013). Nitrous oxide (N₂O) emissions, which can also intensify Greenhouse Gas (GHGs) effects that contribute to global warming, were found to be lower in organic tea soils (Han et al. 2013).

Secondly, organic tea agriculture can also reduce demand on water and increase environmental resilience to other climatic catastrophes (Rundgren 2006). Thirdly, more sustainable tea farming also puts less stress on the wildlife that coexists with these plantations and also lowers the contribution of increased agricultural production to climate change (FAO). Fourthly, some studies indicate that organic tea might have a greater amount of antioxidants known as polyphenols, which can have a cancer-fighting effect. In a study comparing three independent samples from sites under organic and conventional management in China, the researchers found that organic tea had “significantly higher” polyphenols, including epigallocatechin gallate (EGCG), epicatechin gallate (ECG) and epigallocatechin (EGC) compared to conventional tea (Han and Yang 2014). Due to the role of polyphenols in fighting cancer and preventing cardiovascular diseases, the researchers concluded that organic tea could have clear health benefits when compared to conventional tea (Han and Yang 2014). Other studies maintain that there appears to be little difference in the amount of antioxidants that is in conventional compared to organic tea (Kazimierczak et al. 2015).

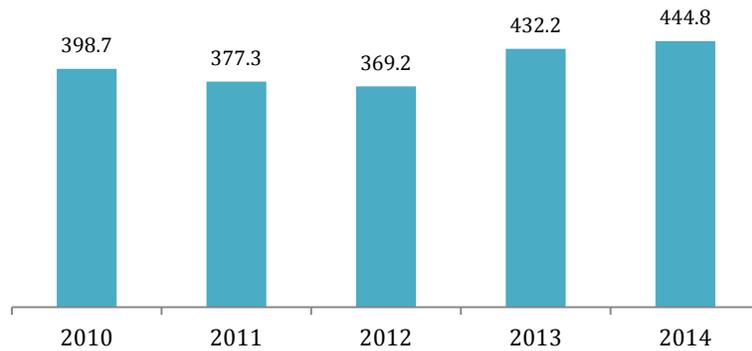
Kenya's Production of Black Tea

Kenya is the third largest producer of tea in the world, with a total production of 400 million kilograms in 2015 (Tea Board of Kenya, 2016). Over the last ten years, Kenya's annual tea production has been consistent between 350 and 430 million kilograms, with variations being attributed to price fluctuations in the global market and production shortfall due to climatic conditions (FAO, 2015). The tea industry in Kenya developed during British colonial rule and despite the fact that Kenya is not a tea consuming economy; it has remained the largest producer in Africa and one of the largest globally. Approximately 95% of the total tea produced in Kenya is exported, making Kenya the largest exporter of tea in the world with 22% of global tea exports (Ministry of Agriculture, 2015). While China and India are the largest producers of tea in the world, their status as the largest consumers of tea leads to their tea production being aimed at primarily supplying the local market and not export markets (FAO, 2015).

Due to strong performance of the tea industry and its high export value for the country, tea is important component of the Kenyan economy. The sector provides of hood to 10% of the Kenyan population contributes 4% of the country's GDP and 26% of export earnings (Tea Board of Kenya, 2016). The tea industry has also contributed significantly to rural development in the country by promoting cultivation of tea among smallholder farmers, which has traditionally been a large plantation based crop (Ministry of Agriculture, 2015).

Kenya has seven tea growing regions along the equator with over 50 varieties of the crop being grown across them, developed to suit each region (Tea Board of Kenya, 2016). The climatic conditions in the tea growing regions are such that the crop is not vulnerable to pest attacks (Tea Board of Kenya, 2016). As a result, tea grown in Kenya is pesticide free and the only form of chemical used in its cultivation is fertilizer (Tea Board of Kenya, 2016). An additional advantage that Kenya has as a tea producer is that the tea cultivation regions are along the equator, hence receiving twelve hours of sunlight all year round. Combined with the altitude and rainfall, this ensures that supply of tea is consistent all through the year, both in terms of quantity and quality (Tea Board of Kenya, 2016).

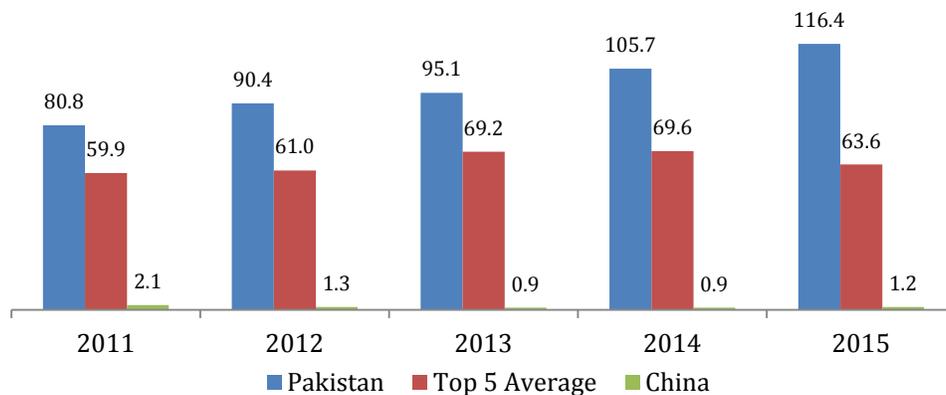
Figure 1: Kenya Tea Production Trend (Million. Kilograms)



Source: Tea Board of Kenya Production Statistics 2016

Being primarily an export crop, tea in Kenya has developed in response to global demand forces. As a result, existing market linkages with traditional trading partners have contributed towards the development of certain export markets. Interviews with stakeholders involved in tea trade revealed that due to Kenya's global position as the largest exporter of tea, the trading market has relied primarily on pull forces and not push. In other words, demand from other countries has been a main driver of trade linkages. While this has ensured consistent demand, Kenya's tea exports are concentrated to certain countries. The top 10 export destinations account for approximately 90% of total tea export from Kenya. Pakistan was the largest export market in 2015, with 116.4 million kilograms being exported to the country; on the other hand, China only imported 1.2 million kilograms of Kenyan black tea (Tea Board of Kenya, 2016).

Figure 2: Kenya Tea Export Trend (Million. Kilograms)



Source: Tea Board of Kenya Export Statistics 2016

II. Potential of Organic Black Tea Trade Between Kenya and China

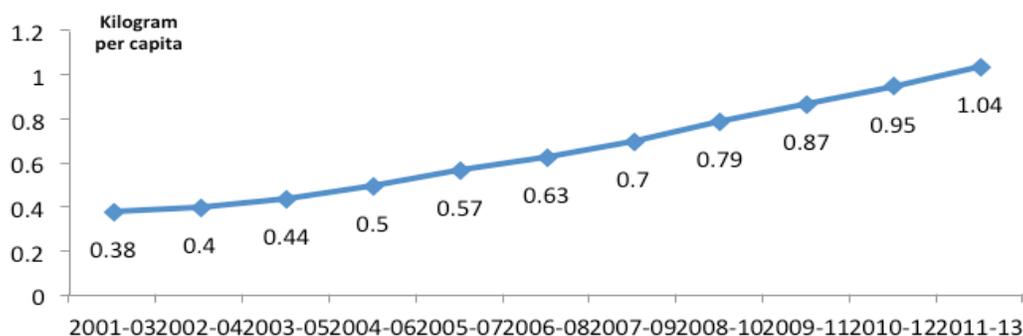
Enormous potential in increasing tea consumption demand in China

Unlike many other commodities, tea that is produced in China is consumed locally (Potts et al. 2014). As one of the first countries to embrace the art of tea, China is the largest tea producer in the world. In 2014, there were 1,984,229 ha of area under tea cultivation (FAOSTAT 2014). According to FAO, in 2013, China produced 1924.5 thousand tons of tea (Chang 2015). For context, India, on the other hand, is the world's second producer, with 1200 thousand tons of tea produced in 2013 (FAO 2015).

World tea consumption increased annually by 4.3% to 4.95 million tons from 2004 to 2014 (IGG FAO 2016a). This expansion was due to the rapid growth in per capita income levels, notably in China and India. In China, consumption of tea has expanded notably, at an annual rate of 10.6% over the last ten years, reaching 1.67 million tons in 2014, or 34% of the world tea consumption (IGG FAO 2016a). The only country to come close to that is India, with 1.02 million tons in consumption, or about 20% of the world's total (IGG FAO 2016a). In addition to that, statistics suggest that traditional importing markets like Europe and Russia have seen declining demand of tea, as other beverages gain new ground (IGG FAO 2016a). China is the biggest consumption country and consumption is only likely to increase as incomes rise in a scenario of growing tea consumption around the world.

The world's black tea production is projected to increase by 3.7% annually to reach 4.29 million tons in 2024 (IGG FAO 2016a). This is underscored by increasing production in India, China, Kenya and Sri Lanka. China's black tea production is also expected to increase due to a strong growth in domestic demand for black teas like Pu'er (IGG FAO 2016a). These trends show that there is strong domestic demand for black teas and a projected increase in future years.

Figure 3: Per Capita Tea Consumption Trend in China (Kilogram per Capita)



Source: IGG FAO 2016d

World black tea consumption is projected to grow at 3.7% annually to reach 4.27 million tons in 2024 primarily due to strong growth in consumption in countries that produce black tea (IGG FAO 2016a). China is projected to see annual growth in consumption of black tea of more than 15% in the next ten years (IGG FAO 2016d). Rapid growth of black tea consumption is going to be driven by the popularity of brick teas, such as Pu'er, promoted for their health benefits (IGG FAO 2016d). As for exports, black tea exports are projected to reach 1.70 million tons in 2024, with similar growth rates for both Africa and Asia (IGG FAO 2016a).

Solid demand and high prices have driven supply increases over the past decade, and have resulted in high domestic consumption and trade (IGG FAO 2016a). Export earnings at the global level more than doubled over the 10 years, from USD 2.58 billion in 2005 to USD 5.61 billion in 2014, contributing to improved rural incomes and household food security in tea producing countries (IGG FAO 2016a). In Kenya, export earnings of USD 1.16 billion financed more than 60% of Kenya's food import bills (IGG FAO 2016a).

Black tea is going to be at equilibrium price of USD 2.83 per kilogram through to 2024 (IGG FAO 2016a). The annual average was USD 1.64 per kilogram in 2005, an increase in nominal terms (IGG FAO 2016a).

While tea production and total consumption is high in China, per person consumption is not high. Per capita consumption ranks as only 19th in the world, with 0.56 kilograms per person in 2016 (Euromonitor 2016). This is relatively small compared to Turkey, which averages 3.16 kilograms per person, or the United Kingdom, where each person consumes 1.94 kilograms of tea per year (Euromonitor 2016). Therefore, there is room for considerable expansion of tea consumption in China.

Production in China has been meeting demand, with average growth rate of tea consumption in China at 8.86% and average growth rate of tea production at 8.77% between 2001 and 2011 (Zhi 2014). However, demand for high-quality premium teas is set to rise as China continues to see rising incomes.

Environmental and food safety concerns are increasing the popularity of organic products in China

China's remarkable economic and social progress has lifted millions from poverty, but it has also created some challenges for the general population involving environmental concerns. For one, there are worries about the air and water pollution in major cities. In recent years, a number of high-profile exposés of food safety in China have been grabbing headlines since 2008. The issue is so widespread that in late 2016, the China Food and Drug Administration announced it had found 500,000 food safety violations in

the preceding nine months (Stanway 2016). This has increased the profile of food safety issues amongst the Chinese. In 2015, a Pew Global survey found that over a third of the Chinese interviewed (32%) said food safety is a “very big problem,” up 20% from 12% in 2008 (Pew 2015).

China’s State Council has publicly manifested that food safety is a top priority and the country responded to these scandals by enacting a revised Food Safety Law in 2015. This law enhances oversight along the supply chain but the challenge remains in implementing these regulations, as authorities continue to face illegal additives, unethical business practices and absorption of soil contaminants (Fu 2016).

Some pesticides, which have been used in tea production, such as methomyl and endosulfan, are considered to be toxic and detrimental to people’s health and are banned by China’s Ministry of Agriculture (Wei et al. 2011). Traces of these banned pesticides have been found in some popular teas after testing by NGOs (Greenpeace, 2012). Endosulfan is banned due to its effect on the endocrine system and its linkages to cancerous tumors and other disorders.

Furthermore, there are serious concerns over contaminated agricultural land in China. In 2014, the Chinese Ministry of Environmental Protection stated that one fifth of the country’s arable land was contaminated due to primarily heavy industrial use, as well as agricultural and mining activities (China MEP 2014). This was after public officials announced that farmland might be taken out of production due to heavy contamination (Duggan 2014).

Concerns over food safety are leading to increased interest in organic products in China in a context of rapid urbanization and income growth. Companies such as Beyond Organic and Emerald Bay Farm are providing consumers in urban centers with access to fully organic produce, eggs and other processed products. Supermarket chains and large-scale retailers have also made investments in food safety and organic food. Walmart, for example, sources its own green and organic products through the Direct Farm Program that it established in 2007 (Wright, 2015).

China’s domestic market in organic products has been growing rapidly since the early 2000s (ITC 2011). In 2008, the country’s total organic production was valued at USD 2.4 billion and organic imports were estimated at USD 3-8 million in 2008, and USD 20 million in 2009 (ITC 2011). These statistics show robust growth in the organic foodstuffs. In 2014, organic products made up 0.1% of food products available to consumers in China, while the world average was around 1% (Beyond Organic 2014). In Europe, these numbers are higher, with an 8% for a country like Denmark and 2% for all of Europe (Beyond Organic 2014). It is therefore clear that there is much room for growth in organic product demand and supply in China.

In addition to that, rising incomes and increasing connectivity and exposure to global food trends have been contributing to the rising popularity of organic food products in China. This is evident by the groups of consumers most interested in organic food products, such as white collar families, families with young children, overseas returnees, professionals from Hong Kong and Taipei, government officials, young people in urban areas and foreigners living in China (ITC 2011). The market for organic products in China is only set to grow in coming years, while the demand for black tea continues to grow in China.

The potential of the organic market in China is large due to the high premium that organic products currently receive. Produce, for example, can be 3 to 15 times more expensive than conventional products, according to our stakeholder interviews.

High Potential for Organic Tea Production and Certification in Kenya[4]

The lack of use of pesticides in tea cultivation in Kenya provides a major platform for the adoption of chemical-free or organic certified tea cultivation. Both large and smallholder tea farmers use fertilizers in order to increase yield. The most common type of fertilizer used in tea cultivation, Nitrogen, Phosphorus and Potassium (N, P, K) in order to replenish the nutrient constitution of the soil (FAO 2016). With the existence of chemical-free fertilizers and organic fertilizers, the barriers to move towards 100% chemical-free cultivation can be overcome given the right support.

Despite the low dependence on chemicals in the cultivation process, organic tea is a rare find in Kenya. Stakeholder interviews suggest that the volume of organic tea cultivated in Kenya can be as low as 1-2% of total production, with only a handful of large producers choosing to grow organic certified tea. However, a study from the International Institute for Sustainable Development (IISD) estimated that the amount of Kenya's tea production that was certified under organic sustainability standards was less than 1% between 2011 and 2012 (Potts et al. 2014). None of the numerous traders interviewed during our field visits knew of organic tea being traded through the Mombasa tea auction, the largest tea trading platform in the world and the platform of choice for the East African tea market. Another positive side of focusing on building up organic tea plantations in Kenya is the fact that the same plant can be used for both black and green tea.

While tea cultivators have not adopted organic production practices and certification at a significant level, a growing number of farmers of fruits, vegetables, and other domestic consumption items, are turning to organic cultivation with the domestic market in mind. IFOAM highlights the advances made in East Africa in terms of arriving at a common organic certification standard through the East Africa Organic Products Standard (EAOPS), a UNEP headed project to harmonize organic certification standards across

seven East African Countries (OECD, 2007). While creating an independent regional standard, such as the EU standard, is a positive step with a long-term outlook, currently, the export market for organic produce relies mainly on international organic certification.

Currently, five international organic certifications that operate in Kenya, like: Soil Association (UK), Ceres (USA), EcoCert, (France), IMO (Germany) and Bio Suisse (Switzerland) (Kledal et al, 2009). The international players have taken steps to reduce cost by hiring local certification bodies and auditors. In 2005, a national certification body - Encert - was established to provide certification services affiliated to international certification authorities (Kledal et al, 2009).

Kledal et al, in their 2009 paper highlighted that vegetables and nuts were the most popular products being organically certified, with over four times the production as compared to organic tea (Kledal et al, 2009). In 2014, the total number of organic-certified farmers was over 70,000, but tea farmers were still a minority in the group (Mulupi 2014). Domestic organic certification, as well as EAOPS certification, is primarily utilized to target to domestic market in urban centers such as Nairobi. Hence, can be seen as a reason for greater uptake of these certifications among vegetable and nut growers to catering to a growing urban demand for organic agricultural produce. The rise of organic farmer markets and restaurants serving organic food is evidence of increased awareness among urban consumers and increased trust in EAOPS certification and domestic certification service providers (IFOAM, 2007). While the outlook of domestically certified organic agricultural products is positive for fruits, vegetables and other similar products, the export-oriented nature of the tea market makes international certification the default choice. This could be a contributor toward lower promotion of organic certification among tea growers, as a result, lower uptake of organic certification among tea growers.

With growing consumption of different varieties of imported teas in China, such as Assam Tea, Ceylon Tea and Darjeeling tea, the potential for Kenyan black tea creating a market for itself in urban centers exists. As China's urban centers grow, demand for a higher variety of premium beverages can be expected to increase as well. At the same time, awareness of the benefits of consuming organic products vis-à-vis their conventional counterparts has been increasing in Chinese urban centers, and is set to continue to increase. Hence, there exists a potential market for Kenyan organic tea in urban China, given the right enabling environment.

Increasing ties between Kenya and China by expanding trade and investment in organic black tea

Kenya is a major tea producer and China is both a major producer and consumer. Considering Kenya's natural competitive advantage in black tea production and the fact

that China, already a huge tea consumer, is set to increase its consumption of black tea, as well as its organic products, there is an opportunity for investment and trade in organic black tea between the two countries.

China is already one of Kenya's trade partners. China's imports from Kenya totaled USD 92.5 million in 2015 (MIT 2015). Over half of China's imports from Kenya are of minerals, such as titanium ore (38% of total imports), niobium, tantalum, vanadium and zirconium ore, which made up 18% of total imports in 2015 (MIT 2015). Animal products, such as tanned equine and bovine hides made up 12% of imports in 2015 (MIT 2015).

Tea, however, made up 2.5% of imports from Kenya in 2015, totaling USD 2.28 million (MIT 2015). This is an increase from 2013, when tea imports from Kenya totaled 2.12 million (MIT 2013). The trend of Kenyan tea exports to China suggests that there is growing demand for Kenyan tea in the Chinese market. In 2014, Kenya exported 935,600 kilograms to China, while in 2015, the amount of tea exported to China grew to 1,195,830 kilograms (IGG FAO 2016b). China imports its tea primarily from Sri Lanka, which accounts for 33% of China's tea imports (MIT 2014). China's second biggest amount of imports comes from India, which accounted for 15% of imports in 2015 (MIT 2015).

III. Key Challenges

1. Lack of closer ties between Kenyan and Chinese tea market players

In order to leverage the available opportunities to expand organic tea production in Kenya, targeting the Chinese market, market players on both sides of the trade need greater information and opportunities to connect with each other. Kenyan traders have cited lack of insights into the Chinese tea market and a lack of business linkages as key reasons for limited development of China as an export market.

Interviews with Kenyan growers, as well as traders, revealed that the lack of information and perceived limited market access act as disincentives to exploring the potential of the Chinese market. Traders cited instances where container loads of tea exported to China were denied entry at the port due to non-compliance to import requirements (for example, high rare earth metal content). Incidents such as these reflect a lack of synergy between business and regulatory entities on both sides of the commercial exchange, leading to imperfect information and perceptions of the existence of non-trade barriers for exporting Kenyan tea to China.

Similarly, the lack of connection between the tea sectors of the two countries limits the chances for partnerships that can drive bring further investment into the Kenyan tea sector.

The Chinese market, considered a “mature” and competitive tea market, is expected to see black tea consumption rise in the future. However, there is little premium Kenyan black tea available in stores in urban centers. In fact, most of our visits identified black tea from Sri Lanka in Chinese stores. This points to an existing demand in the Chinese market for black tea and a supply from Sri Lanka. This supply is connected to the Sri Lankan government’s active role in promoting its tea through press conferences and trade shows that present that country’s tea to Chinese officials and business owners.

2. Limited value-addition in the domestic Kenyan tea industry

Even though Kenya is the largest exporter of black tea in the world, there is little recognition of the origin of black tea consumed globally. Kenya primarily exports its tea in bulk and only a limited amount of value addition takes place in the country. The bulk-export based model leverages existing trade networks and has been the route of choice for the industry. This export model has driven the Mombasa’s tea auction to become the biggest in the world.

Figure 4: Distribution of Sales Channels for Kenyan Tea

Type of Channel	Percentage of Total Sales
AUCTION	82.19%
DIRECT SALES	13.26%
FACTORY DOOR SALES	2.11%
SALES TO PACKERS (RETAIL OUTLETS)	1.75%

Source: Tea Board of Kenya Presentation to FAO, 2014

As can be seen in Figure 4, packaged retail sales account for less than 2% of total tea sales in Kenya. Low domestic consumption can be highlighted as a reason for the lack of domestic value-addition and reliance on a bulk export model. However, the Kenyan

economy can gain significantly from greater value-addition in the tea market, particularly due to the proximity to the source of the raw material.

In 2011, the Tea Board of Kenya launched a Mark of Origin label for Kenyan tea in order to increase the profile of Kenyan tea globally (Riungu 2011). The Mark of Origin for Kenyan tea can only be used for tea that is cultivated, processed and packaged in Kenya. In addition to that, it also requires that the tea be grown and processed under some specific guidelines set by the Tea Board of Kenya (Tea Board of Kenya, 2016). Since only 1.75% of Kenyan tea is packaged in Kenya, the Mark of Origin is not leveraged to its full potential (Tea Board of Kenya, 2016). Additionally, most of the tea packaged in Kenya is targeted to the domestic market and as a result, the Mark of Origin for Kenyan tea has not gained much international recognition. Hence, the bulk export nature of the Kenyan tea market denies the industry the opportunity to use the Mark of Origin and build brand value for Kenyan tea, both organic and inorganic.

There is an opportunity for producers to further add value to their product by receiving both the Kenyan Mark of Origin and an internationally recognized sustainability labels. While the latter are gaining popularity around the world, they still do not certify large quantities of Kenyan black tea.

3. Need for increased promotion of organic certification for tea growers in Kenya to achieve greater awareness, competition and reduced cost

There are several sustainability standards that provide labels for tea products around the world. These are Fairtrade International, Rainforest Alliance, the Ethical Tea Partnership, UTZ Certified and Organic. These initiatives verified 12% of global production in 2011/2012 (Potts et al. 2014).

While tea growers in Kenya adhere to these voluntary sustainability standards for cultivation, and processing units adhere to corresponding production standards, like ISO, the demand-centric nature of the Kenyan tea industry has led to the adoption of voluntary growing standards as required by customers of the processing plants to which farmers sell their produce. The shift towards sustainability voluntary certification has been also led by large companies, such as Unilever and Tetley, which have led the producers in Kenya to gain certification to achieve higher premiums (Potts et al. 2014).

For example, processing plants targeting European markets, particularly the UK, require the farmers they procure from to adhere to voluntary standards listed above. Stakeholder interviews also revealed that the other large markets for Kenyan tea – Pakistan, Egypt, UAE and Afghanistan – do not mandate the adoption of voluntary standards and, as a result, most farms and processing plants catering to those markets do not adopt voluntary standards. The same logic is also extended to organic

certification as well. In an interview with a large tea brokerage house, we were informed of a limited number of large organic tea plantations, owned by established player in the tea industry, producing organic tea that is sold it directly to customers internationally and not through the Mombasa tea auction.

In 2011/2012, only 550 metric tons of Kenya's domestic production was certified as organic (Potts et al. 2014). In contrast, 152,638 metric tons of Kenya's domestic production was certified under the Rainforest Alliance in 2011/2012 and 87,400 metric tons were certified under Fairtrade in the same time period (Potts et al. 2014). This makes Kenya one of the top 5 standard-compliant producers, with 40% of local production certified under international standards, with India in second place with 16% of its local production (Potts et al. 2014). Thus, there is much room for growth in certifying Kenya's tea under organic guidelines. Stakeholder interviews confirmed that cultivators and processors would undertake the economic and time costs of organic certification if they have greater access to economies demanding organic goods.

The demand-based uptake of voluntary standards has led to greater on-the-ground presence of these organizations among tea grower and processor communities. Similar steps in the direction of organic certification, by promoting organic tea production through linkages to demand centers, as well as promotion of organic certification agencies among tea growers and processors, can lead to greater familiarity with the certification, greater understanding of its benefits as well as requirements, and greater adoption of organic certification for tea production in Kenya.

While there is little specific data on the conversion costs of organic tea in Kenya, some estimates for cost per kilogram of tea put organic at a 65% higher cost than conventional tea in India (FAO 2014). However, these models do not take into account the positive environmental and social externalities that come from organic tea, such as reduced fertilizers and pesticides.

Besides the perceived lack of demand for Kenyan organic black tea, stakeholder interviews revealed that growers highlight the high economic and time costs involved in organic certification. In fact, the IISD estimates that the premiums for voluntary sustainability standards for tea can range from 1 percent to over 20 percent and that currently, the highest premiums are for Fairtrade tea and the lowest for UTZ certified tea (Potts et al. 2014).

In order to promote greater production of organic tea, concerted effort needs to be made to offset these costs and spreading greater awareness with regards to potential gains from organic certification. As the process of establishing linkages between Kenyan and Chinese tea market stakeholders gathers pace, adoption of organic production standards should also be promoted.

4. Limited trust in China's organic product label and high incidence of intentional mislabeling in China's organic product sector

China is a relatively new country to organic certification. The country established organic standards in 1994 through the Organic Food Development Center, part of the Ministry of Environmental Protection (USDA 2010). In 2004, the authority that governs organic standards became the Certification and Accreditation Administration. Since April 2005, China has had organic standards that include organic production, processing, distribution and retailing (USDA 2010). The standard is the Chinese National Organic Product Standard (CNCA) (GB/T 19630-2011 Part 1-Part 4) as set by the Chinese National Organic Product Certification Program.

There are at least 23 independent certification bodies that are authorized to certify organic products, as registered with the CNCA. There are two labels that products can receive: organic or in conversion to organic.

All organic products that sell in China – both made abroad and at home – must obtain a Chinese organic certification label, as per our stakeholder interviews. The applicant must pay for the certifier to travel to their respective country to inspect their production. The label is valid for a year. Applicants must also pay fees for certification, which vary according to product and scale of production. The fees are generally around RMB 20,000 – 40,000 (USD 2,900 – 5,800) per product, according to contacts with the Organic Food Certification Centre in Beijing.

The organic food label in China has faced some challenges due to the utilization of fake labels and continued mistrust from domestic and international consumers of Chinese organic food products. This is due to reports of food safety scares in local and international news outlets.

In recent years, a number of high-profile exposés of food safety in China have been grabbing headlines since the 2008 outrage over lethal melamine-tainted infant formula milk affected almost 300,000 babies (Fu 2016). Other cases involving fake eggs and the use of “gutter oil” in restaurants, as well as contaminated rice, have been widely circulated in international and local media. The food safety issue appears to be widespread. In fact, in late 2016, the China Food and Drug Administration announced it had found 500,000 food safety violations in the preceding nine months (Stanway 2016). These reports have made food safety a grave concern for Chinese people since 2008. In 2015, a Pew Global survey found roughly a third of the Chinese interviewed (32%) said food safety is a “very big problem,” up 20% from 12% in 2008 (Pew 2015). Furthermore, food safety standards within China have been identified as some of the major barriers to China's agricultural exports (Wei et al. 2011). Others point to lax

regulation and the existence of corruption as possible reasons behind so-called “organic fraud” (Charles 2014).

Efforts to educate the Chinese public through a campaign on the definition of organic could be beneficial. In addition to that, increased oversight of certification rules and financial punishment for mislabeling could lead to a reduction in cases of intentional mislabeling of products. Furthermore, co-recognition agreements can increase the reputation of Chinese organic products and the label.

5. Existence of tariff barriers on Kenyan imports into China and vice versa

China imposes a tariff of, on average, 14.9% on tea and coffee. This tariff, depending on the specific situation, can reach a maximum of 32% (WTO 2016). In fact, the average tariff on Kenyan imports into China was 11.73% for agricultural products in 2015 (WITS 2015). The standard Value Added Tax (VAT) on consumer goods imported into China is 17%, but goods such as books, newspapers, magazines, cereals, edible vegetable oils, tap water, heaters, coal products for residential use and other goods get a lower rate of 13% (DHL 2010).

China is one of the World Trade Organization (WTO) member countries that have been negotiating a list of items that will receive cuts in their tariffs in the framework of the Environmental Goods Agreement (EGA) since the talks formally began in 2014. The talks have not produced a final list of accepted EGA but products such as solar panels and other low-carbon energy technologies are being considered (ITC 2016). While agricultural products are not covered by the agreement, lowering tariffs on organic products from different countries would be beneficial to their entry into the Chinese market and would help create a supply for these products abroad (ITC 2016).

IV. Recommendations

1. Strengthening Tea Safety Standards and Organic Certification in China, while promoting organic practices and certification in Kenya

China can play a role in increasing the availability of Kenyan black tea as an organic product in the country. Co-recognition efforts with other organic standards, such as USDA Organic and the EU Organic seal, could enhance the reputation of the relatively new Chinese organic standard. While this would entail significant work on standardizing requirements across a number of countries, this would benefit both Kenya and China. On the one hand, Kenyan organic black tea producers would need to only get their product certified at one time and receive automatic certification in China. On the other

hand, Chinese producers would be able to receive organic certification in China and export their product to the EU or the United States. There is evidence that this strategy is currently being considered in the organic sector. In late 2016, the Chinese government announced that products certified by New Zealand’s Official Organic Assurance Program would be allowed to enter the Chinese market as organic products under a Mutual Recognition Arrangement for Certified Organic Products (New Zealand Ministry of Primary Industries, 2016).

Tea, being a key agricultural commodity in Kenya, presents itself as a large potential market for organic certification bodies and service providers. In addition to the sheer area under cultivation – over 200,000 Ha – the already low use of chemicals in the tea cultivation process makes a strong case for increased advocacy and outreach of organic certification among stakeholders in the tea market. Additionally, the strong organization within the Kenyan tea growers, through Kenya Tea Development Agency (KTDA) and Kenya Tea Growers Association (KTGA), can further enable rapid and widespread uptake of organic growing processes through an institutional push.

The acceptance of domestic organic certification and EAOPS in the Kenyan market also presents an opportunity for collaboration between EAOPS and their Chinese counterpart – the Chinese National Organic Product Certification Program – to harmonize their standards for organic certification and offer reciprocal acceptance. This would further facilitate trade in organic products including tea between China and Kenya, as well as other East African nations.

Stakeholder	Recommendations
Government	<p>Kenyan side: Promote use of chemical free farming in general so as to minimize environmental impact and improve quality of agricultural produce cultivated in Kenya. Explore export markets for organic products, particularly organic tea, and support domestic cultivators and traders in gaining access to export markets, such as China.</p> <p>Chinese side: Improve the reputation of its organic label through efforts to educate the citizens through mass marketing campaigns, increase its oversight and penalties for mislabeling of organic products and pursue co-recognition of organic labels with other countries/regions, such as the EU and USDA standards</p>

Private sector	Kenyan and Chinese sides: Existing tea growers should conduct feasibility and cost-benefit analysis for conversion to organic cultivation.
Civil society	<p>Chinese side: Help fund research that shows environmental and social benefits of organic product consumption</p> <p>Kenyan side: Help identify small-scale producers that are good candidates for organic conversion and facilitate the conversion, as well as obtainment of, international organic labels so that producers can add value to their own product in-country</p>
International Organizations	<p>Organic Certification Bodies: Engage with tea market stakeholders to understand bottleneck towards greater adoption of organic standards. Partner with domestic certification bodies for specific products, such as organic tea. Promote use of chemical free fertilizers and adoption of organic cultivation practices. Collect and present data showing economic and environmental benefits of organic cultivation. Conduct training and awareness campaigns in tea growing regions.</p> <p>International organizations, such as United Nations Environment Program (UNEP) and WWF: Facilitate co-branding initiatives for organic certification standards from developing countries with more established and internationally recognized standards, including certifications provided by international organizations. Promote research in economic, social and environmental impact of chemical free agriculture. Explore models for certification specifically targeting small-scale farmers or collectives of small-scale farmers.</p>

2. Improving business relations between the China and Kenya tea sectors, organic market actors

Commercial attachés at the Kenyan embassy in Beijing, as well as their counterparts at the Chinese embassy in Nairobi, could play a role in introducing Kenyan organic black tea producers to Chinese tea importers, distributors and retailers. NGOs could play a similar role, organizing forums where Kenyan tea producers and Chinese importers can

meet, sample tea varieties and create business relationships. These kinds of interventions could bridge the gap between the producer and the end market.

This approach is favored by some embassies in China. According to a contact at the Chinese Organic Food Certification Centre, the Danish embassy in Beijing has been active in promoting Danish organic products within China, looking to tap into that market. In a similar fashion, the Sri Lankan embassy in Beijing has organized press conferences in China to promote sales of Ceylon tea (MFA Sri Lanka 2017).

Given the increasingly important ties between Africa and China in the framework of Forum on China-Africa Cooperation (FOCAC), Chinese firms could utilize state-supported funds to make investments in agriculture in Kenya. The China-Africa Development Fund, established by the China Development Bank, has a USD 5 billion capacity to share risks of projects in certain sectors, such as agriculture and infrastructure (Robertson and Benabdallah 2016). These investments could be in organic tea, in which Kenya possesses considerable experience and know-how. The Chinese partner could bring valuable information regarding consumer preferences and distribution in China.

Stakeholder	Recommendations
Government	<p>Chinese side: Improve access and transparency regarding loans and the requirements for Chinese funding of African agricultural projects. There is also room to connect with Kenyan delegates in Beijing to promote business ties between Kenyan and Chinese business leaders.</p> <p>Kenyan side: Help connect Kenyan businessmen and women to opportunities with Chinese investors and firms. Organizing forums and conferences to present organic Kenyan black tea to Chinese producers and retailers through the embassy in Beijing could help foster these commercial ties.</p>

Private sector	<p>Chinese side: Seek opportunities for investment through the commercial attaches with the embassy in Kenya.</p> <p>Kenyan side: Organize a meeting with Kenyan diplomats in order to identify potential retailers and consumers of Kenyan black tea.</p>
Civil society	<p>Kenyan and Chinese sides: Provide opportunities to connect Kenyan organic black tea producers to Chinese tea producers, retailers and importers, as well as guidance on organic conversion premiums and certification under the Chinese standard.</p>
International organizations	<p>International organizations must provide support to efforts to increase economic ties between China and Kenya in sustainable industries, such as organic agriculture</p>

3. Promoting investment in Kenyan organic tea and greater domestic value addition

The Kenyan tea market presents itself as an attractive opportunity for investors with established linkages in target markets. As greater interaction between stakeholders in the Kenyan and Chinese tea industries takes place, the Chinese market for Kenyan tea will also develop. Kenyan and Chinese investors with established linkages to the organic products and tea markets in China can leverage their comparative advantage to develop the Chinese market through many roles such as, traders, growers, processors, packagers, etc.

Based on interviews with stakeholders at the China Tea Marketing Association, one of the easiest ways for new players to enter the mature Chinese tea market is to partner with a local tea producer or retailer, which could provide much local market intelligence with regards to processing, marketing and retailing tea to Chinese consumers. Partnerships between Kenyan and Chinese entrepreneurs can reap great benefits for both parties and play a critical role in developing the Chinese market for organic tea as well as growing Kenyan organic tea production. Participation in Chinese tea expositions could be a starting point for Kenyan producers interested in the local market.

The organized supply chain in the Kenyan tea industry, wherein cultivators regularly sell their produce to the same processing plants, creates a suitable environment for investment. Chinese investors interested in Kenyan organic tea can establish processing plants and contract or lease tea plantations in order to cultivate and process organic certified tea. This would not only lead to greater value addition in Kenya but also enable the establishment of deeper trade channels for export of organic tea from Kenya to China. Such an ecosystem would not divert trade from other partners, but generate new trade and, in turn, increase production of organic tea in Kenya.

A concerted effort to promote value addition within the country and to diversify from the bulk export model can help establish Kenyan tea as a final product and also provide an opportunity for establishing the Mark of Origin in the global market. Lessons can be taken from Sri Lanka and its promotion of Ceylon Tea as a global brand. Stakeholders also echoed this thought along the value chain, from cultivators to the regulator as well as traders.

Stakeholder	Recommendations
Government	Kenyan side: Promote establishment of value addition industries around tea, so as to move the market away from a bulk export business model to export of retail-ready finished products. Initiatives adopted by the Sri Lankan government in this regard can be considered.
Private Sector	Kenyan and Chinese side: Explore feasibility of investing in organic tea in Kenya, with a particular focus on the Chinese market, by entering at any stage of the tea value chain - from farm to processing, export or distribution.
Trade Associations	Kenyan side: The Kenyan Tea Board could promote uptake of Mark of Origin for all value added tea exported from Kenya. Consider inclusion of tea exported in bulk to be covered by the Mark of Origin as well.

4. Preferential tariff structure for organic products and organic tea from Kenya

Sri Lanka is one of the world's top five black tea producers. The island nation's tea is also widely available in China. Visits to supermarkets in the Beijing area confirmed the presence of Sri Lankan tea marketed by Sri Lankan companies. Since 2005, the government of Sri Lanka has pursued stronger ties with China and has transformed their relations into one described as a strategic cooperative partnership (Smith 2016). This closer relationship has resulted in benefits for Sri Lanka, which received loans from Beijing to build ports and airports in the context of the "One Belt One Road" (OBOR) initiative. The countries are at the moment negotiating a Free Trade Agreement, which would enhance the ties between the two countries and allow for no tariffs on tea imported from Sri Lanka (Smith 2016).

Sri Lanka is a global leader in regular black tea and its tea has increased in price in recent years. In 2012, Sri Lanka tea commanded the price of Rs. 391.64 per kilogram (USD 3.00) in 2012 and Rs. 462 per kilogram (USD 3.56) in 2014 (IGG FAO 2016c). Sixty percent of total production came from low grown teas, which received prices of Rs. 500 per kilogram (USD 3.85) (IGG FAO 2016c).

Kenya, as the only African country in the OBOR initiative, could gain from negotiating a bilateral treaty with China that would strengthen their commercial ties and increase the reach of Kenyan organic black tea.

In addition to that, on the Chinese side, negotiating an entry of agricultural goods, such as organic foodstuffs, into the Environmental Goods Agreement (EGA) could mean lower tariffs for those products and increase demand for them in China. At present, there is at least a 14.9% tariff on Kenyan black tea that enters China (SOURCE).

Stakeholder	Recommendations
Government	Kenyan and Chinese side: Work towards a bilateral agreement that would reduce tariffs between the two countries in the framework of OBOR and FOCAC. This agreement could include a section on tariffs for sustainably grown agricultural goods that produce positive environmental externalities, such as organic black tea.

Private sector	Kenyan and Chinese side: Call for organized support of lower trade tariffs between the two countries, with a focus on sustainable agricultural goods.
Civil society and international organizations	Kenyan side: Support initiatives to include organic goods on EGA and bilateral talks between Kenya and China, especially providing research and knowledge on the potential of trading in sustainable goods.

5. Promoting the health benefits of black tea in China and abroad through research

Funding research for the health benefits of black tea and more specifically, organic black tea vs. conventional tea can help increase the premiums on these teas and enhance the reputation of organic black tea in the consumer’s mind.

Several factors influence the demand of tea, such as price, income and socioeconomic background (IGG FAO 2016c). In addition to that, the perceived health benefits of tea have a great influence of its consumption, so it is recommended to increase consumer awareness of health benefits of tea consumption through an international generic promotion program, as the Intergovernmental Group on Tea from the FAO has already proposed (IGG FAO 2016c).

Stakeholder	Recommendations
Government	<p>Kenyan side: Support the work of local organic tea producers, as well as the Intergovernmental Group on Tea from FAO, in order to fund initiatives that promote the benefits of organic black tea</p> <p>Both sides: Fund studies on organic conversion and the benefits of organic tea vs. conventional for social and environmental well-being, in addition to funding extra studies for the market potential of Kenyan organic black tea abroad</p>

Private sector	Kenyan and Chinese sides: Raise awareness through marketing campaigns of the use of pesticide in conventional tea production and the health benefits of organic production
Civil society and international organizations	Kenyan and Chinese sides: Support studies that show the benefits of black tea and the use of pesticides in conventional tea growing

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