

Economic Potential of Nigeria's Indigenous Stimulants

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Abstract

The most predominant stimulant plants in Nigeria are tea, coffee, kola, cocoa, bitter cola and *Moringa oleifera*. The status of development of the different plant species differs considerably in the country. Tea is produced mostly in Adamawa and Taraba states. The total land area under tea production in Nigeria is 1200ha. While Mambilla tea is among the best in the world, tea production is bedevilled with several problems among which are poor yield and high cost of production. Coffee is grown in eleven states of the federation. The states cuts across different ecological regions in Nigeria. The most predominantly planted species is *Coffea arabica*. Nigeria produced 35,000 bags in 2014 which represents 16.67% increase over the 30,000 bags produced in 2013. Incompatibility problem is a major factor limiting coffee yield to 600-800kg/ha, making investment in coffee production less profitable. *Cola acuminata* and *Cola nitida* are the only two species of cola grown in Nigeria. Nigeria produces 120,000 tons of cola mostly from southwest states. The major factor limiting the development of kolanut in Nigeria is the small holding nature of farming activities and old age of kola trees. Likewise, the current production of *Garcinia kola* in Nigeria is about 130,000 tons. Most of these are consumed locally while about 10% are exported. Annual cocoa production in Nigeria is about 210,000 tons. Most of these are exported in raw forms with very little processing activities going on. *Moringa oleifera* on the other hand is a widely cultivated species in Nigeria. It is a useful medicinal plant with significant health benefits. Products development from moringa is an area of strength that is being developed in Nigeria. More recently, efforts are being made to promote plantation establishment of most of the stimulants locally.

Keywords: stimulants, production, processing, plantation, small scale.

1.0 INTRODUCTION

1.1 What are stimulants

Stimulants are substances that raise levels of physiological or nervous activity in the body. They increase alertness, attention, and energy, as well as elevate blood pressure, heart rate and respiration.

The consumption of stimulants dates back to prehistoric times and production of extract solutions from stimulant plants is a very common practice world-wide. The most predominant plants of African origin with stimulant effects include Tea, Coffee, Kola, Cocoa, Bitter Kola and *Moringa oleifera*. This paper reviews the economic potential of these indigenous plant species and highlighted the way forward for their sustainable industrial development. The role of the Raw Materials Research and Development Council in promoting their availability and industrial utilisation are also examined.

2.0 Tea Plant (*Camellia sinensis*)

Tea plant (*Camellia sinensis*) is an evergreen plant that grows mainly in tropical and subtropical climates (RMRDC, 2010). Tea is the most popular manufactured drink consumed in the world.

Though, the tea plants are native to East Asia, they have been introduced to more than 52 countries including African countries such as Kenya, Burundi, Malawi, Rwanda, South Africa, Tanzania, Uganda and Zimbabwe. Kenya is presently the third largest global producer of tea after China and India. It is also the largest exporter of tea to the United Kingdom.

In Nigeria, tea is produced mostly in Adamawa and Taraba states. In the mid 1970's, Bohea Limited, a United Kingdom Company established the first Nigeria's tea project comprising of 450 hectares integrated estate in Mambilla Plateau. It has also been reported that Mambilla tea is among the best in the world. However, the tea industry in Nigeria has been bedevilled with several problems among which are poor yield and high cost of production. High cost of energy which constitutes over 40% of the cost of production, also limit investment in tea processing in Nigeria (Akinola, 2010).

Nevertheless a lot of efforts have been made to promote tea production in Nigeria since its introduction in 1952. Commercial tea planting started in Nigeria in the 70's, and so far, the total land area planted with tea is about 1,200ha. The annual national production is 1,600 ton which meets only 10% domestic need. Tea improvement started in 1982 with the acquisition of 33 clones by the Cocoa Research Institute of Nigeria. Since then, moderate achievements have been recorded. Five out of the 33 clones of tea namely; 35, 68, 143, 236 and 318 with an average yield of 2.5tons/ha have been released to farmers (Omolaja, 1999).

World tea production increased significantly by 6.0 to 5.07 million tons in 2013. This increased world output was attributed to increased production in the major tea producing countries. China remained the largest tea producing country with an output of 1.9 million tons, accounting for more than 38% of the world total production.

India, the second largest producer, also increased to 1.2 million tons in 2013. Production output also increased in the two largest exporting countries where production reached 436,300 tons in Kenya and 343,100 tons in Sri Lanka. Production in Indonesia increased to 152,700 tonnes, Bangladesh to 66,200 tonnes, Uganda to 58,300 tonnes; Malawi to 46,500 tonnes; Tanzania to 32,400 tonnes; and Rwanda to 25,200 tonnes. Other producers in Africa recorded slight increases: Burundi to 8,800 tonnes; Zimbabwe to 8,500 tonnes and South Africa to 2,500 tonnes (Table.1).

Tea production and processing could be a viable investment in the country. However, there is need for government's support in terms of incentives for small scale farmers as it is being done in other tea producing countries in the world.

2.1 Coffee

Coffea (a member of the family Rubiaceae) is a genus of flowering plants whose seeds (coffee beans) are used to make several coffee beverages. They are shrubs or small trees native to tropical Africa and Asia. Coffee ranks as one of the world's most valuable and widely traded commodities and it is an important export product of several countries, including those in Central and South America, the Caribbean and Africa. The two main cultivated species, *Coffea canephora* (also known as *Coffea robusta*) and *Coffea arabica*, are native to subtropical Africa and Southern Asia. Coffee is one of the most widely consumed beverages around the world. An estimated 3.5 billion cups of coffee are consumed worldwide every day. It is also one of the most valuable primary products in the world trade (RMRDC, 2010).

Coffee Production and Trade

Coffee is a prominent commercial cash crop in West Africa as well as in over 70 countries including Central and South American, Asia and Oceania. Coffee is second only to petroleum in primary commodity trade. It provides over 25% of the foreign exchange earnings of 16 countries in Latin America and Africa as well as employment for at least 20 million people

Brazil is the largest producer of coffee and the second largest coffee-consuming nation. Its coffee sector employs over five million people and contributes 40% of the world's total coffee supply. Ethiopia is the largest coffee producer in Africa. Ethiopia's 1.2 million smallholder farmers contribute over 90% of production. The EU is the primary market, accounting for 60% of sales (RMRDC, 2009).

Coffee is produced in eleven states in Nigeria. The states which cut across different agro-ecological region include, Plateau, Taraba, Adamawa, Kogi, Rivers, Ondo, edo, Delta, Oyo, Kwara, Lagos and Ogun. The most predominantly planted species in Nigeria is robusta coffee *C. canephora*, except in the Mambilla Plateau of Taraba State where *C. arabica* is cultivated (Williams, 1989).

Large scale cultivation of coffee was dated back to the 1940's in Nigeria but its production gained prominence in the early 1950's. Coffee was produced predominantly by the small scale farmers in the highland of Mambilla Plateau in Taraba state (Williams, 1998). In the world trade, Arabica coffee is of the greatest economic importance and account for 4% of export in Nigeria.

According to The United States Department of Agriculture (USDA), Nigeria produced 35,000 bags of coffee in 2014, representing an increase of 16.67% over the 30,000 bags produced in 2013. Coffee production in Nigeria peaked at 95,000 bags in 1964 and has been dropping steadily since 2000, remaining below 60,000 bags on annual basis. The stakeholders within the system have attributed the poor development to apathy which has caused Nigeria its membership position in International Coffee Council.

Amongst 95% of Nigerian coffee farmers, incompatibility problem have been observed to be a major factor limiting yield to 600-800/g/ha. This makes investment in coffee production less profitable (Omolaja, 1999). Omolaja (1999) observed that to mitigate this development, coffee berries selection from appropriate compatible clones is essential for establishment of polyclonal plantation that could yield about 2-3 tons per hectare. In addition, Coffee Express Guide reported that new techniques are being utilized for propagating Robusta plants and more than 110 varieties of Arabica coffee are being tested on the Mambilla Plateau in an effort to improve the country's coffee industry. Coffee export generated almost US\$ 22 billion in 2013 with smallholder farmers producing approximately 80% of the total world's coffee (Omolaja and Williams, 1997). World coffee exports amounted to 8.79 million bags in January 2015, compared with 8.77 million bags in January 2014. Brazil is the leading coffee exporter followed by Vietnam and Colombia (ICO, 2015).

The European Union and the USA are the leading importers of coffee, importing 6,621,000 and 2,614,000 60kg bags of coffee bean in May, 2015 (ICO, 2015).

2.2 Kolanut (*Cola*)

The kolanut is a tropical crop with over 20 species out of which *Cola acuminata* and *Cola nitida* are the two main species growing in Nigeria. *Cola nitida* (Gbanja) is the only kola nut of inter-regional and international trade. The trees are native to the tropical rainforests of Africa. Kola nuts comprise about 2% caffeine, as well as other stimulants (kolanin and theobromine). Kola is grown commercially around the world, particularly in Nigeria, Sri

Lanka, Indonesia, Brazil and other parts of South America. It is extremely popular because of its caffeine content (Ojo and Ehinmowo, 2010).

Cola nitida is preferred in international trade because of its high caffeine content and the white strain is the most valued. In recent years, kola nuts are exported to Europe and North America for flavouring kola drinks and for use in the manufacture of pharmaceuticals. Kola nut is also used in the manufacture of dyes. Kolanut has been an income earner in most parts of the continent, especially in the West African sub region. Typical of the informal economy, many people feed their family from Kola nut trade.

Nigeria produces about 120,000 tons of Kolanut annually mostly, from the Southwest States of Ogun, Ondo, Oyo, Osun and Lagos (Ajiboye and Afolayan, 2009). The place of Kolanut production before the oil boom economy cannot be over emphasized (Akinbode, 1982). At that time, an increasing number of Nigerians earns their living as Kolanut producers, transporters, middlemen and even as packing experts. Kolanut is the third most important crop among the world's stimulants whose global production covered about 47 million tons in 1985 (Micheal, 1985). The major factors limiting development of kola nut into a sustainable commodity for industrial use and for export purposes in Nigeria is mainly due to the fact that kola nut farmers operate on a very small scale level and the kola nut trees are quite old. However, according to Ojo and Ehinmowo (2010), kola nut production enterprise in Nigeria is still very profitable. Profitability analysis carried out on kola nut production in Nigeria shows that while number of kolanut trees, cost of chemical and labour were efficiently utilized, increase in farm distance and age of kola trees negatively affects productivity. The level of education also reduces technical efficiency of farmers. According to Ojo and Ehinmowo (2010), kola nut production could be increased by massive replacement of the old kola trees with new ones as well as increasing hectares of land under production.

National output has increased to 174,230 tons in recent years. However, About 90% of the kola nut produced in Nigeria is consumed within the country while only 10% is exported (Ojo and Ehinmowo, 2010).

The price of kolanut in the international market (Table 2) increases steadily from 747.200USD per tonne in 2001 to 2,363.000 in 2010 (FAOSTAT, 2013). Thus, kolanut farmers should be able to use this incentive to produce kolanut for export purposes in the country.

2.3 *Garcinia kola* (Bitter kola)

Garcinia kola is a species of flowering plant in the Clusiaceae or Guttiferae family. Its natural habitat is subtropical or tropical moist lowland forests. It is found in Benin, Cameroon, Democratic Republic of the Congo, Ivory Coast, Gabon, Ghana, Liberia, Nigeria, Senegal and Sierra Leone. In Nigeria, bitter Kola is produced mainly in Ondo, Ekiti, Imo, Ogun, Delta, Edo, Oyo, Osun, Kwara and Kogi states (Aribisala, 1993). Current production in Nigeria is about 130,000 tons. Most of them are consumed locally while about 10% are exported. The fruit, seeds, nuts and bark of the plant have been used for centuries in folk medicine to treat ailments from cough to fever.

Garcinia kola is used as raw materials in the pharmaceutical and food processing industries for the production of drugs, energy drinks, and other products. The seed is used in many tropical countries to treat infectious diseases because of its anti-inflammatory, antimicrobial and antiviral properties.

Marketing of Bitter Kola

Bitter kola is in great demand in America, Britain, Germany, France, Italy, China, Japan, India and other Asian countries. Dried bitter kola is traded in the international market. However, the drying must be done in a way that the colour and taste are not affected. Bitter kola could be sun dried or dried under room temperature or by using dryers. Sun drying is the most popular practice in the villages. However, products dried under room temperature are preferred in the international market because of the attractive colour.

Bitter kola can be traded on a large or small scale. On large scale the order could be in tonnage and is usually packaged in containers, while for small scale operations, the orders are usually in kg through courier companies. It is also one of the products that can be exported to the United States of America through the African Growth and Opportunity Act (AGOA).

Bitter kola is exported through several channels in Nigeria especially through the Nigerian Postal Services and other courier companies. Unfortunately, there is no government regulation guiding these exports. There is need for a controlled export of this natural resource. Also, industrial application of bitter kola should be exploited in Nigeria to enable the country reap the full potential of the plant.

2.4 Cocoa

The cacao tree is native to the Americas. It is believed to have originated in the foothills of the Andes in the Amazon and Orinoco basins of South America, current day Venezuela. Cacao trees grow in a limited geographical zone, of approximately 20 degrees to the North and South of the Equator. West and Central Africa have become the main producers of the crop. The primary growing regions are Africa, Asia and Latin America. Today, nearly 70% of the world cocoa is grown in West Africa. The largest producing country by volume is Côte d'Ivoire, which produces 33% of global supply. Nigeria is ranked 4th among top cocoa producers in the world. Annual cocoa production in the country is in excess of 210,000 tons. The major producing states in the country are Adamawa,

Taraba, Cross River, Imo, Anambara, Ondo, Edo, Delta, Lagos, Ogun, Oyo, Kwara, Niger and Kogi.

Cocoa has become an important export commodity for many developing economies with global market value of about US\$2.5 billion (International Cocoa Organization, 2008). Africa is by far the largest supplier, followed by Asia, Oceania and the Americas.

The stimulant activity of cocoa comes from the compound theobromine. Cocoa is used across many industries to manufacture confectionaries, soaps and cosmetic items.

Cocoa bean global value in 2011/12 was 10 billion USD while retail value of global chocolate sales in 2012 was 107 billion USD. The global demand for cocoa and cocoa butter is driven by the global chocolate confectionary market. Annual demand for cacao stood at approximately 4.0 million tons in 2013 (International Cocoa Organization, 2014).

2.5 Moringa Oleifera

Moringa oleifera, commonly referred to as "Moringa" is the most widely cultivated species of the genus *Moringa*. It is the only genus in the family Moringaceae. It is an exceptionally nutritious vegetable tree with a variety of uses. The "Moringa" tree is grown mainly in semi-arid, tropical and sub-tropical areas. It is a fast-growing, drought-resistant tree that is native to North-Western India. It also grows wild in the Middle East and Africa. Today, it is widely cultivated in Africa, Central and South America, Sri Lanka, India, Mexico, Malaysia, Indonesia and the Philippines. Moringa is considered as one of the world's most useful trees, as almost every part of the tree can be used for food or other industrial applications.

Moringa plant has been identified as useful medicinal plant with significant health benefits. It acts as an anti-oxidant and as a circulatory stimulant. The potential market for *Moringa* products globally has been estimated at about 2 billion naira annually. Products developments from *Moringa* represent an area of strength that is being developed in Nigeria. Currently, a number of medical and cosmetic products are produced from different parts of *Moringa* tree locally.

3.0 POTENTIAL AND CHALLENGES OF DEVELOPING INDIGENOUS STIMULANTS

3.1 Potential

Production and processing of plant stimulants are multi-billion dollar businesses in the international market. Market exists for both primary and secondary raw materials, including the value added products derived from these plants. Therefore, harnessing the full economic potential of African indigenous stimulants will not only improve the economy of the rural poor, but also substantially lead to increase in the foreign exchange earnings. Development of value chains of these commodities would create jobs, thereby, alleviating poverty. However, processing industries for these commodities in Africa and particularly, Nigeria are currently few or non-existent. Apart from cocoa, Africa is yet to make any mark on the international market on the export of these indigenous stimulants. Even, cocoa is being virtually exported without value-addition.

3.2 Challenges

Factors militating against the development of indigenous stimulants in Africa can be grouped under production, marketing and processing challenges. These include:

- Low productivity due to inadequate knowledge of the silviculture of most of the plant species.
- Lack of improved planting materials.
- Inadequate Research and Development (R&D) on production, processing, harvesting and storage of requisite parts.
- Pests and Diseases infestation.
- Non-availability and high costs of farm inputs
- Lack of mechanization and poor farm management practices
- Lack of organized market systems
- Low intake of innovation, technology and knowledge transfer
- Poor or total lack of investment in processing of these raw materials

4.0 EFFORTS OF RMRDC ON INDIGENOUS STIMULANTS DEVELOPMENT

RMRDC, through its various programmes have intervened to promote the development of some of these plant species. Specific areas of intervention in the development of the stimulant plants according to RMRDC (2013) are highlighted below:

Cocoa processing

The Council in collaboration with Ondo state government established a catalytic model factory of about 20,000 tons per annum capacity for cocoa processing in Alade Idanre, Ondo State. This is to encourage private sector investment in cocoa processing in Nigeria. The concept of catalytic model factory approach adopted for this project

was used by Japan during its developmental years to ensure faster mobility into those projects often considered risky, through the pioneering efforts of the government and its agencies. The state government is now planning to upgrade the factory in collaboration with a foreign investor.

Coffee - The Council under its Indigenous Technology Development Programme is focusing on the upgrading of the technology for processing and packaging of coffee. As a first step towards achieving this, the Council commissioned a research team at the Federal Polytechnic, Bidda, to design a small scale coffee processing plant. The preliminary design has been completed, evaluated and accepted for the next stage, which is the fabrication of the equipment.

The Council also carried out Coffee Commodity Survey in 2011. The survey was aimed at providing accurate, reliable and up to date information on coffee production and utilization as an industrial raw material in Nigeria. It was geared towards supporting the Federal Government's renewed efforts at revamping the agricultural sector by providing adequate information for investors.

Moringa Oleifera - In pursuit of the its on local sourcing of raw materials as industrial inputs, the Council embarked on Research and Development programmes on *Moringa oleifera*. The programmes were geared towards the stimulation of investment in the *Moringa* value chain. The Council has funded the production of several value added products (tea, oil, soap, etc.) from moringa. In 2011, a pilot scale Moringa Water Treatment Plant was designed and fabricated in collaboration with the National Research Institute for Chemical Technology (NARICT). The plant has been installed and commissioned at Ahmadu Bello University, Zaria.

Likewise, the Council between December 7th – 8th, 2010, organised a two day summit on the role of *Moringa* in National Economic Development. Among the major objectives of the summit were to sensitize the public and major stakeholders on the numerous potential of the plant species and to provide a platform to fashion out deliberate attempts to explore the use of the plant in achieving the Millennium Development Goals. Over 40 papers covering various topics on moringa as well as viable research results that may interest investors were presented. Also about 15 exhibitor companies with a total of over 25 different moringa products mostly developed through the efforts of the Council were exhibited. Likewise, in 2012, the Council in collaboration with Centre for Igbo Arts and Culture (CIAC), Michael Okpara University of Agriculture, Umudike and National Roots Crops Research Institute (NRCRI), Umudike sponsored a 2-day Regional Seminar on Resuscitation of Endangered Indigenous Food and Medicinal Plants of South Eastern, Nigeria.

Garcinia Cola

Between 1991-2000, RMRDC promoted large scale plantation establishment of indigenous economic plant species in Nigeria. One of the major indigenous plant species that benefited from this initiative was *G. cola*. The Council sponsored the National Institute of Horticultural Research, Okigwe substation, to mass produce the seedlings of *G. cola* for distribution to interested farmers for large scale production. The main objective of the project was to encourage private sector participation in the establishment of plantations of economic indigenous plants in Nigeria. Also, the programme aimed at assisting the institution to develop propagation techniques for mass production of the indigenous economic plant species. The 2000 seedlings produced through this programme were distributed among four farms which include Marcon farm in Mbaitoli LGA, Lollita farm in Mbano Local Government Area and Tsede farm in Oweri LGA of Imo state.

5.0 WAY FORWARD

Sustainable development of the nation's indigenous plant stimulants has become imperative. This is mostly important as some of the plants are mainly found in Africa. Any attempt to misuse, over use or under develop them may spell doom for development globally as their industrial utilization potential may be lost forever. It has also been estimated that sustainable production and processing of these plant species will assist in employment generation, poverty alleviation and increased foreign exchange earnings, estimated at more than 2 billion dollars on annual basis. Thus, efforts should be geared towards the development of the plant species. Some of the ways the plant species can be sustainably developed are highlighted below:

- ✓ The silviculture of the plant species should be adequately studied and improved planting materials developed.
- ✓ Small scale farmers should be encouraged to invest in the planting of some of the stimulants.
- ✓ Farm inputs should be made available to farmers at the right time by the relevant Ministries.
- ✓ Access to technical assistance, farm inputs and credit facilities are critical to ensure that small holder farmers get the best price for their products.
- ✓ Supply chain for these commodities should be developed to allow for competitiveness in the international market. A developed local supply chain would increase the farmers' income.
- ✓ Farm gate processing clusters for these commodities should be established to enable farmers add value to their produce. Drying and storage facilities should be established at the farm gate level to handle postharvest management and reduce losses.
- ✓ Formation of Cooperatives among farmers of these commodities in the producing Zones/States should be

- encouraged.
- ✓ National Coffee and Tea Association of Nigeria (NACOFATAN) should be reorganised and made more effective.
 - ✓ Specially designed programme should be put in place to encourage the youths to go into farming. Public Private Partnership (PPP) arrangement could be used to deliver the programme. Private sector-led support services (credit and input supply) can be made available through collaboration with farmer groups
 - ✓ African countries should build capacity for the local fabrication of process equipment. Also, SMEs should take special interest in their packaging design and material for products so as to compete favourably with imported products.

CONCLUSION

The need for the development of the indigenous stimulant plants of Africa has become imperative in view of their increasing industrial potential. The dangers of not developing these plants are numerous. One of these is the possibility of them becoming overexploited, threatened and disappeared. This is a negative option as some of the plants may be endemic to Africa. As a result, their disappearance may mean total disappearance from the earth, and with these, their prospective industrial potential. Thus, African countries need to put in place, sustainable measures to promote increased production of these plant species. Their development for local utilization and for export is likely to promote value added processing and export of both the primary raw materials and the processed products. The global market for plant stimulants is increasing and it is imperative that African countries latch on this to increase local production and productivity thereby increased foreign exchange earnings. Global market for the plant stimulants including those for coffee, tea, cocoa, etc., has been estimated to reach about 50 billion US dollars in 2020. The contribution of African Countries to this increase should go beyond export of only primary raw materials. This is the time for African Countries to use the comparative advantage offered by these plants to foster their industrialisation aspirations, foreign exchange earnings and poverty eradication. RMRDC Through its plantation development programme will continue to promote sustainable development of indigenous economic plant species locally through development of improved planting materials to foster increased production and productivity in the country.

REFERENCES

- Ajiboye, A.O. and Afolayan, O. (2009). The Impact of Transportation on Agricultural
- Akinola O. (2010) Mambilla tea is among the best in the world. NBF News. Bulletin of Science Association of Nigeria.
- Candy Industry (2014). Top Chocolate Manufacturers
- FAO (2013). Price Statistics: Kola nut
- ICO (2014). The current state of the global coffee trade. International Coffee Organization.
- ICO (2015). The current state of the global coffee trade. International Coffee Organization. *Journal of Agricultural Economics and Rural Development*. 2: (2).
- Micheal, J.N. (1985). Crop Conservation 2nd Edition. Pergamon Press Publication.
- Ojo, S.O. and O.O. Ehinmowo (2010). Economic analysis of kolanut production in Nigeria. *J. Soc. Sci* 22(1):1-5
- Omolaja S.S. (1999). Seed Production in Coffee. Cocoa Research Institute of Nigeria; Ibadan pp 127-140.
- Omolaja, S.S. and J. A. Williams (1997). Improved Nursery Techniques and Management of Coffee. In Proceedings of Coffee Transfer Technology Production Workshop. Cocoa Research Institute of Nigeria Publication. Pp 6-12
- Production in a Developing country: A case of Kolanut Production in Nigeria. *International*
- RMRDC (2009). Annual Report of the Raw Materials Research and Development Council, Abuja. 124 pp
- RMRDC (2010). Annual Report of the Raw Materials Research and Development Council, Abuja. 134 pp
- RMRDC (2013). Annual Report of the Raw Materials Research and Development Council, Abuja. 128 pp
- Shannan, W. (2013). Geography Interconnections: Cocoa
- Williams, J.A. (1989). Coffee Breeding in Nigeria. In: Progress in Tree Crop Research In Nigeria, Second Edition. A publication of Cocoa Research Institute of Nigeria.
- World Cocoa Foundation (2014). Cocoa Market Update

Table 1: Top tea producers in Africa, 2009 – 2013 (production in tonnes)

Country	2009	2010	2011	2012	2013
Kenya	318,300	403,300	383,100	373,100	436,300
Uganda	51,000	59,400	56,300	57,900	58,300
Malawi	52,600	51,600	47,100	42,500	46,500
Tanzania	32,100	31,600	33,000	32,300	32,400
Rwanda	20,500	22,200	24,100	24,700	25,200
Burundi	6,700	6,900	7,000	8,700	8,800
Zimbabwe	7,300	8,600	8,400	8,500	8,500
South Africa	2,000	2,100	2,200	2,200	2,500
Others	30,000	30,200	30,600	30,400	30,900
Africa	520,500	616,100	591,700	580,200	649,500

Source: FAO, 2015.

Table 2. Kola nut price statistics

Year	Price per Tonne (USD)
2001	747.200
2002	603.500
2003	775.400
2004	828.700
2005	1,198.500
2006	1,349.200
2007	1,309.200
2008	1,132.700
2009	1,202.100
2010	2,363.700

Source: FAO price statistics, 2013