ASSESSING CHINA'S ACTIVITIES IN THE CONSTRUCTION AND INFRASTRUCTURE SECTORS AND THEIR IMPACT ON THE KENYAN ECONOMY

BY

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DECLARATION

This research paper is my original work and to the best of my knowledge has not been submitted for any award of any degree or any other academic qualification in this or any other learning institution in this world.

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It is submitted in the 2012 – 2013 academic year in partial fulfillment of the examination board requirements for the award of the degree of Master of Arts in International Studies in the University of Nairobi, Kenya.

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My supervisor Gerrishon K. Ikiara for being patient and encouraging;

The Librarian, Regina Mutua, for giving me more than I could read;

Jude Wetangula, for almost daily and continuous encouragement.

DEDICATION

Balian of Ibelin: "What man is a man that does not leave the world a better place?" – (quote from *'the Kingdom of Heaven' Film*)

To everyone who wants to make the world a better place to live.

ABSTRACT

Through literature review and interviews the research sought to establish whether or not the activities of China in Kenya are beneficial to the Kenyan economy. The research established that China's activities in Kenya date back to pre-colonial years but they became intense in the construction and infrastructure sectors during the last three decades. China is, though, involved in many other sectors such as agriculture, health, sports, trade in materials and equipment, resource extraction, tourisms, aid, among others.

However, its activities in the construction and infrastructure sectors have drawn criticism from academicians, politician and policy makers, some of whom argue that the activities of China in Kenya benefit China more that Kenya. That as it may, considering the trade imbalances between the two nations, Kenya is benefiting to a large extend. China's activities have enhanced job creation opportunities, skills and technology spillover, increase efficiency in service delivery and in helping Kenya close its infrastructural gap.

What policy makers need to do is to ensure that they tap into the potential that China's activities present to the Kenyan economy, and at the same time work out ways of mitigating the trade imbalances between the two nations.

ABBREVIATIONS AND ACRONYMS

GBC	Green Brazil Conference
FDI	Foreign Direct Investment
ZTE	Zhongxing Telecommunications Equipment Corporation
JICA	Japan International Co-operation Agency
CATIC	China National Aero-Technology International Engineering Company
CCS	Center for Chinese Studies
ERA	Executive Research Associates

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CHAPTER 1

INTRODUCTION

Chinese mode of engagement with the rest of the world rapidly evolved within the last three decades. Reforms in China strengthened state-owned firms with the view of expanding business abroad, the policy framework being 'going global'. Corkin (2011) affirmed that in the 1990s, China encouraged technological upgrades involving the use of both domestic and international markets to strengthen business enterprises abroad. More Chinese companies, both private and public, began seeking business opportunity overseas, as shown in the trend in Figure 1.1, upon realizing excess domestic capacity in China was bad for business. The companies noticed low competition in developing nations in Africa and elsewhere. At the beginning, the Chinese companies imported labor into the recipient countries but with time they started relying more and more on host countries labor force.¹

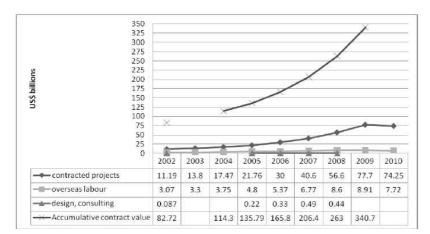


Figure 1.1 Chinese companies' overseas contract value, US\$ billions (2002-2010)

Source: Department of Outward Investment and Economic Co-operation, MOFCOM

¹ Lucy Corkin, "*Chinese Construction Companies in Angola: A Local Linkages Perspective*", a CP Discussion Paper No. 2, 2011, University of Cape Town and Open University.

Kenya is one of the African countries where China is involved in numerous business enterprises, aid, environmental protection and humanitarian assistance, though its involvement is not properly documented, as much as the activities are continually playing an important role in Kenya's economic growth and development.

As a point worth noting, it has been observed that, in the course of doing business and helping Kenya, Chinese companies use, or prefer using materials, equipment and other inputs from China, even in situations where such resources exist locally. Using the case of the construction and infrastructure sectors, it is possible to understand how China is engaging the country, and understand its behavior in financing and sourcing of materials, equipment and labor used in the various projects, and the effects of these activities on the Kenyan economy.

1.1 BACKGROUND TO THE STUDY

China's global business footprint is increasing with time. Chinese companies are venturing into business overseas, with their entry into Africa drawing a lot of attention from critics, scholars and policy makers. The most notable firms engaged in overseas business ventures are shown in Table 1.1.

Rank	Company	Total Overseas Turnover
		(US\$ billions)
1	Huawei Technologies	6.542
2	China State Construction Engineering Corporation	4.225
3	CITIC Construction	2.941
4	Shanghai Zhenhua Port Machinery Company	2.616
5	Sinohydro	2.228
6	China Petroleum and Engineering Construction	2.076
	Company	
7	China National Machinery and Equipment Import	2.058
	and Export Corporation	
8	China Harbor Engineering Company LTD	1.845
9	Sinopec Engineering and Construction	1.318
10	China Petroleum Group Great Wall Drilling and	1.087
	Engineering Company LTD	

Table 1.1 Top 10 Chinese Overseas Contractors (2013)

Source: Department of Outward Investment and Economic Co-operation, MOFCOM

The involvement of China in Africa has had both benefits and drawbacks. On the positive side, Chinese loans, grants, gifts, technical assistance, training, equipment and materials, and many other forms of interaction, are helping the continent bridge infrastructural gap, create employment, lower costs in construction and communication sectors, improve quality of service delivery, and other benefits. But at the same time, there are negative aspects such as suppression of the growth of some local industries; displacement of job opportunities in sectors where they import materials, equipment and labor that are readily available on the market; and in some cases, high maintenance costs of projects undertaken by Chinese contractors and business people who use of sub-standard materials and unqualified personnel to perform tasks that require higher skills and quality materials.

Chinese firms are rising globally in terms of their competitiveness. They win tenders by offering highly competitive bidding prices. Most of these bids are won using international tender processes and standards. Furthermore, Chinese companies supply materials and equipment suitable for the African markets.²

Chinese activities and interests in Kenya and other countries, however, need a little more scrutiny with the hindsight of the experience of some of the countries where China's presence was felt earlier. For instance, a public hospital in Luanda, Angola, developed defects that compelled authorities to evacuate the entire facility. The construction cost of the hospital was US\$ 8 million. That was cheap but not sustainable because the building did not last long enough before beginning to develop defects. Also, some roads in Angola developed potholes within a period of less than a year. The genesis of these problems was in the use of substandard and counterfeit materials by Chinese contractors, and poor workmanship resulting from use of unskilled labor in tasks that require higher skills.³

1.2 PROBLEM STATEMENT

² Nissanke Machiko and Marie Söderberg, "*Can China's engagement make a difference to African development*" in "The challenging landscape in aid relationships in Africa", Stockholm, Swedish Institute of International Affairs, 2011, page 29.

³ Raphael Marques de Morais, "*The New Imperialism: China in Angola*", in "World Affairs", 2011, World affairs institute, pages 67 – 68.

Most research done on Chinese trade and investment activities in Africa tends to lump Kenya into countries in the sub-Sahara Africa with little specific attention being paid to activities in definite sectors such as construction and infrastructure. It is therefore necessary that this study focuses on detailing these sectors in order to unravel data that could be useful in avoiding the overgeneralization trap in conclusion about the impact of Chinese activities on Kenyan economy, politics and diplomacy.

Part of the limited research that has been done to capture the exchange of goods and services between Kenya and China is speculative and highly influenced by political nuances; some researchers suggesting that China's appetite for natural resources is its main motivation for economic engagement with the continent. But there is lack of sufficient evidence in literature to either support or challenge such assertions. Therefore, the expanding Chinese role and its activities in Kenya need serious analysis in order to find out the challenges and opportunities that come with it.

Literature that exists to explain how China is involved in Kenya is shallow and does not provide a precise and complete picture. As a way of investigating China's activities in Kenya, some fundamental questions will be asked as regards the nature of the activities and their implication on local construction and manufacturing companies. Other questions will seek to bring out the details on the impact of Chinese firms and goods penetration into the Kenyan market in the construction and infrastructure sectors.

In other words, how are the goods and services from China affecting the market share and job creation opportunities for the local industries and what are their positive and negative effects both in the short and long run? What are the major imports and exports of goods and services between China and Kenya? What is the composition of construction and infrastructural aid Kenya receives

from China? These questions and more will assist in documenting the activities of China in the sectors and in highlighting areas that might need further research and detailing.

1.3 PURPOSE OF THE STUDY

A detailed analysis of case studies is necessary to bring to the fore and to assess China's contribution to the economic growth and development of Kenya, with specific attention being paid to the contribution of China's activities in expanding the country's infrastructure. The study highlights the relationship between roads, buildings, power generation and transmission, communication networks, among others, developed and being developed, or financed by China, to business activities in the country. With this in mind, it is therefore important that Chinese activities on the continent be carefully studied with a view of seeking a basis of improving the nature of China-Kenya cooperation.

In pursuit of the above objective, the research aims at identifying the main features and importance of Chinese involvement in construction and infrastructure sectors.

Unfortunately, there is lack of adequate objective study of China's resounding entry into the construction and infrastructural sectors in Kenya. What dominates literature on this subject is alarmist and has negative predictions on the long-term effects of Chinese activities on the economy. The facts may be as they are: that China-Kenya trade relation are in favor of China and that counterfeit products from China are making the cost of maintenance of infrastructural and building projects higher in the long-term, but Kenya is a willing buyer and China is a willing seller of the counterfeits and other products.

To set the records straight, it is important to test various speculative positions held by China-Kenya trade relations analysts against solid empirical evidence clearly showing the nature of Chinese activities in the construction and infrastructure sectors and their impact on the economy and the livelihood of Kenyans.

1.4 JUSTIFICATION OF THE STUDY

A lot of what has been said and written about the nature of Chinese activities in the construction and infrastructure sectors and their long term effects on the Kenyan economy is not backed up by solid evidence: most of it is speculative. As much as the speculations make sense in some cases, there is need for evidence that will form a basis for policy formulation.

Creating a basis for informed policy-making process that will mitigate any negative consequences of Chinese involvement in the construction and infrastructure sectors is important.

This study attempts to highlight important issues that need to be addressed if Africa is to tap into the potential occasioned by China's involvement in infrastructure and construction sectors. An assessment needs to be done on the impact of China-financed infrastructure and building projects on the economic development of individual countries on the continent, with special attention being paid to whether the activities of China in certain sectors are helping in the acceleration of economic development of the continent.⁴

In short, understanding the issues involved in China-Kenya cooperation in infrastructure development and construction is important to policy makers involved in international negotiations with China and other development partners in these sectors.

1.5 METHODOLOGY

⁴ Nissanke Machiko and Marie Söderberg, "*Can China's engagement make a difference to African development*" in "The challenging landscape in aid relationships in Africa", Stockholm, Swedish Institute of International Affairs, 2011.

Overview

Different methods of data collections were used to enhance the depth, quality and reliability of the results. Through triangulation the researcher aimed at verifying facts and sifting through information to be able to separate opinion and facts. The area of research is littered with speculation and propaganda and it is for this reason that the researcher relied on both qualitative and quantitative research methods to ascertain the truth value of some information from literature review that forms the basis of research questions and assumptions.

Data Collection

A population sample was categorized into three: consultants and professionals; employers and company chief executive officers; workers and specialists. Questionnaires and interviews were administered to all and they were structure or not depending on the respondent's availability, amount of cooperation and level of education. Literature review was used as a template to provide checks and balances, assumptions and speculative feedback to enable the researcher clarify facts, ideas and theories.

The researcher has been observing the phenomenon for quite some time, but for the purpose of this paper, the researcher focused his attention, both as an outsider in some cases and as a participant in others, in order to document the facts involving Chinese nationals and their government's activities in the construction and infrastructure sectors in Kenya. The importance of observation did not lie in generating voluminous data but in data verification and authentication.

Data analysis and interpretation

The researcher used various methods to analyze and interpret data collected through interviews, questionnaires and literature review. Some of the methods included use of statistical tools like

tables, charts and graphs. Pattern-matching logic was used as an essential tool in establishing the projected outcome of the phenomenon. This is important because some of the activities involved in by the Chinese in Kenya have consequences that will be manifest several decades from now, and piecemeal manifestation of some of the key problem areas are likely to be ignored if viewed in isolation over a shorter period of time. Finally, cross-case synthesis was used where the researcher referred to cases, some of which were outside the geographical scope of the research, to illustrate the possible outcome of an ongoing phenomenon in the construction and infrastructure sectors.

1.6 LIMITATIONS

The major limitations in this study were lack of adequate time to do thorough literature review and lack of adequate empirical data to form a stronger basis for literature review. The former limitation will be overcome in the long run through more research on the subject area and the methodology applied to other sectors of the economy, while the later was mitigated through data collection in the relevant fields, though some fields were not detailed but mentioned in passing.

1.7 HYPOTHESIS

- Imported goods and services from China and other countries are threatening local industries involved in the construction sector and suppressing a number of manufacturing industries and jobs available in the construction and infrastructure sectors in Kenya.
- The rising involvement of Chinese companies in the construction and infrastructure sectors is adding onto trade imbalances between China and Kenya where the trade is in favor of China.

3) Chinese investments in the construction and infrastructure sectors has enhanced service provision in transport, housing and in recreational activities. In addition, this has increased job creation opportunities associated with the sectors.

1.8 THEORETICAL FRAMEWORK

It should be noted that China's entry and growing influence in Kenya's development agenda is based on a willing buyer a willing seller mode of doing business, and most of the projects financed by China are done by request of the recipient country, terms and conditions agreed upon by both.⁵

Since many markets around the world are liberalized, Chinese contractors are free to enter and leave any of them. The booming business in infrastructure and construction sectors in Kenya offer profit incentives enough to motivate them to gravitate towards the country where they are assured to make profits, given the advantages they have as regards sources of cheaper finance, equipment, technical expertise, labor and materials.⁶

Chinese business people come to Kenya with a competitive edge over their local counterparts and those from other parts of the world. They have comparative advantage over Kenya in many of the materials, labor and equipment they come with⁷, and, in some cases, China has absolute advantage over numerous African nations, including Kenya. This enables Chinese contractors to offer lower bidding prices and win tenders in the construction and infrastructure sectors. (Note

⁵ Nissanke Machiko and Marie Söderberg, "*Can China's engagement make a difference to African development*" in "The challenging landscape in aid relationships in Africa", Stockholm, Swedish Institute of International Affairs, 2011, Page 26.

⁶ Nissanke Machiko and Marie Söderberg, "*Can China's engagement make a difference to African development*" in "The challenging landscape in aid relationships in Africa", Stockholm, Swedish Institute of International Affairs, 2011.

⁷ CCS, "China-Africa Trade and economic Relationship annual report 2010", found at <u>www.focac.org</u>, accessed at 12:30, 12/07/2013, page 7.

that materials procured from China are usually cheaper than their equivalent produced in Kenya or any other part of Africa).

Kitzner's theory of entrepreneurship suggests that entrepreneurial action aims at profiting from perceived discrepancies between buying and selling prices of goods and services. He argues that entrepreneurs discover and exploit profits in a variety of ways, some involving complex transactions spanning space and time, others requiring innovations in processing, distribution and marketing, and in the process integrating a numerous of actors on the market.⁸

There are other attempts at explaining the behavior of China in its international trade relations. Some of these attempts are associated with the theoretical concepts of neo-mercantilism, neoimperialism and state capitalism, all of which have political nuances.

Henrik (2013) notes that China has adopted a business model where state – owned or state-driven firms articulate their business interests abroad. Supporters of this model argue that governments can step in to mitigate the market constraints brought about by capitalism and globalization by going beyond mere provision of goods, infrastructure and legislation to enable foreign direct investments; that governments themselves can own firms and leverage others in the act of doing business abroad.⁹ However, the institutional framework of state capitalism is closely interrelated with theoretical framework of neo-mercantilism and institutional political economy (neo-imperialism).¹⁰

⁸ Anderson Emanuel David, in *"The Spatial nature of entrepreneurship,"* The Quarterly Journal of Australian Economics, vol. 8, No. 2 Summer 2005, pages 21-25.

⁹ The Economist, "*The Rise of state Capitalism*", The Economist Vol. 402 no. 8768, 2012, London, pg 6 – 15.

¹⁰ Henrik Bergsager, "Evaluation of the Chinese State Capitalist Model in Light of Financial Institutions' Oil Related Investments Overseas" Paper Prepared for International Culture Conference, 2009 found at www.culturaldiplomacy.org, July 28, 2013 page 3.

It has been argued by Holslag (2006) that to pursue its neo-mercantilist agenda, the Chinese state has instituted measures to ensure that its transnational activities are competitive and flourishing in the highly globalized environment thus feeding into its national prosperity objectives. To achieve this, China adheres to international standards of business practice of openness in order to access overseas markets and attract foreign investment. But at the same time, it has been argued, that Chinese overseas companies receive state backing and support to leverage them against competitors. The argument goes on that, continuously, China is laying out schemes to dominate and conquer foreign markets with the main aim being accessing resources it needs to be able to sustain its fast growing economy.¹¹

CHAPTER 2

CHINA IN AFRICA: AN OVERVIEW

According to the Center for Chinese Studies (CCS) in South Africa, most African countries' progress has been hampered due to lack of finance, skills and technology. But for over 50 years now, China has collaborated in the continent's efforts to overcome these setbacks. China has been able to successfully enter the African market due to its comparative advantage in technology, equipment, labor costs and management skills.¹²

Research by GBC has asserted that investment climate in Africa has gradually been improving for the past three decades, with governments putting into place measures – institutional, political

¹¹ Holslag Jonathan, "*China's New Mercantilism in Central Africa*" in Africa and Asian studies, vol. 5 no. 02, 2006, Koninklijke Brill NV, Leiden pages 133-138.

¹² CCS, "China-Africa Trade and economic Relationship annual report 2010" found at <u>www.focac.org</u> page 6-7.

and structural – to attract Foreign Direct Investment (FDI). Cross-border trade barriers have been lowered; appropriate legislation has been, or is being, put in place; relevant financial models have been developed to lower the risk of doing business in Africa and to increase profit margins in the various sectors that include construction and infrastructure.¹³

However, Herbert (2011) argues that all indications point to resource acquisition as the main objective of Chinese engagement with Africa, and that this approach is similar to the one colonialists took: Africa as simply material supplier. He continues that African countries have, therefore, the task of ensuring that the pattern is changed and that they equally benefits from their engagements with China.¹⁴

Quite a number of research activities carried out point to the fact that China's involvement in Africa has strings attached to Africa's resources. Some look at it as a multidimensional approach by the Chinese government: that it is seeking to enhance its position on the global scene, counter the West, and create new markets for its commodities. Other than construction, energy and mining, China has shown remarkable interest in telecommunication sector on the continent.¹⁵

Among the African countries where China has business interests are Kenya, Zambia, Democratic republic of Congo, Sierra Leone. Anyu and Ifedi (2008) contend that to make it easier and possible to extract and transport the minerals, which include copper and cobalt (in DRC),

¹³ GBC, "Investment Opportunities in Africa Infrastructure", a GBC conference paper, 2011

¹⁴ Jauch Herbert, "Chinese investments in Africa: twenty-first century colonialism?", in New labor forum, 2011, page 51.

¹⁵ Executive Research associates, "*China in Africa: a strategic Overview*", 2009, found at <u>www.ide.go.jp</u>, July 29th 2013, 9:51 pm. Page 50.

diamond (in Sierra Leone), titanium (in Kenya), and timber, it has involved itself in numerous infrastructure development projects.¹⁶

Another argument asserts that China's activities in Africa are an act of joining the bandwagon of those scrambling for the continent's resources. Optimists in this school of thought argue that China's interests in Africa are, at the same time, playing a positive role in the continent's takeoff, while pessimists caution that there is no good that will come out of Sino-Africa relations except that which benefits China. For example, that China is heavily involved in large infrastructural projects ranging from buildings, railways, dams, airports and in the ICT sector, most of these projects having local as well as Chinese laborers, but both groups being housed separately. Those who have analyzed their activities using this approach see China's involvement in Africa as neo-imperialism.

Herbert continues that Africa cannot simply seek foreign investment at all costs. The governments must ensure that the development coming out of their relationship with China is sustainable, and that skills and technology are actually transferred. Labor laws should be reviewed to protect workers; work permits and the general investment environment need to be reviewed to ensure that SinoAfrica relations benefits African countries both in the short and long-run.¹⁷ However, Herbert, CCS and other researchers recognize the fact that Chinese companies have played and continue to play a central role in enhancing infrastructure on the African continent.

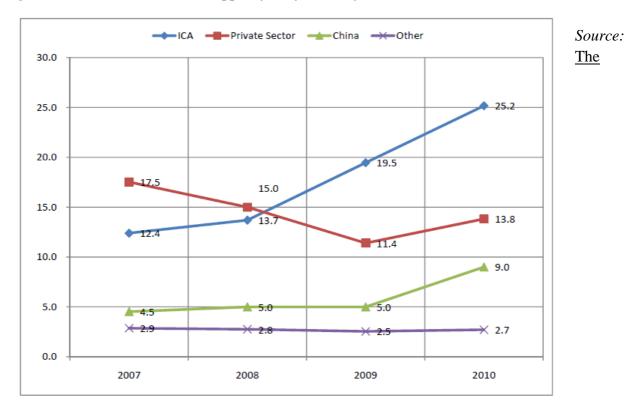
For instance, CCS (2010) pointed out that China plays a central role in expanding the telecommunications networks in Africa and that these networks span countries providing

¹⁶ Anyu Ndumbe J. and Ifedi Afam J.-P, "*China's ventures in Africa: Patterns prospects and implications for Africa's development*" in The Washington Quarterly", Vol. 19 no.4 2008, page 104.

¹⁷ Jauch Herbert, "Chinese investments in Africa: twenty-first century colonialism?", in New labor forum, 2011, page 55.

necessary linkages between them: An example is the Ebase of East Africa and Seacom cable of South Africa.¹⁸

Figure 2.1 Trends in External Support for African Infrastructure Sector (2007-2010)



Infrastructure Consortium for Africa (ICA) 2011

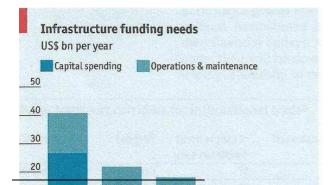
¹⁸ CCS, "*China-Africa Trade and economic Relationship annual report 2010*," found at <u>www.focac.org</u> page 15.

As shown in Figure 2.1 China's contribution to infrastructure growth in Africa is significant, with a sharp rise between 2009 and 2010.

Executive Research Associates (ERA) points out that among the countries targeted by China to roll out its strategy in the telecommunication sector are Kenya, Tunisia, Egypt, Algerian, Nigeria and South Africa. This, it is suggested, will enable various African countries acquire foreign technology, but also allow China to use the facilities rolled out for military purposes; use the infrastructure to expand its satellite and space study programmes, and venture into new markets.¹⁹

ERA points out several Chinese companies that are furthering these objectives. They include Huawei Technologies, ZTE, China Telecom, and Alcatel Shanghai Bell (ASB). These companies, ERA contends, receive state support to make them competitive on the global market hence enhancing the expansion of Chinese market share in the telecommunications sector. The approach taken by these companies is to ensure than China remains relevant to Africa in many years to come. This is done at the expense of making quick profits at the present times. The support they receive from China makes their products cheaper compared to similar products from the West.²⁰





¹⁹ Executive Research Associates, "*China in Africa: a strategic Overview*", 2009, found at www.ide.go.jp, July 29th 2013, 9:51 pm. page 50-52.

²⁰ Executive Research Associates, "*China in Africa: a strategic Overview*", 2009, found at www.ide.go.jp.sury 29th 2013, 9:51 pm. Page 50-52.

Source: Africa Infrastructure Country Diagnostic

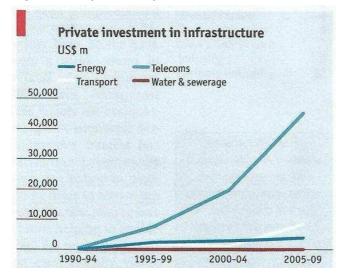
It is evident in Figure 2.2 and Table 2.1 that Africa needs to spend more on putting up infrastructure projects with power requiring the heaviest investment. Private investors, however, has taken remarkable interest in investing in telecommunications sector as opposed to power partly due to less capital investments required in telecommunications and greater rate of return.

Table 2.1 Overall Infrastructure Spending Needs for Africa, US\$ billions per annum 2006-15

Sector	Capital expenditure	Operation and maintenance	Total needs
ICT	7.0	2.0	9.0
Irrigation	2.7	0.6	3.3
Power	26.7	14.1	40.8
Transport	8.8	9.4	18.2
WSS	14.9	7.0	21.9
Total	60.4	33.0	93.3

Source African Development Bank Group, http://infrastructureafrica.org

Figure 2.3 Africa's Infrastructural needs



Source: The World Bank

Estimates by African Development Bank (ADB) indicate that investment in infrastructure sector in Africa has a potential of generating between 15 and 20 percent returns on investment, with investment in water having an approximate return of 5 to 10 percent, and power having a rate of return of between 17 to 25 percent, while telecoms a rate of between 25 to 30 percent. Some organizations such as the World Economic Forum on Africa gave, in the year 2011, higher estimates of the same: of "up to 40 percent in the power sector and 80 percent in the roads." These relatively higher rates of returns on investment in African infrastructure have provided motivation to multinationals, state actors, individuals, financial institutions to invest in Africa with the aim of making profits.²¹

The details of Chinese contracts showing the terms of engagement in resource for infrastructure are difficult to find. Therefore, it is difficult to establish the actual distribution of the resources allocated to infrastructure and the benefits China and other stakeholders in Africa accrue from the arrangements.²² Table 2.3 shows some major projects financed by China in some selected countries.

Table 2.3 Major Projects in Africa Financed by China-Africa Development Fund by 2013

Country	Project	Profile
Ghana	Power plant	Construction and operation; phase –I
		capacity: 200,000 kilowatts

²¹ GBC, "Investment Opportunities in Africa Infrastructure", a GBC conference paper, 2011.

²² Nissanke Machiko and Marie Söderberg, "*Can China's engagement make a difference to African development*" in "The challenging landscape in aid relationships in Africa", Stockholm, Swedish Institute of International Affairs, 2011, Page 25.

Egypt	Suez trade and Economic Cooperation Zone	19 businesses already operating in the zone
South	Cement plant	Construction in cooperation with a south
Africa		African firm; annual capacity: 1 million tons of cement
South	Heavy – duty truck assembly	Investment and operation in cooperation with
Africa	plant	a south African firm; annual capacity 2,000 commercial heavy-duty trucks

Table 2.3 Cont.

Tanzania	Sisal plantation	Sisal plantations operation and sisal yarn
		plant construction
Ethiopia	Cement plant	Investment in construction: annual capacity:
		500,000 tons of cement
South	Home Appliance Industrial Park	Production of 400,000 energy saving TVs and
Africa		400,000 energy saving refrigerators for South
		African and Sub-Saharan market.

Source: CCS, http://www.biztechafrica.com

Estimates by Africa Infrastructure Country Diagnostic (AICD) indicate that yearly spending in the infrastructure sector from private developers, the public and donor countries is in the tune of US\$ 45 billion. Nonetheless, AICD stipulates that Africa should spend about US\$ 93 billion per year on infrastructure development in order to be able to effectively support its growing economy.²³

'The Economist' (2011) states that China is, and has been, making efforts that are geared towards the fulfillment of the above task, with Chinese companies undertaking projects that seem

²³ The Economist, "*Closing the infrastructural gap*", 2011, The Economist Intelligence unit, Vol. XX no. 13, London, page 1 - 2.

unprofitable to companies from Western countries. The companies are offering low cost services and goods, in addition to technical assistance, in ensuring that these projects are delivered efficiently and on time. One way devised by the Chinese government in order to further this objective is by ensuring that Chinese companies are able to access cheaper loans that enable them operate on profit margin of less than 10 percent compared to others who view a margin of between 15 - 20 percent as acceptable, but nothing lower.²⁴

2.4 SHORT HISTORY OF CHINA IN AFRICA

Renard (2011) points out that China-Africa relationship dates back to first Han emperor, 2nd B.C, but the relationship was not very active till in late 1940s that China renewed its interests in Africa.²⁵

Diplomatic relationship between Egypt and China was established in 1956 making it the first African state to do so. China funded the reclamation of the Suez Canal at a cost of 20 million Swiss francs. The previous year, China had helped Egypt circumvent Western nations' sanction against it by buying 13,000 tons of cotton. From 1950s to 1970s China expanded its activities in Africa in light industries, agriculture and infrastructure projects, with Tazara railway being one of the earliest infrastructure projects. As from 1978, Africa and China deepened economic relationship with China investing in increasing number of engineering projects across the continent; providing skilled labor; and establishing joint ventures with African governments. African businesses also started getting established in China.²⁶

²⁴ The Economist, "*Closing the infrastructural gap*", 2011, The Economist Intelligence unit, Vol. XX no. 13, London

²⁵ Renard, Mary-Francoise, "*China's Trade and FDI in Africa*", Series N° 126, African Development Bank, Tunis, Tunisia, 2011.

²⁶ CCS, "*China-Africa Trade and economic Relationship annual report 2010*", 2010, found at <u>www.focac.org</u> page 1.

Agbedelenko et al. (2012) points out that the recent history of China's involvement in Africa dates back to 1955 when, in the Asia-Africa conference, it was agreed that the two continents should intensify their relationships. This, it was suggested, would help Africa fight imperialism and colonialism. As a result of the conference, China started undertaking various projects and trade activities in Africa such that between 1990 and 2000 the trade volumes between China and Africa had risen from US\$ 1664 million to US\$ 10597 million.²⁷

According to CCS, between 1956 and 2010 China provided aid to Africa to complete over 884 plant projects and "sent 17,000 medical personnel and 312 youth volunteers to Africa." Table 2.4 gives examples of some of the project areas undertaken by China in Africa. It also trained 26,288 local people in various sectors, offered humanitarian assistance across the continent and forgave approximately 312 debts in various African countries.

Table 2.4 Projects by category by China in Africa, 1956 to 2010

Project Area	Agricultural	Industrial	Schools	Hospitals	Sports venues	Conference Centers	Others	Total
No.	142	145	71	54	53	62	357	884

Adapted from CCS²⁸

In infrastructure projects, China, by the end of 2009, had completed 500 projects including 2,233 kilometers of railway lines, 3,391 kilometers of roads, 11 bridges, "sports venues able to accommodate a total of 780,000 spectators, 104 public buildings, 10 theatres and cinema halls."

²⁷ Agbedelenko F.A et.al, "Impact of Chinese foreign direct investment in Africa on Sino-Africa trade", 2012, African Journal of Business Management, Vol. 6 (15), page 5244.

²⁸ CCS, "*China-Africa Trade and economic Relationship annual report 2010*," 2010 found at www.focac.org page 8.

Cairo International Conference Center, Moi International Sports Center in Kenya and Ben Jarw Canal in Tunisia are some of the projects.²⁹

In 2009 China signed several contracts with a number of African countries to develop roads, bridges and flyovers. It built a road between Monrovia and Roberts International Airport in Liberia; it improved the road between Jomo Kenyatta International Airport and the City Center in Kenya; built 697.6 meter-long Gotera flyover in Ethiopia; repaired bridges along National Highway in Togo; provided loans to built bridges and six roads in Southern Sudan and the Darfur regions; built a bridge connecting Tanzania and Mozambique; and built a second bridge across Niger River in Niger.³⁰

'CCS' further notes that Chinese companies, in 2009, won contracts to built railways in Algeria, Libya, and Ethiopia. China was also involved in expansion Maun Airport in Botswana; construction of a new terminal at Sir Seewoosagur Ramgoolam International Airport; and in the "modification and expansion of the port of Bata" in Equatorial Guinea and many more.³¹

China's involvement in African has a long, sometimes complicated, history; the recent one dating back to the 1960's, at the height of the continent's anticolonial struggle. This relationship got enmeshed in the cold war where China supported nations with Marxists orientations. With the fall of the 'Berlin Wall' and the resultant subjugation of ideology as the defining feature of global relations, China shifted its attention from military and political involvement to search for

²⁹CCS, "China-Africa Trade and economic Relationship annual report 2010," 2010 found at www.focac.org page 9.

³⁰ ibid page 14. ³¹ Ibid.

resources in exchange for arms, aid and infrastructure development. According to Anyu and Ifedi, the main resources China is and was after in Africa include oil, timber and minerals.³²

In the 1980s, China invested in projects which they implemented then transferred to recipient countries. The investment was mostly through joint ventures and leasing. Statistics by the Chinese Ministry of Commerce indicated that in 2008 about 1,600 Chinese companies were operating in Africa, contributing to about 4.2 percent of the total outward direct investment of China across the world. By the end of 2009, China set aside US\$ 700 million for projects in sectors such as agriculture, manufacturing, power generation and distribution, construction, mining and others.³³

'Green Brazil Conference' (GBC) (2011) gathered that the African continent has in the past few decades attracted investors from around the world who want to take advantage of the growing opportunities to make profit. A wide range of investment opportunities have opened up in various sectors resulting from improved business environment.³⁴

Gill and James (2007) estimated that by 2007 more that 700 Chinese companies were operating in Africa mainly in capital intensive mineral extraction and construction sectors. Building of transportation, electrical and communication infrastructure are, by their assessment, the major areas of Chinese interests.³⁵

Of importance to note, however, is that Africa-China relations witnessed rapid growth between the years 2000 and 2009. Statistics indicate that bilateral trade between the two regions rose from

³² Anyu Ndumbe J. and Ifedi Afam J.-P, "*China's ventures in Africa: Patterns prospects and implications for Africa's development*" in The Washington Quarterly", 2008, Vol. 19 no.4 pp 94.

³³ CCS, "*China-Africa Trade and economic Relationship annual report 2010*," 2010 found at <u>www.focac.org</u> page 2-3.

 ³⁴GBC, "Investment Opportunities in Africa Infrastructure", a GBC conference paper, 2011
 ³⁵ Gill Bates and James Reilly, "The tenuous hold of China Inc. in Africa" in The Washington Quarterly", 2007, Vol. 30 no. 3 pp 40 – 41.

US\$ 10.6 billion to US\$ 91.07 billion, while Chinese investment in Africa rose from US\$ 220 million to US\$ 1.44 billion, and the revenue China accrued from its activities in contracted engineering projects significantly increased within the same period³⁶ and the trend has not changed for the downturn.

2.5 GENERAL CHINESE INTERESTS IN AFRICA

GBC (2011) argues that the fast pace of economic and population growth on the continent has put considerable pressure on the existing infrastructure hence the need for expansion and development to accommodate market demand.³⁷

Expansion and upgrading of the existing infrastructure together with laying down of new infrastructure has created business opportunities attractive to foreign investors at individual, corporate and state levels. Rising energy requirements; need for clean water and a cleaner environment; need for more and efficient systems of transport; and the need for appropriate and affordable information and communication technologies has attracted investors from around the world and, notably, the attention Chinese whose market share on the continent is growing quickly, surpassing the traditional investors from the Western nations.³⁸

GBC (2011) further points out that one of the reasons for increased Chinese activities and interest in some sectors on the continent, like infrastructure and construction, is that the returns on investment are generally higher than in any other developing regions. For instance, African independent power projects have recorded return on investment of up to 25 percent "compared

³⁶ CCS, "China-Africa Trade and economic Relationship annual report 2010," 2010 found at www.focac.org page 2. ³⁷ GBC, "Investment Opportunities in Africa Infrastructure", a GBC conference paper, 2011.

³⁸ Ibid.

with 15 percent in Latin America and 12 percent in Eastern Europe". In some cases, investors have been able to break even in less than a year.³⁹

In a recent issue 'The Economist' (2011) points out that African economies have suffered, and still suffer, from poor infrastructure but recent years have witnessed multiple players, especially the Chinese, taking considerable interest in investing in this sector. This has been encouraged by rising private investments, high commodity prices and improved political atmosphere that has seen governments willing to create infrastructure linking two or more countries within some regions.⁴⁰

China has been involved in the infrastructure sectors in Africa for over *three* decades but significant growth in its activities was in the last decade and a half. The activities not only involve construction and laying down of the physical and virtual infrastructure, but also includes importation of materials and other goods for direct consumption by Africa and use in the construction and infrastructure development.⁴¹

Table 2.5 shows the projects financed by China in Angola in the year 2007 alone. Most of them were in the power sector.

Table 2.5 Projects financed by China Construction Bank and EximBank in 2007

³⁹ GBC, "Investment Opportunities in Africa Infrastructure", a GBC conference paper, 2011

⁴⁰ The Economist, "*Closing the infrastructural gap*", 2011, The Economist Intelligence unit, Vol. XX no. 13, London, pg 1 - 2.

⁴¹ Ina Cordle, "*Ties that bind: Infrastructure investments build growth in China-Africa trade*", in The Journal of Commerce, 2009, pages 24 – 25.

Project	Total Value (US\$)
Phase I of the rehabilitation of the 444 km Luanda Railway	90 million
Phase I of the rehabilitation and expansion of the electrical network of Luanda	15 million
The rehabilitation of electricity networks of Lubango	15 million
The rehabilitation of electricity networks of Namibe and Tombowa	25 million
A project related to telecommunications	N/A

Source: Angolan Finance Ministry (2007); Angolan Ministry of Energy and Water (2007)

Ina (2009) highlights that there was a 36 percent increase in the value of goods exported from China to Africa between the year 2007 and 2008, with capital equipment taking up to 10 percent of the total value of the exports to Africa. Within the same period, minerals accounted for the greatest percentage of Africa's exports to China.

Agbedelenko et al. (2012) rightfully pointed out that building infrastructure does benefit both the foreign investors and the continent through job creation and catalyzing social and economic development that is essential if the continent is to attain its Millennium Development Goals (MDGs), among other numerous objectives. The activities of Chinese companies, government and its nationals have not only created jobs in the sectors invested in, but as well in associated businesses in entire sectors involved.⁴² For example, it is estimated that construction of a toll route between South Africa and Mozambique created more than 13,000 jobs, and a World Bank

⁴²Ina Cordle, "*Ties that bind: Infrastructure investments build growth in China-Africa trade*", in The Journal of Commerce, 2009, pages 24 – 25.

estimate for Latin America and the Caribbean revealed that up to 40,000 jobs can be created per US\$ 1 billion invested in infrastructure.⁴³

One of the main ways through which Africa has been able to finance its infrastructure projects is through acceptance of concessional loans from the Chinese government. In 2007, the Chinese government pledged to spend about US\$20 billion on financing infrastructure in Africa as well as trade financing. *'Business Monitor International' (BMI)*, goes on to state that the reality is that without such financing, some African countries would not have been able to raise the funds required to put up such facilities at a time when the traditional donors were offering about US\$ 7 billion only. African countries accepted these concessional loans with the hope that they would, in time, outgrow the loans.⁴⁴

China has tremendously increased the volume of Foreign Direct Investment (FDI) in Africa over the years. In 2003, the overall investment in Africa was about US\$75 million. In 2008, the value of FDI had increased to about US\$5490 million. Agbedelenko et al. (2012), however, notes that the partiality of Chinese investment in Africa by arguing that there is evidence, adduced from the proportion of investment per African country, indicating that China heavily invests in those countries that have resources like oil, cocoa beans, rubber, and others it needs to sustain its economic growth and development at home.⁴⁵

China's interests have gone beyond acquisition of natural resources and laying down infrastructure to other sectors such as agriculture and issuance of loans to medium-scale

⁴³ GBC, "Investment Opportunities in Africa Infrastructure", a GBC conference paper, 2011.

 ⁴⁴ BMI, "China Tempts Africa with Concessional Lending", Middle East and Africa, 2007 found at www.emergingmarketsmonitor.com, July 29th 2013, 11:49.
 ⁴⁵ Agbedelenko F.A et.al, "Impact of Chinese foreign direct investment in Africa on Sino-Africa trade",

⁴⁵ Agbedelenko F.A et.al, "*Impact of Chinese foreign direct investment in Africa on Sino-Africa trade*", 2012, African Journal of Business Management, Vol. 6 (15), page 5244.

enterprises in Africa. For instance, in November 2009, it dispatched 50 groups of experts and trained 2000 specialists in agriculture through technology and knowledge transfer.⁴⁶

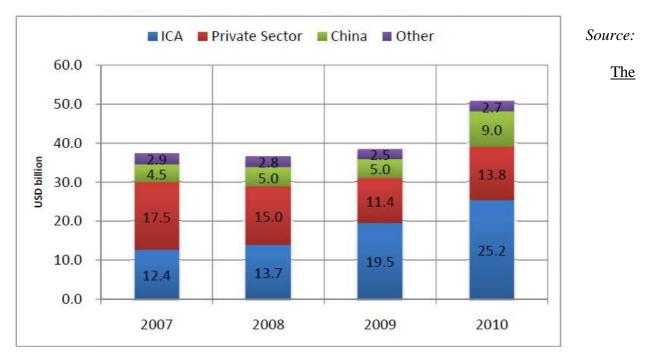


Figure 2.4 External support to the infrastructure sector (2007 – 2010)

Infrastructure Consortium for Africa (ICA) 2011.

China plays a significant role in infrastructure financing and development in Africa as shown in figure 2.4.

It has been observed by Chan-Fishel and Roxanne (2007) that, more often than not, China's infrastructure aid to Africa is tied to materials and some labor being sourced from China and that this has the effect of dampening job creation opportunities in the recipient countries. For example, in Angola, when China offered a US\$ 2 billion aid, it gave the condition that at least 35 approved construction companies from China should participate in the public tenders. And in

⁴⁶ Nissanke Machiko and Marie Söderberg, "*Can China's engagement make a difference to African development*" in "The challenging landscape in aid relationships in Africa", Stockholm, Swedish Institute of International Affairs, 2011, Page 24.

March 2005, it was estimated that labor contracts for Chinese in Africa had reached about US\$ 34.13 billion involving about 74,000 Chinese nationals.⁴⁷

On the same issue of labor, Jauch (2011) noted that in the construction sector, the Chinese companies employ their nationals as well as local workers. He however admits that local workers always outnumber Chinese laborers in most projects. In some countries like Namibia, the involvement of Chinese companies in the infrastructure sector had a negative effect on the local industries resulting from unfair competition and payment of wages below the required minimum.⁴⁸ The companies also use Chinese workers on projects in Africa in a manner that is efficient and relatively cheaper thus making them more competitive. The same Chinese migrants build business networks and supply chains linking the continent with China.⁴⁹

Bates and Reilly (2007) also reinforces the idea of investment for resource motive of China when he says that, in return, Chinese firms in Africa extract strategic natural resources for use in their local industries.⁵⁰

Bates and Reilly (2007) have also contributed to the notion that Chinese government is heavily involved in the activities of its nationals in Africa. That China provides information coordinates, and offers financial assistance to its citizens engaged in business in Africa. They continue to illustrate how Chinese construction companies in Africa receive assistance in project feasibility

 ⁴⁷ Chan-Fishel Michelle and Roxanne Lawson, "Quid Pro Quo? China's investment-for-resource swaps in Africa", 2007, Society of International Development. Page 67. Found at <u>www.sidint.org/development</u>.
 ⁴⁸ Jauch Herbert, "Chinese investments in Africa: twenty-first century colonialism?", in New labor forum, 2011, page 51.

⁴⁹ Ibid pages 37-38.

⁵⁰ Gill Bates and James Reilly, "*The tenuous hold of China Inc. in Africa*" in The Washington Quarterly", 2007, Vol. 30 no. 3 pp 37-38.

studies, direct financing of the projects, credit for operational costs and for material equipment and other capital goods.⁵¹

This does not though suggest that Africa wholly misses out on the opportunities generated by the presence of China and its nationals in Africa. The benefits African states accrue from their relationship with China include opportunity for economic growth and development, since this relationship creates the necessary socio-political and economic conditions for development. Chinese companies not only create jobs for locals, but help in improving infrastructure associated to a variety of business ventures.⁵²

Anyu and Ifedi (2008) also seem to agree with the suggestion that most of Chinese activities are oriented towards resource extraction where it acts as a buyer of raw materials and a seller of goods and services to local consumers, the latter meaning they are creating a market for their products. Such activities do not help in developing locals industries.⁵³ But a few countries such as Kenya, Nigeria, Ghana, Uganda, Swaziland and Lesotho have taken advantage of China's presence in Africa to increase their export earnings. Anyu and Ifedi (2008) appreciate that, other than doubts on the quality of products from China and the infrastructure projects developed by Chinese companies, roads, schools, hospitals, power plants that were developed through China did not exist before, and they are helping in the improvement of the business environment that will go a long way to attract both local and foreign investment.⁵⁴

⁵¹ Gill Bates and James Reilly, "*The tenuous hold of China Inc. in Africa*" in The Washington Quarterly", 2007, Vol. 30 no. 3 page 39.

⁵² Anyu Ndumbe J. and Ifedi Afam J.-P, "*China's ventures in Africa: Patterns prospects and implications for Africa's development*" in The Washington Quarterly", 2008, Vol. 19 no.4 pp 105. ⁵³Ibid pages 106-107.

⁵⁴ Anyu Ndumbe J. and Ifedi Afam J.-P, "*China's ventures in Africa: Patterns prospects and implications for Africa's development*" in The Washington Quarterly", 2008, Vol. 19 no.

Machiko and Söderberg (2011) estimated that infrastructure projects developed by China were worth US\$ 7 billion in 2006 while those of Development Assistance Committee countries totaled US\$ 5 billion in the same year. They, though, also argue that distribution of these projects indicates that China favors resource rich countries such as Nigeria, Angola, Sudan and Guinea since they took up to 70% of the share of Chinese investments in Africa. In terms of distribution according to the nature of the projects, energy sector and transport take the greatest percentage of China's investment in infrastructure sector.⁵⁵

Chinese firms are also increasingly obtaining contracts for "water conservation, hydropower, petrochemical manufacturing, telecommunications, building materials, water supply systems and agriculture". The total value of such projects rose from US\$ 9.3 billion to US\$ 19.7 billion between 2006 and 2008. For instance, they have completed over 30 power stations and power transmission in many African countries including Kenya, Ethiopia, Angola, Nigeria and Sudan. Telecommunication giants like Huawei Technologies, ZTE Corporation and Alcatel-Lucent Shanghai Bell are deeply involved in various projects in Africa, serving over 300 million people in more than 50 countries. According to CCS (2010) Chinese companies employed over 110,000 local people in Africa in the year 2008, trained over 54,000 locals and donated over US\$ 55.51 million to built roads, 15 schools and 79 hospitals.⁵⁶

Other benefits occasioned by Chinese companies in Africa include social responsibility initiatives. China National Petroleum Company took a social responsibility program to improve the environment and public welfare of the recipient states by donating US\$ 50 million towards

⁵⁵ Nissanke Machiko and Marie Söderberg, "Can China's engagement make a difference to African development" in "The challenging landscape in aid relationships in Africa", Stockholm, Swedish Institute of International Affairs, 2011, Page 25.

⁵⁶ CCS, "*China-Africa Trade and economic Relationship annual report 2010*," 2010 found at www.focac.org page 7-8.

road construction, construction of schools, bridges, hospitals, boreholes to benefit the people of Sudan.57

Despite the fact that Chinese firms have come to Africa with a profit motive among other reasons, their entry has contributed to the bringing down of costs in the construction and infrastructure sector.58

2.6 WHY IS CHINA SUCCESSFUL IN AFRICA?

2.6.1 An Overview

Chinese companies have world-class equipment and materials that enable them undertake large projects in power generation, construction, transport and communication and manufacturing, and fairly compete with firms from other continents.⁵⁹

⁵⁷Ibid page 5. ⁵⁸ Ibid page 7.

China has also been able to succeed in penetrating African markets because of its noninterference in the politics of the continent. This has enabled it to quickly execute most of its projects thus create a more positive relationship with African governments and its people.⁶⁰

GBC (2011) adds that Africa has shown remarkable growth in the quantity and quality of productive labor force; growth in incomes that have spurred level on consumption of goods and services; and growth in the professional class dedicated to activities that encourage economic growth and development. But more important to foreign investors is that Africa has resources required in other developing and developed nations, and a market that is ready to consume products from abroad.⁶¹ This has in turn reinforced Chinese interests on the continent.

Agbedelenko F.A et.al (2012) argued that China's activities in Africa have heightened the level of competition and that this has had the effect of helping the countries improve their balance of payment positions through import substitution, but that this depends on the host country's strategy of import substitution and export promotion.⁶²

Michelle and Lawson (2007) indicated that China Export – Import Bank (Cheixim) levies lower rates of interest on borrowed money for projects abroad; sometimes 3 percent lower than commercial rate. This has attracted criticisms since it introduces unfair completion when Chinese companies bid for projects in foreign countries. By the end of 2005 the bank had given concessional loans to its companies carrying out projects in Africa a total amount of US\$800 million which was used to undertake 55 projects in 22 African countries. In addition, China has

⁵⁹ CCS, "*China-Africa Trade and economic Relationship annual report 2010*," 2010 found at <u>www.focac.org</u> page 7.

⁶⁰ Andrea Marshal, "*China's mighty telecom footprint in Africa*" 2011, found at <u>http://www.newsecuritylearning.com</u>, accessed at 20:21 14/09/2013.

⁶¹ GBC, "Investment Opportunities in Africa Infrastructure", a GBC conference paper, 2011.

⁶² Agbedelenko F.A et.al, "Impact of Chinese foreign direct investment in Africa on Sino-Africa trade", 2012, African Journal of Business Management, Vol. 6 (15), page 5244.

made its deals with Africa better through cancellation of some debts amounting to over US\$1.3 billion to 31 African countries.⁶³

In another research attempting to explain the Chinese success on the continent, Bates and Reilly (2007) found out that, in Ethiopia, Chinese firms were awarded unprofitable contracts whose bidding prices were very low: that the companies aimed at securing future markets in the construction sectors. They, nevertheless, stated that this has the effect of making African countries dependent on China when it comes to project delivery at low costs.⁶⁴

There is concern that Chinese firms, in order to make profits in lowly priced bids, import unskilled labor from China even in situations where there is plenty and unemployed locals who can perform such tasks. The same concern has been extended to the practice where they use materials imported from China instead of using local equivalents, which would spur economic growth and development of the recipient state.⁶⁵

To mitigate the trend whereby Chinese businesses import labor from China, the government of Angola pursued a policy of including more local labor in projects funded by China. This led to work stoppages in 2007-2008. After that, the Angolan government started moving away from resource for infrastructure aid arrangement with China.⁶⁶

A similar trend was witnessed in Zambia where Chinese companies were accused of having no interest in developing local human capital. The companies were said to be interested in short term

 ⁶³ Chan-Fishel Michelle and Roxanne Lawson, "Quid Pro Quo? China's investment-for-resource swaps in Africa", 2007, Society of International Development. Page 64-65. Found at <u>www.sidint.org/development</u>.
 ⁶⁴ Gill Bates and James Reilly, "The tenuous hold of China Inc. in Africa" in The Washington Quarterly", 2007, Vol. 30 no. 3 pp 49.

⁶⁵ Nissanke Machiko and Marie Söderberg, "Can China's engagement make a difference to African development" in "The challenging landscape in aid relationships in Africa", Stockholm, Swedish Institute of International Affairs, 2011, Page 27.

⁶⁶ Ibid page 28.

business objectives that were not environmentally sustainable and inhumane. For instance, they have been known to work their laborers for longer hours and pay relatively lower wages.⁶⁷

2.6.2 Chinese Competitiveness

Adams et al. (2004) argue that international competitiveness is a concept that has been explained using various variables such as factors of production (labor, land, and capital) and differences in technology. Under imperfect competition, comparative advantage that results from variations in the above factors helps in explaining trade patterns between or among nations. At the same time, absolute advantage affects level and patterns of specialization if some factors of production are able to move across borders.⁶⁸

The authors argue that competitiveness is a measure of how a country's product is fairing on the global market. A country is said to be competitive if it can deliver a product in a class of products to the global market at a lower price. The lower price is normally as a result of input prices which are in turn affected by exchange rates, productivity, domestic wages and the cost of materials. This must, though, be strengthened by the capability of the country to produce products that meet the international market standards and specifications.⁶⁹

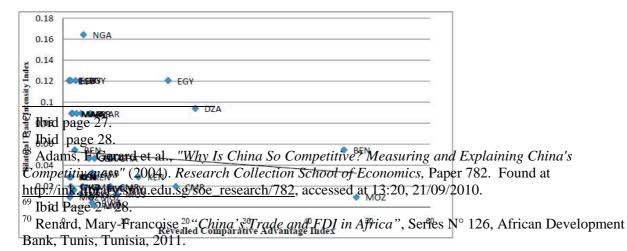


Figure 2.5 Comparative advantage and trade intensity: manufactured sector⁷⁰

MUS=Mauritius, CIV=Cote d'Ivoire, MWI=Malawi, GHA=Ghana, ETH=Ethiopia, CMR=Cameroon, EGY=Egypt, KEN=Kenya, GAB=Gabon, MAR, DZA=Algeria, MOZ=Mozambique, NGA=Nigeria, BEN=Benin, BWA=Botswana.

Source: African Development Bank

Figure 2.6 illustrates the levels of comparative advantage China has over a number of African countries. The comparative advantage China has over Africa necessitates negative trade intensity between n the tow trade partners. This does not encourage African countries to expand some of its sectors where Chinese goods and services dominate.

A country's product can be competitive in the destination country compared to similar products from another country because of a variety of reasons such as factor cost and other productivity considerations, in addition to others like currency undervaluation, current exchange rates, tariff regime, cost of transportation, trade restrictions and product quality. A country can be competitive compared to another as a result of assimilating technology, learning by doing, "capital accumulation, increasing scale of production and policy intervention."⁷¹

Chinese competitiveness stems from various factors that include undervalued currency exchange, low labor costs and its ability to produce goods and services widely acceptable around the globe.⁷²

Bates and Reilly (2007) asserted that ways through which Chinese firms have maintained their competitiveness is by wage reduction, increased working hours, compromising on safety standards and general working conditions. This, they argued, created tension with other non-Chinese firms in some African countries whose market share has gradually been reducing.

⁷¹ Adams, F Gerard et al., "Why Is China So Competitive? Measuring and Explaining China's Competitiveness" (2004). Research Collection School of Economics, Paper 782. Found at <u>http://ink.library.smu.edu.sg/soe_research/782</u>, accessed at 13:20, 21/09/2010. ⁷² Ibid.

Tensions within firms have often resulted in strikes where workers demand better pay and improved working conditions.⁷³

Marques (2011) argues that Chinese firms do not pay for appropriate skills in some African markets in order to make profits after placing low bidding price to projects with the aim of simply winning the tender. This in turn makes the maintenance cost of infrastructure high. However, by the time failures in the projects get noticed they would have achieved their main objectives: made profit, accessed the natural resources such as minerals, oil and achieved other objectives for engaging the market in question. Marques continues with the argument that, other than building structures that fail before their life expectancy is over, the Chinese, in some countries, have been known to stealing tax-free imported materials, sand, gravel and even water meant for construction of national projects and selling them on the black market.⁷⁴

The other way through which China makes its contracts with Africa attractive is that it offers preferential loans through China EX-IM bank to Chinese contractors to undertake infrastructure projects in Africa. However, the aid for infrastructure projects in Africa is intertwined with resource extraction by Chinese companies on the continent. Research by Machiko and Söderberg (2011) points out that it is only after Chinese firms win contracts to extract resources, or lay down infrastructure projects, that the EX-IM bank of China issues loans to them to carry out the implementation of the project.⁷⁵

Chinese companies are given preferential terms from the bank thus minimizing the risks associated with their business undertakings. This alludes to the fact of tied aid. It has been

⁷³ Gill Bates and James Reilly, "*The tenuous hold of China Inc. in Africa*" in The Washington Quarterly", 2007, Vol. 30 no. 3 page 46.

⁷⁴ Ibid page 74.

⁷⁵ Nissanke Machiko and Marie Söderberg, "*Can China's engagement make a difference to African development*" in "The challenging landscape in aid relationships in Africa", Stockholm, Swedish Institute of International Affairs, 2011, Page 25-27.

observed that out of 100%, up to 70% of construction and civil works have to go to Chinese firms and that 50% of the equipment, machinery, materials and technology used in these projects should come from China as a condition in the contracts. This in a way prevents full technology and skills transfer to recipient countries in addition to impeding job creation for the locals and wider spillover effects to local economies. The interest charged by EX-IM bank of China on loans taken by Chinese firms in Africa is about 3.6% and the grace period for repayment to begin is 4 years with an average maturity of 14 years.⁷⁶

The most important market strategy Chinese firms use to enter African markets and expand their market share is by offering competitive prices for their goods and services suitable for most African countries. Huawei is known to offer prices 5 to 15 percent lower that their closest international competitors, while ZTE offers 30 to 40 percent below its European competitors.⁷⁷ Another key ingredient in Chinese companies marketing strategy to entrench themselves in Africa and increase their market share is by having superior customer service and responsive personnel and management.⁷⁸ Others include cultural factors such as courtesy and policies that promote exports.⁷⁹

CHAPTER 3

THE EVOLUTION OF CHINESE INTERESTS IN THE CONSTRUCTION AND INFRASTRUCTURE SECTORS IN KENYA: 1990 TO 2013

⁷⁶ Nissanke Machiko and Marie Söderberg, "*Can China's engagement make a difference to African development*" in "The challenging landscape in aid relationships in Africa", Stockholm, Swedish Institute of International Affairs, 2011, Page 25-27.

⁷⁷ Andrea Marshal, "China's mighty telecom footprint in Africa" 2011, found at <u>http://www.newsecuritylearning.com</u>, accessed at 20:21 14/09/2013.

⁷⁸ Ibid.

⁷⁹ Adams, F Gerard; Gangnes, Byron; and Shachmurove, Yochanan, "Why Is China So Competitive? Measuring and Explaining China's Competitiveness" (2004). Research Collection School of Economics, Paper 2 - 28. Found at <u>http://ink.library.smu.edu.sg/soe_research/782</u>, accessed at 13:20, 21/09/2010.

3.1 AN OVERVIEW OF INVESTMENT IN INFRASTRUCTURE AND CONSTRUCTION PROJECTS IN KENYA

Herbert et. al (2009) pointed out that formal relationship between China and Kenya dates back to early years of independence. In 1964, China appointed its first ambassador to Kenya, but this did not help to build a strong trade and aid relationship between the two states. This was as a result of the ideological differences between the West and the East that were fermenting on the global scene.⁸⁰

The authors continued that in terms of trade, even if not in volumes and in formal terms, China has traded with Kenya even before independence. Sisal, fiber, raw cotton, wattle bark extract are some of the products that Kenya used to export to China during the period before independence; while base metals, tea, fabrics, and a variety of manufactured goods composed the products Kenya imported from China.⁸¹

They further stated that by 1963 the volume of trade between China and Kenya was in the tune of US\$ 1.2 million, and it was in favor of Kenya. However, from 1964, as the volume of trade started to increase and more diversified, China begun to export more to Kenya than Kenya did to China. New products such as paper, chinaware, porcelain, toys, stationery, bicycles came into play, but Kenya did not significantly change its product range exported to China. However, the volume of trade between the two states during that period represented only a tiny fraction of international trade that they participated in.⁸²

⁸⁰ Baa Yaw Antony and Herbert Jauch (ed), "*Chinese Investments in Africa: a labor perspective*", 2009, Accra, Africa Labor Research Network. Pages 384 – 86.

⁸¹ Ibid.

⁸² Baa Yaw Antony and Herbert Jauch (ed), "*Chinese Investments in Africa: a labor perspective*", 2009, Accra, Africa Labor Research Network. Pages 384 – 86.

In 1980, China and Kenya committed themselves to technical and economic cooperation. This translated into support for two universities, scholarships for Kenyan students, and military exchanges. With time, the cooperation was expanded to infrastructural projects, the most significant of the early ones being the Moi International Sports Center in Nairobi. The center was built at a total cost of US\$ 52 million, with Kenya funding 48% of it. The intention of the facility was to showcase China-Africa cooperation during the All-Africa games scheduled to take place in 1987. The funds from China were interest-free. Most materials and equipment for building the Sports Center were imported from China. Other projects that followed include the new Teaching and Referral Hospital in Eldoret for Moi University and the Gambogi-Serem Highway. China also donated teaching materials to Egerton University.⁸³

Though, it is the period after the 2002 general elections that Chinese activities in Kenya started showing remarkable growth. This resulted from improvements in the business environment, thanks to political regime changes. Policies aimed at economic recovery translated into higher and sustained economic growth between 2003 and 2007. This growth was mainly driven by domestic factors, but investors from other countries noticed the potential in the country and gradually started developing more interests in investing in the various sectors for profit.⁸⁴

In 2005, the two countries deepened their cooperation with China pledging to fund infrastructural projects in the energy sectors among other areas such as communications, where it assisted in upgrading of Kenya Broadcasting Corporation equipment and training of its staff. The two

⁸³ Ibid Pages 388-89.

⁸⁴ Baa Yaw Antony and Herbert Jauch (ed), "Chinese Investments in Africa: a labor perspective", 2009, Accra, Africa Labor Research Network. Page 390.

countries also explored joint ventures in power generation and machinery production. The same trend persisted through to 2006.⁸⁵

Other than investment in Kenya's growing infrastructure and construction sectors, imports from China into Kenya became diverse, ranging from consumer to capital goods. By 2006, 40% of imports went into construction, agriculture and industrial production. In other words, the imports from China added tremendous value to the growing economy.⁸⁶

The table below shows the range of products traded between China and Kenya in the year 2006. It is clear in the table that manufactured goods and machinery constituted the largest percentage of imports from China.

Commodities	Domestic exports	Percent	Imports	Percent
1. Food	2981	15.7	3102	0.8
2. Beverages and tobacco	Ν	Ν	Ν	Ν
3. Crude (non-fuel) materials	12751	67	1622	0/3
4. Mineral fuels/lubricants	Ν	-	1622	0.4
5. Animal/vegetable oils	7	0	53	Ν

 Table 3.1 Composition of Kenya's Trade with China, 2006 (in thousand US\$)

 ⁸⁵ Ibid Page 390.
 ⁸⁶ Ibid Page 392.

6. Chemicals	288	1.5	40714	10.0
7. Manufactured goods	2902	15.3	201429	49
8. Machinery and transport equip	91	0.5	163678	39.7
9. Miscellaneous	_	_	-	-
Total	19020	100	412217	100

Source: Republic of Kenya 2007 (n=negligible)

Manufactured goods, machinery and transport equipment constitute the bulk of imported goods from China into Africa. See Table 3.1.

The relationship between China and Kenya has been beneficial to both countries in many ways. Other projects undertaken by China in Kenya include rehabilitation of Moi International Sports Center, "expansion of the Eldoret Hospital, drilling of bore holes, road construction, and upgrading of power distribution systems." In the communication sector, China donated computers to the National Assembly, communication equipment to Telecom Kenya and the Kenya Broadcasting Corporation. China's competitiveness has also helped it win contracts in the construction and infrastructural sectors an example being the contract to install 26,000 switching lines for Telecom Kenya.⁸⁷

In Table 3.2 it can be noted that China has gradually been taking the center stage as the main trade partner to Kenya, with trade volumes increasing every successive year at a faster rate than the other trade partners. But at the same time, this increased volumes feature significantly in imports where Kenya's trade deficit with China has been increasing; from US\$ -91,842 million in 2001 to US\$ -1,546,664 million.

⁸⁷ Baa Yaw Antony and Herbert Jauch (ed), "*Chinese Investments in Africa: a labor perspective*", 2009, Accra, Africa Labor Research Network. Pages 393-94.

			EU 27		Africa	South			Japan			S			Russia			Brazil			India			China	Country/Year
	Trade balance	Exports	Imports	Trade balance	Exports	Imports	Trade balance	Exports	Imports	Trade balance	Exports	Imports	Trade balance	Exports	Imports	Trade balance	Exports	Imports	Trade balance	Exports	Imports	Trade balance	Exports	Imports	y/Year
	-524,161	557,686	1,081,847	-246,230	4,922	251,152	-180,392	16,827	197,219	-486,252	40,388	526,640	-15,465	700	16,165	-13,798	228	14,026	-141,241	29,108	170,349	-91,842	3,033	94,875	2001
Table	-618,464	408,594	1,027,058	-221,654	8,818	230,472	-181,911	8,951	190,862	-191,413	19,691	211,104	-4,787	1,823	6,610	-13,601	68	13,690	-132,077	34,503	166,580	-71,272	3,684	74,956	2002
with	-16,678	720,065	736,743	-280,200	16,129	296,329	-191,145	18,178	209,323	-204,659	40,891	245,550	-10,607	11,215	21,822	-11,744	333	12,077	-139,725	35,635	175,360	-78,892	7,621	86,513	2003
2001	-418,952	752,002	1,170,954	-425,147	21,036	446,183	-257,648	21,222	278,870	-149,237	48,231	197,468	-17,540	13,035	30,575	-14,672	360	15,032	-211,560	51,063	262,623	-152,777	10,558	163,335	2004
	-390,657	838,515	1,229,172	-536,207	28,363	564,570	-280,409	24,962	305,371	-334,963	228,094	563,057	-21,487	18,029	39,516	-36,662	734	37,396	-272,936	53,108	326,044	-287,101	16,957	304,058	2005
	-707,399	930,738	1,638,137	-437,393	33,495	470,888	-390,607	17,479	408,086	-52,037	291,277	343,314	-19,722	21,927	41,649	-42,261	501	42,762	-472,067	52,218	524,285	-390,887	21,554	412,441	2006
	-727,487	1,084,852	1,812,339	-490,438	34,866	525,304	-591,853	19,343	611,196	-375,842	285,763	661,605	-68,893	28,575	97,468	-61,985	2,592	64,577	-757,825	86,725	844,550	-656,877	21,859	678,736	2007
⁸⁸ Courses	-661,047	1,299,906	1,960,953	-625,283	52,887	678,170	-615,386	33,948	649,334	-102,658	299,605	402,263	-116,693	49,514	166,207	-65,656	2,175	67,831	-1,211,354	98,193	1,309,547	-902,771	29,432	932,203	2008
⁸⁸ Source	-704,017	1,183,487	1,887,504	-867,468	46,317	913,785	-603,874	28,829	632,703	-423,022	226,081	649,103	-16,505	46,787	63,292	-64,143	1,051	65,194	-1,011,610	66,479	1,078,089	-932,999	32,180	965,179	2009
	-902,837	1,278,617	2,181,454	-753,850	32,000	785,850	-736,767	26,755	763,522	-226,108	290,518	516,626	-67,333	59,330	126,663	-62,624	334	62,958	-1,243,348	111,239	1,354,587	-1,546,664	32,995	1,579,659	2010

3.2 Value of Kenya's Trade BRICS, US, Japan and EU, - 2010 (US\$ 000)⁸⁸

Source: International Trade Center found at <u>www.intracen.org</u>.

The rising trade deficit between Kenya and China has not however denied Kenya the benefits that come with Foreign Direct Investment and aid from China. In 2005 China became one of the largest bilateral donor to Kenya with a contribution of US\$ 56 million, second to European Union that contributed a total of US\$ 60 million. What helped China to quickly rise as a bilateral donor is its competitiveness and effectiveness in project design and implementation compared to other donors such as the European Union, United Kingdom, Italy, and the Nordic Countries. In terms of aid funds distribution, most of it, between 2003 and 2005, went to rural telecommunications projects using Chinese equipment. The rest went to such projects as rural and urban roads, and maintenance of some of the earlier built projects such as the Moi International Sports Center, Kasarani.⁸⁹ See table 3.3 for a breakdown of projects and the nature of support from China.

Table 3.3 Main types of aid given by China to Kenya, 2003-2007 in US\$ 000

Туре	Purpose	Year	1	1	1	1	1
of Aid		2003	2004	2005	2007	2011	2012
Loans	Gambogi Serem Road	3,100.00	-	-	-		
Loans	Kipsigat- Shamakhokho Road	3,000.00	-	-	-		
Table 3.	3 Cont.						
Grants	Kasarani Sports Ground maintenance	39.00	3,620.00	-	43,846.15		
Grants	Various training Courses in China						
		300.00	-	-	-		
Loans	Purchase of Tractors	66.00	-	-	-		
Grants	Maize flour	-	3,330.00	-	1,766.00		

⁸⁹ Baa Yaw Antony and Herbert Jauch (ed), "*Chinese Investments in Africa: a labor perspective*", 2009, Accra, Africa Labor Research Network. 396.

	processing project in Bomet and Drought hit areas						
Grants	Tsunami relief Kenya	-	-	442.00	-		
Grants	Economic and technical cooperation Kenya	-	-	10,387.00	-		
Loans	Rural telecommunicatio ns development programme project	-	-	24,500.00	14,583.20		
Table 3.	3 Cont.						
Loans	Kenya power distribution system modernization and strengthening project	-	-	20,130.00	6,600.00		
Grants	Rehabilitation of Nairobi roads and streets lighting project	-	-	_	21.538.46		
Grants	Technical training	-	-	548.00	-	-	

	courses to government officials						
Grants	Building Housing Schemes	-	-	-	-	17,647050	
Grants	Installation of CCTV networks in Nairobi	-	-	-	-	-	100,000
Total		6,505.00	7,070.00	56,007.00	88,333.81	17,647050	100,000

Sources: Kenya Development Cooperation Report 2005; Ministry of Finance, Development Estimates 2005/2006; 2007/2008

Between July 2009 and June 2012 China committed approximately USD 480 million in loans to Kenya for infrastructure construction. The agreements for the loans identified Chinese firms that would be involved in the implementation of the projects.⁹⁰

 Table 3.4 Aid Sources to Kenya Showing China's Contribution: 2002-2005 (in million US\$)

Sources	2002	2003	2004	2005
Multilateral	181	229	266	242
China	0.20	6.5	7.1	56
Other Bilateral	272.8	300.5	342.9	379
Total	454	536	616	677

⁹⁰ GAO, "Trends in U.S and Chinese economic Engagement", 2013, page 2013 found www.gao.gov.

China's Share (%)	0.08	2	2	13
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Source: UNDP (2006)

The table 3.4 shows the growing contribution of China's assistance to Kenya between the year 2002 and 2005. The trend continued beyond 2005.

Notably, in 2006, China committed itself in improving the road networks in Nairobi to decongest the city by making a pledge of 745 million Yuan. This was to be utilized in building and upgrading roads to link the city center to Jomo Kenyatta International Airport; remove six roundabouts; build trunk roads in and out of the central business district and construct bypasses.⁹¹

In 2006 the Ministry of Trade and Industry estimated that the projects completed by Chinese companies were worth US\$ 870 million. China Road and Bridge Company had, by 2005, had completed 11 projects worth US\$ 200 million; while at the same time China Wu Yi Company was involved in the expansion and modernization of Jomo Kenyatta International Airport, of which the first phase was worth US\$ 37, 2 million.⁹²

As far as profits are concerned, telecommunications sector in Africa offers Chinese investors with a growing market demand. For example, the number of telephone subscribers in Africa grew from 7.5 million in 1998 to 280 million in 2008. To capture this market, Chinese companies have ensured that their gadgets are priced lowly compared to similar ones from other countries; have expanded wireless connections and partnered up with other companies to offer services and goods.⁹³ For instance, Huawei, a Chinese company, is involved in multiple activities that are

⁹¹ Baa Yaw Antony and Herbert Jauch (ed), "*Chinese Investments in Africa: a labor perspective*", 2009, Accra, Africa Labor Research Network. Pages 396.

⁹²Ibid page 397.

⁹³ Ibid page 54.

geared toward enhancing telecommunication services in East Africa in general and Kenya in particular. Huawei supplies equipment to Emirates Telecommunications Corporation ("Etisalat") while Etisalat is involved with the East Africa Marine System installation whose purpose is linking the African continent to the rest of the world.⁹⁴

Antony and Jauch (2009) stated that within the matrix of countries than have proved useful for China rolling out its strategy in telecommunication is Kenya by virtue of its strategic location. Kenya provides a springboard for Chinese ventures into Central Africa, and other East African countries that possess the resources that are useful to it.⁹⁵

A 2009 estimate put the number of Chinese firms in the construction sector at 44, the large ones including "Jiangsu International Economic and Technological Cooperation Company, Sichuan International Economic and Technological Cooperation Company and China Wu Yi Construction Company." There are quite a number of small ones engaged in repair and maintenance of motor vehicles, sale of construction equipment and agricultural machinery, in restaurants and general hospitality industry.⁹⁶

Huawei is one of the leading suppliers of telecommunication equipment in the world. Its products include "switching systems, intelligent networks, synchronous digital hierarchy (SDH) transmission networks, wireless, datacoms, broadband integrated services (B-ISDN), power supplies, and freespace optical systems." It has sales and services value of about US\$ 30 billion per year and overseas revenue of over US\$ 4.8 billion (2006 estimates).⁹⁷

⁹⁴ Ibid page 55.

⁹⁵Baa Yaw Antony and Herbert Jauch (ed), "Chinese Investments in Africa: a labor perspective", 2009, Accra, Africa Labor Research Network, page53.

⁹⁶ Ibid. pages 396 - 397.

⁹⁷Ibid page 59.

Anyu and Ifedi (2008) notes that China was contracted to install over twenty-six thousand switching lines for Telecom Kenya with the aim of improving telecommunication facilities. It also sold cranes to Kenya to be used in Mombasa port.⁹⁸

Records in the construction sector show that Chinese firms have been increasingly winning construction tenders since 1999, taking up the market share of between 10 and 20 percent of the contracts offered by the International Development Association (IDA). Between the years 2001 and 2006 Chinese companies won contracts accumulating to a value of about US\$738 million. Over the same period of time, China financed infrastructure projects whose value was over US\$ 12 billion. Between the years 2004 to 2006 Chinese firms undertook projects in civil works amounting to about 30 percent of the market share. The general trend is that Chinese companies win most of the largest tenders in the construction and infrastructure sectors.⁹⁹

Sector	Company name	Activity	Cap cost F US\$ (000)	Cap cost L US\$ (000)	EMP F	EMP L
MANU	Hua long auto repairs co ltd	Manufacture of motor vehicle bodies	385	0	9	23
MANU	Gold lida ltd	Manufacture of PVC products	154	0	9	90
MANU	Dong fang auto assembly co ltd	Manufacture & assembly of motor vehicle bodies	385	0	9	23
SERV	Zenith rubber	Re-rubberizing of	131	0	1	6

Table 3.5 China's FDI to Kenya 2006

⁹⁸ Anyu Ndumbe J. and Ifedi Afam J.-P, "*China's ventures in Africa: Patterns prospects and implications for Africa's* development" in The Washington Quarterly", 2008, Vol. 19 no.4 pp 94.

⁹⁹Baa Yaw Antony and Herbert Jauch (ed), "Chinese Investments in Africa: a labor perspective", 2009, Accra, Africa Labor Research Network Page 68.

	roller	rubber rollers				
SERV	Afri-China International co ltd	Recycling plastics	222	0	8	50
SERV	Fast track Kenya ltd	Air transport agencies	519	0	2	10

Table 3.5 Cont.

SERV	Datang optical company	Glazing & assembling of spectacles	333	0	3	327
SERV	Ando roofing products (K) ltd	Importing & selling of roofing tiles	954	0	3	56
SERV	Proparco E. Africa lts	Grain handling	554	0	10	57

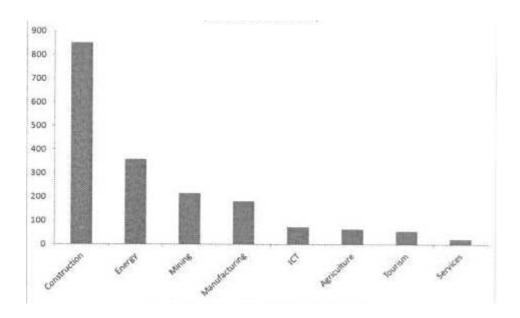
Source: Invest promotion Center (IPC), Kenya Investment authority (KIA) data sets

NB: MANU=manufacturing; SERV=Service; CAPCOST F=Capital cost (foreign); CAPCOST L= Capital cost (local); EMP F=Employment (foreign); EMP L=Employment (local)

Figure 3.1 below adds information to Table 3.5 on China's FDI between 2006 and 2011. Notice

the nature and diversity of China's interests in Kenya.

Figure 3.1 China's FDI in Kenya by sector 2010 – 2011 in US\$ (millions)



Source: Kenya Investment Authority

In October 2008, the Kenyan government awarded a Chinese company, Sinohydro Corporation, a contract to build a 20MW hydroelectric power plant in Western Kenya at a cost of US\$ 65 million.¹⁰⁰ Kenya also intends to build a mega port in Lamu and, in April 2013, awarded a contract worth US\$ 484 billion to a consortium of companies, headed by China Communications Construction Company, to build the first 3 out of the proposed 32 berths. The project consists of a railway line, a port, a major highway and an oil pipeline. Earlier, in 2011, China Road and Bridge Corporation (CRBC) and China Communications entered a contract to expand Mombasa port.¹⁰¹ In 2012, a Chinese company entered a Kshs 8 trillion deal with the Kenyan government to mine Rare Earth, a strategic mineral crucial in the production of electronics.¹⁰²

Table 3.6 Benefits enjoyed in Chinese companies¹⁰³

¹⁰⁰ Executive Research associates, "*China in Africa: a strategic Overview*", 2009, found at <u>www.ide.go.jp</u>, July 29th 2013, 9:51 pm. Page 70.

¹⁰¹ Jorgic Drazen, "Kenya says Chinese firm wins first tender for Lamu port project", 2013, found at <u>http://mobile.reuters.com</u>, accessed at 3:16 pm. 30/July 2013.

¹⁰² Jenny Luesby, "*Uhuru takes on global mining power struggle*", The Standard, 2013, found at <u>http://www.standardmedia.co.ke</u>, accessed at 3:58 p.m. 30/7/2013.

¹⁰³ Baa Yaw Antony and Herbert Jauch (ed), "*Chinese Investments in Africa: a labor perspective*", 2009, Accra, Africa Labor Research Network. Page 411.

Benefits	Local workers enjoy these benefits		Expatriate/Chinese workers enjoy these benefits	
	Yes	No	Yes	No
Social security	✓		~	
Medical care	~		~	
Free/subsidized transport		~	~	
Paid vacation		~	~	
Paid sick leave	✓		~	
Subsidized housing		~	~	
Table 3.6 Cont.				
Child care services		~		~
Incentives bonus		~	~	
Severance pay	\checkmark		~	
Paid maternity leave		~	~	
Free/subsidized meals		~	✓	
Employee share ownership		~		~
Interest free loans		~	✓	
Company-level or in-house pension schemes/provident fund		✓	~	
Education/training bursaries		~	√	
Other benefits		Sunday Pay-offs		✓

"Source: Interviews with selected Chinese road contractors"¹⁰⁴

¹⁰⁴ Baa Yaw Antony and Herbert Jauch (ed), "*Chinese Investments in Africa: a labor perspective*", 2009, Accra, Africa Labor Research Network.

Table 3.6 outlines the benefits Chinese Companies provide to their workers while doing business in Kenya. From the table, it is evident that there is preferential treatment between local workers and their Chinese counterparts, with the Chinese workers benefiting more than local ones, meaning that China's investment in the development and motivation of local human resources is poor as much as the level of foreign direct investment is growing.

3.1.1 Buildings, Railways, Roads and Bridges

In the last five years, there have been remarkable activities in the construction sector in Kenya with China contributing significantly through provisions of funds, labor materials, technical expertise and equipment. This sector contributes about 5% of the Gross Domestic Product and employs over a million people with an estimated value of Kshs 3.2 billion.¹⁰⁵

The increased activities in construction sector have led to higher consumption of many products associated with it like cement. Consumption of cement rose from 835.9 million tons in 2009 to 951.7 tons in 2010 in the third quarter of the respective years. This rapid growth has attracted investors to meet the rising demand for associated services and goods.¹⁰⁶ Investors who have attracted utmost attention are Chinese, both private and public, who have come to participate in activities that are helping Kenya meet its infrastructural needs.

¹⁰⁵ Maina M. Daniel, "Competitiveness between Local, EU and Chinese Firms in Kenya", 2012, found at http://studenttheses.cbs.dk, accessed at 21:33 18/09/2013.

According to Maina (2012), China started investing heavily in Kenyan roads in 2006, though it had shown interest in road construction before that time.¹⁰⁷ Between the year 2001 and 2011 it was estimated that China provided aid to Kenya totaling US\$ 1.4 billion. Most of this assistance went to road construction and other transport networks.¹⁰⁸

Chinese contractors have been able to infiltrate the market in the construction and infrastructure sectors partly because of their competitive prices, ease of access of loans from EXIM bank of China and tied loans from Chinese government to finance some of the projects.¹⁰⁹ This has enabled the contractors win most lucrative contracts as highlighted in a few examples in Table 3.7.

Ranking in expenses for all road projects 2005 – 2013	Chinese company	Company name	Estimated cost (Kshs Million)
1	YES	China Wu Yi	2,671
2	YES	China Road & Bridges Corporation	2,514
3	NO	H Young (EA) LTD	2,523
4	YES	China Wu Yi	3,481
5	NO	Maltauro - monteandriano	3,781

Table 3.7 Ranking in expenses for the road projects between 2005 and 2014

¹⁰⁸ Kelly J Kevin, "*Roads and energy main beneficiaries of Chinese aid to Kenya, report*" in Africa Review, 2013, found at <u>http://www.africareview.com</u>, accessed at 17: 37 14/09/2013.

¹⁰⁷ Ibid.

¹⁰⁹ Maina M. Daniel, "*Competitiveness between Local, EU and Chinese Firms in Kenya*", 2012, found at <u>http://studenttheses.cbs.dk</u>, *accessed at* 21:33 18/09/2013.

6	YES	Sinohydro	4,236
7	NO	Sogea satom	4,605
8	YES	China Wu Yi	4,875
8	YES	Covec	6,209

Source: http://dspace.mit.edu, and Kenya Urban Roads Authority

Other than roads, building projects that benefitted from Chinese activities include Kenyatta University Teaching Research and Referral Hospital estimated to cost US\$ 92 million and Mama Lucy Kibaki Hospital in Embakasi at a cost of US\$ 7 million. This was out of the US\$ 103 million that China provided to fund for projects in the health sector.¹¹⁰

In 2010, President Mwai Kibaki asked China to partner with Kenya on infrastructure development with the aim of uplifting the country to a middle income by the year 2030. He asked China to be involved in developing a railway line linking Lamu and South Sudan and Ethiopia; to develop Lamu port; to construct a railway line from Mombasa to Malaba, and another railway line to serve Nairobi city.¹¹¹

Almost three years later, in 2013, China and Kenya reached an agreement to build a railway line linking Mombasa and Malaba that is meant to improve the business environment within the country and across the border, in Uganda. The project, among others in the energy, infrastructure sector and wildlife protection were planned to cost US\$ 5 billion.

¹¹⁰ Kelly J Kevin, "*Roads and energy main beneficiaries of Chinese aid to Kenya, report*" in Africa Review, 2013, found at <u>http://www.africareview.com</u>, accessed at 17: 37 14/09/2013.
¹¹¹ Mwende Judy, "*Kenya wooing China to build roads*" Construction Business Review, 2010", found at

¹¹¹ Mwende Judy, "*Kenya wooing China to build roads*" *Construction Business Review, 2010*", found at <u>http://www.constructionkenya.com</u>, accessed at 17:26 14/09/2013.

Building and rehabilitating the railway line has a potential to revitalize the once functional 1,700 miles of track in 1950 that had degenerated to usable 700 miles by 2013.¹¹² It is envisaged that rebuilding the railway line and roads would boost the country's economic growth to an average of 5% per year. This could also cut costs of moving goods across East Africa by 79%.¹¹³ The railway, to be funded by the Chinese government, is key to Vision 2030 and is categorized as one of the enablers and micro pillars to the Kenyan economy. Another source indicated that, in 2013, China offered a loan of about Sh425 billion of which Sh340 billion was dedicated to economic partnerships, wildlife protection, and building of the railway.¹¹⁴

Other than major trunk roads and ports, Chinese companies have been, and are, involved in numerous projects aimed at easing traffic in Nairobi and to connect it to several regions in the country. Table 3.8 shows some of the recent projects undertaken by both Chinese, local contractors, among others.

PROJECT DESCRIPTION	LENGTH (KM)	COST (KES MILLION)	CONTRACTOR	START DATE	FINISH DATE
Rehabilitation & dualling of Langata Road (KWS Gate-Bomas)	2.9	2,671	China Wu Yi	2 Nov 2012	5 Oct 2013
Rehabilitation & upgrading of 1st Avenue	3.5	2,523	H Young (EA) Ltd	13 April 2012	13 May 2014

Table 3.8 Completed, ongoing and proposed road projects in Kenya.

¹¹² Christian Monitor, "*China will build Kenya's Railway Line!*" in Kenya London News, 2013, found at <u>http://www.kenyalondonnews.org</u>, accessed at 18: 02, 14/09/2013.

¹¹³Christian Monitor, "*China will build Kenya's Railway Line!*" in Kenya London News, 2013, found at <u>http://www.kenyalondonnews.org</u>, accessed at 18: 02, 14/09/2013.

¹¹⁴ <u>Wambui Ndonga</u>, "*Kenya-China pact a thrust for Vision 2030*", found at <u>http://www.capitalfm.co.ke</u>, accessed at 15:11 24/09/2013.

& Gen Waruinge Road					
Rehabilitation & upgrading of Upper Hill Roads	5.5	2,000	Mattan Contractors	22 May 2012	23 May 2014
Table 3.8 Cont.					
		-			
Construction of Kapsoya Roads in Eldoret Municipality	8.1	887		22 May 2012	23 May 2014
Construction of City Cabanas Interchange & Complementary Works	3	2,514	China Road & Bridges Corporation	5 June 2013	5 June 2014
Upgrading of Syokimau- Katani Road (Phase 1)	2.1	171	Ceabud Engineering Services	20 April 2013	25 May 2013
Upgrading of Roads within Lodwar Municipality	3	168	Frointer Construction Ltd	17 Jan 2013	17 Jan 2014
Improvement of Ndovu Road	3	90	Jofrim EA Ltd	22 Nov 2012	21 May 2013
Improvement of Bogani East Road	1.7	13	Kiu Construction Ltd	22 Nov 2012	22 July 2013
Rehabilitation of Nanyuki Road in <u>Nairobi</u> County	2	146	Cementers	6 March 203	6 Jan 2014
Upgrading to Bitumen Standards of Kinunga Kamuyu Roads in Nyeri	2	127	Elite Earth Movers		

County					
Construction of Nairobi Western Ring Roads	8.36	1,091	Nippon Construction Company	July 2011	August 2013
Table 3.8 Cont.					
Nanyuki Road	2.2	146	Cementers Ltd	10 April 2013	9 Feb 2014
Eastern Missing Links	17.1 & 11.7 NMT	Under procurement			
Dualling of Outter Ring Road	13	Resource Mobilaztion			
Githurai Kimbo	2.7	340	Dickways Construction Co. Ltd	Contract being formalized	
Nanyuki Road	2.2	146	Cementers Ltd	10 April 2013	9 Feb 2014
Improvement of Ndovu Road	3	90	Jofrim EA Ltd	22 Nov 2012	21 May 2013
Improvement of Bogani East Road	1.7	13	Kiu Construction Ltd	22 Nov 2012	22 July 2013
Rehabilitation of Makina-Kibera Law Courts Road	2.2	88		26 April 2012	11 Mar 2013
Rehabilitation of Kayole Spine Road	3.4	135		26 April 2012	9 Mar 2013

Rehabilitation of Mihang'o By-pass Loop (Kibiku Road)	2.5	94	10 July 2012	10 Nov 2012
Table 3.8 Cont.				
Rehabilitation of Chogoria /Wajir North Road	0.3	21	4 Jan 2013	3 May 2013
Rehabilitation of Rose Avenue (Denis Pritt- Jabavu Road)	1.34	44	31 Dec 2012	30 April 2013
Improvement of Baba Dogo-Allsops/ Outer Ring Road	1.2	77	27 Dec 2012	26 June 2013
Rehabilitation of Kinyanjui Road	1.83	93	31 Dec 2012	1 July 2013
Rehabilitation of Kibera Station Road	1.4	93	27 Dec 2012	26 June 2013
Improvement of Link Road A2 Junction C64	0.9	52	10 July 2012	10 Nov 2012

Source: Kenya Urban Roads Authority, found at <u>http://www.kura.go.ke</u>

Two things should be observed in the table above: first, the largest contacts were won by Chinese contractors; and second, several road contracts were being executed simultaneously or over overlapping times. This is a pointer to the opportunities in the sectors to generate employment and improve delivery of goods and services to various destinations once they are finished.

3.1.2 Telecommunications Infrastructure

China is major supplier and installer of information technology and telecommunication equipment in Africa. This has helped bring down the cost of communication, and helped in mobile phone penetration on the continent, notably in Kenya, Angola, Ghana Nigeria, and Uganda. In 2010, it was estimated that Chinese contractors were active in 50 African nations in this sector.¹¹⁵

China is a dominant player in the telecommunications sector in Kenya with Chinese companies outbidding competitors (Alcatel Lucent, Nokia Siemens, and Erickson) from other countries. Huawei was, in 2010, contracted by Safaricom to supply it with core network requirements and install 4G networks. This was to cost Kshs 12 billion. Safaricom aimed at increasing its revenues in the fast growing data and communications business.¹¹⁶

The huge business potential in telecommunications sector in Africa attracted a total of US\$ 3 billion from China between the years 2001 and 2007, the main interest being equipment sale. China is working with both the African governments and the private service providers like Vodacom, MTN and Celtel to supply technology, equipment and roll out infrastructure networks.¹¹⁷ In Ethiopia, China helped roll out national communication backbones at a cost of US\$ 1.5 billion. This project was undertaken by Zhongxing Telecommunications Equipment Corporation (ZTE), Huawei, and China International Telecommunication Construction

¹¹⁵ Andrea Marshal, "*China's mighty telecom footprint in Africa*" 2011, found at <u>http://www.newsecuritylearning.com</u>, accessed at 20:21 14/09/2013.

¹¹⁶ Okuttah Mark, "Safaricom loosens China's grip on local contracts with Sh14bn tender" in business daily 2012, found at <u>http://www.businessdailyafrica.com</u>, accessed at 19:53 14/09/2013.

¹¹⁷ Foster Vivien et. al, "Building Bridges: China's Growing Role as Infrastructure Financier for Sub-Saharan Africa", Washington D.C, The world Bank, 2009, page 24

Corporation (CITCC). The benefits of the completed project include improved network coverage in rural areas. ZTE started the first phase of the project in 2007.¹¹⁸

In 2012, Safaricom awarded a contract to Huawei Technologies and Ericsson to lay down the first phase of optical fibre where the initial 500km were planned to be finished by mid-2013. While Huawei was engaged by Safaricom, its Chinese competitor ZTE was awarded a contract to roll out Telecom Kenya's 3G networks worth Kshs 4 billion. Huawei was also contracted by the government to lay down a Kshs "6 billion national fiber optic infrastructure and e-government projects."¹¹⁹

3.1.3 Water and Sanitation Projects

One of the sanitation projects where China played a dominant role is the Eldoret sanitation project that is comprised of a 53 kilometers of trunk and branch sewers; 400 meters "long aerial crossing for gravity transmission of sewage from Huruma Area to new Treatment Works;...rehabilitation and expansion of existing Quarry Sewage Treatment Works and a dry weather flow capacity (that was ...increased from 4,800 m3/day to 8,000m3/day);...construction of a new Boundary Treatment Works ... of dry weather flow capacity 10,000m3/day." The project was jointly done by 'Joint Venture of China Electric Power Technology Import & Export Corporation Limited and Spencon Limited. The project commenced in August 2002 and completed in May 2004.¹²⁰

According to the '*Kenyan Engineer*' (2013), the Republic of China and Export- Import Bank of China agreed to finance High Grand Falls dam project in Baringo County at a cost of Kshs 4.8

¹¹⁸ Foster Vivien et. al, "*Building Bridges: China's Growing Role as Infrastructure Financier for Sub-Saharan Africa*", Washington D.C, The world Bank, 2009, ¹¹⁹ Ibid page 24.

¹²⁰ The Kenyan Engineer, "Eldoret sanitation project", found at <u>http://www.kenyaengineer.com</u>.

billion. The dam is part of the Lamu Port and Lamu Southern Sudan-Ethiopia corridor development project. The dam will be used to supply water to Lamu resort city and generate between 500 and 700 megawatts of power. Its water will be used for irrigation and help shortening travel distances across the Tana River, and used to avoid building a bridge across the river. The other impacts of the dam include displacement of at least 4,500 households and their resettlement by the government; construction of new schools, shopping and health centers among other related infrastructural projects.¹²¹

3.1.4 Power Generation

One of the challenges Kenya faces in its economic development agenda is shortage and high cost of electricity. To circumvent the problem, Kenya faces the option of developing its geothermal resources among other alternative sources of power. China National Petroleum Company won a bid in the year 2006 to develop a high-temperature geothermal well drilling project. Chinese projects in geothermal power generation have been 100% successful, making them the preferred consultants and builders of such facilities. On their portfolio of such projects in Kenya includes a 3000 meter deep well that gave the highest yields results in Africa. The project helps Kenya to produce clean energy and mitigate power shortage that hampers social and economic development.¹²²

Apart from The World Bank, the Chinese government pledged, in early 2013, to support the Kenya's geothermal energy projects. The World Bank estimates that the 27 power plants underway for commissioning will be able to boost the total power generation by existing geothermal energy plants from 1,672MW to 2,371MW by 2016. This will be able to meet the

¹²¹ The Daily Nation, "*Coming soon: Kenya's largest fresh water dam*", 2013, found at <u>http://www.nation.co.ke</u>, accessed at 15: 39 15/09/2013.

¹²² <u>Lxrichter</u>, "*China National Petroleum Co. and Kenya sign MOU on geothermal development*", 2013, found at <u>http://thinkgeoenergy.com</u>, accessed at 21:12 17/09/2013.

rising needs for more power and will be in line with vision 2030 objectives that include powering the proposed light rail for Nairobi City and its environs. Some of the projects under the Vision 2030 plan like the proposed light rail in Nairobi will require 16 GWh, Mombasa terminal will require 13 GWh, and Lamu port that is expected to use approximately 16 GWh.¹²³

Kelly (2013) noted that in 2013 China dedicated a total sum of US\$ 286 million for energy generation and supply projects. Among the targeted projects is the updating of Kenya's urban power grid that will cost a total of US\$ 138 million.¹²⁴ And Wakoba (2013) added that China's Dongfang Electric International Corporation was willing to build 50 megawatts of solar energy plant in Nakuru at a cost of US\$ 100 million, the funds coming from both the Chinese and Kenyan governments.¹²⁵

According to the 'Kenyan Engineer' (2013), among other projects that China agreed to finance was the construction of a 61 kilometer long 132Kv power line from Chemosit in Kericho to Kisii, and a 122 kilometers long 132Kv line from Kamburu hydropower station to Meru. The first phase of the project was planned to cost US\$ 19 million, the funds being lend directly to Kenya Power and Lighting Company by EX-IM Bank of China. Additional Kshs 6 million from the same bank is planned for procurement of materials and equipment from China. The chosen contractor was CAMMC Engineering Company of China. The new power lines were estimated to help Kenya Power and Lighting Company to reduce technical losses during distribution of electricity and stabilize power supply in the country. As a result KPLC will save a total of Kshs. 250 million per

¹²³_____ "*Kenya attracting international energy support*", 2013, found at <u>http://www.kenyaengineer.co.ke</u>, accessed at 07:42, 18/09/2013.

¹²⁴ Kelly J Kevin, "*Roads and energy main beneficiaries of Chinese aid to Kenya, report*" in Africa Review, 2013, found at <u>http://www.africareview.com</u>, accessed at 17: 37 14/09/2013.

 ¹²⁵ Sam Wakoba, "China's Dongfang Electric To Set Up \$100 Million Solar Power Plant In Kenya",
 2013, found at <u>http://techmoran.com</u>, accessed at 20:53 17/09/2013.

annum. The second phase of the project is estimated to cost US\$ 150 million of which China committed to put in Kshs US\$ 35 million.¹²⁶

In 2013, two Chinese firms partnered with the government of Kenya to put up a solar power plant producing 50MW in the country on a 200 acre piece of land in Garisa County. The firms expected to be involved are China Jiangxi Corporation for International Economic & Technical Co, Ltd. (CJIC) and JinkoSolar Holdings. The plant is estimated to produce 76,470 MWh per year. Part of the agreements stipulates that technical support for the project would be provided by JinkoSolar. The company has undertaken similar projects in other parts of the world, including 14MW solar installation in the United Kingdom and 81MW of photovoltaic modules in South Africa.¹²⁷ In 2013 alone, China pledged to provide Sh85 billion dedicated to energy-related projects.¹²⁸

3.1.5 Ports

China is involved in the construction and expansion of both Mombasa and Lamu ports, and Jomo Kenyatta International Airport in Nairobi.

The expansion of berth 19 of Mombasa port was funded by the Kenyan government at a cost of US\$ 82.15 million, and built by China Road and bridge Corporation. The new facility was built

¹²⁶ The Kenyan Engineer "*China to fund Sh 1.4 billion power project*", 2013 found at <u>http://www.kenyaengineer.com</u>, accessed at 18/09/2013.

¹²⁷_____ *"Kenya to build the largest solar Plant"* 2013, found at <u>http://www.africanbuilding.com</u>, accessed at 12:31 18/09/2013.

¹²⁸ <u>Wambui Ndonga</u>, "*Kenya-China pact a thrust for Vision 2030*", found at <u>http://www.capitalfm.co.ke</u>, accessed at 15:11 24/09/2013.

within the budget and completed ahead of schedule. According to Hou Qiang (2013), the facility will enable the port to increase it throughput by 33%¹²⁹ thus speeding up cargo delivery to Kenya, Uganda, Rwanda, Burundi and the Democratic Republic of Congo, among other States in Eastern and Central Africa. It was commissioned in 2011 and officially opened in 2013.¹³⁰

Ndaiga (2013) pointed out that the expansion of the Mombasa port is aimed at adding "three berths with quay lengths of 230, 320 and 350 meters. The larger bay was planned to handle Panamax container ships of 20,000 DWT and Post Panamax vessels of 60,000 DWT". The funding of the project is by Japanese and Kenyan governments. Japan, through Japan International Co-operation Agency (JICA), provided Kshs 26 billion while the Kenyan government provided Kshs 5 billion towards the project and an additional sum of Kshs 612 million for the resettlement of people. The repayment period for the Japanese loan is 40 years with a 10 years grace period. The interest rate is 0.2 percent. The two contractors on the project that is scheduled to end in 2015 are Van Oord Dredging and Marine Contractors of Netherlands (to build the dredging), and "China Roads and Bridge Corporation contracted to erect the new cargo berth."¹³¹

An article in the '*Africa Echo*' outlined that in Nairobi, China Wu Yi was awarded a contract for the expansion of Jomo Kenyatta International Airport at a cost of Kshs. 2.6 billion. This was phase one of the entire planned expansion that will cost Kshs. 10 billion. The facilities included in phase one are an apron, taxiways and an extension of the fuel hydrant system. The expansion was in response to the increased passenger handling from the originally planned 2.5 million to 4.2

¹²⁹ Hou Qiang, "*Newly expanded port berth reopens in Kenya's Mombasa*", 2013, found at <u>http://news.xinhuanet.com</u>, accessed at 16:30, 15/09/2013.

¹³⁰ Xinhua, "*Newly expanded port berth reopens in Kenya's Mombasa*", found at <u>http://www.chinadaily.com.cn</u>, accessed at 16:36, 15/09/2013.

¹³¹ <u>Hellen Ndaiga</u>, "*Mombasa container terminal halfway done*" 2013, found at <u>http://www.constructionkenya.com</u>, accessed at 16:43 15/09/2013.

million passengers per year being experienced by 2013. The expansion of the facility is important to allow direct flights from Kenya to the United States of America, Latin America, and Australia and other important destinations.¹³²

The second phase of the project was awarded to China National Aero-Technology International Engineering Company (CATIC) in 2009 at a cost of Kshs 4 billion. This included a new terminal and a multistory parking space to accommodate 1,500 cars.¹³³ Other than the expansion of the airport, Chinese contractors, CATIC, were involved in the rebuilding of the passenger terminal that was burnt down by fire in 2013, and building of a temporary terminal at a cost of US\$ 1 million as a gift to the Kenyan government.¹³⁴

3.2 FINANCING MODELS

Nissanke et al. (2013) argued that Projects funded by Chinese government are based of requests received from the African countries in need.¹³⁵ And Marshal (2013) adds that China finances most of the projects in Africa through provisions of loans, most of which are tied in one way or the other. Some are tied to the recipient government buying equipment and materials or services, or any combination of factors of production necessary from China, while others tied to China

¹³² Africa Echo, "Chinese firm signs Sh2.6bn contract with Kenyan Airports Authority", 2013, found at http://www.africanecho.co.uk, accessed at 17:12 15/09/2013. ¹³³ Wangui Maina, "Chinese firm wins airport expansion tender", 2009, found at

http://www.businessdailyafrica.com, accessed at 17:50 15/09/2013.

¹³⁴ Xinhua, "Kenya praises Chinese contractor for remodeling gutted airport", 2013, found at http://www.globaltimes.cn, accessed at 17:31 15/09/2013.

¹³⁵ Nissanke Machiko and Marie Söderberg, "Can China's engagement make a difference to African development" in "The challenging landscape in aid relationships in Africa", Swedish Institute of International Affairs, 2011, Stockholm. Page 26.

being able to extract resources like minerals, oil and other natural resources (this arrangement is commonly known as the 'Angola Mode').¹³⁶ See figure 3.2 for illustration.

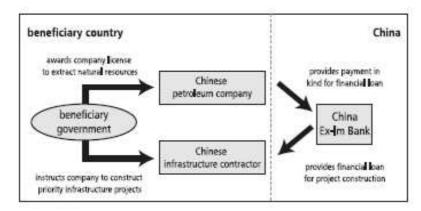
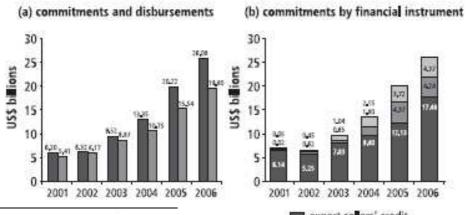


Figure 3.2 Structure of "Angola mode" arrangement

Source: Foster Vivien et. al, ¹³⁷

Note that financial details of Angola mode are difficult to ascertain partly because of the secrecy of most of the deals, and partly due to their dependency on multiple variables such as price variations in future.¹³⁸

Figure 3.3 Commitments by China Ex-Im Bank, 2001-2006



¹³⁶ Andrea Marshal, "*China's mighty telecom footprint in Africa*" 2011, found at <u>http://www.newseouritylearning.com</u>, accessed at 20221 14/09/2013, ¹³⁷ Foster Vivien et. al, "*Building Bridges: China's Growing Role as Infrastructure*

 ¹³⁷ Foster Vivien et. al, "Building Bridges: China's Growing Role as Infrastructure Financier for Sub-Saharan Africa", Washington D.C, The world Bank, 2009, page 56.
 ¹³⁸ Foster Vivien et. al, "Building Bridges: China's Growing Role as Infrastructure Financier for Sub-Saharan Africa", Washington D.C, The World Bank, 2009, page 24. Source: China Ex-Im bank (2007)

The dominant view in most literature is that Chinese businesspeople and companies are subsidized by their government, but Vivien et al. (2009) have tried to correct the perception by arguing that the funds come from the vendors or vendor-guaranteed loans amounting up to US\$ 5 billion a year.¹³⁹ Figure 3.3 illustrates the various modes of China's financial assistance to its oversees firms.

CHAPTER 4

THE IMPACT OF CHINESE ACTIVITIES IN THE CONSTRUCTION AND INFRASTRUCTURE SECTORS ON THE KENYAN ECONOMY

4.1 OVERVIEW

While there are genuine concerns about malpractices of Chinese firms in Africa, there was need for empirical research to establish whether or not it is true that Chinese firms are greedier than indigenous firms or firms from countries outside of the continent. It is a fact that the activities of Chinese firms in Kenya have created jobs as well as displaced others from employment. It has

¹³⁹Ibid.

been suggested, in several publications, that Chinese interest in Africa is to access natural resources, but this blanket generalization had to be broken down into actual facts and data to prove or disapprove the position.

Although Kenya and China have a mutual relationship as far as the construction sector is concerned, this relationship however favors China. Chinese construction companies are efficient compared to local ones. Increased penetration of Chinese firms and products in the construction sector has provided stiff competition to the local industries thus reducing their market share, and in this way leading to lower rate of employment creation by local companies.¹⁴⁰ Chinese firms outmuscle local ones by offering unfairly lower prices for the services and goods they offer. This results from cost cutting measures adopted by the firms such as overworking their laborers in order to maximize productivity;¹⁴¹ using unconventional methods of sourcing materials; sourcing equipment and materials from China at a lower price, among others.

Herbert Jauch (ed) 2009 stated that local construction companies have responded to Chinese penetration into the sector by demanding protection by the government from Chinese competition fronting the infant-industry protection logic.¹⁴²

The construction of Lamu port and railway line linking Kenya Ethiopia, South Sudan and Rwanda has been estimated would be yielding a rate of return of at least 20 percent. A Chinese

¹⁴⁰ Executive Research Associates LTD, "*China in Africa: a strategic overview*", 2009, found at <u>www.ide.go.jp</u> page 50 – 76.

¹⁴¹ Executive Research Associates LTD, "*China in Africa: a strategic overview*", 2009, found at www.ide.go.jp pages 50 - 76.

¹⁴² Baa Yaw Antony and Herbert Jauch (ed), "*Chinese Investments in Africa: a labor perspective*", 2009, Accra, Africa Labor Research Network. Page 397.

company has been awarded a contract to build 3 berths in the first phase of construction. China has also shown interest in financing the construction of the project.¹⁴³

4.1.1 Technology Transfer and Spillover Effects

Broadman et al. (2007) confirmed that China transmits advanced technology and skills, equipment and machinery into Africa but in a limited way. They recommend that foreign workers from China should be encouraged to engage in effective skills and technological transfer to local workers and that the local workers should be well trained to absorb these skills and knowledge.¹⁴⁴

Table 4.1 shows Chinese firms in Africa, more than any other, prefer using China made machinery.

Import Origin	Africa	Chinese	Indian	European
Domestic	55	32	15	28
Other Africa	3	1	7	12
China	6	60	13	1
India	5	0	22	2
Other	31	8	44	56

 Table 4.1 Purchases of new machinery by Import and Firm Nationality (Percent)

Source: World Bank (note that the data was derived from 2005 median values.)

 ¹⁴³ GBC, "Investment Opportunities in Africa Infrastructure", a GBC conference paper, 2011
 ¹⁴⁴ Broadman Harry G. "Africa's Silk Road: China and India's new Economic Frontier", Washington D.C, The World Bank, 2007.

Chinese firms in the infrastructure and construction sectors in Kenya are enhancing technology and managerial skills transfer and attraction of investment related to the sectors¹⁴⁵ though the extent is limited. For example, an interview with an engineer working on several data center and transmission projects for Safaricom in Kisumu and Thika revealed that Chinese experts who come to help in installation of some aspects of the projects do not pass sufficient information to Kenyan counterparts.¹⁴⁶

Some of the ways through with technology is transferred from China to Kenya is importation of Chinese machinery and equipment into Kenya for use in the construction and infrastructure sectors. Importation without knowing how to operate equipment or machinery does not lead to technology and skills transfer. 'Kenyans' involved in the sectors as laborers are trained on how to use the machinery and equipment.¹⁴⁷ Figure 4.1 illustrates the extent to which Kenya and other selected African use licensed technology from oversees. It can be observed that it constitutes a very small percentage compared to technology not licensed from foreign firms.



Figure 4.1 Usage of Licensed technology

¹⁴⁵ Baa Yaw Antony and Herbert Jauch (ed), "*Chinese Investments in Africa: a labor perspective*", 2009, Accra, Africa Labor Research Network.

¹⁴⁶ Source: Interview.

¹⁴⁷ Baa Yaw Antony and Herbert Jauch (ed), "*Chinese Investments in Africa: a labor perspective*", 2009, Accra, Africa Labor Research Network. Pages 272-73.

Source: World Bank Investment Climate assessments

Broadman (2007) argues that domestic firms like Telecom Kenya and Safaricom have been able to improve their efficiency by adopting Chinese technology and through technical assistance from China. Furthermore, products from China in the telecommunication sector have provided competition to other service providers hence lowering the costs of communication. The other positive spillover resulting from the presence of Chinese contractors and businesspeople is that the timely delivery of services by Chinese contractors has influenced local contractors and business people to adopt the similar standards to avoid being put out of business.¹⁴⁸

China is helping Kenya develop transport networks across the country and this has the effect of reducing the cost involved in doing business both locally and internationally. Improved cargo handling and capacity in Mombasa coupled with improved road transport between Mombasa and Malaba has had the impact of reducing the number of days it takes for goods to move between Mombasa and Uganda via Malaba border.¹⁴⁹

4.1.2 On Job Creation Opportunities

It was observed in some African countries like Zambia, Ghana, Ethiopian and Sudan that jobs were lost due to closure or reduction of the labor force of those firms that could not keep up with the competition from Chinese companies,¹⁵⁰ but there is sufficient evidence that more jobs are created than lost in the economy resulting from the activities of Chinese national and firms.

¹⁴⁸ Broadman Harry G. "Africa's Silk Road: China and India's new Economic Frontier", Washington D.C, The World Bank, 2007, Page 325.

¹⁴⁹ Broadman Harry G. "Africa's Silk Road: China and India's new Economic Frontier", Washington D.C, The World Bank, 2007, pages 207-82.

¹⁵⁰ Jauch Herbert, "*Chinese investments in Africa: twenty-first century colonialism*?" in New labor forum, 2011, Joseph S. Murphy, page 51.

Herbert (2011) stated that most Chinese Companies in Kenya are fully owned by Chinese nationals with a limited number having locals as shareholders. In terms of employment ratios between Chinese nationals and Kenyan counterparts, there has been a gradual increase in the number of Chinese nationals being employed in these companies. Though, in comparison to other companies, Chinese firms use fewer employees by employing more machines instead of using manual laborers.¹⁵¹ Table 4.2 shows the trends in job creation in a number of projects undertaken by China in Kenya between the years 2000 and 2006. It can be observed job creation has not been stable, but nevertheless jobs were created with the number corresponding directly to the number of projects undertaken by China.

Year	FDI US\$ Mn	No. of projects	Capital US\$ Mn	Employment
2000	110,1	9	4,08	787
2001	5,3	12	2,79	1313
2002	27,6	6	1,67	170
2003	81,7	11	13,95	493
2004	46,1	12	9,03	1414
2005	21,2	12	3,74	239
2006	51	8	2,51	681

Table 4.2 FDI from China in Kenya, 2000 - 2006

¹⁵¹ Ibid, page 402.

Source: Calculations based on the Investment Promotion Center, and Kenva Investment Authority Data Set

It was also noted by Marshal (2011) that ZTE, a telecommunication company owned by Chinese government employs over 1000 people in Africa, 63% of whom are Africans. The company has 1 training centre and 15 training bases in Africa that train over 4500 Africans annually.¹⁵²

On the issue of Chinese businesses importing labor, Brautigam (2013) observed that they only do so in countries where labor costs are high. This was observed in Algeria, Libya, Angola and Sudan where Chinese construction companies brought in construction laborers. But in most countries, the top management is usually Chinese supervising local workers. For instance, in Ethiopia, a Chinese Company Huajian Imported about 200 skilled workers who in turn trained over 800 Ethiopians while starting off a certain project. Other projects in Ethiopia have also witnessed the same trend where the number of Chinese workers reduces as more locals are trained to take up the positions.¹⁵³

It is therefore legitimate for African workers to complain that working conditions in Chinese firms are poor and that the pay is low but not that Chinese companies do not provide jobs to locals.154

4.1.3 On Import-Export Balances

Table 4.3 Kenya-China import/exports trade statistics

¹⁵² Andrea Marshal, "China's mighty telecom footprint in Africa" 2011, found at http://www.newsecuritylearning.com, accessed at 20:21 14/09/2013.

¹⁵³ Deborah Brautigam "Africa: China in Africa - How Much Do We Know?", 2013, found at http://m.allafrica.com, accessed at 15:02, 24/09/2013. ¹⁵⁴Ibid.

Year	Exports in Kshs	Import in Kshs	Balance of trade
1998	78,445,920	41,127,317,354	-4,048,871,434
1999	261,413,199	3,876,682,158	-3,660,268,959
Table 4.3 Cont.			
2000	371,136,785	7,698,432,210	-7,381,295,425
2001	247,538,804	7,459,239,524	-7,211,700,720
2002	290,234,078	5,877,235,916	-5,587,001,838
2003	571,192,612	6,569,931,081	-5,998,738,468
2004	836,418,800	12,948,416,345	-12,111,997,545
2005	1,189,713,229	19,358,883,866	-18,169,170,637
2006	1,554,660,066	29,721,261,237	-28,166,601,171
2007	1,471,240,200	45,689,137,609	-44,217,897,409
Average Values	677,299,369	14,332,653,730	-13,655,354,361

Source: Customs Department, Kenya Revenue Authority, 12-sep-08

As shown in Table 4.3, Kenya's balance of trade has consistently been negative and increasing since 1998 to 2007. This implies that Kenya imports more from China than it exports to China.

Table 4.4 Ten Exports to China (2007)

SITC	SHORT	VALUE IN KSHS
288	Non-ferrous base metal and scrap, n.e.s.	354,350,451.00
074	Tea and mate	169,875,335.00
265	Vegetable textile fibres (other than cotton and jute, raw or processed but not spun; waste of these fibres	127,880,023.00
682	Copper	116,213,766.00
611	Leather	104,710,536.00
292	Crude vegetable materials, n.e.s	78,595,482.00
264	Jute and other textile bast fibres, n.e.s., raw or unprocessed nut not spun; tow and waste of these fibres (including yam waste and gametted stock)	73,486,058.00
516	Other organic chemicals	66,876,820.00
034	Fish, fresh (live or dead), chilled or frozed	47,812,754.00
268	Wool and other animal hair (including wool tops)	39,597,870.00

Kenya's exports to China are of low value compared to its imports from China. The composition of the exports is dominated by agricultural-based products and a limited number of minerals while imports are mainly machinery and equipment whose value is higher. See Tables 4.4 and 4.5

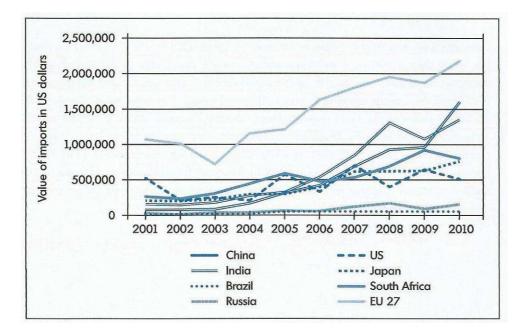
 Table 4.5 Top Ten imports (2007)

SICT	SHORT	VALUE IN
		KSHS
764	Telecommunications equipment, n.e.s, and parts, n.e.s,	2,584,618,826.00
	and accessories of apparatus falling within division 76	
782	Motor vehicles for the transport of goods and special	1,496,934,322.00
	purpose motor	
778	Electrical machinery and apparatus, n.e.s,	1,455,708,053.00
652	Cotton fabrics, woven, (not including narrow or special	1,442,060,866.00
	fabrics)	
653	Fabrics, woven, of man-made textile materials (not	1,341,009,969.00
	including narrow or special fabrics)	
891	Arms and ammunitions	1,312,785,212.00
783	Road motor vehicles, n.e.s,	1,296,889,117.00
752	Automatic data processing machines and units thereof;	1,281,116,339.00
	magnetic or optical readers, machines for transcribing	
	data onto media in coded form and machines for	

	processing such data, n.e.	
625	Rubber tyres, interchangeable tyre treads, tyre flabs and	1,206,137,097.00
	inner tubes, for wheels of all kinds	
655	Knitted or crocheted fabrics (including tubular knit	1,062,997,405.00
	fabrics, n.e.s, pile fabrics and open-work fabrics), n.e.s,	

Source: Customs Department, Kenya Revenue Authority, 12-sep-08

Figure 4.2 Kenya Imports from BRICS, US, Japan and EU, 2001-2010 (US\$)



Source: International Trade Center, http://www.trademap.org/Bilateral_TS.aspx

Year 2011 statistics show that Kenya exported products valued at Kshs 4.6 billion while imported products from China worth Kshs 249, and in 2008 the values were Kshs 2.5 and Kshs 79 billion respectively.¹⁵⁵

¹⁵⁵ Ngunyi Gitahi, "*Will Uhuru tame trade imbalance between Kenya and China*?" in 'the people', 2013 found at <u>http://www.thepeople.co.ke</u>, accessed at 14:40 15/09/2013.

The figure 4.2 and Tables 4.6 to 4.10 illustrate the trends in trade relations between Kenya and other counties with China showing remarkable growth in imports into Kenya and as a trade partner to Kenya.

Rk Partner Mio euro % 19,887 100.0 World (all countries) India 1 3,239 16.3 2 China 2,396 12.0 3 EU 27 1,898 9.5 United Arab Emirates 7.5 4 1,488 Saudi Arabia 5 1,042 5.2 South Africa 672 3.4 6 7 Japan 563 2.8 United States 8 498 2.5 9 Bahrain 448 2.3 10 Brazil 248 1.2

Table 4.6 Kenya's trade with top ten import partners in 2012

Source: <u>http://trade.ec.europa.eu</u>

Rk	Partner	Mio euro	%
	World (all countries)	7,169	100.0
1	EU 27	1,071	14.9
2	Uganda	518	7.2
3	Tanzania	505	7.0
4	United States	287	4.0
5	Egypt	257	3.6
6	Democratic Republic of Congo	220	3.1
7	Rwanda	186	2.6
8	Pakistan	171	2.4
9	Russia	94	1.3
10	Somalia	92	1.3

Table 4.7 Kenya's trade with top ten export partners in 2012

Table 4.8 Kenya's trade with top ten trade partners in 2012

Rk	Partner	Mio euro	%
	World (all countries)	27,056	100.00
1	India	3,312	12.2
2	EU27	2,968	11.0
3	China	2,433	9.0
4	United Arab Emirates	1,574	5.8
5	Saudi Arabia	1,059	3.9
6	United States	785	2.9
7	Uganda	719	2.7
8	South Africa	695	2.6
9	Japan	596	2.2
10	Tanzania	561	2.1

Source: Source: <u>IMF</u> (DoTs)

Partner regions	Mio euro	%
АСР	1,302	6.5
Andean Community	5	0.0
ASEAN	597	3.0
BRIC	5,991	30.1
CACN	3	0.0
Candidate Countries	118	0.6
CIS	145	0.7
EFTA	81	0.4
Latin American Countries	307	1.5
MEDA (exl EU)	335	1.7
Mercosur	293	1.5

Table 4.9 Kenya's imports from... 2012

NAFTA	584	2.9
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Source: Source: <u>IMF</u> (DoTs)

Table 4.10 Kenya's Exports to... 2012

Partner regions	Mio euro	%
АСР	1,922	26.8
Andean Community	2	0.0
ASEAN	36	0.5
BRIC	205	2.9
CACN	0	0.0
Candidate Countries	13	0.2
CIS	142	2.0
EFTA	68	1.0
Latin American Countries	6	0.1
MEDA (exl EU)	282	3.9
Mercosur	1	0.0

NAFTA	305	4.3
-------	-----	-----

Source: <u>IMF</u> (DoTs)

Abbreviations for the Countries in the above tables are below:¹⁵⁶

EFTA: Iceland, Liechtenstein, Norway, Switzerland;

Candidates: Croatia, Iceland, Macedonia (the Former Yugoslav Republic of), Montenegro, Serbia, Turkey;

CIS: Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan;

Andean Community: Bolivia, Colombia, Ecuador, Peru;

CACM: Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama; **Mercosur**: Argentina, Brazil, Paraguay, Uruguay;

NAFTA: Canada, Mexico, United States;

Latin America Countries: CACM, Mercosur, ANCOM, Chile, Mexico, Venezuela; BRIC: Brazil, Russia, India, China;

ASEAN: Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar (Burma), Philippines, Singapore, Thailand, Vietnam;

ACP: 79 countries;

MEDA (excl EU & Turkey): Albania, Algeria, Bosnia and Herzegovina, Croatia, Egypt, Israel, Jordan, Lebanon, Mauritania, Montenegro, Morocco, Occupied Palestinian Territory, Syrian Arab Republic, Tunisia.

In 2012 Kenya exported goods worth US\$ 50 million while imported from China goods worth US\$ 1.8 billion.¹⁵⁷ Another source indicates that Kenya-China bilateral trade reached US\$ 2.84

¹⁵⁶ Source: <u>http://trade.ec.europa.eu</u>.

billion mark in 2012, with a growth rate of 16.7%. This is according to Chinese Customs Department.¹⁵⁸ Kenya's imports from China stood at Kshs 54.2 billion in the first five months of 2013.¹⁵⁹

Kenya has been experiencing a trade deficit on an average of Kshs. -28343.53 Million from 1998 to 2013. By the end of July 2013, it had recorded a trade deficit of Kshs 82680.73. Statistics indicate that the main destination of Kenya's products and services are United Kingdom, Netherlands, Uganda, United States of America and Pakistan while China and India rate highly as the main import partners, followed by United Arab Emirates, South Africa, Saudi Arabia, the USA and Japan.¹⁶⁰

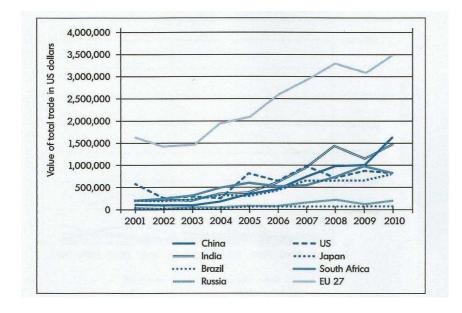


Figure 4.3 Total Kenya Trade with BRICS, US, Japan and EU, 2001-2010

¹⁵⁷ Christian Monitor, "*China will build Kenya's Railway Line*!" in Kenya London News, 2013, found at <u>http://www.kenyalondonnews.org</u>, accessed at 18: 02, 14/09/2013.

¹⁵⁸ Zheng Zhi, "Kenya Keen to Enhance High-Tech Cooperation with China", 2013, found at <u>http://english.cri.cn</u>, accessed at 14:13, 24/09/2013.

¹⁵⁹ Jevans Nyabiage, "*China goodies: The hidden risks in turning to the East*", 2013, accessed at 14:19 24/09/2013.

¹⁶⁰ Joana Taborda, "*Kenya balance of trade*", 2013, found at <u>http://www.tradingeconomics.com</u> accessed at 14:26 15/09/2013.

Source: International Trade Center, http://www.trademap.org/Bilateral_TS.aspx

Trade relationship between China and Kenya is in favor of China, with Kenya experiencing rising deficits. China has built roads, infrastructure networks, buildings, dams, and is still continuing to do so. Kenya's military use China-made vehicles, Thika Superhighway was built by the Chinese; Jomo Kenyatta international Airport was by 2013, being expanded by a Chinese company. The number of Chinese expatriates in Kenya is rising as a clear indication of the immense interest China has in Kenya. Kenya imports a variety of manufactured goods from China to feed into the various projects underway while Kenya exports very little to China within the same category.¹⁶¹

¹⁶¹ Ngunyi Gitahi, "*Will Uhuru tame trade imbalance between Kenya and China*?" in 'the people', 2013 found at <u>http://www.thepeople.co.ke</u>, accessed at 14:40 15/09/2013.

4.2 SELECTED CASES OF CONSTRUCTION, INFRASTRUCTURE DEVELOPMENT AND MATERIAL AND EQUIPMENT SUPPLY IN KENYA

4.2.1 Introduction

China's involvement in the construction and infrastructure sectors has a profound effect on service and project delivery, cost of goods and services in the sectors, and on other players in the sectors, both local and from other parts of the world.

4.2.1.1 Data sources

The data used in this section is derived from observation, interviews, administration of questionnaires and literature review of the existing information and statistics.

4.2.1.2 Limitations of the data

The data used in this section has various limitations. First, most interviews and questionnaires did not yield figures since many activities involved in by Chinese business people have deliberately kept the information private.

Second, interviews and questionnaires administered to professionals yielded some information that is not backed by evidence as much as some of the issues are commonly talked about, but that does not rule out the possibility of some truth in the sentiments, given the extent to which the sentiments are shared across the board.

4.2.2 Buildings, Roads and Bridges

4.2.2.1 Buildings

Table 4.11 represents information collected from a local Kenyan contractor, Vishak Builders Limited, who was erecting a building along Parklands Road, Nairobi.

Table 4.11 Materials and their country of origin for ParkSuites Office Block (2013)

EQUIPMENT OR MATERIALS	COUNTRY OF ORIGIN
Sand	Kenya
Water	Kenya
Cement	Kenya
Steel	Kenya
Floor tiles	Kenya
Wall tiles	China
Roofing sheets	China

Timber	Kenya			
Waterproofing agents	Germany			
Nails	Kenya			
Paint	Kenya			
Bulbs	India			
Electrical wires	India			
Table 4.11 Cont.				
Electrical conduits	India			
Electrical switches	Britain			
Electrical sockets	Britain			
Kitchen cabinets	Kenya			
Kitchen shelves	Kenya			
Kitchen worktops	India			
Wardrobe materials	Kenya			
Lift cars	China			
Doors	Kenya			
Door handles	Kenya			
Door hinges	Kenya			
Mindowatrames	Kenya			
Glasobond	China			

Cement Mixers	India		
Cement vibrators	India		
Cranes	India		
Trucks	India		
Table 4.11			
Stone	Kenya		
Data cables	China		
Trunking goods	Kenya		
Water reticulation goods	Kenya		
Sewer reticulations goods	Kenya		
Water pumps	Germany and France		
Generator	China		
Convertors	Kenya	Source:	
Invertors	Kenya	Interview	
Ventilation ducts materials	Kenya	with the	
Water tanks	Kenya	Director of	
L	I	Vishak	

Builders Limited.

Table 4.11 composed of a list of most of the materials and equipment used on the building construction with corresponding country of origin. The project is located along Parklands Road in Nairobi, Park Suites office block.

Vishak Builders Limited, a construction company, was incorporated in Kenya in 2004. The shareholding is 100 percent Kenyan. The company specializes in building construction with projects ranging from shopping malls, apartments, townhouses, and office blocks. At the time of the interview, they were engaged in various projects in Nairobi, some at tender stage, others at finishing level and other various stages of building construction¹⁶².

During the interview, the respondent admitted that they were facing stiff competition from Chinese construction companies who, most of the time, have competitive tender prices in the bidding process. The director stated that, in his opinion, Chinese companies quote lower prices for projects while procuring, but later device ways of recovering the money. The respondent explained that some of the methods used by Chinese contractors to make profits are by varying the contract terms during the construction process; using sub-standard materials, compromising quality of products and importing cheaper labor from China. Furthermore, he noted that Chinese companies do not pay work permit fees and have their home country's support. He further corrected the perception that lower returned tender price leads to lower cost of construction.¹⁶³

Asked what the benefits of importing materials from China were, when their equivalent can be found on the local market, he pointed out that it is because materials from China look good to the

¹⁶² Source: Interview.

¹⁶³ This is according to the Director of the company. It is subject to further verification from the ministry of migration and the ministry of labor.

eye but not necessarily good in quality and are cheaper. The director, however, asserted that despite the lower prices of materials and equipment from China, their quality is lower compared to local ones and those from other countries like France, Britain, Italy and Germany. The company itself prefers using locally produced materials but building owners prefer using material from China to save on construction costs and hence increase their returns on investment. Local materials, he argued, are more readily available in sufficient quantities and variety compared to imports, and their quality is guaranteed.¹⁶⁴

Despite the stiff competition from the Chinese contractors, Vishak Builders argues that time will be able to give them an edge over the Chinese contractors once building and infrastructure developers realize that buildings done by Chinese contractors will require higher maintenance and repair costs once the inferior materials begin depreciating quicker than normal. Their competitive edge is quality.¹⁶⁵

On the same question of materials from China and procurement processes, the respondent observed that some of the materials used on construction sites have local suppliers who buy them from China in large quantities for sale in Kenya, but for items like lift cars that require a lot of customization to fit in the building, and come at a higher cost per unit, they sub-contract Chinese firms to procure from China and install. The other item that is usually sub-contracted to Chinese companies whenever they are used is solar energy panels. The respondent furthermore observed that there is barely a project they handle without using materials or equipment from China.¹⁶⁶

¹⁶⁴ Source: Interview with Vishak Builders Limited.¹⁶⁵ Ibid.

¹⁶⁶ Ibid.

Other locals construction companies like Dunhill Building Contractors Limited (DBC) have seen their market share shrink over the years due to increasing number of Chinese contractors in the building industry. Between January and October 2013 they had participated in about 15 bids, winning only one. In the 15 bids, Chinese contractors participate in 10. They however dispute the much said issue that Chinese contractors are always the lowest bidders. But they contend that through corrupt means Chinese contractors are able to win most of the tenders. Some bribe tender analysts while others offer discounts to developers.¹⁶⁷

The respondent also accepted that on every project, some proportion of materials come from China, but they also have observed that for contracts executed by Chinese contractors most of the materials, equipment and labor are usually imported from China, unless project consultants and any other interested party gives directions as to where the materials, labor and equipment have to be sourced.

DBC, however, had come to terms with the fact that Chinese contractors are increasing capturing their market share of business; and the few projects they were engaged in are from their longterm clients, and they were awarded to them out of goodwill and trust that had developed between them and their clients over time, otherwise, they argued, if such clients sourced contractors through open tendering system, they agree they would lose their clients to their Chinese counterparts due to the fact that Chinese contractors offer more competitive prices and work faster to finish projects on time or ahead of time.¹⁶⁸

From their own observation of buildings executed by Chinese contractors, the respondent had noticed that Chinese contractors erect buildings that cannot collapse, but in order to cut costs of

¹⁶⁷ Source: Interview with "Dunhil Building Contractors".¹⁶⁸ Ibid.

construction, they use counterfeit tiles, paints, glass, wood, sanitary fittings, and many other products that are not structural. This has the effect of leading to high maintenance costs of the building resulting from premature replacement of failing materials used for finishing the buildings. They observed that this trend, where most contracts in the sector go to Chinese contractors intensified during the President Kibaki's regime.¹⁶⁹

The above sediment resonates well with what was observed in Angola in 2010 when, according to Marques (2011), the General Hospital in Angola built at a cost of US\$ 8 million, financed by China and erected by China Overseas Engineering Group started developing severe defects such that it had to be evacuated.¹⁷⁰

Asked on what needs to be done to ensure that they are not put out of business in the near future, the respondent suggested that a national statutory body should be established to regulate contractors and the bidding and negotiation process so that the bidding prices submitted during the bidding process are not only competitive but realistic to prevent the practice where some contractors under-price in order to win tenders then put up the project using unconventional methods, materials, among other means to make profit.¹⁷¹

¹⁶⁹ Source: Interview with "Dunhil Building Contractors".

¹⁷⁰ Marques Raphael, "*The New Imperialism: China in Angola*", 2011, found at <u>http://www.worldaffairsjournal.org</u>, accessed at 10:55, 28/09/2013.

¹⁷¹ Source: Interview with Dunhil Building Contractors.

Table 4.12 represents three projects tendered and won by Chinese contractors.¹⁷² It was generated from tender documents of projects processed by project Quantity Surveyors.

Project name and type	Project estimated value (Kshs)	Construction period	Tender winner	List of Tenderers and their tender value
Goldrock & Godowns and offices	336,455,915	2009-2010	China Wu Yi Co. LTD	 China Wu Yi Co. LTD (357,368.861.00) China Huashi Enterprise LTD (357,614,725.00)
Housing Scheme in Riat Kisumu	188,910,673	-	Jingsing Enterprises	 Arch Construction (237,231,038) K.G. Patel & sons (280.000,200) Tulsi Construction (248,448,568) Stellar Builders (248,271,283) Jingsing Enterprises (219,497,717)
Library & Academic Block Kenya School of Monetary Studies	1,686,819,404	2010-2013	China Wu Yi LTD	 China Wu yi Co. Ltd (-) Dickways Construction Co. Ltd Laxmanbhai construction Co. LTD (-) Landmark Holdings LTD (-)

Table 4.12 some projects build by Chinese contractors (2009 – 2013)

Source: Interview with Quantity Surveyors (Ecospace Consultants), project consultants.

¹⁷² Source: Interview with Ecospace Consultants. It is important to note that some tender and contract details involving Chinese contractors cannot be ascertained since they are kept secret.

The respondent in the above interview admitted that increasingly Chinese contractors are winning bids to construct buildings, both large and small scale projects. Part of Quantity surveyor's work in a building project is preparation of tender documents; receiving the tenders; analyzing and recommending the most suitable contractor based on returned tender price, time period the contractor stipulates as the time that will be taken to complete the project and the reputation of the contractor. Keeping all other factors in the construction project constant, the tender is usually awarded to the lowest bidder.¹⁷³

The quantity surveyor stated that the Chinese contractors are, in most cases, offering the lowest tenders and complete projects on time or ahead of time. The respondent, however, added that in some instances, Chinese contractors offer tender values that are unprofitable but improvise ways of cutting down the project cost during constructions in order to make profits. Some of the ways the respondent pointed out were that Chinese contractors will minimize material wastage which ordinarily happens on a construction site; procure free materials from other places they own: for example, if they have a piece of land that is rocky, they will not buy stones for preparation of concrete but will crush stones on that site and use it in the construction. Most of them import cheap labor from China to save costs.¹⁷⁴

The respondent also stated that some Chinese contractors are subsidized by their government, though he corrected that he does not have evidence on this, but given his experience in computing projects costs for almost 30 years, he asserted that some of the tenders brought back by Chinese contractors are unprofitable. However, Chinese contractors are usually able to finish the project

¹⁷³ Source: Interview with Ecospace Consultants.¹⁷⁴ Ibid.

on time and without compromising the project quality. The respondent is not aware of any project that Chinese contractors compromised on the quality in order to make profits.¹⁷⁵

His opinion on a number of projects in the country that had certain materials failing leading to premature replacement, like the terrace floor tile of the 'Green House' building along Ngong Road, and floor tiles of 'Royal Offices' along Mogotio Road in Westlands, was that the problem was not the Chinese products but Kenyan buyers who import cheaper materials from China expecting to get the quality and durability of expensive materials from elsewhere, or from China itself. In both projects they were the quantity surveyors. The developers in both projects preferred sourcing some materials from China cheaply assuming that they will perform like locally sourced tiles whose quality is guaranteed but more expensive. By the market price then, the tiles specified in the project were going at a cost of about Kshs. 1,300 per box from Saj Ceramics Limited while counterfeits from China were costing about Kshs. 800 per box.¹⁷⁶

Concerning procurement of materials, the respondent stated that in most projects the contract is specific on the percentages of materials to be procured locally and those to be imported. This is usually put into the bidding conditions. For projects funded by the government it is a rule, according to the respondent, that at least 40% of the materials and labor should be procured from the local market, but for projects funded privately it is up to the project consultants to ensure that they include material and labor procurement 'clause' in the biding and contract documents in order to protect the local industries, otherwise Chinese contractors are likely to procure all that they can from China.¹⁷⁷

¹⁷⁵ Source: Interview with Ecospace Consultants.¹⁷⁶ Ibid.

¹⁷⁷ Source: Interview with Ecospace Consultants.

The respondent further explained that, for example, in the Goldrock Godowns and offices in Table 4.12 above the Chinese had a free hand in procurement of materials resulting in the bulk of the materials and equipment being procured from China. The contractor, China Wu Yi, imported all the technical staff including project consultants like engineers and quantity surveyors. This resulted in conflict of interest and communication barrier forcing Kenyan consultants to withdraw from the project. Some of the materials that were imported from China include cement, steel, tiles, doors, glass and roofing materials.¹⁷⁸

However, for projects funded by local institutions, like the Library and Academic block for Kenya School of Monetary Studies in Nairobi, the funding organization, the Central Bank of Kenya, specified in the contract how the materials and where they were to be procured. Therefore the Chinese contractor, China Wu Yi, did not have a choice but to abide by the contract documents. As for the Housing Scheme in Riat, Kisumu, Kenya Commercial Bank, the financier insisted that only those materials that were not available on the local market at the time of building were to be imported.¹⁷⁹

4.2.2.2 Roads and Bridges

The Government of Kenya sought finances for upgrading Thika highway into a superhighway in 2007. The Highway links Nairobi to Ethiopia. It is part of the roads that link Cape Town and Cairo. Nairobi is important to the economy of Kenya generating more than 30 percent of the

¹⁷⁸ Ibid.

¹⁷⁹ Ibid.

country's National Gross Domestic Product. However, rapid urbanization introduced constraints to its productivity hence calling for improvement of infrastructure to open it up to business opportunity. Traffic delays, low operating speeds, accidents, and others on Thika Highway were contributing to high business operating costs.¹⁸⁰

It therefore became paramount that the highway be upgraded to improve accessibility into the city; to improve affordability and reliability of transport infrastructure in order to spur economic growth and development in the city. An additional advantage of upgrading the road was to efficiently link the city to other parts within eastern, central and northern Africa.¹⁸¹

The total population living along the road between Nairobi and Thika Town is over a million people. The various economic activities engaged in by the people along the road include metalwork, carpentry, construction, vehicle repairs, tea and coffee farming, livestock rearing, flower growing, etc. The road also serves universities, schools, health centers and other businesses.¹⁸²

The Kenya's first superhighways was constructed by three Chinese contractors each laying down a specific section. Uhuru highway connectors measuring 12.4 kilometers were done by China Wu Yi Company limited; from Muthaiga Roundabout to Kenyatta University measuring 14.1 kilometers was built by Sino Hydro Corporation limited; while the stretch from Kenyatta University to Thika measuring 23.9 kilometers was done by Sheng Engineering Construction Group Company limited. The total cost of the project was Kshs. 24 billion¹⁸³ (though the final

¹⁸⁰ Kenya Engineer, "<u>Nairobi-Thika Superhighway- Kenya's Newest Road to Prosperity</u>", _____, found at <u>http://kenyaengineer.co.ke</u>, accessed at 19:09, 29/09/2013.

¹⁸¹ Ibid.

¹⁸² AfDB, "AfDB-Funded Thika Superhighway: A Masterpiece for East Africa "A National Pride" - President Mwai Kibaki" 2012, found at <u>http://www.afdb.org</u>, accessed at 12:33 30/09/2013.

¹⁸³ Articulate Edits (Ed), "Investing in Kenya's infrastructure", Kenyan engineer, Journal of the institution of Engineers of Kenya, Vol. 34, No. 1, 2013. Page 21.

cost of the finished road went over Kshs. 24 billion¹⁸⁴). The project was jointly funded by the government of Kenya, the People's Republic of China and African Development Bank (ADB),¹⁸⁵ with The Exim Bank of China financing US\$100 million to upgrade the section between Kenyatta University and Thika Town.¹⁸⁶

Table 4.13 shows selected road projects undertaken by both Chinese contractors in Kenya between 2012 and 2014.

 Table 4.13 Completed, ongoing and proposed road works in Kenya, 2013

PROJECT DESCRIPTION	LENGTH (KM)	COST (KES MILLION)	CONTRACTOR	START DATE	FINISH DATE
Rehabilitation & dualling of Langata Road (KWS Gate- Bomas)	2.9	2,671	China Wu Yi	2 Nov 2012	5 Oct 2013
Rehabilitation & upgrading of 1st Avenue & Gen Waruinge Road	3.5	2,523	H Young (EA) Ltd	13 April 2012	13 May 2014

¹⁸⁴ Liu Guangyuan, "*Thika Superhighway the ultimate emblem of Sino-Kenyan friendship*", 2012, found at <u>http://www.standardmedia.co.ke</u>, accessed at 12:48, 30/09/2013.

¹⁸⁵ Articulate Edits (Ed), "*Investing in Kenya's infrastructure*", Kenyan engineer, Journal of the institution of Engineers of Kenya, Vol. 34, No. 1, 2013. Page 21.

¹⁸⁶ AfDB, "AfDB-Funded Thika Superhighway: A Masterpiece for East Africa "A National Pride" - President Mwai Kibaki" 2012, found at <u>http://www.afdb.org</u>, accessed at 12:33 30/09/2013.

Construction of City	3	2,514	China Road &	5 June	5 June
Cabanas Interchange &			Bridges	2013	2014
Complementary Works			Corporation		

Source: Kenya Urban Roads Authority, found at <u>http://www.kura.go.ke</u>

Another significant road build by Chinese contractor is the Athi River road that connects the country to Arusha in Tanzania via Namanga border town. The road was financed by ADB and JICA and build by China national Overseas Corporation at a cost of 7.16 billion.¹⁸⁷

4.2.3 Telecommunications

China is involved in Africa and Kenya's telecommunication sector in many ways and for many reasons. The two main Chinese companies in this sector are Huawei Technologies and ZTE.¹⁸⁸ Huawei is the largest telecom equipment manufacturer and network solutions provider in China, and the third-largest in the world. ZTE is a state owned company and is the second in China and the fifth largest in the world.¹⁸⁹

Huawei Technologies entered the Kenyan market in 1999. Since its entry it has facilitated the development of prepaid phone services and prepaid card service. The company had an annual turnover of US\$ 3.8 billion in 2003.¹⁹⁰

In 2013 it partnered with a Kenyan firm with the aim of diversifying its products and expanding its market share in East Africa. The Kenyan firm was tasked to distribute Huaweis's products in

¹⁸⁷ Articulate Edits (Ed), "*Investing in Kenya's infrastructure*", Kenyan engineer, Journal of the Institution of Engineers of Kenya, Vol. 34, No. 1, 2013, page 17.

¹⁸⁸ Andrea Marshal, "*China's mighty telecom footprint in Africa*" 2011, found at <u>http://www.newsecuritylearning.com</u>, accessed at 20:21 14/09/2013.

¹⁸⁹Andrea Marshal, "*China's mighty telecom footprint in Africa*" 2011, found at <u>http://www.newsecuritylearning.com</u>, accessed at 20:21 14/09/2013.

¹⁹⁰ The Kenyan Engineer, "*Huawei Technologies active in Kenya*", 2004 found at <u>http://www.kenyaengineer.com</u>, accessed at 23:15, 22/09/2013.

East Africa. Competition provided by Huawei and other players in the sector have led to a drop in data and call costs¹⁹¹

The firm also entered an agreement with Red Cross Kenya to enhance the organization capabilities in emergence preparedness and humanitarian intervention in critical situations.¹⁹²

The company employs Kenyans in various fields that include those to be involved in technical areas as well as manual labors for laying down infrastructure and distribute its products.¹⁹³

CHAPTER 5

CONCLUSIONS

5.1 SUMMARY

The activities of China in Kenya in the infrastructure and construction sectors have contributed and still contribute towards the fulfillment of Vision 2030 objectives. China is not the only player on the Kenyan market in the sectors. There are others like India and the European Union countries that still play a vital role in the sectors. The multiple players in the sectors offer the country with an opportunity to take advantage of the competition among the players and the

¹⁹¹ The Herald, "*Huawei partners Kenyan data firm*", 2013, found at <u>http://www.herald.co.zw</u> accessed at 23:22, 22/09/2013.

¹⁹² _____"Huawei supports the Red Cross Kenyans for Kenya humanitarian relief initiative" 2013, found at <u>http://www.africatelecomsonline.co.za</u> accessed at 23:40 22/09/2013

¹⁹³_____"*Huawei Technologies Kenya Recruiting*", 2009, found at <u>http://jobsafricana.com</u>, accessed at 23:44, 22/09/2013.

diversity of products offered to leverage itself towards greater economic growth and development.

Construction materials from China, whose equivalent or substitutes are locally produced, like ceramic tiles, cement, steel, timber products among others are increasingly being used due to the fact that materials imported from China are cheaper. This has made local companies like 'Saj Ceramics Limited' adopt ways of staying in business by importing tiles from China to sell alongside the ones they locally produce due to reduced sales in local ones¹⁹⁴. On the issue of labor, quite a number of Chinese contractors import cheap labor from China instead of using local labor. This has the impact of reducing the number of jobs available to Kenyans.

The study revealed that trade imbalances between China and Kenya are in favor of China with Kenya incurring increasing trade deficit. Contracts signed between China and Kenya where some of the conditions include importation of goods and services from China are helping in increasing the trade deficit between the two nations.

However, Kenya has been able to make strides in service provision and infrastructure development due to financial and technical assistance from China. Due constrained financial and political relationship between Kenya and its traditional donors like The World Bank, International Monetary Fund and the European Countries in the last three decades, Kenya would not have developed the road networks, telecommunications infrastructure, power generating plants and buildings at the rate with which these facilities have been put up and laid down with assistance from Chinese government and companies from China.

¹⁹⁴ Interview with Saj Ceramics Limited Sales Manager.

Furthermore, the intense interest China has in Kenya has led to enhanced efficiency of Kenyan businesses through the presence of foreign competition, advanced technology from abroad, well trained imported labor and technical expertise, in addition to deepening integration of Kenya into the international trade system.

5.2 RECOMMENDATIONS

Current imbalances in trade between Kenya and China resulting from Kenya importing more that it exports to China will persist for some time, but appropriate reforms in various sectors in the country can ensure that the trade imbalance is mitigated. For example, policy measures should be put in place to ensure that the country minimizes importation of materials used in the sectors whose substitutes are on the local market.

Additionally, policies should be formulated to ensure that jobs that are created by Chinese activities in the construction and infrastructure sectors are of good quality. Other than enhancement of the quality of jobs, policy makers should also come up with ways of ensuring that competition in the sectors is fair and strengthens the local industries as well instead of putting them out of business.

Chinese companies should be encouraged work out ways to ensure that the jobs they create are of good quality and, where possible, they should be labor intensive in order to reduce the level of unemployment in the country. This is because it has been noticed that, in some cases, Chinese companies prefer using machines where local companies use manual labor in an effort to cut costs.

Professionals in the construction and infrastructure sectors should be encouraged to ensure that importation of materials whose equivalent are produced locally is discouraged, and also to ensure that there is effective skills and technology transfer in the projects they are involved in, whether in the private or public sector. Information on this matter should be made part of their mandatory continuous professional training.

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