

**THE ROLE AND BEHAVIOUR OF CHINESE AGRICULTURAL ENTERPRISES IN  
SUB-SAHARAN AFRICA: CASE STUDIES OF MOZAMBIQUE AND THE  
DEMOCRATIC REPUBLIC OF CONGO**

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## **DECLARATION**

I hereby declare that the entirety of the work contained herewith is my own, original work and that it has not been previously, in part or entirely, submitted to any other University.

Signature:

Date: November 2013

## ABSTRACT

This study aims to understand the motivations underlying the activities of Chinese agricultural enterprises operating on the African continent as well as the way in which institutional contexts – the physical and legal environments – shape their behaviours and/or modes of entry into local industries. Understanding the strategic motives of Chinese agricultural enterprises operating in Africa as well as the extent to which they implement those motives on the ground and the way in which they respond to local laws is crucial for assessing the medium- to long-term impacts of their activities on the welfare of African populations and forests.

This dissertation relies on Dunning's eclectic paradigm to understand the motivations informing the activities of Chinese agricultural enterprises as well as on new institutional theory to study the behaviours and/or modes of entry of Chinese agricultural enterprises into local industries.

This research is based on two case studies: Mozambique and the Democratic Republic of Congo. As far as data collection is concerned, it relied on secondary sources of data such as scholarly articles and books; official documents and legislation; and newspaper articles. This study also drew on primary sources of data, which consisted of documents obtained during the fieldwork such as contracts between Chinese agricultural enterprises and African governments, official documents from Chinese agricultural enterprises as well as semi-structured interviews. Thirty-two semi-structured interviews were conducted with various stakeholders – including managers of Chinese agricultural enterprises, employees of these enterprises, farmers, officials from ministries of agriculture and researchers – in Mozambique and the DRC between April to June 2011. The data collected were analysed with the help of the qualitative analysis software: atlas.ti.

The preliminary results collected and analysed in this study suggest that the motivations of Chinese agricultural enterprises operating in Mozambique and the DRC are: 1) to acquire farmlands in order to grow food crops and sell them mainly in local markets; 2) to supply agricultural commodities – cash and food crops – for Chinese markets; and 3) to provide agricultural aid by introducing new varieties of crops imported from China and offering training to farmers, students and technicians. However, the provision of agricultural aid is a

secondary motivation of Chinese agricultural enterprises. The motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC are globally consistent with China's foreign policy as these enterprises primarily aim to better position themselves in local markets and to access agricultural commodities for the benefit of Chinese markets.

Furthermore, the preliminary results of this study also indicate that the institutional contexts in Mozambique and the DRC appear to affect the behaviours and/or modes of entry of Chinese agricultural enterprises into local industries. As such, the poor provision of infrastructure in rural areas appears to delay further investments by Chinese agricultural enterprises. Also, the complex process of gaining access to land and the weak regulatory capacity in the monitoring and implementation of the land laws appear to hinder investments by Chinese agricultural enterprises and in some instances lead to the cancellation of investments. In the specific case of the DRC, the weak enforcement of land titles appears to discourage further investments. The unfavourable institutional context depicted above has prompted Chinese agricultural enterprises operating in the DRC to adopt new models of business revolving around less risky or smaller agricultural projects.

## OPSOMMING

Hierdie studie ontleed die motiewe van Chinese landbou-ondernemings werksaam op die Afrika-vasteland, asook hoe die institusionele konteks, te wete die fisiese en wetlike raamwerke, sulke ondernemings se werkverrigtinge en/of toetreewyses tot plaaslike industrieë beïnvloed. 'n Begrip van wat die strategiese motiewe van Chinese landbou-ondernemings is, hoe hulle daardie motiewe op voetsoolvlak implementeer, en hoe hulle aan landswette gehoor gee, is noodsaaklik om die middel- tot lang-termyn impakte wat die ondernemings op die welstand van Afrika bevolkinge en op woudgebiede het, te peil.

Hierdie studie maak gebruik van Dunning se eklektiese paradigma om Chinese landbou-ondernemings se motiewe te ontleed. Dit pas ook die nieu-institusionele teorie toe om die werksaamhede en marktoetredes van die ondernemings na te spoor.

Die navorsing is op twee gevallestudies gebaseer: Mosambiek en die Demokratiese Republiek van die Kongo (DRK). Dit het van sekondêre bronne soos vakwetenskaplike referate en boeke; amptelike dokumentasie en wetsakte; en persartikels gebruik gemaak. Die studie het ook primêre databronne gebruik. Laasgenoemde bestaan uit dokumentasie wat deur die loop van die veldnavorsing ingesamel is, onder meer kontrakte tussen Chinese landbou-ondernemings en Afrika staatslui; amptelike dokumentasie van Chinese landbou-ondernemings; en semi-gestruktureerde onderhoude. Daar is met verskeie belangegroepes in Mosambiek en die DRK - soos die bestuurders van Chinese landbou-ondernemings en hul werknemers, boere, landbou-amptenare en navorsers – onderhoude gevoer. In geheel is 32 semi-gestruktureerde onderhoude in die periode April – Junie 2011 gevoer. Die data is met behulp van die kwalitatiewe ontledingsprogrammatuur atlas.ti ontleed.

Die voorlopige bevindinge en ontledings stel voor dat die volgende motiewe die werksaamhede van Chinese landbou-ondernemings in Mosambiek en die DRK bepaal: 1) om landerye te bekom om sodoende kos aan te kweek en dit veral aan plaaslike markte te verkoop; 2) om landbouware, te wete kontant en kos, aan Chinese markte te voorsien; 3) om hulpverlening te verskaf deur die bekendstelling van nuwe tipes gewasse uit China, en deur die opleiding van boere, studente en tegnisi. Die verskaffing van hulpverlening in die

landbou bedryf is egter van sekondêre belang vir Chinese landbou-ondernemings. Die motiewe van Chinese landbou-ondernemings werksaam in Mosambiek en die DRK strook met China se oorhoofse buitelandse beleid omdat hierdie ondernemings primêr daarop uit is om hulself beter in plaaslike markte te posisioneer en om tot die voordeel van Chinese markte landbouware te bekom.

Voorts, die voorlopige bevindinge dui ook aan dat die institusionele kontekste in Mosambiek en die DRK die werksaamhede en/of die toetrede van Chinese landbou-ondernemings in plaaslike industrieë beïnvloed. Swak infrastruktuur in landelike gebiede blyk meer beleggings deur Chinese landbou-ondernemings te striem. Die ingewikkelde proses om grond te bekom en gebrekkigheid in die regulering, monitering en implementering van landbouwette blyk ook Chinese beleggings te kortwiek, en in sommige gevalle lei dit tot die opskorting van beleggings. In die geval van die DRK, wil dit voorkom asof gebrekkige afdwinging van grondaktes verdere belegging ontmoedig. Die ongunstige institusionele konteks wat hier geskets is, het Chinese landbou-ondernemings werksaam in die DRK aangemoedig om nuwe sakemodelle toe te pas, wat belegging in kleiner landbou projekte of met minder risiko's, beteken.

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Finally, but most importantly, thanks to God for giving me the strength and determination to walk down this path with courage and confidence.

## **DEDICATION**

This work is dedicated to my father, Christophe Asanzi, and my mother, Jeannette Musitu.

Thanks Dad for guiding my steps until this last moment. I am grateful to you, Mom, for looking after us when Dad was away.



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## LIST OF ABBREVIATIONS

AATF	Africa Agricultural Technology Foundation
ANAPI	Agence Nationale de Promotion des Investissements
ASE	Athens Stock Exchange
AU	African Union
BFA	British Franchise Association
CAMCE	China CAMC Engineering Co, Ltd
CCP	Chinese Communist Party
CDB	China Development Bank
CESEE	Central and Eastern and South-Eastern European Countries
CFE	Chinese Family Enterprises
CGOG	China Grain and Oil (Group) Corporation
COVEC	China Overseas Engineering Group Corporation
CPI	Centro de Promocao de Investimentos
FAO	Food and Agriculture Organisation of the United Nations
FDI	Foreign Direct Investments
FOCAC	Forum on China-Africa Cooperation
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute
IIAM	Instituto de Investigacao Agraria de Mocambique
IPE	International Political Economy
MNCs	Multinational Corporations
MOFCOM	Chinese Ministry of Commerce

NDRC	National Development and Reform Committee of China
NEPAD	New Partnership for Africa Development
NPC	National People's Congress
ORAM	Rural Organisation for Mutual Help
PROAGRI	Programa Nacional de Desinvolvimento Agrario
USAID	United States Agency for International Development

## **CHAPTER 1: INTRODUCTION**

### **1.1 Background and context for the study**

One of the most significant developments in the global political and economic arena since the beginning of the 21<sup>st</sup> century has surely been the emergence of China as a global powerhouse. In just over a decade Chinese foreign direct investment and trade with the rest of the world have grown considerably. From 2003 to 2012 Chinese exports to the rest of the world rose by approximately 90.7%. During the same period Chinese foreign investment grew by 95.1%<sup>1</sup> (Ministry of Commerce, People's Republic of China, 2013). In contrast, between 1999 and 2009 China's share of world exports rose from 3 to 10% (*The Economist*, 2010). At the same time China's share of the global flow of foreign direct investments reached 5% in 2010 (Statistical Bulletin of China's Outward Foreign Direct Investment, 2010). The top destinations of Chinese exports are the European Union, the US and Hong Kong, together accounting for 54.3% of Chinese exports (Starmass International, 2011-2013). The main recipients of Chinese foreign direct investment are Asian countries, which attract 71.9% of Chinese foreign investments. Most Chinese foreign investments are in the following industries: leasing and business services; wholesale and retailing; finance; and mining (Statistical Bulletin of China's Outward Foreign Direct Investment, 2010). As a result of the surge in its exports since the turn of the new century, China has accumulated a huge amount of foreign reserves, estimated at more than US\$3 trillion in March 2011 (*The Economist*, 2011). The Chinese government has used most of its foreign reserves to purchase US government securities. Hence, a substantial portion of China's massive foreign reserves are in the form of US bonds (*The Economist*, 2011).

Besides the fact that China is steadily emerging as a significant global investor, especially in the Asian region, the country continues to attract a huge amount of foreign investment. According to the World Bank, China attracted 20% of all foreign direct investments to developing countries over the last decade (World Bank: Foreign Direct Investment – The China Story, 2010). In addition to that, in the first semester of 2012 China overtook the US

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<sup>1</sup> It should be noted that these statistics do not control for the cumulative level of inflation during the specified period of analysis.

as the first destination of foreign direct investment in the World (Reuters, 2012). The success of China in attracting foreign direct investment in recent time is due to the country's low-cost but competitive labour markets, the size of its domestic markets as well as the liberalisation policy adopted by the Chinese government after the admission of the country to the World Trade Organisation (WTO) in 2001 (World Bank: Foreign Direct Investment – The China Story, 2010).

### **1.1.2 China and Africa**

China's economic interactions with Africa are on a smaller scale compared to those with other regions of the world, such as Europe, North America, South-East Asia and Latin America. In 2009 Chinese exports to Africa accounted for only 3.96% of the country's total exports, while Chinese imports from Africa accounted for 4.3% of its total imports (Trademark Southern Africa, 2012). Similarly, in 2010 Chinese investments to Africa accounted for only 4.1% of the country's foreign direct investments (Statistical Bulletin of China's Outward Foreign Direct Investment, 2010). While Chinese trade with and investments in Africa are still limited, they are nevertheless growing fast. In absolute terms, during the period stretching from 1990 to 2009 Chinese imports from Africa rose from US\$368 million to US\$1005.56 billion. During the same period Chinese exports to Africa grew from US\$692 million to US\$47.64 billion (Trademark Southern Africa, 2012). Moreover, Chinese foreign direct investment in Africa rose from US\$911 million to US\$68 billion between 2000 and 2010 (Kobylinski, 2012). In relative terms, total trade between China and Africa increased by 600% between 2000 and 2007 (Lafarge, 2009). Furthermore, from 2003 to 2006 China's foreign direct investment in Africa increased by 421% (Lafarge, 2009). Concerning the structure of trade between China and Africa, the bulk of Chinese exports to Africa consist of machinery and transport equipment as well as manufactured goods (Trademark Southern Africa, 2012). On the other hand, Chinese imports from Africa consist mainly of raw materials such as fossil oil and minerals (Trademark Southern Africa, 2012). Fossil oil alone accounts for more than 70% of Chinese imports from Africa (Taylor, 2009). Moreover, Chinese foreign investment in Africa has been mainly concentrated on the oil, mining and construction industries, and to lesser extents on the manufacturing and agriculture sectors (China Business Review, 2009). In this context it is not surprising that the main trade partners of China and the principal investment destinations of Chinese companies in Africa are resource-rich countries such as South Africa, Angola, Nigeria, Sudan, Zambia and Algeria (China Business Review 2009; Trademark Southern Africa, 2012). More



importantly, in the resource-rich countries of Africa China has used a model combining investment, trade and development assistance. Through this model, Chinese banks provide concessionary loans to Africa's resource rich countries for the construction of infrastructure by Chinese construction companies. The loans are repaid, partially or entirely, through the exploitation and imports of oil or minerals by Chinese oil and mining enterprises (Vines, 2006; Sachikonye, 2008; Marysse & Geenen, 2009; Esteban, 2009).

The sharp increase in Chinese trade with and investments in Africa has generated lots of commentary and interest from scholars (Taylor, 2006, 2009; Tull, 2006; Holslag, 2006; Shelton & Le Pere, 2006,2007; Li, 2007; Kaplinsky, 2008; Alden, 2007, 2008). In particular, China's heavy involvement in Africa's oil and mineral industries has generated the most criticisms. Scholars have been concerned about the implications of Chinese investments and trade in oil and minerals for the long-term political stability and economic development of Africa's resource-rich countries. A number of issues have raised concerns among scholars: the nature of African states; the resource curse discourse; and the strategy of the Chinese government to foster close and personalized ties with African political rulers. Scholars such as Taylor (2006), Tull (2006), Esteban (2009), Marysse and Geenen (2009), and Sachikonye (2008) hold that African political elites are often politically fragmented. Therefore, they assert that these elites organize themselves into political factions that compete for access to power – or its preservation – while economic development is relegated to a secondary objective. Taylor (2006) and Tull (2006) further argue that factional infighting between elites is exacerbated by the availability of natural resources. These scholars claim that African ruling elites are more concerned with the control of areas rich in natural resources and have little incentive to invest in institutions and human resources, since their wealth and political survival depend not on the development of productive factors but instead on revenues generated by the exploitation of natural resources. Taylor (2006), Tull (2006), Holslag (2006), Alden (2008), Esteban (2009), Marysse and Geenen (2009) and Sachikonye (2008) further hold that it is within this particular context of political factionalism and dictatorship that China intends to foster close and personalized relationships with political elites in resource-rich countries by providing them with a wide array of instruments such as unconditional loans, grants, aids in the form of infrastructure, weapons and diplomatic backing. These scholars argue that by providing African rulers with such wide-ranging support, China is likely to undermine the transition of the resource-rich countries to

democracy and a free market economy, which will therefore affect their long-term political stability and economic development.

Furthermore, Taylor (2006), Tull (2006), Holslag (2006), Alden (2008), Esteban (2009), Marysse and Geenen (2009), Sachiknoye (2008) and Lee (2006) argue that the close and personalized relationships that China is trying to establish with African political elites aim to secure their support and trust in order to facilitate access by Chinese corporations to Africa's oil and minerals. Therefore, these scholars view Chinese endeavours in Africa's resource-rich countries mainly through two theoretical perspectives. First, a group of the scholars cited above analyses Chinese actions through the lens of mercantilism. In the mercantilist perspective, Chinese involvement in the resource-rich countries of Africa aims to advance China's national interests by accessing oil and minerals for the benefit of the Chinese economy. A second group of scholars studies Chinese forays in the resource-rich countries through the lens of Cox's historical materialism. China is perceived here as attempting to forge close relations with African ruling elites and establish new organizations – embodying rules, values and norms – that would lead to a new world order sympathetic to Chinese economic interests.

However, while much of the focus has fallen on China's involvement in Africa's oil and minerals sectors, there has been comparatively little scholarly interest in the Asian country's involvement in Africa's agriculture sector. Yet a study on Chinese engagement in Africa's agriculture sector is important for a number of reasons. First, the Chinese government and its agricultural enterprises have displayed more interests in Africa's agriculture over the recent years (Sun, 2011; Brautigam & Xiaoyang, 2009; Hairong & Sautman, 2010). Second, the bulk of the African population lives in rural areas and depends on agriculture for its livelihood. Indeed, in sub-Saharan Africa the agriculture sector accounts on average for 35% of GDP and employs 64% of the population (World Bank, World Agriculture Report, 2008:27). Finally, despite the remarkable achievements in other parts of the world in the area of agricultural technologies, sub-Saharan Africa's agriculture sector continues to suffer from low productivity in subsistence farming (AATF, 2009). As a result, sub-Saharan Africa is the only region in the world where poverty and malnutrition continue to grow in absolute and relative terms (The China Monitor, May 2009). Over half of the hungry people are subsistence farmers who cannot grow enough food to feed their families and escape poverty (AATF, 2009). Therefore China can play a role in reducing poverty and hunger in Africa as it

possesses the agricultural technology, skills and capital that could be valuable to African countries.

### **1.1.3 Chinese involvement in Africa's agriculture**

Chinese agricultural involvement in Africa began in 1959 in the form of state-to-state aid projects (Hairong & Sautman, 2010). This was a time when China was competing with Taiwan for strategic influence in Africa. In this context Chinese involvement in Africa's agriculture was a response to Taiwan's Vanguard Operation, which aimed to establish small and medium-scale rice and vegetables demonstration farms in Africa to train smallholders (Brautigam & Xiaoyang, 2009; Brautigam, 2009:237). During this period China established state farms in several African countries, such as the 3 200 hectare Mbarali farm in Tanzania and the 250 hectare Kobo farm in Guinea (Brautigam & Xiaoyang, 2009). Moreover, China sent technical personnel to help establish state farms in Africa. From the mid-1950s to the mid-1980s 15-20% of China's aid to Africa went to more than 120 agricultural development projects in 44 African countries (Brautigam, 1998:43, cited in Hairong & Sautman, 2010).

The implementation of market reforms in the 1980s in China enabled the creation of Chinese state-owned enterprises from the previous departments of the central and provincial agricultural ministries (Brautigam & Xiaoyang, 2009). Following this, the first Chinese state-owned agricultural enterprises started operating in Africa in the 1980s (Sun, 2011; Hairong & Sautman, 2010). Often Chinese state-owned agricultural enterprises were involved in joint ventures projects with African governments – in countries such as Zambia, Mali, Guinea and Sierra-Leone – in order to revive former aid projects that had collapsed following the departure of Chinese technicians (Brautigam & Xiaoyang, 2009). Since the mid-1990s, Chinese state-owned enterprises have been joined by private Chinese agricultural enterprises, including small-scale family enterprises (Sun, 2011). In recent times the number of Chinese agricultural enterprises operating on the African continent has been rising, although it is still small compared to the number of mining, oil or construction companies operating in Africa. Chinese agricultural enterprises are operating in several African countries such as Zambia, Mozambique, Uganda, Nigeria, Cameroon, DRC, Mali, Tanzania and Sierra Leone (Sun, 2011). Hairong and Sautman (2010) estimate the number of Chinese agricultural enterprises operating in Zambia at 20 – among which six state-owned enterprises.

Chinese agricultural enterprises active on the African continent are involved in the growing of agricultural commodities for commercial purposes (Hairong & Sautman, 2010; Sun, 2011; Brautigam & Xiaoyang, 2009). In addition to this, the Chinese government is still involved in African agriculture – through partnerships with Chinese agricultural enterprises. First, the Chinese government continues to fund aid projects initiated during the cold war. However these aid projects are now managed by Chinese state-owned enterprises (Brautigam & Xiaoyang, 2009; Sun 2011). Second, the Chinese government has funded the construction of 14 Chinese agricultural demonstration centres across Africa. These centres are to be managed by top Chinese provincial agricultural enterprises and central agricultural research institutes (Brautigam & Xiaoyang, 2009; Sun, 2011). Finally, the Chinese government has also encouraged its state-owned agricultural enterprises to invest in Africa under its ‘going global’ policy (Freeman et al., 2008; Brautigam & Xiaoyang, 2009; Brautigam, 2009:256; Sun, 2011).

## **1.2 Rationale of the study**

It is undeniable that the nature of Chinese agricultural engagement in Africa’s agriculture has changed over the last five decades. In the past Chinese engagement in Africa’s agriculture was influenced by political and diplomatic factors, and sought to enhance Chinese influence in Africa and to establish closer ties with African governments. In that context Chinese engagement in African agriculture was led by state departments. Nowadays, the strategic motives of Chinese agricultural enterprises operating in Africa are more complex (Brautigam & Xiaoyang, 2009). The difficulty in understanding the strategic motives of Chinese agricultural engagement with Africa is because of the presence of multiple Chinese actors on the ground, such as private agricultural companies, small-scale family enterprises, state-owned agricultural enterprises and the Chinese government. Therefore, Chinese current engagement in African agriculture embodies several overlapping patterns such as government-agricultural enterprise partnerships, investments by state-owned and private enterprises and investments by small-scale family enterprises.

The changing nature of Chinese engagement in African agriculture is occurring at a time when the extent of arable land in China is rapidly diminishing as a result of growing urbanization and pollution (Hale, 2005; Horto, 2009; Alvarenga, 2008). Chinese analyst Li Ping claims that between 1996 and 2006 China lost 8.67 million hectares of farmland due to urbanization and pollution (Ping, 2008). Therefore, millions of Chinese farmers have been

pushed off their land by the encroachment of cities and by land degradation. These new pressures have prompted some of these farmers to seek land in Africa and South America (Alvarenga, 2009; Brautigam & Xiaoyang, 2009). Besides that, the shift in the eating habits of millions of Chinese consumers as a result of rising incomes, coupled with the scarcity of agricultural land, renders food security a daunting task for the Chinese government in the years ahead (Horto, 2009). Therefore several Chinese analysts have warned that China might be forced in the future to develop agriculture production abroad to guarantee domestic food security (Ping, 2008; Callick, 2008; Wenju, n.d, cited in Brautigam & Xiaoyang, 2009: 698). The mounting presence of Chinese agricultural enterprises in Africa has sparked some concerns about the strategic motives of these enterprises (Brautigam & Xiaoyang, 2009; Brautigam, 2009; 258; Hairong & Sautman, 2010). Observers have started to question whether the growing involvement of Chinese agricultural enterprises – as well as the Chinese government – in Africa's agriculture reflects a profit-seeking strategy under a capitalist framework, or whether this is part of a wider plan which includes the acquisition of large expanses of farmland and the growing of foodstuffs and other agricultural enterprises for Chinese markets (Horto, 2008; Brautigam & Xiaoyang, 2009; Brautigam, 2009; Hairong & Sautman, 2010). Freeman et al. (2008), Horto (2008) and Biopact (2007) hold that acquisition of huge tracts of land in Africa by Chinese agricultural enterprises and farmers – to produce agricultural commodities, especially land-intensive crops such as cotton, palm oil and sugarcane, for Chinese markets – could lead to significant displacements of rural communities and the destruction of forests.

Therefore, an assessment of the strategic motivations informing the activities of Chinese agricultural enterprises operating in Africa is important, if the aim is to understand the effects or impacts of those activities on the welfare of rural and urban populations, as well as on the forests, in the medium to long term. However, probing the motivations underlying the activities of Chinese agricultural enterprises operating in Africa is not enough to make credible projections regarding the effects of those enterprises. While the strategic motives underlying the activities of Chinese agricultural enterprises will be important in determining the effects of those activities on African populations and forests, the institutional contexts – the physical and legal environments that determine the behaviour of Chinese agricultural enterprises on the ground – will also play a role. Indeed, the extent to which Chinese agricultural enterprises will effectively implement their strategic motives and their responses to local laws and regulations will be equally important in determining the effects of Chinese

agricultural investments on local populations and the forests in the medium to long term. Therefore, assessing the nature of institutional contexts is important in understanding the effects of Chinese agricultural enterprises on African populations and forests. However, given that institutional contexts are the products of specific sets of institutions (Williamson, 2000; North, 1990), an extensive understanding of the natures of institutional contexts prevailing in African countries also entails an examination of the character and dynamic of institutions.

### **1.3 Aims of the study**

This study has two aims. The first is to understand the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC. The motivations of Chinese agricultural enterprises are defined as the internal and external strategic goals that prompt Chinese agricultural enterprises to invest in Mozambique and the DRC.

The second aim is to comprehend the manner in which the institutional contexts in Mozambique and the DRC affect the behaviour and/or the modes of entry of Chinese agricultural enterprises into local industries. Drawing on the work of North (1990, 1994, 2005) and Williamson (2000), this study defines institutions as the sets of informal constraints, formal rules and enforcement mechanisms that determine the structure of incentives in a society, and hence, the performance of its economy over time.

#### **1.3.1 Research and sub-research questions**

This study poses two research questions, which correspond to the aims mentioned above. Accordingly, the first research question posited in this study is the following: What are the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC?

The second research question posited in the study is the following: In what way do the institutional contexts in Mozambique and the DRC affect the behaviour and/or modes of entry of Chinese agricultural enterprises into local industries?

The above research questions are then broken down into seven sub-research questions:

- What are the nature and objectives of Chinese agricultural enterprises operating in Mozambique and the DRC? In particular, the study seeks to uncover whether Chinese agricultural corporations active in each country are state-owned or private entities;

whether they are new enterprises or multinational enterprises with operations in other parts of the world; and finally, what the corporations' area of specialization or primary mission is.

- What kinds of commodities are produced by each Chinese agricultural enterprise and what is the market(s) for which these commodities are destined?
- What is the size of farmlands secured by each Chinese agricultural enterprise and are these fully operational?
- What is the scope and importance of Chinese agricultural aid delivered by Chinese agricultural enterprises in Mozambique and the DRC?
- How sustainable and effective is the agricultural aid provided by Chinese agricultural enterprises in both countries?
- What is the nature of the institutional contexts – relative to the agriculture sector – prevailing in Mozambique and the DRC?
- How do those institutional contexts shape the behaviour and/or the modes of entry of Chinese agricultural enterprises?

## **1.4 Literature review**

### **1.4.1 Motivations**

Little scholarly research has been devoted to the Chinese engagement in Africa's agriculture. The few scholars who have studied China's endeavours in Africa's agriculture have sought to understand the motivations informing the activities of Chinese agricultural enterprises operating, or aiming to operate, in Africa.

A first group of scholars such as Brautigam (2009), Brautigam and Xiaoyang (2009) and Brautigam and Ekman (2012) analyse Chinese agricultural engagement through the frameworks of government-agricultural enterprise partnerships as well as private and state-owned agricultural investments. These scholars argue that Chinese agricultural engagement – through government-state-owned agricultural enterprises partnerships, in particular the agricultural demonstration centres – aim to ensure the sustainability of the aid projects and enable Chinese agricultural enterprises to get a foothold in Africa. In addition to that, these scholars hold that Chinese private and state-owned agricultural enterprises operating in Africa generally aim to grow foodstuffs and sell them in local African markets. These scholars thus view Chinese agricultural engagement in the African agricultural sector as

mutually beneficial, as Chinese agricultural enterprises realize profitable business, while African countries benefit in accessing modern agricultural technologies and knowledge, and are able to reduce food insecurity.

Sun (2011) also analyses Chinese engagement in African agriculture by way of partnerships between government-agricultural enterprises as well as private and state-owned agricultural investments. Sun (2011) claims that Chinese engagement in the African agriculture sector is aimed at helping to develop this sector – through the government-agricultural enterprises partnerships – and at accessing key agricultural commodities that the Chinese economy needs by way of private and state-owned agricultural investments. Sun (2011) also perceives the Chinese foray into Africa's agriculture as being mutually beneficial, as African countries are likely to benefit from Chinese agricultural technologies and support in rural infrastructural developments in order to reduce hunger and poverty, while at the same time China is likely to access specific agricultural commodities that the country needs.

Hairong and Sautman (2010) study Chinese agricultural engagement in African agriculture only from the framework of Chinese state-owned agricultural investments. They hold that, for the moment, Chinese agricultural enterprises operating in Africa aim to acquire farmlands and realize profits by growing and selling agricultural commodities in local markets. Taking Zambia as a case study, Hairong and Sautman (2010) perceive Chinese agricultural engagement in that country as part of an agro-capitalist mode of engagement. Indeed, they hold that Chinese state-owned agricultural enterprises operating in Zambia are bound to their headquarters in China through contractual arrangements that oblige them to realize profits. Also, Chinese state-owned agricultural enterprises employ casual workers in order to minimize costs.

Finally, Freeman et al. (2008) conduct a prospective analysis on Chinese engagements in foreign agriculture. Regarding future Chinese engagement in Africa's agriculture, Freeman et al. (2008) hold that – given China's increasing reliance on imports of agricultural commodities to satisfy its internal needs, on the one hand, and African countries' inability to develop their agricultural sectors in order to supply world markets with additional commodities, on the other – Chinese agricultural enterprises might decide to acquire farmlands in Africa and directly produce agricultural commodities for Chinese markets. As such, Freeman et al. (2008) hold that future Chinese engagement in Africa's agriculture could



adversely affect the wellbeing of local communities and the ecosystem, if not well tailored to local realities.

### **1.4.2 Institutions**

A World Bank study: *Assessing Aid: What Works, What Doesn't and Why* (1998) pointed to the crucial roles of institutional environments in ensuring the success of projects funded by foreign aid. Institutional environments are also important in ensuring the success of agricultural projects, regardless whether these are implemented by smallholder farmers for subsistence purposes, or by commercial farmers, or agribusiness corporations (World Bank: World Agriculture Report, 2008). In the case of African countries – where the agricultural sector is generally dominated by smallholder farmers, with the notable exception of a handful of countries such as South Africa and Zimbabwe – institutions and institutional contexts have usually hindered the entrepreneurship talents of smallholder farmers (Ake, 1996; Eicher, 1998).

North (1990:47) distinguishes between institutions and organizations. Formal institutions are defined as constituting the rules of the game that partially determine the incentives structures of a society and hence the performance of its economy. In contrast, North (1990:73) defines organizations as structures that carry out specific missions in society to further the objectives of their creators. North (1990) further argues that the types of organizations that emerge and flourish depend on the structure of incentives provided in that society.

In Africa institutions – such as political leaders and local governments – have usually undermined the progress of organizations that promote the interests of smallholders – such as cooperatives, farm organizations, extension services and universities (Ake, 1996; Eicher, 1998; Oettle et al, 1998). In the aftermath of the independence of African countries, political elites usually implemented policies that were detrimental to the interests of smallholders. Instead, political leaders gave pre-eminence to industrial projects as well as to large state farms (Ake, 1996; Eicher, 1998).

The agricultural policies implemented in much of post-colonial Africa favoured higher taxation of smallholders through the double-price mechanisms inherited from the colonial era. Marketing boards operated by African governments purchased agricultural commodities from peasants at below market prices and sold them at world prices (Ake, 1996; Eicher, 1998). Also, the taxes collected from smallholders were seldom invested back in the rural

areas by local and central governments to support the development of roads, schools and health centres (Ake, 1996; Eicher, 1998). Moreover, African governments maintained overvalued currencies that enabled them to ensure cheap imports of consumer goods – destined for urban populations – but in the process rendered more expensive the exports of agricultural goods produced by smallholders (Ake, 1996). Furthermore, in some African countries such as in Ghana African governments reduced the portion of funding allocated to agricultural extension services (Eicher, 1998). Finally, the bias of political elites against smallholders discouraged them from formalizing customary land laws in order to ensure – through policy making – the effective access to communal lands by historical, lineage-based and pastoralist (seasonal) groups – including women – belonging to a particular community . The absence of the formalization of customary laws made possible the appropriation of land by powerful chiefs, outsiders and bureaucrats. As a result of the above policies implemented by African elites since the 1960s, the institutional contexts in most of African countries related to the agriculture sector were unfavourable as smallholders struggled to access affordable and acceptable inputs, credits, insurance, schools, roads and health centres.

From the 1980s several African countries implemented structural adjustment programmes under the auspices of the World Bank and the IMF. The structural adjustment programmes dismantled the elaborate system of public agencies that provided smallholders with access to land, credit, insurance, input and cooperative organization ( World Bank: World Agriculture Report, 2008:138). The rationale for the dismantling of public agencies was to allow the private sector to play a greater role in providing the mentioned services to smallholders with the aim of reducing their cost, improving their quality and eliminating their regressive bias (World Bank: World Agriculture Report, 2008:138). However, this did not really happen as in some cases the state limited the entry of the private sector, while in others the private sector partially emerged only to serve the interests of commercial farmers, while smallholders were exposed to service delivery gaps, extensive market failures and high transaction costs and risks ( World Bank: World Agriculture Report, 2008:138). Therefore, the institutional contexts in several African countries remain unfavourable, especially for smallholders, because of poor infrastructure services, insecure land ownership, inadequate and asymmetric financial markets and unavailable insurance markets (World Bank: World Bank Agriculture Report, 2008).

As indicated earlier, little scholarly empirical research has been conducted on the motivations underlying the activities of Chinese agricultural enterprises operating in Africa. Therefore

this study intends to enhance our understanding of the motivations informing the activities of Chinese agricultural enterprises operating in Africa by conducting more empirical research on this particular topic. Furthermore, in the literature on China-Africa relations, the effects of institutional contexts on the behaviour of Chinese agricultural enterprises operating in Africa have largely been ignored. Thus this study intends to provide more analyses on this topic as well.

### **1.5 Research design and methodology**

This study relies on an embedded multiple case study design (Yin, 2009; Remenyi, 2012). It consists of two case studies, Mozambique and the DRC. The two case studies were chosen on the basis of their accessibility as well as their similarities. Concerning their similarities, it revolves around three points. First, Chinese agricultural enterprises have showed obvious interests in investing in both countries. Second, Mozambique and the DRC each possess significant areas of fertile land with sufficient water. Last, the institutions and institutional contexts in Mozambique and the DRC bear some resemblances, especially regarding the customary land tenure systems. However, due to diverse policies pursued by the two states after their respective independences, the potency of customary laws –including that of customary land tenure systems – differs across Mozambique and the DRC (Mamdani, 1996).

In light of the above similarities, it was anticipated that the results of this study will be quite similar for the two case studies. The unit of analysis is the Chinese agricultural enterprise and this study focuses on more than one Chinese agricultural enterprise, namely those in Mozambique and the DRC. This study defines an enterprise in line with Coase's (1937) description of the firm. Therefore, the enterprise is defined here as a hierarchical structure – an organisation – in which the allocation of resources is performed with the objective of realizing profits.

This study relies on a qualitative methodology. The research methods used to collect data are divided between secondary and primary sources of data. Secondary sources of data consist of academic materials such as scholarly articles and books; official documents such as reports of international institutions such as the World Bank as well as official legislation such as land laws; and articles from private sources such as newspaper articles. The primary sources of data consist of documents obtained in the field work such as contracts between Chinese agricultural enterprises and governments as well as official documents from Chinese agricultural enterprises, on the one hand, and semi-structured interviews, on the other.

Semi-structured interviews were conducted with various stakeholders knowledgeable about the motives and behaviours of Chinese agricultural enterprises operating in Mozambique and the DRC. These stakeholders are comprised of managers of Chinese agricultural enterprises, officials from the ministries of agriculture and agricultural research centres, leaders of civil society, researchers and farmers and/or employees of Chinese agricultural enterprises. In Mozambique 18 semi-structured interviews were conducted in the following locations: Maputo, Gaza and Sofala provinces. In the DRC 14 semi-structured interviews were conducted; all the interviews took place in and around Kinshasa. Most of the interviews were recorded with an MP3 voice recorder and subsequently transcribed. Interview data were analysed by means of the qualitative data analysis software: atlas. ti. Codes were created to capture the ideas or concepts identified from the data as well as from the literature. For each case study the codes that showed the highest occurrences, as well as the most critical codes, were selected and integrated in order to produce broader categories. The categories were then compared in order to generate conceptual frameworks.

## **1.6 Theoretical framework**

It is the view of this study that the traditional perspectives of International Political Economy (IPE) are not suitable to provide guidance in answering the main research questions posited in section 1.3, mainly as a result of their complexity. Further explanations will be provided in chapter 3. Therefore, this study makes use of two theoretical frameworks outside the discipline of Political Science.

First, it relies on Dunning's eclectic paradigm to study the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC. Dunning's eclectic paradigm is an empirical framework from the field of international business that intends to explain the determinants of firms' foreign direct investments. Dunning's eclectic paradigm basically holds that the determinants of a firm's foreign direct investments will be determined by the combination of its ownership, locational and internalisation advantages, as well as by the context pertaining to the features of the political economy or the industry in the home or recipient country (Dunning, 2000, 2001). Dunning's eclectic paradigm is appropriate for this study because it allows the study of complex phenomena by comparing several concepts or theories and assessing the significance of each concept or theory in explaining the problem at hand.

Second, this study relies on new institutional theory to understand the behaviours of Chinese agricultural enterprises operating in Mozambique and the DRC. New institutional theory originates from the field of microeconomics and seeks to explain how institutions – understood as constituted of informal constraints, formal rules and enforcement mechanisms – structure the external environments that humans derive and how these in turn shape the trajectories of organisations and hence the performances of economies through time (North, 1990, 1994, 2005). New institutional theory is appropriate for this study, since it allows for in-depth analyses by accounting for the role of informal constraints, formal rules and enforcement mechanisms in the making of the institutional contexts that prevail in Mozambique and the DRC.

### **1.7 Limitations and delimitations**

The findings outlined in this study are unique given that this dissertation draws on the results from empirical research conducted in Mozambique and the DRC. However, there are some limitations regarding the scope of the above findings. First, as mentioned above, the fieldwork research conducted in Mozambique and the DRC did not cover the whole of the Mozambican and Congolese territories. Second, as result of time and financial constraints, the researcher did not have the opportunity to embark on a second field visit in Mozambique and the DRC in order to collect more information.

In addition to that, for the purpose of clarity and simplification, this study adopts a narrow definition of the agriculture sector by defining it as the activity consisting of the cultivation and production of crops as well as the raising of livestock and sea foods. Activities related to the exploitation of forest resources are excluded from this definition. In addition, this study focuses its analysis only on contemporary Chinese agricultural involvement in Africa.

### **1.8 Structure of the thesis**

Chapter 1 provides a short introduction to the study. It starts by introducing the rationale of the study. It then presents the aims of the study, including the main and sub-research questions. The chapter also outlines a short literature review on the main research questions posited in the study. It also highlights the research design and methods used in the study. It then discusses the theoretical frameworks applied in the study and provides reasons for their application. Finally, Chapter 1 ends with a short discussion on the limitations and the delimitations of the study.

Chapter 2 provides a review of the literature on China-Africa relations, with a focus on Chinese engagement in African agriculture. The chapter focuses on the main claims of scholars and the ways in which they have conceptualised China-Africa relations. Scholarship is divided between macro-level and sector-level approaches. The chapter starts with a review of China-Africa relations in terms of foreign and diplomatic relations, and of economic domains. It then discusses China-Africa relations from the perspectives of the oil, mining and infrastructure sectors. The rest of the chapter deals with Chinese engagement in the African agriculture sector. The chapter concludes with a discussion of this study's main contributions to existing scholarship on China-Africa relations.

Chapter 3 presents the theoretical frameworks used in the study. It starts by providing a summary of the main theoretical perspectives in the field of international political economy. The chapter then establishes linkages between concepts used by scholars in the literature on China-Africa relations and the main theoretical perspectives of international political economy. The chapter also introduces the reader to Dunning's eclectic paradigm and new institutional theory, and reviews some scholarly works in which scholars have relied on the two theoretical frameworks to conduct their analyses. The chapter finally explains why the theoretical frameworks chosen are suitable for this study and the way in which they will guide the researcher's analyses of the research questions.

Chapter 4 explains in details the research design and methodology that was followed in this study. This includes an explanation of the measurement instruments, sample design, data collection procedure, problems encountered in the fieldwork and data analysis.

Chapter 5 provides a background and contextual study that aims to enhance the understanding of the motivations and behaviour of Chinese agricultural enterprises operating in Mozambique and the DRC. It starts by outlining the characteristics of the agriculture sectors in Mozambique and the DRC. It then describes the institutional contexts prevailing in the two countries and points to the way in which they affect the activities of smallholders and foreign investors. The chapter details the customary land tenure systems in Mozambique and the DRC, and discusses the way in which they shape the content of the land law in both countries. Finally, the chapter discusses the political economy prevailing in China and the way in which it encourages Chinese outward investments – including agricultural investments.

Chapter 6 presents the findings and analyses on the motivations informing the activities of Chinese agricultural enterprises in Mozambique and the effects of the institutional context on their behaviours and/or modes of entry into local industries.

Chapter 7 outlines the findings and analyses on the motivations underlying the activities of Chinese agricultural enterprises in the DRC and the way in which the institutional context affects their behaviours and/or modes of entry into local industries.

Chapter 8 starts by revisiting the aims of this study as well as the main research questions. The chapter outlines the main conclusions for each case study and then proceeds to compare them and draw the necessary implications for theoretical generalisation. Chapter 8 further discusses the theoretical frameworks and the research methodology used in the study by emphasizing their strengths and limitations. Finally, the chapter ends with a set of recommendations to the governments in Mozambique and the DRC. The recommendations focus on the needs to formulate and implement sound decentralisation processes in order to resolve problems related to complex processes of gaining access to land, and the poor monitoring and enforcement of the land laws. The recommendations also emphasise the need to design indigenous institutional models in order to ensure effective transfer and adaptation of Chinese agricultural technologies in Mozambique and the DRC.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Introduction**

As mentioned in the preceding chapter, this study has two aims. The first is to understand the motivations underlying the activities of Chinese agricultural enterprises operating in Mozambique and the DRC. The second is to investigate the manner in which institutional contexts in both countries affect the behaviour and/or the modes of entry of Chinese agricultural enterprises into local industries.

This chapter intends to contribute toward achieving those aims by providing a comprehensive review of the literature on China-Africa relations, with an emphasis on studies on Chinese involvements into Africa's agriculture sector. The chapter starts by revisiting scholarship in the broader field of China-Africa studies before focusing on Chinese endeavours in Africa's agriculture. In addition to that, the chapter discusses the literature in term of the approach followed by scholars or the emphasis given to China-Africa relations. It organizes scholarship according to macro-level and sectoral approaches.

### **2.2 Macro-level approach**

The level of approach – macro versus sectoral level – relates to the scope or scale of concepts or processes studied by scholars. A macro-level approach refers to general processes such as diplomacy, foreign relations, investment and trade. In contrast, the sectoral approach pertains to particular processes that are more limited in scope such as investments in the oil or in the agriculture sector. The macro-level approach will be twofold: foreign relations and diplomatic issues, on the one hand, and economic relations, on the other.

#### **2.2.1 Foreign relations and diplomatic issues**

One group of scholars analyses the relations between China and Africa through the spectrum of standard foreign relations and diplomacy. These authors endeavour to understand the contemporary relations between China and African countries through the ideologies that guided their interactions during the Cold War period as well as through a perceived similar experience in their respective struggles for independence. They generally perceive China-Africa relations as embodying an historical friendship that shape the nature of the present encounters between the two parties. Ultimately, these scholars consider Chinese political and



diplomatic engagements with the African continent as an attempt to create a more just and equal world order.

Li (2007) holds that while China's policies towards Africa have changed since the end of the Cold War, the principles underpinning China-Africa relations have remained intact. Li (2007) acknowledges that China's current African policy is shaped primarily by Beijing's economic interests – in contrast to the ideological factors which dominated China's African policy during much of the Cold war. However, he argues that relations between China and Africa continue to be guided by the sacrosanct principles of mutual interests and non-interference. He holds that China's principle of non-interference stems from the fact that Beijing considers African countries as true friends and that it understands their political and economic realities because of its similar historical experience of colonialism and imperialism. Li (2007) further argues that mutual benefit in the relations between China and Africa is reflected in areas such as aid for infrastructure, fair trade and debt cancellation. Shelton (2007) and Le Pere and Shelton (2006:38; 2007) agree with Li on this issue. For instance, Shelton (2007:50) argues that China has a clear and compassionate understanding of Africa's struggle for independence and its economic problems because of Beijing's own similar historical experience. Shelton argues that the common experience of colonialism and the support provided by China to African liberation movements in their struggle against colonialism and imperialism serve as the foundation for friendly relations between the two sides. In addition to that, Le Pere and Shelton (2007:209) praise China's support for African regional organisations such as the AU and NEPAD. They believe that China's multilateral co-operations with Africa in the framework of the AU and FOCAC could help the continent solve problems related to peace and security. More important, Le Pere and Shelton (2007) hold that multilateral co-operation between China and Africa is likely to advance the agenda of the global South with the long-term objective of creating a more just and equitable international order.

On their part, Sautman and Hairong (2008), concur with Li that China's African policy is primarily driven by economic imperatives, which seek to enlarge the wealth and power of the Asian country. They assert, however, that Chinese activities on the African continent increasingly mirror those of Western countries as they tend to replicate the old developed states' patterns of exploitation of resources, oppressive labour regimes, disadvantageous terms of trade and support for authoritarian rulers. Nonetheless, Sautman and Hairong (2008) argue that despite fundamental similarities in the Chinese and Western approaches to Africa, there are still important differences. First, they argue that China promotes the development of

Africa through its investments and support for human resources. Second, they claim that China shares close political ideologies and approaches to socio-economic development with African countries. Therefore, Sautman and Hairong (2008) claim that such similarities enable China to be more sensitive to the situation in African countries and this restrains it from tying onerous conditions to its development aids.

### **2.2.2 Economic relations**

Other scholars approach the current relations between China and Africa from a macro-economic perspective. In other words, these academics attempt to explain the current interactions between China and Africa through assessments of the effects of Chinese trade and investments in Africa on the broader economies of African countries. In this perspective, scholars have relied on concepts informed by theories of factor endowment and product life cycle to make their assessments of the effects of Chinese trade and investments on the economies of African countries. The factor endowment theory builds on Ricardo's comparative advantage theory. This theory starts from the premise that nations maximize their welfare from specialization and trade. In addition to that, it seeks to predict the patterns of production and international trade. The theory predicts that a country will manufacture and export products for which the required factors of production are abundant, and import products for which the required factors of production are scarce (Gillies, 2005). Concepts related to the factor endowment theory have been used to analyse trade relations between China and Africa. The product life cycle is a theory of international economics that seeks to explain the trajectory of the location of the manufacture of innovative products through time. The product life cycle theory in essence holds that new products first emerged in developed countries with significant technological and scientific bases as well as market sizes and capital. Over time, once innovative products have been standardized and are produced on a massive scale, they are relocated to less developed countries with lower production costs in order to make the business more profitable and preserve market share (Vernon, 1966, 1979). Concepts linked to the product life cycle theory have been borrowed to explain Chinese investments in African manufacturing.

Le Pere and Shelton (2006; 2007) point to the complementary nature of Chinese and African economies, which promotes trade between both sides. They claim that Sino-African trade is beneficial to both parties, since China access Africa's oil and minerals while African consumers benefit from cheap Chinese manufactured goods. Moreover, Le Pere and Shelton

claim that African states – especially the resource-rich ones – amass considerable revenues from exporting their oil and minerals to China.

Kaplinsky focuses his analyses on the impact of trade between China and Africa on the industrialization of the continent. Kaplinsky (2008) holds that the emergence of China as an economic giant is likely to have negative effects on Africa's industrialization. Kaplinsky argues that Chinese manufacturers of clothes, textiles and shoes compete with African manufacturers of the same products for African markets. He claims that such competition hurts Africa's industrial sector because of cheaper Chinese products. As a result, Kaplinsky (2008) claims that imports of Chinese manufactured goods have undermined the formal manufacturing sector in countries such as Nigeria, South Africa and Zambia. Furthermore, he argues that Chinese and African manufacturers also compete for international markets such as those of the US and Europe. As a matter of illustration, Kaplinsky (2008) argues that African clothing exports to the US fell by 26% in 2007, following the removal of US and European quotas on Chinese textile and clothing exports in 2005 – which sparked a surge in Chinese exports. Likewise, he holds that before 2005, wood industries in South Africa and Ghana were important provider of garden furniture to Europe. Nevertheless, from 2005 Europe's major exporters of garden furniture ceased sourcing from South Africa and Ghana and instead turned to cheap Chinese and Vietnamese garden furniture. Kaplinsky (2008) concludes that China is therefore a direct and indirect competitor to Africa for African and world markets, and that Chinese competition is hindering the development of Africa's clothing, textile and wood industries.

Alden, like Kaplinsky, holds that cheap Chinese manufacturing goods are displacing jobs in Africa. Alden (2007) argues that textiles and clothing imported from China have threatened to wipe out companies in South Africa, Lesotho, Kenya, Mauritius and Nigeria, while hundreds of thousands of jobs have been displaced. Alden (2005, 2007) also alludes to the significant migration of Chinese small merchants to Africa. He claims that, once in Africa, Chinese migrants convert themselves into retailers with the help of long-established Chinese business networks on the continent. Alden (2007:49-50) further contends that Chinese retailers sell their products at lower prices compared to African retailers, since they can rely on cheaper and larger superior supplies from China and exploitation of family labour. Alden claims that the emergence of Chinese small-scale retailers in Africa – who are involved in the trade of basic commodities such as clothes, foods and vegetables – threatens to displace African retailers.

Finally, Brautigam (2003) and Freeman (2008) are of the view that Chinese business networks are starting to establish themselves in Africa in order to escape rising production costs and increasing regulations in China. They argue that the establishment of Chinese companies in Africa can contribute to the industrialization of the continent by facilitating the diffusion of technologies and skills. Brautigam (2003) explains that in Mauritius and Nnewi (Nigeria) the presence of Chinese business networks facilitated linkages between Chinese and local businesses, which enabled the transfer of skills and technologies from the former to the latter. She argues that ultimately Mauritian and Nigerian entrepreneurs took ownership of the businesses. Brautigam (2009:214) also notes that Chinese leather companies have moved to Ethiopia as a result of the tightening of the structure of taxes and environmental laws in China. She points out that Chinese investments in the Ethiopian leather industry forced local companies to innovate and compete with Chinese companies. Brautigam (2003; 2009) refers to such processes of appropriation of foreign technologies and skills by local entrepreneurs as flying geese.

### **2.3 Sectoral approach**

Another group of scholars approaches the contemporary relations between China and Africa by focusing their analysis on the involvement of Chinese actors on specific sectors of the economy. These scholars concentrate on the oil and mining and construction sectors. The works of these scholars have been guided by concepts informed by the mercantilist approach and Robert Cox's historical materialism. Mercantilism is an approach of IPE that holds that in an anarchical world the state has the obligation to promote its national interests in order to ensure the survival and prosperity of the country. This approach will be discussed in detail in the following chapter. Scholars relying on this understanding of mercantilism perceive Chinese forays into Africa as mainly intended to access oil, minerals and other natural resources for the benefit of the Chinese markets and economy as well as to promote the expansion of Chinese enterprises in African markets.

Cox's historical materialism – also known as Cox Critical Theory (CCT) – is built around a dynamic interaction between three layers: social forces, forms of states and world orders (Cox & Sinclair, 1996:54). CCT holds that changes in the organisation of production generate new social forces, which in turn lead to changes in the forms of states and world orders (Cox & Sinclair, 1996:100). The patterns of social forces in the dominant states shape the forms of those states and tend to be reproduced at two levels: first, at the global level through the

establishment of organisations that promotes rules, values and ideologies favourable to the interests of dominant groups; second, within lesser developed countries through the imposition of rules, values and norms that attempt to reproduce social relations prevailing in the dominant countries (Cox & Sinclair, 1996). Therefore, institutions at both the global and national levels not only maintain a particular political and social order, but also mirror the interests of transnational dominant classes. In this perspective, CCT is closely linked to the notion of hegemony as developed by Antonio Gramsci (Leysens, 2008:123-125). Scholars relying on CCT perceive the actions of China in Africa as intended to reproduce the patterns of social relations existing in China by supporting African authoritarian elites in resource-rich states and attempting to establish international organisations that embody norms and values closely related to China's economic interests, as well as to those of Chinese and African political elites.

Holslag (2006) analyses the involvement of China with the countries of Central Africa. In particular, he focuses on Chinese investments in natural resources – oil and minerals. Holslag (2006) endeavours to understand Chinese investments in Central Africa's natural resources from the theoretical perspective of mercantilism. He defines China as a typical Asian neo-mercantilist state. He claims that, on the one hand, Beijing is eager to comply with international norms and standards – such as the open flows of capital, free trade and transparency of financial markets – by embracing global financial institutions. On the other hand, China continues to play a critical role in the management of its own economy – by retaining a monopoly over trade regulation and monetary policy, and encouraging state-owned companies to expand their activities abroad through various incentive policies.

Holslag (2006) argues that Chinese neo-mercantilist policies are being implemented in Africa. He holds that the main objective of Beijing's African policy is to access raw materials – oil and minerals – which are used in the manufacturing of export products. Taking the Central Africa region as a case study, Holslag claims that the Chinese state strongly supports the operations of Chinese state-owned companies that seek to access minerals, oil and raw materials in that part of Africa. In this perspective, Holslag holds that the Chinese government has used a wide array of tools such as high-level visits, non-interference diplomacy, loans and investment in infrastructure, to promote the outward expansions of its enterprises. He claims that the ability of the Chinese state to use such a wide array of tools in a coherent well-defined strategy that serves the national interest reflects a clear mercantilist policy on the part of the Chinese government.

Tull (2006) argues that there are little doubts that natural resources – mainly oil – are at the core of China's economic interests in Africa or perhaps even its overall interest in the continent. Tull maintains that in terms of China's imports from Africa, nine of its ten most important trade partners are resource-rich states, the majority of them endowed with oil deposits. Just like Holslag, Tull perceives Chinese involvements with Africa's resource-rich countries as embodying a neo-mercantilist strategy. Tull (2006) claims that China uses various tools and strategies in order to cultivate the favour of governments of oil-producing countries and, therefore, obtain privileged access to their resources on behalf of Chinese state-owned oil companies. According to him, the tools used by the Chinese government to charm African leaders include soft loans, development assistance, investments in infrastructure, arms deliveries and diplomatic backing. Furthermore, Tull (2006) argues that China targets states that are isolated by the West through internationally backed sanctions, such as Sudan and Zimbabwe. He contends that in such countries Beijing can easily position itself as a strategic actor in the economic arena without having to worry about fierce Western competitions.

Vines (2006), Davies and Corkin (2007), and Corkin et al. (2008) focus on Chinese investments in Africa's infrastructure. Vine (2006) argues that in post-conflict countries such as Liberia and Angola, Chinese investments in infrastructure such as roads, railways and schools made a great difference in the daily lives of local populations and enabled these countries to rebuild their shattered economies. Corkin et al. (2008) hold that over the past decade Chinese construction companies have become active on the African continent – building roads, bridges, hydroelectric and irrigation schemes, hospitals and schools. They claim that it is especially in the resource-rich countries of Africa – such as in Angola, Zambia and Sudan – where Chinese construction companies are more active. They acknowledge that the building of infrastructure in the resource-rich countries of Africa reflects a mercantilist strategy by China as it enables Beijing to more easily access oil and raw materials to fuel its burgeoning economy. However, Corkin et al. (2008) claim that it is often the most resource-rich African countries that are in dire need of infrastructure. Thus they hold that Chinese investment in infrastructure helps to improve the lives of African people. Furthermore, they argue that Chinese state-owned construction companies are able to receive funding from the Chinese government through the aid projects and establish their footprints in the African construction sector. They argue that several Chinese state-owned construction companies that came to Africa to implement the aid projects of the Chinese government have succeeded in

expanding their businesses locally or regionally by way of signing contracts with African governments or the private sector.

Taylor analyses Chinese involvement in Africa's oil sector as well as the implications of this for the political stability of African countries. Taylor (2006; 2009) holds that access to oil is the cornerstone of current Chinese endeavours in Africa. According to him, oil accounts for at least 70% of Chinese imports from Africa. Taylor (2006) claims that China has been using "oil diplomacy" in order to secure access to Africa's oil. He defines China's "oil diplomacy" as covering the wide array of tools – such as maintaining the principles of non-interference and state sovereignty, soft loans, grants and arms delivery – employed by Beijing in order to charm African authoritarian leaders and in the process obtain privileged access to oil.

However, Taylor goes further than Holslag and Tull in their analyses of the patterns of China's quest for African oil and minerals. For Taylor (2006), China's "oil diplomacy" does not simply reflect a mercantilist strategy on the part of Beijing, but reveals flexible - hegemonic behaviour from the Asian country. Taylor (2006) claims that China's hegemonic activities in Africa arise from the coincidence of interests between China and African political elites, especially those of resource-rich nations. He contends that China helps maintain these elites in power through a combination of actions, while in exchange Beijing gets preferential access to oil.

Carmody and Taylor (2009) have argued more recently that China uses either soft or robust diplomacy – depending on local conditions in a country – in order to maintain authoritarian regimes in power in client states. Taking Zambia and Sudan as case studies, they explain how China has used different actions in order to strengthen the power of political leaders in its two "client states". In the case of Zambia, they argue that in the aftermath of the 2007 presidential election China used soft power in the form of economic instruments to strengthen the power base of its ally, President Patrick Mwanawasa, who was under strong pressures from the opposition. In the case of Sudan, the two scholars argue that China has used more robust diplomacy in order to shield the Khartoum government from international sanctions. They claim that China's strong economic interests in Sudan prompted Beijing to repeatedly try to block or water down UN Security Council resolutions that sought to impose sanctions on the Sudanese government for its bloody war in the country's Western Darfur region. In addition to that, they also claim that China has provided heavy weaponry, including fighter jets, to the Sudanese government and is currently building three arm factories in Sudan. Therefore,

Carmody and Taylor conclude that China is using a flexible hegemony (“flexigemony”) in order to secure long-term access to African oil and minerals.

Alden (2008) shares a similar view to that of Taylor (2006) and Carmody and Taylor (2009). He argues that China promotes the “Beijing Consensus” – which is predicated on the principles of non-interference in domestic affairs and the promotion of sovereignty of states – in its interactions with African countries. For Alden (2008), the “Beijing Consensus” has great appeal amongst African autocrats who resist Western efforts to promote democratic transition on the continent. Thus, Alden (2008) holds that the “Beijing Consensus” allows China to win the support and trust of African leaders and gain privileged access to profitable business contracts. Alden (2008) holds that such development clearly undermines the economic interests of Western countries, which perceive the maturation of African political-democratic institutions as crucial in building successful market economies within the framework of the liberal state. He claims that should China continue to favour African authoritarian regimes as a means to obtain political influence in the near future, it is likely that Western countries will quietly abandon their plans for the democratic transformation of the African continent in order to compete for access to energy and mineral resources with China. For Alden, such an outcome will have negative effect for Africa’s political stability and development.

Lee (2006) draws a parallel between Chinese and American actions in Africa. She argues that Chinese and American actions in Africa are guided by hegemonic ambitions. Lee holds that such hegemonic ambitions manifest themselves as two facets. She labels the first facet as that of “Saving Africa” and claims it consists of various economic programmes officially destined to alleviate poverty on the African continent. She claims that such development agendas are often used by Western countries and China as a platform to compete for political influence in Africa, since each of them seeks to appear as the most committed power in the struggle against the marginalization of the continent in the world economy. She defines the second facet as “Naked imperialism” and claims that it is guided by a capitalist drive that aims to exploit Africa’s riches at the expense of its people and the environment. She claims that in this new “scramble” for Africa, neither China nor Western countries hide their pretensions to access African natural resources. More important, Lee maintains that both China and the West use the “saving Africa” facet as a strategy to disguise their hegemonic ambitions in order to exploit Africa’s natural resources.



Habib (2008) assess the economic and political implications of the Chinese foray into Africa for its natural resources. Habib (2008) attempts to draw a comparison between Chinese and American current and future actions on the African continent. He acknowledges the existence of a new scramble for Africa involving China, the United States and to a lesser extent India. However, contrary to Lee and Taylor, Habib perceives China not as a present hegemonic power, but instead as a possible future one. Habib (2008) argues that at present, China cannot be perceived as an hegemonic power like the United States, since Beijing's approach to development assistance has provided much relief to a "debt-laden and poverty-stricken" developing world. He claims that we should recognize that the emergence of China as an economic giant has freed Africa from Western imperialism. However, Habib (2008) embraces the analyses of Lee and Taylor as far as future relations between China and Africa are concerned. He holds that China's future actions in Africa will be far more conditioned by competition with other powers rather than by the noble commitments enshrined in its foreign policy. He maintains that since the USA is already behaving as a hegemonic power in Africa, it is probable that in the near future China also will behave as such. Habib claims that future competition between China and other powerful nations – especially the USA – for access to Africa's natural resources could lead to neo-colonial relations, proxy wars and ultimately political instability and economic destruction.

#### **2.4 Sectoral approach – the agriculture sector**

As I mentioned in the introduction of this chapter, the primary focus of this review of the scholarship on China-Africa relations is on Chinese engagements in Africa's agriculture. The works of scholars focus on the motivations informing the activities of Chinese agricultural enterprises in Africa. There have been four views expressed in the literature on the motivations informing the activities of Chinese agricultural enterprises operating in Africa. A first group of scholar argues that the motivations of Chinese agricultural enterprises and farmers operating in Africa are to provide agricultural aid in order to help develop Africa's agriculture, contribute to the attainment of food security, and to generate profits by getting involved in commercial activities. This group of scholars relies on the principle of mutual cooperation and the law of supply and demand of microeconomics. The law of supply and demand holds, among other things, that in competitive markets firms aim to maximize their profits by adjusting their production depending on the market price and demand elasticity (Dorfman, 1972:13). The second group of scholars claims that the motivations of Chinese agricultural enterprises operating in Africa are twofold. First, these enterprises aim to grow

and transfer to China specific agricultural commodities in order to produce biofuel and feed animals. Second, they aim to help African countries develop their agriculture sector by way of exchanges of agricultural technologies and skills. The work of this group is informed by concepts of the mercantilist approach to international political economy. The third group of scholar holds that the motivations of Chinese agricultural enterprises – especially state-owned – operating in Africa are to acquire long term assets – in this case farmland – in order to get involved in commercial activities and generate profits. The work of this group of scholar is informed by the law of demand and supply of microeconomics. The last group of scholar argues that the motivations of Chinese agricultural enterprises, especially state-owned, could soon be linked to China's national security policy, as Chinese agricultural enterprises might attempt in the near future to grow food in Africa and ship it to China in order to prevent riots and uprisings over food shortages there. The work of this group of academics is also informed by concepts of the mercantilist approach to international political economy.

Brautigam and Xiaoyang (2009) and Brautigam (2009) aim to explain the motivations of Chinese state-owned and private agricultural enterprises involved in Africa's agriculture sector. They begin by retracing the history of Chinese involvement in Africa's agriculture sector. They hold that China's involvement in Africa's agriculture is not something recent. They argue that China's agricultural cooperation with the African continent began during the Cold War, when Beijing was competing with Taiwan for political influence in Africa. They claim that at the time Chinese involvement in Africa's agriculture sector was driven by ideological imperatives, as Beijing sought to circumvent the influence of Taiwan on the continent. Brautigam (2009), and Brautigam and Xiaoyang (2009) further claim that after the recognition of the People's Republic of China by most African countries in 1971, Taiwan abandoned most of its demonstration farms in Africa, which were subsequently taken over by China. However, they argue that while the state-owned farms established by China were successful in their first years of operation, they soon collapsed after the departure of Chinese technicians. Brautigam (2009) and Brautigam and Xiaoyang (2009) claim that in the 1980s China went through several structural changes as the economy departed from the model of a planned economy and moved towards becoming a market-friendly economy. One of several reflections of those structural changes was the formation of the first Chinese agricultural corporations for the purpose of foreign investments. They argue that in the mid-1980s China initiated a project aimed at revitalizing the old projects through joint ventures involving Chinese state-owned enterprises and African governments. However, Brautigam and

Xiaoyang (2009) assert that this initiative produced disappointing results as a result of the reservations of several African governments.

Brautigam (2009:247), and Brautigam and Xiaoyang (2009) claim that after the millennium the Chinese government established a roadmap in order to encourage and support the investments of large Chinese agricultural enterprises – state-owned and private – in Africa. Brautigam (2009:247) also argues that the above roadmap identified agricultural technology and seed cultivation as two areas where Chinese enterprises could be competitive. The roadmap therefore suggested the establishment of agricultural demonstration centres across Africa, as these centres would create opportunities for Chinese agricultural enterprises. Brautigam (2009:249) argues that leading Chinese agricultural enterprises were selected, mostly from strong agricultural provinces, in order to manage the agricultural demonstration centres in Africa. Brautigam (2009:249) further holds that the Chinese ministry of commerce would provide three years of grant support to the selected Chinese agricultural enterprises during which they would “explore how to operate in a commercial, sustainable, and mutually beneficial way”.

Furthermore, Brautigam (2009:249), Brautigam and Xiaoyang (2009) claim that the pursuit of commercial profits is not the sole motivation of the establishment of agricultural demonstration centres in Africa. They hold that in the light of the very high rate of collapse of former Chinese agricultural projects established in Africa, Chinese policy makers believe that the only manner to assure the sustainability of current Chinese agricultural projects in Africa is to allow Chinese agricultural enterprises to manage them. Brautigam (2009:249) further holds that each Chinese agricultural enterprise or institution selected to manage the agricultural demonstration centres in Africa had commit to do so for a minimum of five to eight years, if the recipient country agreed. Brautigam (2009:249), Brautigam and Xiaoyang (2009) claim that Chinese agricultural demonstration centres account for a new model of cooperation that combines business imperatives and agricultural aid. In addition to that, Brautigam (2009) holds that Chinese policy makers believe that by providing agricultural aid to African countries, Beijing could offset negative reactions to Chinese exploitation of the mineral and oil resources in Africa. Brautigam (2009), and Brautigam and Xiaoyang (2009) challenge claims about the existence of large Chinese farmlands in Africa that aim to grow food for Chinese markets. Brautigam (2009:258), and Brautigam and Xiaoyang (2009) dispute some media reports according to which ZTE, one of China’s largest telecommunication companies, planned to establish a joint-venture project of 3 million

hectares in the DRC. They argue that in reality the story was less alarming, since ZTE intended to get involved in 100 000 hectares of land for its palm project. Moreover, Brautigam (2009:258), and Brautigam and Xiaoyang (2009) also contest media reports on the alleged pledge made by China to invest US\$800 million in Mozambique's Zambezi Valley to modernise the country's agriculture sector.

Brautigam and Ekman (2012) refute allegations of the existence of two memorandums of understanding (MOU) allegedly signed between the Chinese and Mozambican governments in 2006 and 2007 to create settlements for thousands of Chinese farmers in the Zambezi valley in order to produce rice for Chinese markets. Brautigam and Ekman (2012) claim that there is no empirical evidence to attest the existence of either such MOUs or their subsequent cancellations by the Mozambican government because of local outrage. They also dispute claims in the media according to which Mozambicans do not consume rice and point to descriptive statistics that indicate the country's rising imports of rice. For Brautigam and Ekman (2012) the bulk of Chinese agricultural enterprises operating in Mozambique run modest aid projects that also include a commercial dimension. Also, they claim that Chinese agricultural enterprises aim to sell their products locally. In conclusion, they claim that the activities of Chinese agricultural enterprises operating in Mozambique are not informed by China's national security policy.

Brautigam and Xiaoyang (2009), Brautigam (2009), and Brautigam and Ekman (2012) make sound assessments of the current motivations informing the activities of Chinese agricultural enterprises operating in Africa. However, these authors fail to provide convincing arguments as to whether the business and the aid components of Chinese agricultural enterprises managing the aid projects can be successfully reconciled in order to achieve a mutually beneficial scenario for African countries and Chinese agricultural enterprises.

Sun (2011) also endeavours to understand the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique. She presents a strong case on the motivations informing the activities of Chinese agricultural enterprises operating in Africa. In particular, she establishes a connection between the motives of Chinese agricultural enterprises operating in Africa and the structural constraints on the productivity of the Chinese agricultural sector.

Sun (2011) argues that China's agricultural sector is facing several challenges that are likely to undermine its agricultural output in the future. According to her, these challenges include

the volatility of world food prices; pollution of water; climate change; and urbanisation and industrialisation. She holds that as the result of accelerated urbanisation and industrialisation, China's arable land areas decreased by 8.71 million hectares from 1996 to 2006. In addition to that, as many as 40-50 million farmers have lost their cultivated land as a result of confiscation of collective land areas for purposes of urbanisation and industrialisation. Despite the decline of arable land areas in China, Sun claims that China's demand for agricultural products is expected to grow by double-digit figures over the next 25 years. Sun holds that in the coming years China will increasingly rely on foreign exports to meet its demand for crops such as soybeans, palm oil and cotton. According to Sun (2011), it is against this backdrop that the Chinese government has been encouraging its agricultural enterprises to invest abroad. She asserts that as part of China's policy to diversify its sources of energy – by shifting from fossil fuel to biofuel – the Chinese government encourages foreign investments in “minor crops” such as cassava, palm oil and sugarcane in order to produce biofuel. Sun (2011) argues that the Chinese government does not promote the production of biofuel through staple food crops in order to preserve food security. Furthermore, Sun (2011) argues that specialised Chinese banks, such as the China Development Bank (CDB) and China Exim Bank, play an important role in funding Chinese foreign agricultural investments.

Sun (2011) holds that Chinese agricultural investments in Africa are led by private and state-owned agricultural enterprises. She argues that although Chinese state-owned agricultural enterprises were the sole Chinese actors in Africa's agriculture prior to the 1990s, they have since been joined by many private Chinese agricultural enterprises. Sun (2011) claims that many of these Chinese private agricultural enterprises are family or small-scale enterprises. She argues that despite the fact that the small-scale enterprises are more flexible and adapt quickly to local conditions, they are less competitive than the state-owned agricultural enterprises, since the latter possess superior capital and human resources. Thus, she contends that Chinese state-owned agricultural enterprises are usually able to prevail over private enterprises in competitions for tenders on state-funded aid projects in African countries.

Sun (2011) identifies a dozen Chinese agricultural enterprises involved in the growing of agricultural commodities such as rice, cassava, sugar and vegetables in a couple of African countries. The products of these enterprises are mostly destined for local markets, although they are sometimes meant for Chinese and world markets.

Sun (2011) further argues that in recent years China has changed the priorities of its aid policy in Africa, shifting its focus from areas such as construction to agricultural development, health and education. Sun holds that China is increasingly involved in the provision of agricultural aid in Africa. She argues that as from 2009 China launched the construction of agricultural demonstration centres in various African countries. She holds that the objective of the centres will be to provide training to local people as well as serve as a platform for collaboration between Chinese and local experts. She also explains that between 2007 and 2009 China sent 104 agricultural technology experts to 33 African countries to assist in the crafting of agricultural development plans. She claims that the Chinese government intends to help African countries develop their agricultural sector in order to alleviate hunger and poverty on the continent.

Sun (2011) perceives the China-Africa agricultural cooperation as a sort of mutually beneficial relationship, as China could source food and agricultural commodities in Africa to meet the needs of its markets and the Chinese economy, while at the same time provide African agriculture with the necessary help in infrastructure, skills and technology. Sun notes that China has extensive experience in both traditional and modern agricultural technology. In particular, China has comparative advantages in agricultural activities involving labour-intensive production and processing such as fisheries, gardening and poultry farming. She also argues that Chinese agricultural technologies, such as hybrid rice seedling, are based on world standards and have contributed to the development of Chinese agriculture. Thus, she argues that Africa's agriculture can benefit enormously from China's agricultural technologies. However, she holds that Chinese agricultural technologies will have to be adopted and adapted to local African conditions in order to protect the environment and meet the needs of local people. Thus, she claims that the challenge for Africa countries is to adapt Chinese technologies and use them according to the nutrition and food security needs of the population.

Helen Lei Sun holds that the extent to which Chinese agricultural investments will ultimately contribute to the development of Africa's agriculture will mainly depend on indigenous institutional arrangements as well as the ability of local governments to deliver change at grassroots level and coordinate economic activities between farmers and markets. She claims that one of the main impediments to the development of the agriculture sector in Africa for a long time has been pervasive institutional arrangements that have hampered the entrepreneurship and wealth-creation spirit of smallholder farmers.

Sun (2011) makes solid assessments of the motivations informing the activities of Chinese agricultural enterprises operating in Africa. However, just like the previous authors, Sun does not put forward convincing arguments as to how the commercial activities of Chinese agricultural enterprises can be successfully reconciled with the provision of agricultural aid within the framework of the aid projects funded by the Chinese government.

Hairong and Sautman (2010) use Zambia as a case study to investigate the motivations of Chinese state-owned enterprises in Africa's agricultural sector. Hairong and Sautman (2010) identify three modes of China's engagement with the African continent in the field of agriculture. The three modes of engagement are: agro-socialist mode, which was in operation until the 1980s; agro-capitalist or win-win mode, which was launched in the 1990s; and an agro-imperialism mode, which is more of a speculative idea based on the potential of the Chinese state to encourage large Chinese agricultural enterprises to embark on large-scale agricultural ventures in Africa involving large tracts of farmland.

Like Brautigam (2009), Hairong and Sautman (2010) trace the beginning of China's involvement in the African agricultural sector to the 1960s, when Beijing was first competing for political influence with the West and then later with the Soviet Union as well. They categorize China's endeavours in African agriculture during that period as agro-socialism because of the goals, principles and methods that shaped the process of the implementation of agricultural projects. First, Hairong and Sautman (2010) argue that the goal of China's involvement in African agriculture was to support the other Africa states in their struggle for development – as Beijing firmly believed that the development of African countries would enhance the power of the whole developing world in relation to the West and the Soviet Union. Second, Hairong and Sautman hold that China's engagement with African agriculture during that period occurred through state-to-state aid projects and did not aim to generate profits for the Chinese government. They argue that China helped African countries establish large farms such as Tanzania's Ubongo farm and the M'pourie rice farm in Mauritania. Last, Hairong and Sautman claim that Chinese technicians and workers heading to Africa went through a training process intended to instil discipline and a high work ethic as well as to make them aware of the cultural specificities of the respective countries to which they were assigned in order to prevent behaviours that could have hurt China's image. As a result, Hairong and Sautman claim that Chinese workers maintained close and good relationships with African workers and their projects were usually carried out successfully.

Hairong and Sautman (2010) hold that the current engagement of Chinese state-owned enterprises in Zambia's agriculture sector is part of the agro-capitalist mode of engagement. They argue that the agro-capitalist mode of engagement coincided with the implementation of market reforms in China, which repositioned the Asian country in the global capitalist system. Hairong and Sautman claim that since the market reforms of the 1980s, Chinese state-owned enterprises are obliged to be profit oriented. They claim that the management of state-owned enterprises has been separated from their ownership through management contracts that provide flexibility to managers. In this way, the state is the owner and sets the direction, while managers are given a free hand. Moreover, both scholars argue that the introduction of the labour contract system in 1986 and the housing reforms in 1988 made possible the commodification of labour. As a result of these reforms, Hairong and Sautman claim that Chinese state-owned agricultural enterprises operating in Zambia behave in "typical agro-capitalist fashion", employing wage labour and pursuing profit maximization. Hairong and Sautman (2010) identify six Chinese state-owned agricultural enterprises operating in Zambia – owning farmlands of between 40 to 4 100 hectares and produce food crops for local markets. They argue that managers of these corporations are bound in contractual relations with their respective headquarters in China. According to Hairong and Sautman (2010), the contractual relations oblige and motivate Chinese managers to make profits and determine the sharing of profits between managements and headquarters. Hairong and Sautman argue that the rate of success of Chinese state-owned agricultural enterprises in Zambia varies significantly, with about half of them turning a profit. Moreover, on the issue of wage labour, they hold that Chinese state-owned agricultural enterprises employ casual and permanent workers and at least three of these enterprises are members of the Zambia National Farmers Union (ZFU) and pay their local workers in accordance with ZFU standards. In light of the analysis outlined above, Hairong and Sautman (2010) hold that for moment, the motivation of Chinese state-owned agricultural enterprises operating in Zambia is to generate profits.

Furthermore, on the issue of transfer of technology, Hairong and Sautman note that in late 2008 Jilin Agricultural University partnered with the University of Zambia (UNZA) to build an agricultural demonstration Centre on UNZA's campus, with the aim of facilitating the diffusion of Chinese modern agricultural technologies in Zambia. According to Hairong and Sautman, when the Chinese ambassador to Zambia consulted Chinese managers on the matter, they questioned the relevance of the creation of a Chinese agricultural demonstration



Centre in Zambia. They claimed that modern agricultural technology is already in use in Zambia by commercial farms – mostly white-owned – and the problem was more about the application of the technologies by small-scale Zambian farmers and the means of transferring them from commercial to smallholder farmers. Thus, Hairong and Sautman argue that the extent to which the agricultural demonstrations centre can benefit local farmers is still unclear.

They argue that the agro-imperialism phase has been associated in the media with land-grabbing destined to create foreign-owned plantations in Africa – often amounting to hundreds of thousands of hectares – in order to produce foods or biofuels for foreign markets. They claim that this mode of engagement is more of a rumour than reality, as far as Chinese agricultural enterprises are concerned. For them, reports that tend to imply Chinese land-grabbing in Africa are fuelled by apprehensions about China in Western media, because of 1) the hegemony of the communist party in China, and 2) the perception of China as the main competitor to the West. They argue that reports by Western media according to which China ZTE Agribusiness acquired 2.8 million hectares of farmland in the DRC to establish a palm plantation are unfounded. They claim that, in reality, ZTE Agribusiness Congo only planned to obtain 1 million hectares of farmland in the DRC. They further argue that over time it turned out that ZTE Agribusiness Congo did not succeed in acquiring any farmland at all for its palm project. Moreover, Hairong and Sautman assert that in the case of Zambia the implementation of the proposed joint venture between China's Wuham Kaidi Holdings and the Zambian firm Biomass for the creation of a 700 000-hectares plantation to grow *Jatropha* was postponed, mostly as a result of internal political squabbles.

Hairong and Sautman (2010) argue that the acquisition of large tracts of land by Chinese agricultural enterprises is currently not part of China's national security goals. They argue that the Chinese government has opposed the acquisition of large estates for food security and is instead pushing for policies that would enable Chinese agricultural enterprises to generate profits and contribute to the development of African agriculture. However, Hairong and Sautman argue that in recent times several enterprises from Middle Eastern countries as well as those from countries such as South Korea have shown an interest in acquiring large tracts of farmlands in Africa to grow food for their respective markets. In addition to that, Hairong and Sautman assert that the emergence of lucrative markets for biofuels, particularly in Europe, has also increased the premium on the part of Western agricultural companies for large-scale agricultural projects in Africa. Thus, Hairong and Sautman argue that if these new

dynamics over Africa's agriculture lead to a new phase of "agro-imperialism" on the continent, then China might also consider that it is an internationally acceptable practice and therefore join the land-grabbing ventures. They argue that such a scenario is especially plausible given that the Chinese state possesses the means to promote activities associated with land grabbing in Africa.

Hairong and Sautman (2010) provide a sound evaluation of the motivations of Chinese agricultural enterprises operating in Zambia. However, they fail to provide more information on the role of the Chinese government in the endeavours of Chinese agricultural enterprises operating in Zambia and the implications of such a role for their strategic motives.

Freeman, Holslag and Weil (2008) assess the future developments of Chinese agricultural policies in the light of the rising structural constraints faced by the country's agriculture sector. They also evaluate the implications of such policy shifts for European agricultural enterprises and farmers, and for African and Asian agriculture.

Freeman et al. (2008) begin by arguing that over recent years the demand for agricultural commodities in China has been continuously increasing to the point that in 2003 China became a net importer of agricultural commodities. Freeman et al. (2008) hold that the Chinese government considers the inability of its agriculture sector to provide sufficient food to the Chinese population as a national security problem, given that the increased reliance on agricultural imports in a context of volatility of global food markets could lead to a surge in food prices that could in turn provoke social unrest. Freeman et al. (2008) contend that the inability of China to satisfy its agricultural needs has many causes. First, they allude to China's limited farming land, as the country is home to 20% of the world population but possesses no more than 7% of its farmland. Second, Freeman et al. hold that industrial production – both for export and domestic consumption – has been a major contributor to the rise of agricultural imports. They take the example of China's rubber and cotton imports, which have grown considerably in recent years because of the strong growth of motor vehicle production and the manufactured goods. Third, Freeman et al. point to the rise in the annual incomes of Chinese citizens, which led to a more diversified diet and greater consumption of meat. Furthermore, Freeman et al. hold that the tendency of Chinese farmers to move away from the production of grains to the more lucrative cultivation of fruit and vegetables has also spurred imports. Finally, Freeman et al. claim that China's accession to the World Trade Organisation (WTO) in 2001 resulted in policy shifts – especially the reduction of import

tariffs on agricultural commodities – that spurred the importing of agricultural goods in subsequent years.

Freeman et al. (2008) argue that China's imports of agricultural commodities are expected to grow at double-digit rates over the next 25 years. They rely on forecasts from the Food and Agriculture Policy Research Institute (FAPRI), which projected that China's imports of soybean will increase from 33.7 million tons in 2007/2008 to 52 million tons in 2017/2018. Palm oil imports are forecast to increase from 5.5 million tons in 2007/2008 to 10.8 million tons in 2017/2018. Cotton imports are expected to increase from 3 million tons to 6.1 million tons in the same period. In addition, the FAPRI also projected that China will shift from being a net exporter of 2.3 million tons of wheat in 2007/2008 to importing 1.4 million tons of wheat in 2017/2018. By contrast, the FAPRI expected China to increase its rice exports from 435 000 to 739 000 tons over the same period. Freeman et al. argue that the bulk of China's agricultural imports originate from a handful of countries. They claim that North and Latin America supply 76% of China's soybeans imports, 48% of wheat and 46% of maize, while Asia supplies most of China's non-grain foodstuffs and rubber imports. They claim that Africa accounts for only 4% of China's agricultural imports, with cotton accounting for 45% of total agricultural imports.

Freeman et al. (2008) hold that given the continuing surge in demand for agricultural commodities in China, Chinese policy makers are currently contemplating several policy options that will enable the country to better respond to the problems provoked by shortages of agricultural commodities. Freeman et al. (2008) hold that the first option envisaged by the Chinese government is to invest more resources in the agriculture sector. For instance, they argue that in 2008 the Chinese communist party central committee adopted a new set of reforms intended to improve the rural economy with the aim of doubling incomes by 2020. Freeman et al. (2008) argue that the second option considered by the Chinese government is the abolition of import costs – mainly by reducing imports tariffs on agriculture goods. The third option, according to them, is the restriction of exports for certain products such as rice in order to ensure sufficient internal supply. This policy has already taken the form of export bans and export taxes. Another policy option is the provision of agricultural aid to boost production abroad. Freeman et al. (2008) argue that the Chinese government believes that promoting agricultural production abroad through agricultural aid will boost the global agricultural supply and alleviate wider global supply problems troubling China. Finally, Freeman et al. (2008) claim that Chinese leaders are willing to push for an outward

agricultural policy to resolve China's shortages of agricultural commodities. They argue that agriculture features amongst the sectors that are eligible to receive government's support as part of China's outward investment policy.

Freeman et al. (2008) warn that regardless of the pertinence of policies adopted by the Chinese government, the shortage of farmland will continue to be a major factor determining the extent to which China will rely on agricultural imports. They argue that in the meantime is not clear which policy options China will employ to resolve its shortages of agricultural commodities. Nevertheless, they assert that given the inability of Chinese agriculture to produce all the commodities the country needs, it is very probable that China will continue relying on the agricultural markets of North and Latin America as well as those of Asian states to acquire additional commodities. In addition to that, they argue that Beijing might decide to embark on direct land acquisition in the more unstable and institutionally weak countries of Africa. They warn that such move in securing land ownership in Africa might have negative effects on the wellbeing of local communities and the ecosystem, if not well tailored to local realities.

Freeman et al. (2008) make a sound projection on the motivations that could inform the activities of Chinese agricultural enterprises in Africa in the medium term. However, such projections are not based on empirical research.

## **2.5 Methodologies applied**

Most scholars who have studied China-Africa relations have relied on secondary sources of data such as books, newspaper reports and scholarly articles in order to collect information on particular aspects of China-Africa relations. However, besides these secondary sources, academics have also depended on primary sources of data to collect relevant information, although this has occurred more seldom. The primary sources of data have consisted of field visits, interviews and archival documents. As far as Chinese engagements in African agriculture are concerned, few scholars have also relied on primary sources of data. This is with the notable exception of Brautigam, who has conducted fieldwork research in China and Africa – Sierra Leone, Tanzania and Zambia. As well as Hairong and Sautman, who have conducted interviews with managers of Chinese agricultural enterprises in Zambia.

## 2.6 Gap in the literature

The above literature review has focused on scholarship dealing with contemporary Chinese involvement in Africa's agriculture sector. As I have already mentioned, academics interested in this sector have focused their attention on the motivations informing the activities of Chinese agricultural enterprises operating in Africa. In the previous chapter I defined motivations in this study as the striving for the internal and external strategic goals that prompt Chinese agricultural enterprises to invest in Mozambique and the DRC. As I also stated in the previous chapter, understanding the motivations informing the activities of Chinese agricultural enterprises operating in Africa is important, since it is the nature of the motivations – coupled with the institutional contexts prevailing in Africa – that will determine the impact of the activities of Chinese agricultural enterprises on the welfare of rural and urban populations and the environment in Africa. Little empirical work has been conducted on the motivations informing the activities of Chinese agricultural enterprises in Africa. In Part of our knowledge is being shaped by superficial analyses or media reporting that tells only a part of the story. Therefore, this study aims to enhance our understanding of this issue by carrying out more primary and original research.

In the literature on Chinese involvement in African agriculture sector, scholars have made very few – and mostly vague – references to institutions and the way in which they affect the activities of Chinese agricultural enterprises. Sun (2011) broadly discusses the institutional context related to sub-Saharan Africa's agriculture sector and the way in which it has affected the activities of smallholders. However, she falls short of discussing how this institutional context has affected the activities of Chinese agricultural enterprises operating on the continent. For her part, Brautigam (2009) provides a more comprehensive analysis of the way in which the institutional context in Sierra Leone – in particular customary land tenure system and political squabbles – has affected the operations of the Chinese agricultural enterprise Complaint, which operates the Magbass sugar industrial complex since 2003. Brautigam (2009) shows how the customary land tenure system and local political rivalries played a role in undermining the ability of the Sierra Leonean government to enforce the contract it had signed with Complaint on the leasing of arable land to the Chinese enterprise. Generally, scholars studying Chinese involvement in Africa's agriculture sector have ignored issues related to institutional environments and the way in which they shape the entrepreneurship possibilities of Chinese agricultural enterprises. Therefore, as I argued in Chapter 1, besides the motivations underlying the activities of Chinese agricultural enterprises, this study will

also focus on institutional contexts – the physical and legal environments – especially the way in which they shape the behaviours and/or modes of entry of Chinese agricultural enterprises operating in Mozambique and the DRC.

## **CHAPTER THREE: THEORETICAL FRAMEWORKS**

### **3.1 Introduction**

Scholars of China-Africa relations have relied on concepts informed by theories located within the approaches of the international political economy to provide explanations of particular aspects of Sino-African relations. However, while academics have relied on such concepts, they have often refrained from using or developing theories or approaches to guide their studies of China-Africa relations. This is particularly true concerning the phenomenon of Chinese involvement in African agriculture. Therefore, the aim of this chapter is to introduce theoretical frameworks or approaches that will guide our understanding of the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC, as well as the way in which the institutional contexts in both countries affect their behaviours and/or modes of entry into local industries.

This study will rely on Dunning's eclectic paradigm in order to understand the motivations of Chinese agricultural enterprises operating in Mozambique and the DRC. The new institutional theory will be used to investigate the way in which institutional contexts in Mozambique and the DRC affect the behaviours and/or modes of entry of Chinese agricultural enterprises. This chapter has four parts. In the first, I provide a definition of the discipline of international political economy (IPE) and outline its main approaches. In the second, I offer a brief overview of the way in which the approaches of IPE have influenced the work of scholars in the literature on China-Africa relations. I subsequently highlight the limits of these approaches in addressing the two main research questions posited in this study. In the third, I introduce Dunning's eclectic paradigm and discuss its application in this study. In the last part, I introduce new institutional theory and argue for its relevance to this study.

### **3.2 International political economy (IPE)**

#### **3.2.1 Definition of IPE**

Before providing a definition of the discipline of IPE, it is perhaps necessary to begin by providing a definition of the field of political economy more generally. The discipline of political economy focuses on the fundamental interactions between politics and economics, or put differently, between the state and markets. Politics is the collective process – drawing

in competing interests and values of different actors – that determines the nature and distribution of power in a society (Balaam & Veseth, 1996; O'Brien & Williams, 2004; Gill & Law, 1988). Economics revolves around the decentralized and individualistic markets that allocate scarce resources to different users in order to create the maximum amount of wealth in a society (Balaam & Veseth, 1996; O'Brien & Williams, 2004; Gill & Law, 1988). Politics is generally associated with the pursuit of power in the interests of the collectivity, the national interest, while economics – in the context of a capitalist society – is related to private wealth creation.

Since politics centres on the allocation and distribution of power and economics focuses on the allocation and distribution of scarce resources, it then follows that politics structures economics, while economics influences politics. This is because those who possess the ability to command resources have power, while those who can command power have the ability to influence how and where resources are allocated (Balaam & Veseth, 1996; O'Brien & Williams, 2004; Leysens & Thompson, 2006).

However, while the state and markets are intertwined, they often do not share the same objectives or the same values. The objective of the state is to promote national interests – at least those of the dominant groups in society – through collective action. Therefore, the action of the state strongly embodies the value of equity or equality as it aims to advance the collective interest. On the other hand, the aim of markets is to promote the interests of the individuals who comprise them. In this way, markets embody the value of efficiency – needed in order to maximize wealth creation (Balaam & Veseth, 1996). Thus, the contradiction of objectives and values between the state and markets signifies the existence of a fundamental tension between the two entities. Therefore, political economy is the “field of study that analyzes the problems and questions arising from the parallel existence and dynamic interaction of ‘state’ and ‘market’ in the modern world” (Balaam & Veseth, 1996: 6).

The dynamic interactions between the state and markets take place in a globalised world in which the activities of several actors are not restricted to national boundaries. This is particularly the case of multinational corporations (MNCs), international organizations as well as the states themselves (Leysens & Thompson, 2006). In this way, states and markets are connected by global systems of production, exchange and distribution (Balaam & Veseth, 1996:13). Therefore, as opposed to political economy, which confines its interest to the



analysis of the fundamental tensions arising from the dynamic interactions between the state and markets, the field of IPE extends this assessment to look at the ways in which the states and markets of the world are connected to one another, and the arrangements that have evolved to connect them (Balaam & Veseth, 1996:13). Susan Strange puts this more eloquently:

[ IPE] concerns the social, political, and economic arrangements affecting the global systems of production, exchange, and the distribution and the mix of values reflected therein. Those arrangements are not divinely ordained, nor are they the fortuitous outcome of blind chance. Rather they are the result of human decisions taken in the context of man-made institutions and sets of self-set rules and norms (Strange, 1988:18).

In today's world the production, exchange and distribution of power and wealth between and within countries are the products of a network of bargains between and among states and markets. Strange (1988) claims that such a network of bargains is determined by two types of power: relational and structural power. She defines relational power as "the power of A to get B to do something that they would not otherwise do". Structural power "is the power to shape and determine the structures of the global political economy within which other states, their political institutions, their economic enterprises and (not least) their scientists and other professional people have to operate" (Strange, 1988:24-25). In other words, structural power may be described as the sets of formal and informal institutions that govern the behaviours of states and markets in the international political economy (Balaam & Veseth, 1996:13). Nowadays, structural power is increasingly more important than relational power. Strange (1988:26) argues that structural power is dispersed into four separate but related structures of power: security, production, finance and knowledge.

### **3.2.2 Main perspectives of IPE**

Scholars of IPE have relied on several approaches to guide their studies on the global system of production, exchange and distribution of power and wealth between and among states and markets and the institutions and values that inform them. While some scholars have relied on approaches to predict future events in the world, others have used theories to view and interpret the prevailing international political economy. As Balaam and Veseth (1996:15) put it: "the theories of IPE are not just abstract academic scribbling; they guide the thoughts and actions of men and women in all sorts of ways and so shape and condition the world". Thus,

in order to understand the way in which individuals, organizations and states think and behave within the spheres that define IPE, one needs to understand its theories. A word of caution is needed here. IPE approaches should not be considered as theories but rather as particular perspectives of looking at the world. In this sense, they are more theoretical frameworks or schools of thought than theories. This means that a particular approach of IPE can encompass several theories that share its vision of the world.

There are three main approaches that have been traditionally used to explain developments in the global international economy: mercantilism or economic nationalism; liberalism; and structuralism.

Mercantilism, also termed economic nationalism, or statism, is the oldest approach of IPE. Mercantilism is the equivalent in the field of IPE of the realist approach of mainstream international relations. Mercantilism, like realism, shares an anarchical view of the world. In this context, mercantilism states that each state strives for survival, at minimum, and universal domination, at maximum (Donnelly, 2005). Moreover, mercantilism points to an intimate connection between power and wealth, as the marginal acquisition of wealth generates more power (O'Brien & Williams, 2004). It holds that the state is the central instrument through which individuals can fulfil their goals of achieving security and prosperity. Thus, economic policy should be directed toward creating wealth and power to enhance the independence and national security of the state (Balaam & Veseth, 1996). Mercantilism further holds that even when states are animated by good intentions, the anarchical structure of the international system –and the uncertainty that it generates –prevent them from cooperating with their rivals (Donnelly, 2005; Gill & Law, 1988; O'Brien & Williams, 2004). Instead, states are driven into competitions with their adversaries, which constrain them into choices that lead to sub-optimal outcomes. In this manner, mercantilism holds that states aim for relative gains rather than absolute benefits, as each state seeks to gain more security or wealth than its rivals. In other words, states are satisfied with conflicts that leave them worse off as long as their rivals are left even worse off (Donnelly, 2005:39). Thus, mercantilism sees the pursuit of power and wealth as a zero-sum game – one state's gain is another state's loss. Furthermore, for mercantilism, the market and market relations are shaped by political power. Hence, economic activity is subordinated to political goals and objectives (O'Brien & Williams, 2004; Gill & Law, 1988; Keohane & Nye, 1989).

Historically, mercantilism referred to the policies implemented by European states from the 16<sup>th</sup> through to the 18<sup>th</sup> centuries, which sought to enhance their economic and military strength through protectionist trade policies – particularly with their newly acquired colonies. Nowadays, mercantilism or neo-mercantilism accounts for the various ways in which states attempt to promote the expansion of their firms or industries in order to promote their independence and national security (Balaam & Veseth, 1996). However, more states define their security interests in economic terms – the protection and promotion of their strategic industries (Balaam & Veseth, 1996; Gill & Law, 1988). States might seek to protect strategic industries against foreign rivals or attempt to export more than they import (O’Brien & Williams, 2004:18). Conversely, states might also seek to promote the outward expansion of strategic firms through a mixture of fiscal policies (Balaam & Veseth, 1996).

The liberal approach draws considerably from the field of economics, in particular from theories such as comparative advantage as well as supply and demand and the operation of markets (O’Brien & Williams, 2004; Burchill, 2005; Gill & Law, 1988). In contrast to mercantilism, liberalism has a more idealistic vision of the world. Liberals tend to minimize the role of force and coercion in human affairs and emphasize the ability of individuals to cooperate in order to achieve mutually beneficial gains. Liberals perceive interactions between individuals as a positive sum game – each party to the game wins (Burchill, 2005:65; Gill & Law, 1988:45). Therefore, liberalism places a greater premium on the freedom of the individual and the creation of wealth through the free operation of markets. Liberalism holds that individuals in pursuit of self-interests maximize the benefits of economic exchange for society (O’Brien & Williams, 2004). The maximization of wealth accruing to society occurs through the virtues of the market – such as Smith’s invisible hand or Havel’s essence of life. Moreover, Liberalism also holds that cooperation between individuals and nations reduces the potential for violent conflicts, as trade and foreign investments decrease the power of war-orientated elites and unite citizens of different nations in a common and peaceful enterprise (Burchill, 2005:63; Gill & Law, 1988:45). Finally, liberalism shows a distaste for the state, which is perceived as inhibiting the entrepreneurial spirit of individuals as well as the virtues of markets. For 18<sup>th</sup>-century liberals such as Smith and Ricardo the state should be confined to providing minimalist functions such as security and order (Balaam & Veseth, 1996). However, the 19<sup>th</sup>- century liberal Mill advocates a more robust role of the state in markets in order to reduce inequalities by providing social services

such as education to the poor. On a general note, there is no consensus among liberals on the acceptable threshold of the state's interference in markets.

In the domain of international political economy, liberalism promotes free trade between nations. In fact, liberals argue that free trade makes nations efficient and enables all the players to gain from cheaper products, increased production as well as scientific and technical innovations (Balaam & Veseth, 1996; Burchill, 2001; Gill & Law, 1988; Keohane & Nye, 1989). Today, the global economy is largely governed by liberal principles. The international trade regime is based upon the principle of free trade; capital circulates around the globe without great difficulty and the all forms of economic activity are increasingly liberalized (O'Brien & Williams, 2004).

The third theoretical approach that has dominated the field of IPE is the structuralist approach. The structuralist approach is also referred as the critical approach, since it aims to question the way in which the world is organized and eventually change it (O'Brien & Williams, 2004; Gill & Law, 1988). The structuralist approach is rooted in Marxist theories and attempts to address structural problems that are overlooked by both mercantilism and liberalism (O'Brien & Williams, 2004; Balaam & Veseth, 1996; Gill & Law, 1988). Although rooted in Marxist theories, the structuralist approach is evident in several theories such as Marxist theories, neo-Gramscian theories, feminist and environmental theories. All these theories have in common their propensity to explain the nature of oppression between and within countries in terms of structural factors (O'Brien & Williams, 2004). In this sense, Marxist theories attempt to explain the backward position of developing countries in the international political economy by the exploitation and dominance of their working classes by MNCs from rich countries. In the Marxist perspective the state is the representative of a class interests rather than the guarantor of the collective interest. In the same way, neo-Gramscian theories – which are nevertheless rooted in Marxism – stress the role of transnational classes and ideology in shaping the patterns of exploitation between and within countries (O'Brien & Williams, 2004: 24). In the domain of international political economy, the structuralist approach perceives the structures of the global economy as conflictual and hierarchical, and hence favourable to the interests of global capital, the West and the leading capitalist power, the United States (O'Brien & Williams, 2004:26). In this context, economic relations are viewed as zero-sum game – since the structure of the global economy is fundamentally conflictual. The structuralist approach holds that conflict within the sphere of international

political economy manifests itself within as well as between states, opposing dominant forces to subordinate classes (O'Brien & Williams, 2004:28).

### **3.3 IPE approaches and China-Africa relations**

#### **3.3.1 Approaches used in the China-Africa literature**

As I mentioned at the beginning of this chapter, scholars of China-Africa relations have relied on concepts informed by theories within IPE approaches in order to guide their analyses on Chinese forays into Africa. In some instances scholars have relied on concepts located in more than one IPE approach.

A first group of scholars has undertaken their studies of China-African relations through concepts informed by mercantilism. These scholars of China-Africa relations have perceived contemporary Chinese endeavours on the African continent as embodying a form of economic nationalism. They generally argue that the main objective of the current Chinese foray into Africa is to access natural resources – mainly oil – in order to sustain its economic growth. These scholars argue that China has devised an array of policies and instruments such as subsidies, soft credit, arms sales and diplomatic backing to gain access to African natural resources through its state-owned enterprises.

A second group of scholars has relied on concepts informed by the liberal approach to explain Chinese current engagements with Africa. These scholars have used various concepts of neoclassical economic theories – such as the product life-cycle theory and factor endowment theory – to account for Chinese trade with Africa as well as Chinese investments in Africa. On the issue of trade, these scholars generally hold that Chinese and African economies are complementary and that Chinese goods are cheaper than those produced on the African continent. Regarding investments, scholars generally argue that Chinese manufacturing companies are likely to move to Africa in the medium term because of rising production costs in China. They claim that Chinese investments in manufacturing have the potential to trigger positive effects for local economies in the form of employment and diffusion of technologies and skills.

A third cohort of scholars has made use of concepts informed by the structuralist approach to comprehend particular aspects of China-Africa relations. Scholars who have been influenced by these concepts can be divided into two groups. The first group consists of scholars who perceive China as the leader of developing countries or the global South. As such, these

scholars consider China and African countries as development partners in their attempt to empower the global south in order to create a new global order. Thus, these scholars have mostly explained current Chinese endeavours in Africa as an attempt to help African countries develop their economies. The second group of scholars is influenced by concepts derived from Gramscian theories, as indicated in the last chapter. These scholars suspect China of seeking to impose a new world order that is favourable to its economic interests and yet exploitative of the bulk of African people. They perceive the aggressive Chinese policies to access oil in Africa and its geopolitical alliances with authoritarian regimes – in the context of bilateral relations or through the gradual establishment of institutions – as part of a strategy to establish a new global order sympathetic to Chinese economic interests.

### **3.3.2 Limitations of the traditional approaches of IPE**

The above dominant perspectives of IPE are, unfortunately, not suitable for addressing the two main research questions posited in this study. In other words, the mercantilist, the liberal and structuralist perspectives are not appropriate to allow an in-depth investigation of the motivations underlying the activities of Chinese agricultural enterprises operating in Mozambique and the DRC, as well as the manner in which the institutional contexts in both countries affect their behaviour and/or modes of entry into local industries.

As noted in chapter 1, the motivations underlying the current activities of Chinese agricultural enterprises operating in Africa are somewhat complex, given the presence of various Chinese actors, such as Chinese government, state-owned agricultural enterprises and private agricultural enterprises –including family-scale enterprise. In this context, it appears that the current Chinese agricultural foray into Africa embodies at least two dimensions. First, it embodies a business or economic oriented dimension, given that the goal of Chinese agricultural enterprises, especially the private ones, is probably to get involved in profitable business ventures abroad. Indeed, in conformity with one of the main assumptions of microeconomics, managers of Chinese private enterprises should be perceived as rational individuals seeking to maximise their own utilities.

Second, the contemporary activities of Chinese agricultural enterprises in Africa also exemplify a political or strategic dimension, insofar as the activities of these enterprises, especially the state-owned enterprises, also mirror the interests and goals of the Chinese government. In such a context, it is quite likely that the motivations of Chinese agricultural enterprises operating in Mozambique and the DRC embody some strands of mercantilist,

liberal and even structuralist perspectives of IPE. Therefore, neither the realist-mercantilist nor the liberal, nor the structuralist approaches are suitable, in isolation, to provide comprehensive explanations on the motivations underlying the activities of Chinese agricultural enterprises operating in Mozambique and the DRC.

The behaviour of Chinese agricultural enterprises operating in Mozambique and the DRC is equally a complex phenomenon. As mentioned in the preceding chapters, the behaviour of Chinese agricultural enterprises in the two countries is likely to be constrained by the nature of institutional contexts –the legal and physical environments prevailing on the ground. Given that the institutional contexts are the outcome of specific institutions, understanding the former requires a comprehensive assessment of the latter. However, assessing institutions is a complex task in itself since institutions do not only encompass the formal rules of the game but also extend to the customs, values and traditions that have strong bearing on the formal rules. In this perspective, none of the traditional perspectives of IPE is suited to provide an in-depth investigation of the meso issues – institutions – and the manner in which they determine the institutional contexts in Mozambique and the DRC.

In light of the limits of the traditional perspectives of IPE to help address the two main research questions posited in this study, this dissertation will rely on two theoretical frameworks borrowed from other disciplines to answer its main research questions.

First, Dunning's eclectic paradigm will be used to understand the motivations underlying the activities of Chinese agricultural enterprises in Mozambique and the DRC. This paradigm, as it will be mentioned below, is not a theory but rather an envelope of several perspectives of international business. In addition, Dunning's eclectic paradigm, as it will be further discussed below, contains a contextual variable that enables scholars to capture specific features related to the political economy, industrial particularities and features of rival firms, in both countries of origins and recipient countries. In this context, Dunning's eclectic paradigm is pertinent for this study insofar as it will enable the integration of all the dimensions embodied in the motivations underlying the activities of Chinese agricultural enterprises operating in Mozambique and the DRC into one analytical framework.

Second, this study will rely on the new institutional theory to understand the manner in which the institutional contexts in Mozambique and the DRC shape the behaviour and/or the modes of entry of Chinese agricultural enterprises. The new institutional theory is useful for this study as it will allow for an extensive study of institutions and institutional contexts – by

focusing on both informal constraints and formal rules and the manner in which they derive specific institutional contexts in Mozambique and the DRC.

### **3.4 Dunning's eclectic paradigm**

Dunning's eclectic paradigm – also known as the OLI paradigm – is an empirical framework of international business that aims to explain the determinants of international production<sup>2</sup> (Dunning, 2000, 2001; Estrella, 2001). In another words, it seeks to explicate the motives and configurations of foreign direct investment (FDI) by multinational corporations (MNCs) (Dunning 2000, 2001). The OLI paradigm seeks to explain why, when and where MNCs embark on FDI (Dunning, 2001). The above paradigm was put forward for the first time in 1976 by John Dunning during the Nobel Symposium in Stockholm (Dunning, 2001; Estrella, 2001). The initial formulation of the paradigm was a response to the growing role of international production and multinational enterprises in the world economy (Estrella, 2001). The OLI paradigm also emerged as a result of the increasing numbers of competing theories in the disciplines of macroeconomic, microeconomic and misoeconomic studies, all attempting to explain the determinants of international production (Estrella, 2001). Dunning's eclectic paradigm should not be viewed as a theory but rather as an envelope or a synthesis of several theories in the field of international business such as internalization theory, industrial organization theories and locations theories (Dunning, 2000; Estrella, 2001; Cantwell & Narula, 2001). This model is therefore intended to provide an overall framework for empirical research that would draw the attention of the researcher to the most relevant theories for the problem at hand (Cantwell & Narula, 2001). Dunning's eclectic paradigm also provides an outline for a comparison between theories by establishing their points of contact and clarifying the relationship between different levels of analysis and the different questions theorists have addressed (Cantwell & Narula, 2001). The OLI paradigm does not assess which theories should be used or how different theories should best be synthesized, but rather provides a framework to facilitate such processes (Cantwell & Narula, 2001).

Dunning's eclectic paradigm posits that the motives and extent of the added-value activities of MNCs can only be fully understood if they are applied to a predefined context (Dunning, 2000, 2001). Thus, the OLI paradigm is context specific as the configuration and motives of FDI are likely to vary across firms, regions, countries or industries. It is precisely the holistic

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<sup>2</sup> According to Dunning, international production is production financed by FDI and undertaken by multinational corporations.



nature of the OLI paradigm and its contextual specificity that account for the strength of the model and its relevance in explaining the determinants of international production. It has therefore been the most influential framework for the empirical investigation of determinants of FDI over several decades (Dunning, 2000; Stoian & Filippaios, 2008; Cantwell & Narual, 2001).

Dunning (2001) asserts that at any given point in time the extent and pattern of international production will be determined by the configuration of three sets of forces.

- 1) The Ownership advantages (O) variable: these are the net advantages that firms of one nationality possess over those of another nationality in supplying a particular market or set of markets. Such advantages might arise as a result of firms' strategic ownership (i.e. superior managerial and/or technological capabilities) or of access to income-generating assets (i.e. capital). The ownership advantage tends to compensate for the additional costs associated with setting up and operating abroad, costs which are not faced by domestic enterprises (Stoian & Filippaios, 2008; Erdener & Shapiro, 2005).
- 2) The Locational advantages (L) variable: these are the specific advantages that accrue to firms for locating their value-adding activities outside their national boundaries (Dunning, 2001). Locational advantages are usually classified into four categories: natural resources advantages such as raw material and energy; economic environment advantages, such as market size and R&D facilities; cultural and social advantages, such as culture and language; and political power and legal environment advantages, such as political stability and the legal environment.
- 3) The Internalization advantages (I) variable: these are advantages that accrue to firms in the course of their foreign value-adding activities from their ability to exploit their ownership advantages by internalizing production inside the firm in order to avoid transactions costs associated with intermediary goods and intangible assets (i.e. knowledge) (Dunning, 2001; Erdener & Shapiro, 2005). In another words, internalization advantages are the benefits that accrue to firms from expanding their production abroad rather than to provide licenses to independent firms (Dunning, 2000; Itaki, 1991).

Dunning's eclectic paradigm holds that all three types of advantages, O, L and I, must be satisfied in order for MNCs to invest abroad. Dunning (2001) argues that the three variables that make up the OLI paradigm should not be seen as independent of one another. Instead, all three variables should be considered as mutually reinforcing; for instance, locational advantages can strengthen firms' ownership advantages and their ability and willingness to internalize markets, while the internalization advantages can consolidate the ownership advantages (Dunning, 2001).

As mentioned above, while the OLI variables offer a framework to explain the determinants of FDI, the precise scope and motivations of firms involved in foreign value-added activities will not only depend on the OLI parameters, but also on the local context and the manner in which firms respond to that context (Dunning, 2000). Therefore, the OLI paradigm also encompasses a contextual variable (i.e. control variable). The contextual variable relates to the political economy of the country or region of the investing firm and that of the country or region in which it is seeking to invest; the industry and the nature of the value-added activity in which firms are engaged; and the features of competitor firms, including their objectives and strategies in pursuing these objectives.

Regarding the contextual variable, Dunning (2000) identified four main categories of multinational corporations' activities. The classification of these activities into four big categories is designed in order to enable scholars to better understand the motives of FDI undertaken by MNCs. Thus, according to the above classification, activities of MNCs are divided into the following categories:

- 1) Those designed to satisfy a particular foreign market or set of foreign markets (market-seeking activities);
- 2) Those designed to gain access to natural resources such as minerals, agriculture products and unskilled labour (resource-seeking activities);
- 3) Those designed to reduce production and transaction costs by getting close to suppliers and customers, or by promoting efficient division of labour or specialization of an existing portfolio of foreign domestic assets by multinational corporations (i.e. efficiency seeking activities);

- 4) Those designed to protect or augment the existing O-specific advantages of the investing firms and/or to reduce those of their competitors (i.e. strategic asset activities)

Following criticism from scholars in the field of international business who pointed to the inability of Dunning's eclectic paradigm to account for the pattern of FDI that emerged during the last quarter of the 20<sup>th</sup> century, when multinational corporations from developed countries preferred to invest in other developed countries, the OLI paradigm has been extended. Dunning (2000, 2001) acknowledges that the last quarter of the 20<sup>th</sup> century witnessed significant changes in the global economy marked by the maturation of the knowledge-based economy; the deepening of financial and economic integration at the global level; the liberalization of cross-border markets; and finally the emergence of several new players on the global economic stage. Dunning (2000) and Cantwell and Narula (2001) further argue that the above structural changes in the global economy have led to the emergence of asset augmenting and alliance capitalism (i.e. the merging between or acquisitions of MNCs from different nationalities) as MNCs have sought to disperse their activities abroad in several regions or countries in order to tap into alternative streams of technological innovations and knowledge. The geographical dispersion of MNCs' activities has in turn led to the creation of industrial clusters of innovative technologies in various regions of developed countries. Dunning (2000) argues that as a result of these changes it is important to conduct not only a static but also – depending on the context – a dynamic analysis in order to provide a comprehensive explanation of the determinants of MNCs' activities. Dunning holds that most FDI in developed countries is made by efficiency- and strategic asset-seeking MNCs that intend to protect and augment their ownership advantages by taking advantage of the non-imitable set of location-bound created assets. Understanding the factors underpinning their activities requires a dynamic analysis. However, Dunning (2000) argues that a major part of FDI in developing countries is first-time investments, which are often made by market- and resource-seeking MNCs. For him, a static analysis is still relevant for these kinds of FDIs.

The introduction of dynamic analysis into the OLI paradigm has direct implications for the definition and configurations of the O, L and I advantages and the way in which these advantages interact with one another.

In a dynamic analysis the ownership advantage is not only understood as the firm-specific income-generating asset that allows it to engage in foreign production, but also as the asset resulting from the firm's ability to coordinate its initial assets with other assets across national boundaries (Dunning, 2001; Cantwell & Narula, 2001). In this kind of analysis, the locational advantage is perceived as the immobile or human-created benefits such as agglomerations of firms and sound institutions which enable foreign firms to access new strains of knowledge and practices in the host country (Dunning, 2000). Finally, in the dynamic analysis the internalization advantage is not only comprehended as the benefit accruing to the firm from internalizing production inside the firm, but also from the ability of the firm to organize the flow of knowledge within its different subsidiaries (Dunning, 2000).

The dynamic analysis thus changes the configuration of the OLI parameters in the sense that the interactions between the O, L and I variables become powerful. This is because over time each type of advantage is likely to influence the evolution of one or both of the other advantages. The interaction is particularly stronger between the O and L advantages (Cantwell & Narula, 2001; Dunning, 2001). For instance, the interaction between ownership and locational advantages tends over time to lead to an increase in both sets of advantages, since an MNC with a specific income-generating asset that decides to invest in a foreign country to take advantage of interactive learning and innovative technologies – deriving from the agglomeration of firms – will over time increase its ownership advantage while at the same time contributing to the enhancement of the technological capabilities of local firms through the same process of interactive learning (Cantwell & Narula, 2001). However, in some cases the ownership advantage might lead to a reduction of locational advantage in the home country. This occurs when an MNC invests in a country with weak technological capacity and therefore drives out local competition and reduces local technological capacity further (Cantwell & Narula, 2001).

I mentioned above that the revision of Dunning's eclectic paradigm was the consequence of criticisms of this paradigm. The criticisms have been related to the configuration of the OLI paradigm, its predictive power as well as linkages among its main determinants.

This discussion acknowledges four major criticisms directed towards Dunning's eclectic paradigm. The first is of the predictive power of the paradigm. Itaki (1991) and other scholars (Dunning, 2001) argue that the explanatory variables identified by the paradigm are so numerous that it becomes difficult to determine which variables play a more critical role in

providing the explanation for the determinants of FDI. Itaki (1991) considers the OLI paradigm as a shopping list of variables since “Theorists, empiricists, and historians can freely invent new determinants to describe a particular case of FDI as long as they fall under one of the three headings”. For Itaki, a good theory needs to contain few determinants in order to explain an economic phenomenon adequately. Therefore, for these scholars Dunning’s eclectic paradigm is not a meaningful instrument for explaining the determinants of FDI (Itaki, 1991; Dunning, 2011).

The predictive power of the OLI paradigm has also been criticised by Macharzina and Engelhard (1991). Macharzina and Engelhard hold that not only Dunning’s eclectic paradigm contains numerous variables but foremost, the selection of these variables is arbitrary. They claim that while most of the variables contained in the OLI paradigm are relevant from a normative point of view, this is not necessarily the case from an empirical one, since little empirical research has been conducted to confirm the relevance of those variables. In this perspective, Macharzina and Engelhard (1991:28) conclude that “the eclectic paradigm remains an abstract analytical framework “in search of a theory”, not a material theory which would allow for drawing empirically substantiated conclusions.

The second main criticism has revolved around the interaction between the ownership and localization advantages. Itaki (1991) defines ownership advantage as “an economic asset, the value of which is equal to the capitalized value of expected future super-normal profit (i.e. revenue net cost)”. In another word, he defines ownership advantage as the super-normal profit obtained after paying for all production and transaction costs. For Itaki, Dunning’s eclectic paradigm confuses the ownership advantage in “engineering terms” with that in “economic terms”. He claims that ownership advantage cannot be measured in engineering terms – productivity innovations or quality innovations – but only in economic terms. As for the locational advantage, Itaki argues that the price structure of a location must be assessed when identifying an advantage linked to that location. In another word, he claims that locational advantage is a function of a country’s input prices. Thus, Itaki holds that the ownership advantage of a firm in a foreign country is partly determined by that firm’s specific assets as well as by the host country’s costs efficiency, since whether a technology turns out to be advantageous or disadvantageous depends both on the firm’s input coefficients and the host country’s input prices. Itaki (1991) therefore argues that ownership and locational advantages cannot be measured nor identified separately.

Another main criticism of the OLI paradigm concerns the relationship between ownership and internalization advantages. Again, Itaki argues that ownership and internalization advantages are not independent. Itaki (1991) claims that if arms-length markets are inefficient and incur high transaction costs, firms would decide to internalize and/or integrate production inside their organizations in order to minimize those transaction costs. He identifies three types of transactions costs: those associated with government interventions; those associated with imperfect or oligopolistic competition; and those inherent in commodity transactions per se. Itaki (1991) holds that by internalizing and integrating markets such as production, research and development (R&D), marketing and management, the firm will generate advantages over other firms. Thus, Itaki argues that the advantage generated by firms as a result of internalization and integration of markets is the ownership advantage. Moreover, he argues that the above process is dynamic as internalization and integration generate the ownership advantage, which in turn promotes further internalization and integration. In addition to that, Itaki (1991) also claims that ownership advantage includes the cost of its acquisition. This is because after paying for all production costs, the ownership advantage that remains in the firm simply results from the firm's organizational power of internalization and integration. Thus, Itaki (1991) claims that the ownership advantage is similar to the internalization advantage, contrary to what is claimed in the OLI paradigm.

Finally, the last major criticism of the OLI paradigm focuses on the absence of integration among the main determinants of this paradigm. Macharzina and Engelhard (1991) argue that the main determinants of Dunning's eclectic paradigm –the ownership, locational, internalisation advantages, plus the contextual variable –are not sufficiently integrated in order to establish causal connections that will cross-relate variables in order to provide more understanding about the types and problems of international production. Macharzina and Engelhard (1991) claim that the integration of the main determinants of the OLI paradigm is especially important given the pretention by Dunning to establish links between determinants that belong to different levels of analysis without providing any mediating mechanism. Indeed, they hold that ownership advantages are located within the firm's level of analysis, while the contextual variable is situated within the country's level. According to them, linking these two levels of analysis requires the establishment of causal mechanisms and not merely statistical causal effects.

Since its introduction in 1976 Dunning's eclectic paradigm has been applied by several scholars in the field of international business to explain the determinants of FDI undertaken

by MNCs of specific countries to determined locations. We are going to mention a few such studies here.

Stoian and Filippaios (2008) focus on the determinants of Greek firms' investments in Central and Eastern and South-Eastern European Countries (CESEE). They rely on Dunning's eclectic paradigm in order to understand the determinants of Greek firms' investments in CESEE countries. They aim particularly to test the impact of ownership and locational advantages on the decisions by Greek's investors to engage in value-added activities in CESEE countries. Regarding methodology, Stoian and Filippaios (2008) rely on statistical binary logistic regressions. They include in their sample 177 manufacturing firms – both domestic enterprises and foreign subsidiaries of MNCs – listed on the Athens Stock Exchange (ASE). They investigate these firms' investments abroad over a period of six years (1994-1999), based on the official daily reports of ASE – which contains all the information on the activities of all firms listed – as well as the annual reports of the firms.

Stoian and Filippaios (2008) find that Greek investments in CESEE countries are mainly determined by similarities between the Greek and the CESEE economies as well as by the openness of the latter economies. In addition to that, they argue that Greek companies make use of their ownership advantages – in particular their superior human and financial resources – to invest in CESEE countries in order to reduce risks associated with transaction costs.

Dunning, Suhk Pak and Beldona (2007) focus their analysis on the determinants of different modes of entry of international franchisors into overseas markets. Dunning et al. (2007) identify two types of entry modes use by international franchisors to operate in foreign markets: contractual entry mode (contractual franchising) and equity entry mode. These scholars hold that contractual franchising is a mode of entry through which international franchisors transfer their rights to local franchisees by means of contracts. Moreover, the same scholars argue that equity entry modes take several forms such as joint ventures and subsidiaries. Dunning et al. acknowledge that the majority of international franchisors chose contractual franchising as their preferred mode of entry into overseas markets. This is because contractual franchising allows them to reduce risks and rely on the resources, capabilities and entrepreneurial spirit of local franchisees. However, despite this reality, a small number of international franchisors still rely on an equity mode of entry to penetrate into foreign markets and Dunning et al. endeavour to understand the reason for this.

They hypothesize that the precise configuration of the foreign operations of international franchisors will depend on the interactions of the ownership, locational and internalization advantages. They particularly assume that the equity mode of entry might be the product of interactions between ownership and locational advantages in the framework of a dynamic analysis, since the motives of international franchisors that own foreign outlets might be to upgrade their ownership advantage. Nevertheless, Dunning et al. claim that international franchisors opting for contractual franchising to enter into foreign markets are primarily interested in gaining market share. Thus, a static analysis is suitable for contractual franchising .

For their methodology Dunning et al. conduct four binary logistic regressions. They select a sample of 160 US firms from a list of 200 international franchisors published in the *Entrepreneur International* magazine. They also select a sample of 28 UK firms from a list of 30 UK international franchisors published by the British Franchise Association (BFA). In total, they examine a sample of 188 firms. After analysing their results, Dunning et al. conclude that US international franchisors prefer to enter foreign markets via a non-equity contract. This is because US firms perceive the franchising business as a means to create franchising networks. As a corollary to this, Dunning et al. claim that US firms tend to establish franchisees in foreign markets where local applicants demonstrate competency. As for UK firms, Dunning et al. argue that they prefer the equity strategy of ownership to enter foreign markets. This is because managers of UK firms strongly perceive foreign locations as significant sources of learning. Thus, Dunning et al. claim that the primary motive of UK international franchisors in overseas markets is to enhance competitiveness.

Erdener and Shapiro (2005) focus their analysis on the determinants of Chinese diaspora family firms' investments in mainland China. They argue that approximately 60 million culturally identified Chinese people live in Southeast Asia where they have established enclaves in countries other than China. They hold that while these Chinese ethnic groups comprise a small minority of not more than 10 per cent in all of the Southeast Asian countries, they nevertheless play a significant role in the economies of the region as they own the major portion of its corporate wealth. Erdener and Shapiro (2005) hold that Chinese ethnic minorities tend to organize themselves into modern family enterprises.

Erdener and Shapiro (2005) rely on Dunning's eclectic paradigm to understand the determinants of Chinese family enterprises' (CFEs) investments in mainland China. They



hypothesize that the precise configuration of these investments will depend on the interactions of their ownership, locational and internalization advantages. As for methodology, Erdener and Shapiro rely on secondary data such as articles, books and newspapers. They conclude that CFEs possess distinctive ownership, locational and internalization advantages – compared to Western MNCs – which enable them to invest successfully in China. The ownership advantages are quite unique and relate to particular skills such as deal making, rational contracting, operational control, risk management and firm size. The locational advantages are contingent to ownership advantages and include opacity in government regulations and high levels of corruption – which is quiet rampant in China. Concerning the internalization advantages, Erdener and Shapiro argue that because of its smaller size and superior control ability, the CFE is able to quickly mobilize coordinated action and resources, thereby gaining the advantages of timing and flexibility vis-à-vis its competitors.

As I mentioned earlier in this chapter, this study will rely on Dunning's eclectic paradigm to enhance our understanding on the motivations informing the activities of Chinese agricultural enterprises in Mozambique and the DRC. As such, this study holds that Chinese firms embarking or seeking to embark on agricultural enterprises in Mozambique and the DRC should enjoy ownership, locational and internalization advantages. The ownership advantages should consist of specific assets such as technology, managerial skills and capital. The locational advantages should be natural resources and market availability or labour costs. Finally, the internalisation advantage will be defined as the ability of Chinese agricultural enterprises to exploit their ownership advantages abroad and will therefore be ignored or considered as given. The exclusion of the internalisation advantage is also due to the fact that this study will adopt a static analysis of Chinese agricultural investments in Mozambique and the DRC. This is because Chinese agricultural investments occur in developing countries that have low stocks of knowledge and technology.

Furthermore, this study will also take into account the contexts in China and in Mozambique and the DRC when assessing the motivations informing the activities of Chinese agricultural enterprises operating in these two countries. Two contextual variables are relevant in this case. The first variable pertains to the nature of the political economy of China – especially as it relates to the role of the Chinese government in promoting the outward expansion of Chinese firms. The second variable will relate to the provision of agricultural aid through research and training by Chinese agricultural enterprises running the aid projects in

Mozambique and the DRC. In this way, the ownership, locational and internalization advantages will capture concepts informed by the liberal approach of IPE. Equally, the contextual variable related to the political economy of China will reflect concepts informed by mercantilism, while the provision of agricultural aid through the aid projects will mirror concepts informed by the structuralist approach. Ultimately, this study holds that the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC will be determined by the combination of their ownership and locational advantages as well as by the nature of the two contextual variables identified above.

### **3.5 New institutional theory**

In the previous chapter I argued that scholars interested in Chinese engagements in African agriculture have restricted their focus to the motivations of Chinese actors and have paid little, if any, attention to the manner in which local institutions affect the operations of Chinese agricultural enterprises. Investigating the way in which institutional contexts in Mozambique and the DRC affect the behaviour and/or modes of entry of Chinese agricultural enterprises into local industries adds a new perspective to the discipline of China-Africa relations. In doing so, this study will rely on new institutional theory – developed by Douglass North and to a lesser extent by Oliver Williamson – to understand the way in which institutional contexts affect the behaviour and/or modes of entry of Chinese agricultural enterprises. New institutional theory is a theory of microeconomics and for this reason it is also called the new institutional economics.

New institutional theory provides an analytical framework that seeks to understand the process through which institutions emerge and evolve over time (North, 1990, 1994, Williamson, 2000). New institutional theory starts from the premise that institutions form the incentive structure of a society and are the fundamental determinants of economic performance and levels of economic growth (North, 1990, 1994; Williamson, 2000). Therefore, it would be more appropriate to posit that new institutional theory is specifically interested in the evolution of economies through time; new institutional economics thus provides an analytical framework of economic dynamics. North (1994) argues that a theory of economic dynamics is not only crucial for understanding the way economies evolve through time but also for the field of economic development. He claims that the neoclassical theory of microeconomics is an inappropriate tool to analyse and prescribe policies that will

induce development. Nevertheless, North (1994) holds that new institutional theory does not yet provide a theory of economic dynamics comparable to the Walrasian general equilibrium theory. He argues that new institutional theory rather provides the “initial scaffolding of an analytical framework capable of increasing our understanding of the historical evolution of economies and a necessary crude guide to policy in the ongoing task of improving the performance of economies”. In a recent work, North (2005:126) argues that it is unlikely that any theory of economic dynamic could possibly be developed –as it would lack precision in explanation and prediction. However, he holds that specifying why such a general theory is unlikely should prepare us for a more limited but manageable approach to deal with economic dynamic.

North (1990:3) defines institutions as “the humanly devised constraints that structure human interaction”. North (1990, 1994) and Williamson (2000) claim that institutions are made of formal rules (e.g. rules, laws, constitutions), informal constraints (e.g. norms of behaviour, conventions, self-imposed codes of conduct) and their enforcement mechanisms. Williamson (2000) and North (1990) argue that informal constraints, formal institutions and their enforcement characteristics are interconnected, and hence a change in one component leads to variations in the others. North (1990: 6) claims that institutional change is therefore a complicated process because “the changes at the margin can be a consequence of changes in rules, in informal constraints and in kinds and effectiveness of enforcement”. Williamson (2000) claims that informal institutions are the most embedded in social structures and therefore, change very slowly – often over centuries or millennia. He further argues that formal institutions can change progressively as a result of revolution or occupation. However, he claims that such breakdowns are exceptional in history and even when they occur, “the response to such opportunities is often one of failure”. Williamson (2000) and North (1990, 2005) maintain that major changes in the rules of the game occur more slowly, over decades or centuries. In this way, North and Williamson hold that informal institutions – because of their strong embeddedness in social structures – have a pervasive effect on the long-term character of economies. Therefore, they conclude that institutions usually change incrementally rather than in a discontinuous fashion.

The origin of new institutional theory can be traced to the late 1960s and the pioneering work of North (Nye, 2008). It was precisely because of the inability of the neoclassical theory of microeconomics to provide a sound analytical framework for development economics that North ventured into the development of the new institutional theory (Nye, 2008; Poskow,

2008). North, Williamson and other scholars of new institutional theory have criticized the neoclassical theory for ignoring the role of institutions in development, or at best for taking them for granted (North, 1990, 1994; Williamson, 2000; Poskow, 2008). As a matter of fact, neoclassical theorists have traditionally tended to explain the disparity between rich and poor countries through their unequal access to capital and technology (Nye, 2008).

North's theory of institutions is based on two major modifications of the traditional neoclassical theory of microeconomics. First, North (1990, 2005) revisits the neoclassical conception of human behaviours. In neoclassical theory, human behaviour is conceived as rational, since individuals are assumed to make choices that maximize their welfare at any given time. While North (1990) does not question the wealth-maximizing behaviour described in the neoclassical theory, he nevertheless holds that human behaviour tends to be more complex than the rational behaviour advanced in neoclassical theory. He argues that in many cases choices made by individuals are shaped by subjective factors such as altruism, ideologies and self-imposed constraints. As a matter of fact, North and Denzau (1994) argue that individuals are able to make rational choices that maximize their utilities only when faced with simple, frequent and well-informed choices. However, they hold that individuals are likely to make sub-optimal choices when the payoffs to choices are clustered, random and difficult. North and Denzau (1994) as well as North (1994) claim that in the context of complex, random and clustered choices, the ability of individuals to make choices that increase or maximize their utilities depends on their cognitive knowledge – embodied in their mental models. They define these mental models as “the internal representations that individual cognitive systems create to interpret the environment”. The mental models consist of the amalgamation of individuals' personal knowledge; local-based knowledge –acquired from the physical environment – as well as knowledge from past generations transmitted through the socio-cultural and linguistic environment (North, 2005). North (1994) and North and Denzau (1994) identify a strong connection between mental models and institutions, since the shared mental models that groups of individuals in a society possess give rise to ideologies. In turn, ideologies – or the shared framework of mental models – affect the development of institutions – the external mechanisms individuals create to structure and order the environment. They argue that limited cognitive knowledge can compel individuals to make sub-optimal choices that reduce their welfare for a sustained period of time. In this perspective, North (1994, 2005) introduces the concept of path dependence. He holds that path dependence could mean nothing more than choices in the present are constrained by

heritage of institutions accumulated from the past. More importantly, over time, the institutions that have accumulated give rise to organisations whose survival depend on the perpetuation of those institutions. Hence, those organisations deploy resources to prevent any changes that threaten their survival (North, 2005:51). North (1994, 2005) claims that path dependence mostly explains why, historically and contemporarily, some societies maintain institutions that perform badly for long periods of time. Thus, North (1994, 2005), North and Denzau (1994) hold that mental models, or to put it bluntly, belief systems, are the most significant elements in determining the performance of economies at all time.

Second, North (1990, 1994, 2005) disputes the neoclassical assumption of zero transaction costs. He argues that the neoclassical theory holds that transaction costs do not exist in efficient markets, because even when the actors might initially have diverse and erroneous models, the informational feedback process and arbitrage actors correct the initial incorrect models, punish deviant behaviour, and lead surviving players to correct models. In addition to that, even when transaction costs do exist, neoclassical theory assumes that the consequent institutions of the market will be designed to induce the actors to acquire the essential information that will lead them to correct models. However, North (1990, 1994,) argues that in the real world transaction costs are prevalent in economic markets and especially in political markets. According to North (1990), the existence of transaction costs in economic markets is attributable to information and measurement costs of the attributes of goods and services as well as to the performance of agents and the costs of enforcement. However, North (1990, 1994) acknowledges that information and measurement costs have been reduced in economic markets as the result of the standardization and codification of goods and services. Still, he argues that transaction costs still exist in economic markets because transaction costs are high in political markets and it is precisely the polity that defines and enforces property rights and contracts. Therefore, North (1990, 1994) and Williamson (1973) argue that in a world of impersonal and complex exchanges the prevalence of transactions costs creates uncertainties on the part of the actors involved in those exchanges. According to them, it is precisely in order to reduce the amount of uncertainty that institutions – formal rules and mechanisms of enforcement – are created. However, as stated before, the establishment of appropriate institutions depends on the dominant ideologies prevailing in a society – as particular ideologies can prevent or delay the establishment of desirable institutions. North (1990:54) holds that it is the inability of societies to create solid institutions – especially to develop low-cost enforcement of contracts – that has been the

most important source of historical stagnation as well as of the current level of underdevelopment in the third world.

As I indicated in the beginning of this section, the new institutional theory is primarily interested in the evolution of economies through time. As I mentioned in chapter 1 of this study, North differentiates institutions from organisations. Institutions are the rules of the game, organisations are the players. Yet, it is the interaction between the two that shape institutional change (North, 2005:59). North (1990, 2005) holds that organisations comprise of groups of individuals that are bound together by some common objectives, such as firms, trade unions, political parties, churches and clubs. In addition to that, North argues that the kinds of organisations that emerge in a society depend on the opportunities provided by the institutional structure –as well as those provided by the stock of specialised knowledge and resources. Most importantly, he claims that it is the entrepreneurs of organisations that induce institutional change as they face ubiquitous competition derived from an economic world of scarcity. Indeed, North (2005:60) stresses that as entrepreneurs of organisations perceive new or altered opportunities, they induce institutional change by either changing informal rules or by altering the rules –either directly by political bodies or indirectly by pressurising political bodies. However, North (2005) argues that there are no guarantees that organisations will successful pressurised political bodies into altering the rules in their favour. There are two main reasons for that. First, North (2005) claims that responses from political bodies to the demands and pressures from organisations will depend on political rulers' belief systems, which ultimately inform their perceptions. Second, North (2005) argues that since the political process aims to reconcile and channelled conflicting societal interests into coherent policy processes, the ability of particular organisations to influence political bodies in altering formal laws will also depend on their bargaining strength relative to political rulers.

As a matter of evidence, North (2005) holds that in medieval Western Europe, it was foremost the belief systems combined with the bargaining strength of rulers vis-a-vis emerging commercial interests, that determined the extent and direction of institutional change in states such as England, the Netherland, Spain and France. North (2005:137) argues that all Western European states initially shared a similar belief structure rooted in the Greco-Roman civilisation. However, in the centuries following the collapse of the Roman Empire, this common belief system evolved differently in various parts of Europe –as each state or geographical area encountered different experiences. North (2005) holds that in countries such as England and the Netherland, the belief structure evolved over time and integrated

new values such as freedom of religion – especially in the case of the Netherland – equality among all men and partial democracy. He argues that these values played a significant role in the emergence of a representative form of government and effective protection of property rights in these two countries. In Spain and France, political rulers centralised political powers in their hands while preserving the medieval hierarchical order that violated the basic principle of equality among all men. Consequently, North (2005) claims that in countries such as Spain and, to a lesser extent, France, political freedom and private property were undermined by absolutist monarchs.

In medieval Europe, as competition among European states for territorial aggrandizement increased, political rulers became in dire need of more revenues in order to wage increasingly expensive wars against rival European states. As a result, political rulers turned to emerging commercial interests to raise revenues, and hence, the bargaining strength between the former and latter became important in influencing the direction of institutional change in Western Europe. North (2005:142) argues that in countries such as England and the Netherland, commercial interests, mainly those organised around the vibrant export industries, were able to successfully trade rights such as representative bodies, control over tax rates in return for stable and sufficient revenue to the rulers. In contrast, in Spain and France, North (2005: 144) holds that political rulers had the upper hands over their constituencies, and therefore were able to raise revenues by arbitrarily raising taxes and confiscating properties. Therefore, North (2005) argues that the belief system centred on freedom, equality and democracy together with the superior bargaining strength of commercial interests vis-a-vis rulers enabled England and the Netherland to achieve sustainable economic growth and prosperity for several centuries. On the contrary, he argues that the belief system axed on autocracy and inequality combined with the superior bargaining strength of political rulers over their constituencies, condemned Spain and to a lesser extent, France, to stagnation and instability that lasted, in the case of Spain, until the demise of Franco in the twentieth century.

North's study of institutions has primarily been conducted at a macro or societal- level, since his main interests has been to understand the manner in which the incremental change of beliefs affects the formal rules, the efficient operations of markets and ultimately the level of economic growth and standards of living of populations – captured in the variations of per capita incomes, life expectancy, and literacy rates.

In contrast to North, other scholars interested in new the institutional theory, in particular Williamson, have conducted their analyses at a micro-level, as their primary concern has been to understand the manner in which institutions – particularly formal rules – affect the efficient operations of markets and how this impact on the governance structures of firms. Williamson (1973, 2000), Grossman and Hart (1986) and Joskow (2008) aim to understand the reasons why firms adopt specific governance structures. Williamson (1973) defines governance structures as mechanisms taken by firms to minimise uncertainties that may emerge as a result of disputes in the course of contracts or at their renewals. Williamson (2000) identifies several governance structures available to firms ranging from autonomous contracting to vertical integration. Williamson (1973, 1975, cited in Lowndes, 1996 & Granovetter, 1985), Grossman and Hart (1986) and Joskow (2008) ask under what conditions economic functions are performed within the boundaries of a firm, rather than through market processes that cross the firm boundaries. In other words, these scholars enquire under what conditions a firm will rely on the market or the hierarchy to produce and exchange goods and services. Williamson (2000) argues that ideally, autonomous contracting is often the best governance structure both in law and economics, as it allows firms to improve performance and minimize their costs. However, Williamson (1973, 2000) and Joskow (2008) claim that in any institutional structure, firms will adopt governance structures that enable them to minimize transaction costs. In particular, these scholars argue that firms will tend to integrate their transactions within firms when faced with high transaction costs. As mentioned before, transaction costs are the costs associated with accessing information, negotiating and enforcing contracts. Williamson (1973, 1975, cited in Granovetter, 1985) holds that firms encounter high transaction costs in two particular situations: when they are faced with bounded rationality and opportunism. Williamson (1973, 1975, cited in Granovetter, 1985) defines bounded rationality – in the continuity of the definition provided by Coase in his article on the nature of the firm – as the inability of economic agents to properly anticipate the complex chains of contingencies that are typical to long-term contracts. Equally, Williamson (1973, 1975, cited in Granovetter, 1985) defines opportunism as the rational pursuit by economic agents of their own interests, by all means possible, including guile and deceit. Williamson (1973, 1975, cited in Granovetter, 1985) argues that the problem associated with bounded rationality is reduced when transactions are internalised within firms, as it becomes unnecessary to plan for all contingencies when transactions are conducted inside firms. Equally, Williamson (1973, 1975, cited in Granovetter, 1985) holds that when transactions are internalised within firms, authority relations and greater



identification with internal transaction partners mitigate the problem associated with opportunism.

Therefore, Williamson (1973, 1975, cited in Lowndes, 1996 & Granovetter, 1985) holds that firms will tend to integrate transactions within firms for transactions associated with the problems of bounded rationality and opportunism. Thus, transactions that are uncertain in outcome, recur frequently and require “transaction specific investments” are more likely to take place within firms. On the contrary, Williamson (1973, 1975, cited in Lowndes, 1996 & Granovetter, 1985) argues that transactions in the open market remain the most efficient institutional arrangement for transactions that are straightforward, non-repetitive and require no transaction specific investments – such as one-off purchase of standard equipment.

The new institutional theory has attracted very few criticisms from the scholarly community. This study has identified only one relevant criticism of this theory. As mentioned above, Williamson and other scholars hold that the choice of governance structures firms make depend on transaction costs. Scholars such as Granovetter (1985) and Lowndes (1996) refute this claim. These scholars define the new institutional theory as ahistorical and abstract. Granovetter (1985) criticises Williamson’s categorisation of different forms of governance structures, arguing that both market and hierarchy are embedded in prevailing social relations. For Granovetter (1985), transaction costs do not determine the governance structures of firms. It is rather personal relations and network of relations linking economic agents both within and between firms that do determine the governance structures of firms. Thus, Granovetter (1985) argues that transaction costs, defined as disorder and malfeasance, can be widespread both between as well as within firms. For him, it is the nature of personal relations and network of relations that determine the level of transaction costs within and between firms. Granovetter (1985) holds that personal relations and network of relations are susceptible to generate more trust and cooperation between economic agents. For instance, he claims that managers that maintain close and personal relations with other managers outside business circles –such as country clubs –are able to establish strong links that reduce distrust and uncertainties. Thus, Granovetter (1985) holds that interlocking managers are in a position to facilitate the exchange of goods and services between their respective firms, on a repetitive basis, at low transaction costs.

Lowndes (1996) on his side, points to the role of power and politics in influencing the choice of governance structures that firms make. He argues that different arrangements of hierarchy

and market relations become institutionalised and relatively successful in different contexts. For him, efficient firms might look quite different in Japan and Britain, as they are embedded in different patterns of social relations, which relate to the distinctive character of the state, financial system, education and training, family life and cultural practices.

Despite the fact that there have been few criticisms of the new institutional theory among the scholarly community, this study has identified a major limitation of North's analytical framework. As discussed above, the new institutional theory was developed by North in the course of analysing the process of economic change of Western European states from the medieval to the modern era. From North's analysis, it is evident that the process of economic change in individual European states was spearheaded by the evolution of belief structures and political institutions –shaped by competitions between European states and the emergence of commercial interests. Indeed, for North (2005:100) European states such as England and the Netherland managed to develop their economies over time because they were able to shift from a status-based and coercive society that relies on mutual control, respect of ranks, and strictly enforced codes of generosity, to an open society where free entry and exit, democratic governance, competence criteria and socio-economic differentiation are allowed to operate. Thus, the new institutional theory appears to be an analytical framework that provides explanations for the evolution of Western European economies through time rather than that of the world economies over time.

Indeed, many countries in East and South East Asia managed to witness impressive levels of economic growth and prosperity for a sustained period of time despite the fact that they possessed different belief structures and political institutions from those identified by North above. This was the case of countries such as Japan in the 1950s and 1960s, South Korea and Taiwan in the 1970s, and currently, that of China, Indonesia and Vietnam.

Sub-Saharan Africa countries also have different belief structures and political institutions to those of Western European states – as the result of the specific historicity of their societies. In this perspective, the new institutional theory might not be appropriate to study the process of economic change in sub-Saharan Africa. Nevertheless, this does not mean that the new institutional theory should be discarded altogether. This study holds the view that the new institutional theory should be modified, rather than discarded; by incorporating in it key concepts of the literature on African states. Such integration between the new institutional theory and African studies would pave the way for more extensive understanding of the

nature and operations of political institutions in sub-Saharan Africa. Understanding the nature and operations of political institutions, as well as the belief structures that underpin them, will enable researchers to assess the possible avenues for improving the efficiency of political institutions – based on the historicity of African societies. North acknowledges the importance of enhancing our understanding of the nature and operations of political institutions in sub-Saharan Africa. He argues that:

The previous paragraphs have schematically outlines the political framework of representative government, a subject that has been explored at length by political scientists. It is more difficult to model the political process in third world polities where corruption, bribery, and Mafia like extortion tend to be the order of the day. Modeling the actual structure as it in fact works in such polities has increasingly occupied the attention of political economists in recent years, but we are some distance from having good working models. The enormous diversity of performance of polities makes the subject a crucial one for improving our understanding of economic change (North, 2005:55).

Unsurprisingly, the new institutional theory has been used by scholars to study the process of economic development of nations as well as particular governance structures adopted by firms to deal with the problem associated with transaction costs.

Fafchamps (2004) assesses the contractual practices of African manufacturing firms in Ghana, Kenya and in Zimbabwe by relying on new institutional theory. He aims to examine whether economic agents use long-term relationships to make contractual performance contingent upon external shocks. He relies on firm surveys and in-depth interviews. He conducted a survey on 58 firms in each country. Fafchamps (2004) found that clients and suppliers in the manufacturing sector in Ghana, Kenya and in Zimbabwe often fail to comply with their contractual arrangements. He argues that this low level of compliance takes the form of non-payment and late payments of goods and services provided by suppliers or enterprises as well as late deliveries of orders from customers. However, he argues that most enterprises and suppliers demonstrate considerable flexibility with respect to the inability of their customers and suppliers to comply fully with their contractual arrangements. Fafchamps (2004) holds that such flexibility is a consequence of the realization by all players of the vulnerability and underdevelopment of their respective economies and populations. For instance, he argues that in much of Africa final consumers are mostly poor and therefore

vulnerable to economic shocks, while markets for raw materials, intermediate goods, specialized services and capital equipment are thin or non-existent. He contends that the flexibility displayed by players is aimed at sharing risks between partners or business associates. However, Fafchamps argues that in some instances, some customers and suppliers are tempted to take advantage of the prevailing culture of non-compliance to contractual arrangements to default temporarily or completely on payments.

In instances of such opportunistic behaviour, Fafchamps (2004) notes that in Ghana and Kenya – where the legal system is costly and inefficient – enterprises seldom go to court and instead prefer to resolve their difference through harassment. However, he claims that such recourse to violence sometimes does not work. Hence, Fafchamps claims that enterprises and suppliers in Ghana and Kenya prefer to establish long-term and personalized relationships with their customers and suppliers in order to curb opportunistic behaviour. However, he holds that by doing business with a restricted numbers of associates, firms reduce their potential for specialization and growth. On the contrary, In the case of Zimbabwe, where the legal system is more affordable and efficient, enterprises go to court as an instrument of last resort. In this case, enterprises, especially microenterprises, are more eager to comply with their contractual arrangements within the acceptable period of late payment.

Peng et al. (2008) and Peng and Luo (2000) rely on new institutional theory in order to account for the recent economic performance of China. Peng and Luo (2000) argue that China managed to sustain economic growth for three decades despite an unfavourable institutional context characterized by a lack of effective courts and strong government regulations. They suspect that interpersonal relationships linking Chinese managers amongst themselves as well as with government officials – in an attempt to lower the uncertainties associated with the poor institutional context– might explain the good performance of Chinese firms. Therefore, Peng and Luo (2000) assess the impact of the personal ties of top managers of Chinese firms on the performance of those firms. They use a micro-macro link that differentiates between ties among managers interpersonal relationships linking managers to government officials. Concerning their method, Peng and Luo (2000) selected 400 firms with varying characteristics – state-owned and private firms; small and large firms; manufacturing and service firms; and firms from various industries – and sent questionnaires to their managements. They received 127 questionnaires from the 400 firms and conducted several multiple regressions analysis. Peng and Luo (2000) find that managerial ties – both among managers and between managers and government officials – have a significant impact

on firms' performance. More importantly, they find that managerial ties between managers and government officials are more important than those among managers. In conclusion, Peng and Luo (2000) and Peng et al. (2008) argue that interpersonal managerial relationships partially account for the sound performance of Chinese firms despite the poor institutional context prevailing in China. Therefore, Peng and Luo (2000) and Peng et al. (2008) claim that while informal and formal institutions shape strategic choices, where formal institutions are weak, informal institutions – such as the norms governing interpersonal relationships – play a greater role in determining firms' strategic choices and performances.

New institutional theory can be applied at various level of analysis as suggested by Williamson (2000). It can be applied at level one, which is the social embeddedness level. It is at this level where culture, norms and traditions are located. According to Williamson (2000), institutions at this level change very slowly – over centuries or even millennia. The second level is the institutional environment. This level relates to the formal rules of the game, with the emphasis on political institutions, definition of property rights and enforcement of contracts (Williamson, 2000; North 1990). Moreover, Williamson (2000) argues that institutions on the second level of analysis change faster than on the first – often over decades or centuries. The third level is the governance structure. This level deals with the incentives provided to players as well as the forms of organizations they devise from specific contracts (North, 1990). The fourth level is the neoclassical market. This level relates to the efficient allocation of resources and constant adjustments of prices and quantities (Williamson, 2000).

The primary interest of this study lies in the third level of analysis. This is because this study aims to understand the effects of institutional contexts on the behaviour and forms of organizations of Chinese agricultural enterprises operating in Mozambique and the DRC. In another words, the main concern lies in comprehending how these enterprises respond to the set of opportunities and/or challenges prevailing on the ground in Mozambique and the DRC. However, as it will be shown in Chapters 6 and 7, investigating the behaviour and/or modes of entry of Chinese agricultural enterprises also necessitate a careful assessment of the nature of the customary land tenure system, the land laws as well as the strength of political institutions. Moreover, as it will be seen in Chapters 6 and 7, customary land tenure systems have a strong bearing on the content of land laws and together they affect the institutional

contexts. Equally, political institutions also affect institutional contexts. Therefore, in addition to the focus on the third level of analysis, this study will also devote limited attention to the second and first levels of analysis. The second level of analysis will look at the land laws and political institutions in Mozambique and the DRC. The first level will focus on the existing customary land tenure systems in Mozambique and the DRC.

### **3.6 Conclusion**

This study aims to understand the motivations underlying the activities of Chinese agricultural enterprises operating in Mozambique and the DRC as well as the manner in which the institutional contexts, in both countries, shape their behaviour and/or modes of entry into local industries. In order to achieve these two objectives, this study will rely on Dunning's eclectic paradigm and the new institutional theory. Dunning's eclectic paradigm is an appropriate analytical framework to study a complex phenomenon such as the motivations of Chinese agricultural enterprises operating in Mozambique and the DRC. It enables the integration into a single analytical framework of the several dimensions that are relevant to understand the motivations of Chinese agricultural enterprises operating in Mozambique and the DRC. The new institutional theory is suitable for investigating the behaviour and/or modes of entry of Chinese agricultural enterprises into local industries in Mozambique and the DRC. This theory leads to a more extensive analysis of institutional contexts by taking into account the nature and role of informal constraints and formal rules in determining the behaviour and/or modes of entry of Chinese agricultural enterprises on the ground.

## **CHAPTER FOUR: RESEARCH DESIGN AND METHODOLOGY**

### **4.1 Introduction**

The purpose of this chapter is to outline the research design and the methodology applied in this study. A discussion of the research design and methodology is fundamental not only in understanding the way in which the research problem has been investigated, but also in ensuring the overall validity and credibility of the study. This chapter starts by outlining the aim of the study as well as the research sub-questions. Next, the chapter outlines and discusses the research design applied in this study; this is followed by a discussion of the data-collection and data-analysis methods. This chapter ends with a short conclusion on the strengths and limitations of the methodology.

### **4.2 Aim of the study and research questions**

As noted in the introductory chapter, the aim of this study is to enhance understanding of the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC, as well as to shed more light on the way in which the institutional contexts in both countries affect the behaviour and/or modes of entry of these enterprises into local industries.

In order to achieve the above objectives, this study posits the following research sub-questions.

- What are the nature and objectives of Chinese agricultural enterprises operating in Mozambique and the DRC? In particular, the study seeks to establish whether Chinese agricultural enterprises active in each country are state-owned or private entities; whether they are new enterprises or multinational enterprises with operations in other parts of the world; and finally, what these enterprises' areas of specialization or primary missions are.
- What kind of commodities are produced by each Chinese agricultural enterprise and what is the market(s) for which these commodities are destined?
- What is the size of farmlands secured by each Chinese agricultural enterprise and are they fully operational?

- What is the scope and importance of Chinese agricultural aid delivered by Chinese agricultural enterprises in Mozambique and the DRC?
- What is the sustainability and effectiveness of Chinese agricultural aid provided in Mozambique and the DRC by Chinese agricultural enterprises?
- What is the nature of the institutional contexts – relative to the agricultural sector – prevailing in Mozambique and the DRC?
- How do these institutional contexts shape the behaviour and/or the modes of entry of Chinese agricultural enterprises?

### **4.3. Research design and case study**

#### **4.3.1 Research design**

Yin (2009: 26) defines a research design as “the logical sequence that connects the empirical data to a study’s initial research questions, and ultimately, to its conclusions”. For him, the main purpose of a research design is to avoid a situation in which the evidence does not address the initial research questions. Thus, in line with the views expressed by Yin (2009:27) and Babbie (1979:83), the research design can be defined as a logical plan that enables the researcher to achieve the objectives set at the onset of his/her study.

Yin (2009:6) enumerates five types of research designs: experiments, surveys, archival analysis, historical analysis and case studies. He argues that three important factors distinguish the above research designs or methods: the type of research question posed; the extent of control an investigator has over actual behavioural events; and the degree of focus on contemporary as opposed to past events.

Yin (2009:9) argues that survey and archival analysis methods are more suitable for exploratory studies – those that mainly focus on the “what” questions and that aim to describe the incidence or prevalence of a particular phenomenon or predict future events. Yin argues that a survey and archival analysis do not require control of behavioural events. The difference between a survey and archival analysis lies in the fact while the first always focuses on contemporary events, the second focuses on either contemporary or past events.

In addition to that, Yin (2009) argues that explanatory studies – which mainly focus on “how” and “why” questions – are likely to require the use of case studies, histories and experiments as the preferred research methods. These methods are more suitable for studies



that aim to understand complex issues. Yin (2009:11) argues that a further distinction between case study, historical and experimental research designs is the extent of the investigator's control over and access to actual behavioural events. According to Yin, historical and case study methods do not require control over and access to actual behavioural events, while the experimental method requires that the investigator does have precise and systematic control over these aspects. Thus, the distinction between historical and case study methods, on the one hand, and the experimental method, on the other, lies in the ability of the researcher to control actual behavioural events.

A further distinction between case study and historical methods lies in their orientation towards contemporary events. Yin (2009:11) claims that historical analysis is the preferred method to deal with the "dead" past, that is "when no relevant persons are alive to report ... and the investigator must rely on primary documents, secondary documents, and cultural and physical artefacts as the main sources of evidence". In contrast, according to Yin (2009:11), case study analysis is preferred to examine contemporary events, when the relevant behaviours cannot be manipulated. While case study analysis relies on many of the same techniques as historical analysis, it adds two sources of evidence not usually included in the historian's repertoire: direct observation of the events under consideration and interviews with the people involved in the events (Yin, 2009:11).

#### **4.3.2 Case study**

Several authors have sought to define case study design. Yin (2009: 18) defines a case study as "empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundary between phenomenon and context are not clearly evident". Remenyi (2012:2) suggests that the above definition of case study design by Yin is still probably the most useful. Gerring (2007:65) defines case study design as the intensive study of a single case or a small set of cases with the aim of generalising across a larger set of similar cases. Henning (2004:41) argues that a case study design is employed to gain an in-depth understanding of the situation and the meaning for those involved. Henning (2004:41) further argues that with such design the focus is on process rather than outcomes, on context rather than a specific variable, and in discovery rather than confirmation. In another words, case study design allows for a greater number of variables at play in order to explain a complex phenomenon; it seeks to establish causal mechanisms – provide

explanations of pathways through which variables affects other variables; and it is more suitable for theory formulation than for theory testing.

The case study is primarily defined by its case or unit of analysis. Gerring (2007: 19) argues that “a case connotes a spatially delimited phenomenon (a unit) observed at a single point in time or over some period in time. It comprises the type of phenomenon that an inference attempts to explain”. For his part, Yin (2009:29) defines the case or the unit of analysis as the primary phenomenon of analysis in an investigation. Yin argues that the case can be an individual, a person, a programme, legislation or a community. Echoing Gerring, Yin (2009; 32) argues that a case must have clear spatial and temporal boundaries to be analytically relevant.

Gerring (2007) and Yin (2009) distinguish between single and multiple case studies.

According to them, a single case study contains only one case, while multiple case studies include at least two cases. However, Gerring (2007:20 &22) argues that at a certain point – that is when more than a dozen cases are included in a study – it will no longer be possible to investigate those cases intensively. Gerring (2007) argues that in this context, the study becomes more of a time series of case studies. Gerring (2007) and Yin (2009) further argue that the single case study is more suitable for certain types of studies. These include studies that aim to test a well-formulated theory (critical case); be more representative of a broader set of cases (typical case); represent an extreme case or unique situation(extreme case); to reveal a new or unusual phenomenon (exploratory or deviant case) ; or to study a phenomenon at two or more different points in time (longitudinal case). Concerning the strength of multiple case studies, Gerring (2007) and Yin (2009) argue that the evidence of multiple case studies is often considered more compelling and the overall study is usually regarded as more robust in term of its representativeness of the broader population.

Furthermore, Gerring (2007) and Yin (2009) argue that multiple case studies function according to the logic of replication, which entails replicating the research conducted in a previous case to the other cases. According to Yin (2009:54), in multiple case studies cases are carefully selected in order to either predict similar results (literal replication) or to predict contrasting results for anticipated reasons (theoretical replication). Yin further states that few cases are usually needed to conduct a literal replication (two or three), while more cases are needed to conduct a theoretical replication. Gerring (2007: 131) argues that in multiple case studies cases are usually selected because they have similar features but yet demonstrate surprisingly different outcomes (most-similar case). Thus, in this case, the researcher wants

to identify the factors that differ across the cases. Gerring (2007:139) also argues that in multiple case studies cases might also be selected because they exhibit different features but yet demonstrate similar outcomes (most-different case). Gerring claims that in this situation the researcher seeks to identify similar factors across the cases.

Yin (2009:50) distinguishes between holistic versus embedded case studies. He argues that sometimes more than one unit of analysis might be included in a single case study. This occurs when attention is also given to a sub-unit or sub-units within a single case study. He states that when a case contains more than one unit of analysis, it is an embedded case study. Conversely, when a case study contains only one unit of analysis, it is a holistic case study. Yin therefore identifies four major types of case studies: holistic-single case studies, embedded-single case studies, holistic-multiple case studies and embedded-multiple case studies.

This study relies on case study design in order to ensure that its conclusion will provide appropriate answers to the research questions. In the light of the above discussion, case study design is defined in this study as an intensive investigation of a small set of cases with the aim of providing in-depth understanding of a particular contemporary phenomenon – occurring in a delimited geographical area at a particular point in time or over some period in time.

The phenomena under investigation in this study are the motivations and behaviours of Chinese agricultural enterprises operating in Mozambique and the DRC. Mozambique and the DRC are therefore the two case studies. The case studies possess geographical boundaries – since they are sovereign states with recognised borders – and temporal boundaries – given that the period of investigation runs from the year 2000 to 2011. The unit of analysis is the Chinese agricultural enterprise. Moreover, given that each case study contains more than one unit of analysis – as there are more than one Chinese agricultural enterprises operating in Mozambique and the DRC – it is more appropriate and correct to state that this study relies on embedded- multiples case studies. Lastly, the embeddedness of Chinese agricultural enterprises within the context in Mozambique and the DRC – in particular the characteristics of the agricultural sectors, the land ownership patterns and the institutional contexts – and within that of China – the political economy of the country – allows for an extensive study of the motivations and behaviours of these agricultural enterprises.

The two case studies, Mozambique and the DRC, have been chosen on the basis of their similarities, as will be discussed in the following chapter. In my view, Mozambique and the DRC embody three characteristics that are pertinent to this study. First, Chinese agricultural enterprises – as well as the Chinese government – have showed an obvious interest in investing in agricultural projects in Mozambique and the DRC. Second, the two countries possess vast expanses of fertile farmlands and a great deal of water. Last, the institutions and institutional contexts, with respect to the agricultural sector in Mozambique and the DRC, are to some extent analogous. In the light of the similarities between my two case studies, I anticipate that the results of this study will be similar for both of them. My selection of the case studies is thus in line with Yin's notion of literal replication explained above.

However, one could possibly object and ask why not include more than two case studies in the study, or even why not insert into the study similar and dissimilar case studies. Regarding the first remark, it should be noted that this study included only two case studies because of limited time and financial resources. Although the inclusion of a third case study was desirable, it would have involved more time and money, given that the case study design requires extensive fieldwork. Concerning the second objection, mixing similar and dissimilar case studies would have required the insertion of more case studies – at least six of them (Yin,2009:54) – into this study. Again, given the time and financial constraints, this option was not feasible. Also, the incorporation of similar and dissimilar case studies was not warranted, given that the aim of this study is not to test and revise a theory.

#### **4.4. Data collections and analysis**

This section of the chapter deals with the process related to the collection and analysis of empirical and secondary data. As far as the collection of data is concerned, this study relied on qualitative methods. The instrument for data collection was the semi-structured interview. As for sampling, the study relied on purposive and snowball sampling. Purposive sampling served to establish the profile of people to interview, while snowball sampling allowed for the identification of such people on the ground. For the analysis of data, this study depended on the atlas-ti software package.

##### **4.4.1 Data collection**

Gerring (2007:21) defines a sample as the number of cases that are subject to formal analysis. He argues that a case study is usually characterised by a small sample size as it aims to study

a specific phenomenon intensively. On the other hand, a non-case study seeks to capture cross-case variations and as a result tends to incorporate more cases. Gerring further argues that the quantitative approach (statistical analysis) requires a significant number of cases in order to make the kind of inference that is representative of the broader population. Gerring (2007:33) claims that a quantitative approach is more suitable for the non-case study, while a qualitative method is more appropriate for case study design. Nevertheless, Gerring (2007:35) holds that quantitative methods might still be employed together with qualitative methods in a situation where a case study has several within-case observations. Yin (2009: 19) and Henning (2004: 42) also claim that the case study may employ both qualitative and quantitative techniques, although it is more suitable for the first. Remenyi (2012:5), however, argues that there is no prohibition on the use of quantitative methods in a case study. However, he admits that in practice case study is usually associated with qualitative methods.

This study refrained from using quantitative methods to collect data on the activities of Chinese agricultural enterprises operating in Mozambique and the DRC. As I mentioned above, case study designs tend by definition to be qualitative in nature, although they can accommodate quantitative methods as well under precisely specified conditions. As a general rule, for a single-holistic case study, quantitative methods can only be used when qualitative variables can be transformed into standardised variables – through coding – that can be handled within a dataset format (Gerring, 2009:35). Conversely, for single-embedded, multiple-holistic or multiple-embedded case studies, the use of quantitative methods only makes sense when cross-case variability is small – meaning that cases are highly homogenous. In another words, cases must be similar in those aspects that are closely related to the focus of the researcher (Gerring: 2009:50). In situations of homogeneity of cases, it is possible for the researcher to establish standardised variables that can allow for cross-case comparisons in order to understand underlying factors of interest (Gerring, 2009:50). However, when cases are heterogeneous, the addition of each heterogeneous case into the model – a quantitative model – requires the adjustment of the model in the form of assumptions. The more assumptions a model has, the more tenuous the quality of causal inference generated. In such circumstances, cross-case comparisons become at best hazardous, at worst meaningless (Gerring, 2009:53).

As noted, this study relies on a multiple-embedded case study design. Thus, a quantitative approach can only be considered if cases are homogenous. During the early stages of this study the preliminary literature review as well as newspaper articles retrieved from the

internet provided little information on the numbers, the nature and activities of Chinese agricultural enterprises operating in Mozambique and the DRC. Therefore, in view of such limited information, doubts and uncertainties remained on the homogeneity of cases – Chinese agricultural enterprises. This study thus also serves as an exploratory endeavour, as it aims to better understand the number, nature and activities of Chinese agricultural enterprises operating in Mozambique and the DRC.

Therefore, this study relied on qualitative methods to collect data on the activities of Chinese agricultural enterprises in Mozambique and the DRC as well as on the contexts in both countries. By context I refer to the characteristics of the agricultural sectors, the land ownership patterns and the institutional contexts regarding Mozambique and the DRC, and the political economy in the case of China. As Yin (2009:18) argues, it is its ability to investigate simultaneously a phenomenon and its context that enables case study design to develop an in-depth understanding of a given phenomenon.

The qualitative methods used in this study consisted of accessing secondary and primary sources. The secondary sources of data consisted of academic materials such as scholarly articles and books; official documents such as reports of international institutions such as the World Bank as well as official legislation; and articles from private sources such as newspaper.

The primary sources of data consisted of documents obtained in the field work such as contracts between Chinese agricultural enterprises and governments and official documents from Chinese agricultural enterprises, on the one hand, and semi-structured interviews on the other. In addition to these sources, field visits were also conducted in Mozambique and the DRC.

### **Semi-structured interviews**

Ackroyd and Hugues (1981:66) point out that interviews in social research are encounters between a researcher and a respondent in which the latter is asked a series of questions relevant to the topic of investigation. According to Ackroyd and Hugues (1981:67), the pertinence of interviewing lies on the widespread belief that people can amass a considerable amount of information about various aspects of respondents' lives as well as their immediate environments in this way. Henning (2004:50) argues that interviewing has become a way of life in our society, where it is assumed that an "individual's perspective is an important part

of the fabric of society and of our joint knowledge of social processes and of the human condition”.

Interviews are usually classified according to their degree of standardisation (Ackroyd & Hugues, 1981; Henning, 2004). Like most scholars, Ackroyd and Hugues (1981) and Henning (2004) identify two main types of interviews: the standardised (structured) interview and the non-standardised interview. Ackroyd and Hugues (1981) state that the standardised interview is a form of interview in which the interviewer adheres to a rigid questionnaire for all the respondents. In addition to that, the questions and the order in which they appear on the questionnaire must be administered consistently to all the respondents. Henning (2004) argues that the standardised interview is still the dominant form of interview. Moreover, she argues that the justification for standardised interviews is that they will yield information that closely corresponds to realities as depicted by respondents. Standardised interviews are thus in conformity with the principles of objectivity and neutrality (Henning, 2004:53). Ackroyd and Hugues (1981) further note that standardised interviews are more suitable for cross-case studies relying on quantitative analysis of data. This is because the quantitative format of data obtained from standardised interviews facilitates the rigorous testing of a hypothesis.

Henning (2004:57) defines the non-standardised interview as a kind of speech or communication between the interviewer and the respondent, as both parties involved are allowed a great deal of flexibility in asking and answering questions. Ackroyd and Hugues (1981:72) hold that in non-standardised interviews the interviewer is free to ask questions in whatever way he or she thinks appropriate and following the order he or she feels to be the most effective in the circumstances. They claim that non-standardised interviews are most suitable for pilot studies preliminary to more systematic and extensive studies. There are several sorts of non-standardised interviews, such as key informant and in-depth interviews. For instance, non-standardised interviews take the form of key informant interviews when a researcher interviews key personnel in an organisation in order to obtain rich and specific information (Ackroyd & Hugues, 1981:72). Conversely, non-standardised interviews take the form of in-depth interviews when the researcher aims to build a close relationship with the respondent in order to acquire as much knowledge as possible from the informant on a particular topic. In this particular case, non-standardised interviews are long in duration and are often spread over several occasions (Henning, 2004:74).

Ackroyd and Hugues (1981:72) argue that between the two extremes of standardised and non-standardised interviews lies the broad category of semi-structured interviews. They claim that with semi-structured interviews the interviewer normally asks specific questions but he or she is free to investigate issues beyond them as necessary. They hold that semi-structured interviews combine the strengths of both standardised and non-standardised interviews.

Ackroyd and Hugues (1981:72) contend that the most usual manner of crafting semi-structured interviews is to use the standardised format for “face sheet” information, such as age, sex, marital status and demographic variables, while the less standardised section is used to obtain additional information based on the each particular circumstance.

As I mentioned above, this study relied on semi-structured interviews to collect data during the fieldwork in Mozambique and the DRC. The semi-structured format of the interview was chosen in order to provide the flexibility that would allow the researcher to focus on specific questions, while at the same time enabling the probing of aspects beyond those questions as necessary. This flexibility was particularly important as the researcher intended to acquire as much knowledge as possible on the local context.

In addition to that, the researcher intended to target several specific groups for interviewing. The groups targeted were either directly or indirectly involved with the activities of Chinese agricultural enterprises or had or – were supposed to have – sufficient information on the activities of these enterprises. These groups consisted of managers of Chinese agricultural enterprises, officials from the ministries of agriculture and agricultural research centres, leaders of civil society, researchers, and farmers and/or employees of Chinese agricultural enterprises. They were approached by the researcher in order to enhance the construct validity of the study.<sup>3</sup> Yin (2009:42) argues that one of the ways to increase construct validity when conducting case studies is to use multiple sources of evidence (i.e. triangulation) in a manner that encourages convergent lines of inquiry. Triangulation is aimed at ensuring the credibility of information gathered in the conducting of case studies by relying on several sources of information. The researcher developed interviews schedules for six target groups: one for managers of Chinese agricultural enterprises; one for managers of Chinese agricultural enterprises managing aid projects; one for researchers and civil society leaders; one for government officials working within the ministry of agriculture or its related

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<sup>3</sup> Concept validity basically aims to enhance the quality of a study by defining key concepts in accordance with the objectives of the study and ensuring their proper measurement and operationalisation (Yin, 2009:42).



institutions; one for managers of local agricultural enterprises; and lastly one for local farmers or smallholders. The interview schedules can be found in Annexure 2 of this study.

The questions posed were open-ended as the researcher aimed to allow respondents the freedom to provide an answer in whatever form they choose. The researcher hoped this type of question would enable him to gather sufficient data in order to understand the main research questions posed by this study. Therefore, in elaborating on responses to the questionnaires, the researcher specifically aimed to acquire an understanding of the motivations informing the activities of Chinese agricultural enterprises operating in the DRC and Mozambique, and of the way in which their operations are shaped by institutional contexts. In addition to the above objectives the researcher also probed the effects of the activities of Chinese agricultural enterprises operating in Mozambique and the DRC on the welfare of smallholders and the growth of the agricultural sector – although this did not form part of the objectives of this study.

Babbie (1979) argues that each individual has his or her own exact definition of abstract events – the concepts. He claims that researchers – in order to preserve construct validity – often attempt to specify exactly what they mean when using particular terms. Babbie (1979:120) describes this process as conceptualisation. He holds that the aim of conceptualisation is to facilitate communication with others by agreeing on the specifications of particular concepts. Babbie (1979:124) further argues that once conceptualisation has been achieved, researchers seek to specify exactly what they are going to observe, how they will do it and what interpretations they are going to place on various possible observations. He holds that researchers achieve these tasks by creating indicators that measure and operationalise the concepts. Indicators are real and observable things that provide evidence of the presence or absence of the concepts under investigation (Babbie, 1979:120).

As argued in Chapter 1 and 2, the concept of motivation is defined in this study as striving for the internal and external strategic goals that prompt Chinese agricultural enterprises to invest in Mozambique and the DRC. This definition is in accordance with the definition of the firm, as formulated by Coase (1937), which perceives the firm as an organisation that coordinates sets of resources in order to achieve collective goals and objectives. Thus, motivation is closely intertwined with the goals or objectives of the firm. This study endeavours to understand the goals and objectives of Chinese agricultural enterprises in Mozambique and the DRC. In the questionnaires, especially those prepared for Chinese managers, the

researcher developed some indicators that aimed to measure and operationalise the concept of motivation. These operational measures are: the nature of the enterprise (size or area of specialisation, capital or market value, stock of knowledge and technology); advantages offered by local location (fertile land, water, size of local markets) crops produced , destination markets and size of concessions; support from the Chinese government (loans, subsidies, diplomatic backing); and nature of agricultural aid, as well as scope and effectiveness of agricultural aid (value of aid projects, number of Chinese staff or technicians, number and profile of beneficiaries, institutional mechanisms to ensure scientific cooperation between Chinese technicians and local researchers).

As mentioned in the preceding chapters, the researcher defined the concept of institutional context in line with new institutional theory, which perceives the institutional matrix as a mixture of informal rules, formal constraints and enforcement mechanisms. This has been done in order to determine how the institutional context affects the behaviour of Chinese agricultural enterprises and/or their modes of entry into local industries. The indicators that measure and operationalise the above concept included: the land tenure system; the status, monitoring and enforcement of land laws; the quality of the infrastructure and enforcement of land titles.

As indicated above, the researcher also endeavoured to obtain preliminary information on the effects of Chinese agricultural investments on the livelihood of local communities and the growth of the agricultural sector. On the basis of the conditions of the agricultural sectors in Mozambique and the DRC – as outlined in the next chapter – the researcher developed indicators to measure and operationalise the effects of Chinese agricultural investments on the livelihood of local communities and the growth of the agricultural sector. These indicators include: provision of assets such as training and inputs to smallholders as well as building of infrastructure (roads and irrigation schemes).

Concerning the selection of respondents for interviews, Henning (2004:71) distinguishes three forms of sampling to ensure that the researcher selects the most suitable participants: purposive, snowball and convenience sampling. Purposive sampling allows for the establishment of profiles of desirable participants on the basis of their knowledge of concepts or their ability to substantiate theory further (Henning, 2004:71). Snowball sampling, on the other hand, enables researchers to identify additional participants on the basis of the preliminary interviews conducted in the field. Convenience sampling enables researchers to

select the first available participants. She points out that all these forms of sampling represent a theoretical “population” in the sense that they are spokespersons for the topic of inquiry and can all be defined as “theoretical” sampling.

The participants in the interviews conducted in Mozambique and the DRC were selected according to purposive and snowball sampling techniques. To start with, purposive sampling was used in order to select desirable participants who had the potential to enhance the researcher’s knowledge on the topic under investigation. Knowledge derived from the literature as well as common sense guided the researcher in establishing the profiles of the desirable participants. However, the actual selection of participants on the ground was the result of snowball sampling. Upon commencing the fieldwork, the first priority of the researcher was to target and access specific individuals, such as managers of Chinese agricultural enterprises and key officials of the respective ministries of agriculture, who were in a position to provide sufficient information on the topic under investigation. Subsequent to that, the researcher had to rely on guidance from the participants already interviewed as well as other contacts in the field to identify and engage with additional participants who could provide further information.

The interviews in Mozambique and the DRC were conducted between April and June 2011. In total 32 interviews were conducted: 18 in Mozambique and 14 in the DRC. In Mozambique the interviews were conducted in the provinces of Maputo, Gaza and Sofala. In the DRC interviews were conducted in and around Kinshasa. Interviews were conducted in Portuguese, French and English in the case of Mozambique, and in French, English and Lingala in the DRC. Furthermore, three interviews – one in Mozambique and two in the DRC – were group interviews as they were conducted with more than one respondent. However, in none of the three interviews did the number of participants exceed three people.

The following tables display some basic descriptive statistics concerning the characteristics of the participants in the interviews.

**Table 4.1 Demographic distribution of interviewees**

Racial Group	Chinese	Africans	Total
Number of participants in Mozambique	4	14	18
Number of participants in the DRC	2	14	16
Total	6	28	34

**Table 4.2 Professional distribution of interviewees**

<b>Profession</b>	Number of participants for Mozambique	Number of participants for DRC	Total
<b>Managers</b>	4	3	7
<b>Private entrepreneur</b>	0	1	1
<b>Government officials</b>	4	4	8
<b>NGO leaders or researchers</b>	8	2	10
<b>Farmers or employees</b>	2	5	7
<b>Chinese diplomats</b>	0	1	1
<b>Total</b>	18	16	34

The researcher conducted the interviews alone, with neither a field assistant nor translator. He used a voice recorder in most of the interviews, which enabled him to convert the interview data into MP3 format on his laptop.

### **Problems encountered**

During the researcher's fieldwork in Mozambique and in the DRC he encountered some problems. The main problem related to winning the trust of managers of Chinese agricultural enterprises. Chinese managers appeared suspicious of the researcher's real motives. This suspicious was further compounded by the language barrier between him and the Chinese respondents. Indeed, most Chinese managers in Mozambique and the DRC spoke hardly Portuguese, English or French.

As a result of such mistrust, most Chinese managers requested that the researcher switch off his voice recorder. In addition to that, Chinese managers also proved reluctant to disclose some information – such as those pertaining to the profits realised by the firm or to the relationship between the firm and the Chinese government. Moreover, in the DRC a group of Chinese managers – those of Hubei Dadi International Corporation for Technical and Economic Cooperation – refused to talk to the researcher and instead referred him to their Congolese deputy. In an attempt to overcome such suspicions, in Mozambique the researcher got in touch with the president of the Chinese Business Association of Mozambique, Wang

Jie, who introduced him via the telephone to managers of some Chinese agricultural enterprises. In addition to that, both in Mozambique and the DRC the researcher produced his business card in an attempt to allay the suspicions of Chinese managers. On a general note, such difficulties in winning the trust of Chinese managers is comparable to the experiences of other researchers (Human Right Watch, 2011; CCS, 2010) who have conducted studies on Chinese investments in several African countries.

Besides the difficulty of accessing Chinese managers, the researcher found the DRC to be a challenging country in which to conduct research. First, the researcher struggled to establish contact with senior officials from the Congolese ministries of agriculture and international cooperation. When such contacts were made, government officials usually claimed to be unaware of any Chinese agricultural activities within the agricultural sector. While it is quite possible that some officials did in fact have little knowledge about the activities of Chinese agricultural enterprises in the country, this nevertheless reflects some lack of organisation within government departments. In addition to that, it is also possible that some senior officials refrained from engaging on an issue perceived as politically sensitive. Second, the researcher also experienced a small incident with members of the security services at the Pool Malebo, Kinshasa. These officials alleged that the researcher had entered the border area with the Republic of Congo (Congo-Brazzaville) without the prior authorisation or identification from the security services. Such accusations were not accurate, as the researcher had not only obtained authorisation to enter the area but had also paid fees to other members of the security services. After some discussion, the researcher had to pay money to the group of officials detaining him before leaving the area.

#### **4.4.2 Data analysis**

After collecting the data in the field in Mozambique and the DRC, the researcher proceeded to transcribe those data before starting the analysis process. All data were transcribed in English. In total, he produced a transcript of 228 pages.

Henning (2004:127) states that qualitative analysis is a process that begins with data collection, as researchers constantly reflect on impressions, relationships and connections while connecting data. She claims that in qualitative analysis the search for similarities, differences, categories, themes, concepts and ideas forms part of a continuous process.

Henning (2004:127) holds that qualitative analysis starts with reading all the data and then dividing them into smaller and more meaningful units – the codes. She adds that researchers

use comparison to build and refine categories, define conceptual similarities and discover patterns. Remenyi (2012:105) points out that the researcher looks for patterns not only in the data itself, but also between what the data suggests and what are already known patterns from prior research. For Remenyi (20012:105) much of the qualitative analysis relies on comparing similarities and differences between what is already known and what we are trying to understand. Remenyi (20112:105) and Henning (2004: 128) claim that the most important objective of qualitative analysis is to establish relationships between concepts in order to explain or predict events. However, Henning (2004:127&129) argues that researchers sometimes encounter data management problems when dealing with large amounts of data. She claims that it is precisely to minimize problems associated with data management that researchers use data analyses software.

Henning (2004: 126) identifies atlas.ti as one such qualitative data-analysis software. Henning (2004:126) holds that Atlas.ti is “a powerful workbench for qualitative data analysis, particularly for large sections of text, visual and audio data”. She claims that this software provides support to researchers when analysing and interpreting texts by way of coding and graphs. According to Henning (2004: 130), coding of texts plays a central role in the analysis of data with atlas.ti. She defines coding as a classification of categories from lower to higher levels of abstraction. Henning (2004:131) states that coding fractures data into concepts that can be compared. Similar incidents are grouped into higher categories and given the same conceptual labels. Wildschut (2011: 11) argues that from a methodological perspective codes serve a number of purposes. First, they capture the meaning of data. Second, codes serve as handles for specific occurrences in the data that cannot be found by ordinary search techniques. Third, codes are also used as classification mechanisms at different levels of analysis in order to “create sets of related information units for the purpose of comparison (e.g., a concept like ‘coping strategy’)”.

Wildschut (2011) further holds that the construction of codes has to be informed by some good practice principles. First of all, code names have to be brief and succinct. The longer denomination of codes has to be kept in the pane. Second, codes have to be constructed in order to capture the most specific, detailed occurrences. This would ensure that codes are subsequently regrouped into broader categories or themes. Last, codes can be assigned a negative sign (-) or a positive sign (+) to express a particular effect of an occurrence.

In this study, the researcher defined codes as categorization devices of different levels of abstraction for the purpose of establishing comparisons between concepts. The researcher started by creating a code book containing 66 codes. It can be viewed in Annexure 3. The codes were constructed in order to capture the most detailed occurrences. The selection of codes followed both a deductive and inductive approach. In other words, the choice of the codes was informed by a combination of the theoretical frameworks and claims made by scholars in the literature on China-Africa relations. The choice of the codes was also informed by a general assessment of the transcripts of the interviews.

During the process of coding the researcher created additional codes as a result of a closer inspection of the texts inserted into atlas.ti software. By the end of the exercise the number of codes was reduced to 48 through the process of merging identical codes. In total, all codes produced 447 occurrences.

After coding, the researcher produced a correspondence analysis table from the quotation count report automatically generated by atlas.ti. The correspondence analysis table provides a list of codes and the number of times they have been mentioned by respondents (Remenyi, 2012:107). The researcher selected the codes that showed the highest number of occurrences as well as codes considered as central for their contribution to the substantiation of the theoretical frameworks. The researcher then compiled two contingency tables: one for Mozambique and one for the DRC. A contingency table provides a list of key concepts as well as the sources of these concepts (Remenyi, 2012:119). In this study the sources of the concepts were the respondents in the interviews. The contingency tables can also be found in Annexure 4. From the contingency tables the researcher wrote summaries of his own understanding of the concepts included in those tables. There were two summaries: one on Mozambique and the other on the DRC. The summaries were easy to make given that all quotations related to a particular code or concept were regrouped into one network in atlas.ti.

After producing the summaries of the concepts, the researcher compared them and created broad categories within which several concepts were inserted. For Mozambique, the categories created were the following: local advantages; specific assets of enterprises; size of concessions, crops produced and destination markets; provision of agricultural technology; land acquisition and monitoring; and infrastructure problems. For the DRC, the categories included: local advantages; specific assets of enterprises; size of concessions, crops produced and destination markets; provision of agricultural technology; land acquisition system and

monitoring; enforcement of land titles; and infrastructure problems. The researcher then divided the categories into two groups: the first group included categories related to the motivations informing the activities of Chinese agricultural enterprises (i.e. local advantages; specific assets of enterprises; size of concessions, crops produced and destination markets; and provision of agricultural technology), while the second group contained categories linked to institutional contexts shaping the behaviours and/or modes of entry into local industries (i.e. land acquisition system and monitoring, enforcement of land titles, and infrastructure problems). For each country the researcher integrated the categories included in each group in order to generate conceptual frameworks or narratives that provide explanations on the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC as well as on the effects of institutional contexts on the behaviours and/or modes of entry of these enterprises into the two countries. These conceptual frameworks are discussed extensively in Chapters 6 and 7.

#### **4.5 Conclusion**

The methodology employed in this study was rigorous and consistent. First, the choice of a case study design has been well planned given the contemporary and the context-specific dimensions of the activities of Chinese agricultural enterprises in Mozambique and the DRC. Second, the two case studies have been carefully selected in order to ensure that the results of the two case studies are similar and applicable to other case studies in which the theoretical frameworks applied in this study are relevant. Furthermore, the instrument for data collection, the semi-structured interview, was the best tool for collection of data in a qualitatively oriented research project with a clear interest in local contexts. On top of that, the data have been analysed through a rigorous and objective process.

Nevertheless, the methodology employed in this study has two weaknesses. First, given that the fieldwork research was conducted once in Mozambique and the DRC, the researcher did not have sufficient time to establish more trust and better working relations with managers of Chinese agricultural enterprises. If the researcher had had more opportunity to visit the two countries, he would have established greater trust with the Chinese managers, which would have allowed him to access more information on the activities of Chinese agricultural enterprises in Mozambique and the DRC. However, given the limited time and money, the researcher did not have the opportunity to revisit Mozambique and the DRC after the fieldwork. Despite the above limitation, the researcher attempted to gain the trust of Chinese



managers by seeking the intervention of a senior Chinese businesswoman and by presenting his business card as well as the letter from the University to Chinese managers.

Second, as it should be clear by now, the researcher derived his understanding of the motivations of Chinese agricultural enterprises operating in Mozambique and the DRC from experiences and perceptions of various stakeholders on the ground, including Chinese implementing agents. However, this approach constitutes an important limitation. This is because the motivations of Chinese agricultural enterprises operating in Africa cannot be fully understood without integrating the experiences and perceptions of senior managers operating from the headquarters in China. This is especially true given that some of these enterprises operate under a vertical integration model and hence, managers of subsidiaries might ignore the overall strategic objectives of the mother companies. Therefore, this study can only provide partial, although significant, explanations of the motivations of Chinese agricultural enterprises operating in Mozambique and the DRC.

## **CHAPTER FIVE: BACKGROUND AND CONTEXTUALIZATION: THE AGRICULTURAL SECTOR IN MOZAMBIQUE AND THE DRC**

### **5.1. Introduction**

In Chapter 3 I argued that the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC may be ascertained by the features of the ownership and locational advantages of these enterprises as well as by the political economy of China and the provision of agricultural aid in the form of research and training by Chinese agricultural enterprises running aid projects funded by the Chinese government. I also held that the behaviour and/or modes of entry of Chinese agricultural enterprises into local industries will be determined by the customary land tenure systems, the lands laws as well as political institutions.

This chapter aims to provide background and contextual information on the characteristics of the agricultural sectors in Mozambique and the DRC; the institutional contexts in relation to these agricultural sectors; the customary land tenure systems in the two countries; and the political economy of China. The chapter is divided into four parts. In the first I introduce the reader to the general characteristics of Mozambique's agricultural sector with an emphasis on its potential and its relevance for the economy of the country. I also discuss the institutional context related to the agricultural sector and the way in which it affects the smallholders and foreign firms. In the second part I discuss the same issues with respect to the DRC. Next, I introduce the reader to the customary land tenure systems prevailing in Mozambique and the DRC. In the last part I provide an overview of the political economy prevailing in China with an emphasis on the role of the Chinese government in promoting the outward expansion of its corporations – mainly the states-owned enterprises.

## 5.2. Mozambique

### 5.2.1 Outline of the agricultural sector in Mozambique

#### *Characteristics of the agricultural sector*

Mozambique is a country blessed with sufficient water, sun and fertile land. It possesses 36 million hectares of arable land, of which only 4.5 million is cultivated (World Bank, 2006). The country can be divided into three main agro-climatic regions ranging from arid and semi-arid in the south and south-west to sub-humid zones – in the north of the country – and to humid islands – mostly in the central provinces. This means that the central and northern parts of Mozambique are the most fertile regions of the country and therefore suitable for growing crops, while the south of the country is most suitable for raising livestock because of the low prevalence of animal diseases in that part of the country (FAO, 2005; World Bank, 2006). Maize and cassava are the main crops produced in the country followed by rice, sorghum, beans, cashew nut, sugar, cotton and tobacco. The prevalence of maize and cassava is due to their high resistance to drought and diseases. As far as livestock is concerned, Mozambique produces chickens, pigs, goats and cattle.

Prior to its independence, Mozambique had a thriving agricultural sector that consisted of a mixture of several leading commercial and small-scale farm enterprises. The country was a leading exporter of cotton, cashew nuts and sugar, and at the same time was able to ensure food security at home. After independence, the civil war that ensued forced millions of people – including the skilful Portuguese farmers – to migrate to urban areas and neighbouring countries, therefore depriving agriculture of a much needed labour force. In addition to that, the Marxist-Leninist policies of the FRELIMO government prompted Maputo to concentrate its agricultural intervention policies on the inefficient state-owned commercial farms at the expense of small-scale farms (Mosca, 2011:39) Above all, commercial and small-scale farms were the target of acts of sabotage during the conflict (World Bank, 2006). As a result of all these obstacles, the agricultural sector was in a state of decay at the end of the civil war in the early 1990s (World Bank, 2006).

The agricultural sector of Mozambique is dominated by smallholders, who produce more than 95% of the country's total agricultural output, while the balance is provided by a small number of medium-size and commercial farms (World Bank, 2006). As Table 5.1 below

shows, in 2002, out of a total of 3.064700 million farmers, 3.051100 million of them – an equivalent of 99.5% – were smallholders cultivating an average land area of 1.22 hectare per household. These numbers demonstrate the predominance of smallholders within the agricultural sector.

**Table 5.1: Basic characteristics of the agricultural sector, 2002 and 2003**

Parameter	Size of farm enterprise <sup>4</sup>			Total	
	2000	2000	2000	2000	2003
Size	Small	Medium	Large	All farms	All farms <sup>5</sup>
Number of farm households ('000)	3,051.1	10.2	0.4	3,064.7	3,172.6
Total cultivated land ('000)	3,736.6	67.7	121.0	3,925.3	4,534.6
Average cultivated land (ha/household)	1.22	6.65	282	1.26	1.41
Area cultivated in food crops (%)	84.4	74.2	7.6	84.7	.....

Source: Leoning and Perumalpillai-Essex (2005)

Furthermore, the majority of smallholders are involved in subsistence farming, using rudimentary tools. The World Bank estimates that only 16% of smallholders are involved in the production of cash crops (World Bank, 2006).

The end of the civil war was followed by a slight recovery of the agricultural sector. From 1996 to 2006 the Mozambican agricultural sector grew at an annual rate of 5.7% and even accelerating to 7.7% in the five last years of that period (USAID, 2008). However, from 2006 to this day growth in the agricultural sector has stagnated. This is because the boost in agricultural production observed since the mid-1990s was triggered by the return of refugees and internally displaced persons to the rural areas, on the one hand, and the expansion of cultivated land area, on the other. In another words, the growth in agricultural production was due to the expansion of labour and cultivated land area rather than to any structural transformation of the sector as a result of, for example, technological innovation or infrastructural development (World Bank, 2006). Table 5.2 indicates that the size of cultivated land and labour in Mozambique increased on average by 3.9% and 1.2%, respectively, from 1991 to 2003. However, as showed in Table 5.3, agricultural production

<sup>4</sup> Small-scale farms are those with less than 10 hectares of cultivated area, medium-sized farms are 10-50 hectares, and large farms have over 50 hectares (Leoning and Perumalpillai-Essex, 2005).

<sup>5</sup> The 2002-2003 agricultural survey included only small and medium farm enterprises.

in Mozambique continues to be insufficient as there are huge gaps between actual and potential production for the major agricultural commodities.

The stagnation in agricultural production in Mozambique provides a clear indication of the low productivity of smallholder farmers. Such low productivity is confirmed by the contradiction between the portion of the workforce employed in the agricultural sector, which stands at 78.5%, on the one hand, and the share of agriculture in the GDP, which stands at 25%, on the other (USAID, 2008).

**Table 5.2: Average annual growth rates for land, labour and rainfall, 1993-03 (per cent)**

Region	Time	Area			Labour	Rainfall
		Total	Smallholder	Commercial <sup>6</sup>		
North	1993-2001	2.5	2.9	-8.2	1.5	6.2
Central	1993-2001	6.8	7.2	-5.0	4.2	13.5
South	1993-2001	2.7	2.7	7.0	0.5	11.6
Total	1993-2001	3.3	3.6	-4.2	1.7	10.7
Total	2000-2003	3.9	....	.....	1.2	.....

Source: Leoning and Perumalpillai-Essex (2005)

**Table 5.3: Estimated actual and potential crop yields**

Crop	Average actual yield (t/ha)	Average potential yield (t/ha)
Maize	0.9	5.0-6.5
Sorghum	0.4	0.8-2.0
Rice	1.0	2.5-6.0
Beans	0.5	0.5-2.5
Cassava	6.0	5.0-10.0
Cotton	0.5	1.0-2.0

Source: Leoning and Perumalpillai-Essex (2005)

<sup>6</sup> Commercial farms are those with over 50 hectares of cultivated land (Leoning and Perumalpillai-Essex, 2005).

### *Relevance of the agricultural sector*

The agricultural sector is of special significance for the wellbeing of the Mozambican population and for the economy of the country. In the first place, the evolution of the agricultural sector has a considerable impact on the incidence of poverty in Mozambique. This is because 68% of Mozambique's 19 million inhabitants – around 12 million people – live in rural areas. Of these 12 million people, more than 90% rely on agriculture for their livelihood (USAID, 2008). Therefore, the underdevelopment of the agricultural sector means that the majority of the rural population is condemned to earning pitiable incomes, and hence to poverty. As a matter of fact, 80% of poor households in Mozambique are found in rural areas (International Fund for Agricultural Development (IFAD), 2010). Although the incidence of poverty has been reduced in rural areas since the end of the civil war, poverty remains widespread in those areas. Rural poverty in Mozambique decreased from 71% between 1996-97 to 55% between 2002-03. Despite such significant reduction in the incidence of poverty, more than half of rural population still live on less than one US\$1 a day and lack basic services such as electricity, clean water, health facilities and schools. In addition, poverty is more acute in the south of the country, where smallholder farmers have to deal with hostile climatic conditions characterised by drought and floods (International Fund for Agricultural Development (IFAD), 2010).

Secondly, the state of the agricultural sector in a country affects the economy of that country through various channels. Mozambique is not an exception to the rule. To begin with, Sur and Senauer (1999) point to a positive and significant relationship between nutrition – measured by the number of calories or through the weight-height ratio – and productivity. They argue that improvement in the nutrition level within a population usually leads to the emergence of a healthy and vibrant labour force capable of effectively engaging in productive activities. Moreover, other studies have also showed that adequate and sufficient nutrition is critical for children – especially at the foetal stage to year 2 – for their health and productivity in adulthood (USAID, 2007). Thus, providing proper food to children will ensure that their physical and intellectual growth process is preserved. However, in the case of Mozambique the underperformance of the agricultural sector is having a harmful effect on the country's food security. Mozambique's agriculture is unable to produce enough foodstuffs to meet the needs of its population. The Mozambican government aims to mitigate the effects of food shortages by importing staple foods from abroad. However, Maputo can import only a limited quantity of staple foods because of a shortage of foreign currency. This means that the

amount of food remains inadequate despite imports and this situation causes a surge in the prices of staple foods. As a result, many poor Mozambicans are unable to access sufficient food. USAID estimates that despite considerable progress achieved by Mozambique in reducing the proportion of the population that is undernourished – 66% in 1990 – 40% of the population is still underfed (USAID, 2007). In addition to that, 41% of children under the age of 5 years suffer from chronic malnutrition. Likewise, the extent of malnutrition is higher in rural areas than in urban centres (USAID, 2007). The sudden surge in international prices of basic foodstuff in 2008 further curtailed the capacity of the Mozambican government to alleviate the effects of food shortages. The rise in food prices has been felt acutely in Maputo because its high dependence on imported foods. Prices of staple foods such as wheat and rice continued to increase in 2010 to the point where many poor Mozambicans became unable to obtain sufficient food. As a result, a violent uprising broke out in late 2010 in Maputo when thousands of unemployed youths took to the streets to protest against the high cost of living (Radio France Internationale, *Le Mozambique a Fain*, 2010).

Third, the agricultural sector is also relevant for the industrial development of Mozambique. The World Bank claims that generally there are strong forward and backward linkages between the agricultural sector and the light industrial sector – such as agro-processing industries (World Bank: World Development Report, 2008). In addition to that, the World Bank also claims that such linkages suggest the existence of an agricultural multiplier, since an initial increase in the incomes/outputs of smallholders leads to an increase of higher proportion in the incomes/outputs of agro-processing and food marketing enterprises. The agricultural multiplier seems to be significant in large economies with a high share of non-tradable agriculture and services (World Bank: World Development Report, 2008). The above information suggests that the expansion of the agricultural sector will promote the industrial development of Mozambique.

### **5.2.2 Institutional context**

The institutional context related to the agricultural sector in Mozambique is unfavourable overall. The stagnation of agricultural output since 2006 is the consequence of structural problems facing the agricultural sector. As a matter of fact, Mozambique's agricultural sector remains plagued with several challenges.

To begin with, the majority of smallholders have limited access to new varieties of seeds, fertilizers and pesticides, and animal tractions. The proportion of smallholders that use new

varieties of seeds, fertilizers, pesticides and animal tractions is 12%, 4%, 5% and 10% respectively. Yet, it is estimated that on average households that use fertilizers, pesticides and animal tractions will earn higher incomes of 50%, 30% and 14% respectively than those who do not use these technologies (World Bank, 2006). One of the main reasons for the limited access of smallholders to these technologies is simply their lack of availability. Input supplies for agriculture from governmental bodies are very weak and often left to the private sector and NGOs (Interview with the General Director of the Mozambican Institute for Agricultural Research (IIAM), Maputo 21 April 2011). Smallholders who cannot afford to purchase these inputs at market price are obliged to farm without them.

Secondly, in spite of the country's huge potential for irrigated farmland, estimated at 3 million hectares, only 97 000 hectare of farmlands are equipped for irrigation. Of that, only 37 000 hectares of farmlands are currently irrigated. Still, most of the farms benefiting from irrigation are commercial farms (World Bank, 2006). Yet irrigated agriculture has a high potential for smallholder farmers. This is because irrigation enables smallholders to use double-cropping food crops. The World Bank estimates that the average value added for using irrigation is US\$500-600 on the smallest farms and US\$800-100 for farms between 5 and 10 hectares. Thus, the World Bank states that an annual investment of US\$20 million for irrigation could generate US\$250 million of added value in the agricultural sector (World Bank, 2006).

In addition to that, the rural extension system in Mozambique is relatively weak. This is mainly the outcome of limited financial capabilities. In order to be efficient, the national extension service of Mozambique needs a minimum of 3 000 agents. But for the moment, because of financial constraints on the part of the government, the national extension service has only 800 extension agents and this number is clearly insufficient. Nonetheless, the national extension service of Mozambique hopes to hire a minimum of 1 150 agents in the medium term (Interview with the National Director of the Agricultural Extension service of Mozambique, Maputo 20 April 2011). The weakness of the national extension service means that smallholders are denied access to new production techniques as well as new varieties of seeds (Interview with the National Director of the Agricultural Extension service of Mozambique, Maputo 20 April 2011).

Furthermore, the financial sector in Mozambique is not well suited to meet the needs of smallholder farmers. To start with, there are very few bank branches in rural areas. On top of



that, most of the products offered by the banks do not correspond to the conditions and needs of smallholders, for instance, in term of short-term deposits and mobile banking. Moreover, the interest rates charged by commercial banks are too high, even for commercial farms (USAID, 2008). Finally, farmers cannot mortgage their land in order to access credit from commercial banks. Mozambique's land law clearly states that the land is the property of the state. As such, it cannot be sold, alienated in any ways or seized (Mozambique's land law, article 3, 1997).

Finally, poor infrastructure also presents a major obstacle to the expansion of the Mozambican agriculture. The inadequate infrastructures – in particular roads – reduce linkages between smallholders and markets and, hence, serve as disincentives for additional production (Interviews with local researchers, Maputo 8 April 2011 & 22 April 2011). In addition, poor electricity coverage can also increase production costs and prevent farmers from producing at their full potential. In Mozambique, recent government's efforts to upgrade the quality of roads have led to better integration of smallholders with markets (World Bank, 2006). However, during the rainy season many secondary roads become inaccessible. Table 5.4 indicates the relative gains achieved by Mozambique in the improvement of its road network.

**Table 5.4 : Condition of classified road network, 1995 to 2000**

Year	Paved roads (%)			Unpaved roads (%)		
	Good	Fair	Poor	Good	Fair	Poor
1995	11	20	69	1	19	80
2000	41	39	20	21	20	48

Source: Benito – Spinetto and Möll (2005)

The supply of power in the rural areas of Mozambique is also inadequate as the majority of the rural population lacks access to electricity.

As a result of this unfavourable institutional context, many foreign agricultural enterprises avoid investing in Mozambique (Interview with local researcher, Maputo 22 April 2011). While foreign agricultural enterprises turn away from investing in the production of food crops or livestock, in recent years foreign investors have demonstrated a strong interest in the production of cash crops associated to biofuels and ethanol. Following the rise of the price of crude oil, which crossed the benchmark of US\$100 per barrel in 2008, the production of

biofuels became a potentially profitable business for international agricultural enterprises (Arndt et al., 2008). Several foreign agricultural corporations have attempted to secure farmlands in Mozambique to grow sugarcane and jatrofa for biofuels and ethanol (Interview with Postdoctoral Fellow at the International Food Policy Research Institute (IFPRI), Maputo 4 May 2011). Arndt et al. (2008) point out that recently the Mozambican state requested 12 million hectares of land for growing jatrofa, sugarcane and sweet sorghum – in addition to the 5 million hectares of farmlands that are already used for growing crops associated with biofuels and ethanol.

Amongst foreign agricultural enterprises currently operating in Mozambique, there is the case of Procana, a British agricultural enterprise with South African interests, which signed a contract in 2007 with the Mozambican government to invest US\$500 million in the farming of 30 000 hectares of land in Mashiching. However, Procana's contract has been revoked by the government since the British enterprise failed to begin operating on its farmland within a two-year period (Interview with Postdoctoral Fellow at the International Food Research Institute (IFPRI), Maputo 4 May 2011). Sun Biofuel, another British enterprise, has secured 1 000 hectares of land in Manica province for the production of biofuel. Furthermore, the British multinational Longro has secured 30 000 hectares for the production of cotton in Mozambique (Radio France Internationale, 2011). In addition to that, Energem Resource, a Canadian agricultural enterprise is currently developing 60 000 hectares of land for biofuels at Chilenge, Gaza province (Radio France Internationale, 2010). Besides these enterprises, there are also the cases of some South African and Zimbabwean farmers who are running small-scale farms – producing mostly sugarcane – in Sofala and Manica provinces, Central Mozambique (Interview with the Program Officer of the Rural Organization for Mutual Help (ORAM), Maputo 5 April 2011).

The above emerging impetus of foreign agricultural companies in the production of crops for the purpose of generating biofuels might, in the medium term, lead to tensions between the energy security of their countries of origin and the food security of Mozambique. It is probably for this reason that the Mozambican government has been reluctant to allow these foreign agricultural enterprises to operate in the country – fearing possible land grabbing (Interview with Postdoctoral Fellow at the International Food Policy Research Institute (IFPRI), Maputo 4 May 2011). In an apparent effort to prevent land grabbing, the Mozambican government has initiated a countrywide agro-ecological zoning study to determine the amount of land that is available and the portions that should be employed for

cash crops and those that should be used for food crops (Interviews with the Coordinator of the National Agricultural Development Program (PROAGRI) and the National Director of the Agricultural Extension service of Mozambique and Postdoctoral Fellow at the International Food Research Institute (IFPRI), Maputo, 18, 20 April 2011 and 4 May 2011).

### **5.3 Democratic Republic of Congo**

#### **5.3.1 Outline of the agricultural sector in the DRC**

##### *Characteristics of the agricultural sector*

The DRC has huge agricultural potential. The country is blessed with the world's second largest rainforest and the highest volume of rainfall in Africa, with average renewable water resources of 900 km<sup>3</sup> per year, which accounts for almost a quarter of the continent's fresh-water resources (FAO, 2005). Farmland suitable for cultivation represents over one third of the land area of 228 million hectares, or some 80 million hectares. However, only 10% of the 80 million hectares of farmlands suitable for agriculture are cultivated (FAO, 2005).

Nevertheless, the extensive amount of fertile land also constitutes a major handicap, as the country needs to invest heavily in infrastructure in order to integrate farmers with markets (World Bank, 2010). The DRC has three main agro-climatic regions:

- The central basin, located in the central-western part of the country with a hot and humid climate, and high rainfall ranging between 1 500 and 2 000 mm during the entire year;
- The storied shelf of savannah situated in the south and north of the country, which is characterised by two seasons – the rainy and the dry season. During the rainy season the average annual rainfall varies between 800 and 1 500 mm. There is no rainfall during the dry season, which lasts between 1 to 6 months. Climatic variability in the savannah zones, coupled with abundant water, allows for the cultivation of several types of crops during the year;
- The massif of mountain located in the east and north-east of the country, characterised by a temperate climate (Ministry of Agriculture of the DRC, 2008 & FAO, 2005).

As one might expect, the DRC produces several food and cash crops. The most important of these are: cassava, maize, rice, beans, plantains, potatoes, coffee, cocoa, sugar, tea, rubber and palm oil. Overall, just as in the case of Mozambique, cassava and maize are the main

cultivated crops. Most of the cash crops are produced in the central basin region, while the bulk of food crops is farmed in the savannah and mountain zones. The DRC has also important potential in livestock production. The World Bank estimated that the country's 87 million hectares of pasture lands can sustain production of 40 million cattle (World Bank, 2010). Animals raised include chickens, pigs, goats and cattle. Most livestock activities take place in the mountain regions of the east as well as in the Savannah zones in the south-east of the country (Ministry of Agriculture of the DRC, 2008).

At independence in 1960 the DRC had a modern and vibrant agricultural sector consisting of several family farms alongside numerous and prosperous commercial farms. As an indication of the efficiency of the sector, agricultural exports accounted for 40% of GDP in 1960 (World Bank, 2010). However, a series of events after independence contributed to the downfall of the Congolese agricultural sector. First, the wars in which the country was engulfed in the 1960s disrupted the operations of commercial farms as well as those of householders who had to flee from their farms in order to escape violence and anarchy. The condition of the agricultural sector further deteriorated in 1973, when the government decided to nationalise small and medium plantations. The transfer of these assets into the hands of inexperienced managers brought them to a state of near collapse. Furthermore, the government's underinvestment in the agricultural sector – especially in infrastructure – coupled with bad economic policies that favoured urban populations at the expense of farmers further worsened the conditions of the latter, including smallholders. Finally, the disintegration of the state in the early 1990s and the subsequent civil war that lasted from 1996 to 2002 devastated the sector as millions of people died, while others sought refuge in urban areas or outside the country. At the same time the government lost control of several parts of the country (World Bank, 2010). Consequently the Congolese agricultural sector was in total disarray by the end of civil war in 2002. From 1998 to 2008 the average annual growth of the agricultural sector was 0% (World Bank: Democratic Republic of Congo at glance, 2009).

With the return to a fragile peace in the DRC, especially after the 2006 general elections, economic conditions have improved slightly. The DRC has managed to stabilize its macro-economic parameters and since 2002 it has enjoyed significant economic growth (World Bank, 2009). The agricultural sector has also shown small signs of recovering after many years of decline. It registered a positive growth rate of 3% in both 2007 and 2008 ((World Bank, 2009). However, the current modest growth of the agricultural sector is neither sufficient nor sustainable in the sense that it is not attributable to any structural

transformations of the sector. It simply stems from minor improvement in the political environment, the enhancement of the macro-economic framework as well as the rehabilitation of some basic infrastructure (World Bank, 2010). Hence, the Congolese agricultural sector remains plagued with significant structural problems, which considerably undermine the productivity of smallholders. Consequently, the country's agricultural production remains insufficient. Table 5.5 below provides an indication of the deficit in the production of major agricultural commodities in the DRC. Besides shortages of the above staples, the DRC also faces a significant deficit in meat production, be it goat, chicken, pig or cattle. According to the Congolese Ministry of Agriculture, the DRC produces around 70 000 tonnes of meat per year, which represents an average of 1.3 kg of meat per person per year. This figure is far below the minimum requirement estimated at 18.25 kg per year or even to the FAO requirement of 13 kg per year (Ministry of Agriculture of the DRC, 2008).

Overall, the Congolese agriculture remains underdeveloped. Perhaps, a clear reflection of that reality is that the agricultural sector accounts for less than 40% of the country's GDP, while it employs more than 70% of the active population.

**Table 5.5: Crops production in 2008 ( in tonnes)**

<b>Crop</b>	<b>Actual Production</b>	<b>Production Required</b>	<b>Balance</b>
Cassava	15.019.430	30.873.128	-15.853.698
Rice	316.530	340.380	-23.850
Maize	1.155.950	1.769.976	-614.026
Bean	113.240	204.228	-90.988
Peanut	370.000	816.912	-446.912
Sweet potatoes	239.960	408.456	-168.496
Wheat	8.740	340.380	-331.640

Source: SNSA CEPLANUT (2008)

### *Relevance of the agricultural sector*

The agricultural sector is crucial for the overall welfare of the Congolese population. The Congolese population is estimated at 60 million people, 68% of whom live in rural areas. In addition to that, agriculture is the main source of livelihood for more than 70% of the population (World Bank: Consultative Group on the DRC, 2007).

Hence, as in Mozambique, the underdevelopment of the agricultural sector is having widespread effects on the welfare of most of the DRC population. This is particularly true for the rural population, who depend heavily on agriculture for their livelihood. As a matter of fact, on average 62% of the urban and 76% of the rural population live below the poverty line in the DRC (World Bank, 2010). In addition to that, the incidence of poverty reaches up to 90% in some rural communities (HELIO International: RDC, 2009). Furthermore, in most rural areas the bulk of the population lacks access to basic services such as clean water, education and health services.

Another sad outcome of the underperformance of the Congolese agriculture is its adverse effect on food security – not only in rural areas but in urban centres as well. As discussed above, the DRC is unable to meet the food requirements of its population.

In order to mitigate the effects of food shortage, the DRC imports staple foods from abroad. However, the DRC can import only small quantities of staple foods, given its limited reserve of foreign currency. As a consequence, foodstuff remains expensive and unaffordable for the poor in the DRC. The World Bank estimates that more than two thirds of the population – more than 35 million people – do not have enough food to meet their minimum daily caloric requirements (World Bank, 2010). The FAO estimates that in rural areas 73% of the population are malnourished and that 30% of children under 5 suffer from chronic malnutrition compared to 22.4% in urban centres (FAO, 2005). Moreover, in recent years the country has been forced to increase its imports of staple foods to meet rising demand fuelled by a 3% annual population growth (World Bank, 2010).

From 2008 the significant surge in international prices of key staples such as wheat, meat and rice further reduced the scope of the DRC to mitigate the effects of food shortages. As a result, the rate of malnutrition increased sharply, especially in the capital Kinshasa, because of its high dependence on food imports. The World Bank argues that the increase of food prices not only affects the health of the poor, but also pushes more people into poverty. For instance, it claims that a 50% increase in food prices in the DRC will increase the national incidence of poverty by 5% (World Bank, 2010).

Finally, as in the case of Mozambique, the development of the agricultural sector in the DRC will also have positive effects for the expansion of light industries. The agricultural sector could become both a source of raw materials by providing cheap and sufficient inputs to light industries, and also a source of markets by purchasing light machinery and equipment from

the same industries. In addition to these linkages, the multiplier effects would also benefit the broader Congolese economy (World Bank: World Agriculture Report, 2008).

### **5.3.2 Institutional context**

The institutional context related to the agricultural sector is even more unfavourable in the DRC than it is in Mozambique. The DRC agricultural sector is still facing numerous structural constraints that are preventing it from realizing even part of its full potential. To start with, there is a problem accessing agricultural inputs. Smallholders struggle to access certified seeds and fertilisers. Only 5% of seeds utilised in the DRC are certified by the relevant body. The biggest proportion of seeds is multiplied by peasant's organizations and transmitted informally from one peasant to another (Van Hoof, 2011:109). This raises questions regarding the quality of these seeds as well as the economic viability of the peasant organizations (Van Hoof, 2011). Fertilisers are also not easily accessed by smallholders. Until recently, smallholders were unaware of the significant positive effects of fertilizers on farm outputs (Van Hoof, 2011:113). The lack of use of seeds and fertilisers considerably reduces the output of smallholders.

The dysfunctional extension services and agricultural research institutions also constitute a major obstacle to the growth of the agricultural sector in the DRC (Van Hoof, 2011:112). Over the years agricultural extension services and research stations in the DRC have become dysfunctional to the point that they are unable to conduct research and provide training, seeds, fertilizers and pesticide to farmers. For instance, of the 32 agricultural research stations that the country had in 1960, only nine are still operational (FAO: Research on Congo's Basic Crops, 2011). In addition to that, extension services and research stations are unable to introduce new – and well-performing – varieties or species to smallholders (Van Hoof, 2011:p113). The inefficiency of extension services and agricultural research stations has led to the proliferation of diseases such as Mosaic, Anthracnose, Black Sigatoka and others, which are hampering the growth in production of major staple crops such as cassava, plantains, maize and peanuts as well as livestock (FAO, 2011).

The other major impediment to the expansion of the agricultural sector in the DRC is the problem associated with the absence or destruction of vital infrastructure such as roads and electricity. As for the state of the roads in the DRC, suffice it to say that they are in a bad condition. The World Bank argues that because of the bad state of the roads, surface transport is estimated to cost US\$0.16 per ton-kilometre in the DRC compared to US\$0.05 in Southern

Africa. In addition, the World Bank also suggests that only 5% of the country's classified roads are paved, while most roads need rehabilitation and maintenance (World Bank, 2010). Besides the road network, the DRC's agricultural sector also relies extensively on waterways provided by the Congo River and its tributaries to move agricultural commodities from production to markets areas. The World Bank argues that the Congo River represents a very competitive mode of transport since a ton per kilometre is estimated at around US\$0.05. However, the World Bank claims that important stretches of the river are not navigable during the dry season because of lack of signals and dredging (World Bank, 2010).

In addition, smallholder farmers in the DRC also have limited access to irrigated lands. Despite the country's 4 million hectares of irrigable land, only 13 500 hectares are irrigated, which accounts for only 3.2% of available irrigable lands (Ministry of Agriculture of the DRC, 2008). The limited access to irrigated farmlands constrains agricultural output. Finally, despite the country's impressive potential in hydroelectricity – estimated at 774 Gwh – less than 10% of the population have access to electricity and most of the power is supplied to urban areas. In rural areas the main source of electricity remains firewood (HELIO International: RDC, 2009). The lack of electricity in rural areas is a major impediment toward the enhancement of value-adding activities such agro-processing.

The weak institutional capacity of the Congolese Ministry of Agriculture to elaborate, implement and monitor projects is also a matter of concern that negatively affects the agricultural sector. The inefficiency within the Congolese Ministry of Agriculture is due to many factors, among which the centralisation of technical services and management of all projects and programmes in the capital; limited financial and material resources ; and ageing and low-paid civil servants (World Bank, 2010). In this regard, it is interesting to note that the proportion of the national budget allocated to the agricultural sector represents a negligible amount estimated to be between 0.69% (Cros, 2010) and 1.2% (Van Hoof, 2011).

Finally, the absence of a financial system suitable to meet the needs and realities of smallholders is problematic for Congolese agriculture. In the DRC traditional commercial banks and micro-credit institutions are not interested in smallholder farmers. This is because the activities of the latter are perceived as risky – because of climatic variations – and low paying (Van Hoof, 2011:117). Furthermore, smallholders often lack assets to use as collateral for credit. Difficult access to finance prevents smallholders from enhancing their farming



activities, since they require financial assistance to purchase machines and agricultural tools (World Bank: Consultative Group on the DRC, 2007; Van Hoof, 2011:117).

Given this, despite the DRC's significant agricultural potential, few foreign agricultural enterprises are operating in the country because of the unfavourable institutional context. The National Agency for the Promotion of Investments (ANAPI) identifies only a handful of foreign agricultural enterprises currently operating in the DRC (Interview with manager of agricultural projects at ANAPI, Kinshasa 31 May 2011).

Foreign agricultural enterprises avoid the DRC as an investment location because of the harsh business climate prevailing in the country. Three factors in particular inhibit foreign agricultural investments in the DRC: the underdeveloped state of infrastructure, the dysfunctional legal system and the continuing political instability (Hogg, 2012).

Furthermore, despite the official end of the civil war in 2002, political stability in the DRC remains elusive. This is because of the persistent activities of militias and rebel groups in the east and north-east of the country as well as continuous factional strife among political elites, which hinders the consolidation of state institutions. The DRC is constantly threatening to fall back into a new cycle of widespread violence. The political instability in the DRC is believed to be one of the most important challenges for Chinese agricultural enterprises that wish to invest in the country (Interview with the First Councillor to the Office of the Economic Councillor of the Chinese Embassy, Kinshasa 8 June 2013).

Nevertheless, in the last couple of years more foreign agricultural enterprises have shown an interest in investing in the country. These agricultural corporations come from a variety of countries, including Britain, Canada, India, Russia, South Korea and China (Interview with manager of agricultural projects at ANAPI, Kinshasa 31 May 2011). The bulk of these foreign players contemplating investment in the DRC agricultural sector are interested in growing jatrofa and palm for the production of biofuels and biodiesels (Interview with manager of agricultural projects at ANAPI, Kinshasa 31 May 2011).

This is the case with the Korean-dominated joint venture, Congo Agriculture Biotechnology. This joint venture was created in 2007 by a Korean enterprise called IF Incorporation together with a Congolese businessman (Interview with General Director of Congo Agriculture Biotechnology, Kinshasa 13 June 2011). IF Incorporation held 75% of the enterprise's shares. Congo Agriculture Biotechnology obtained more than 120 000 hectares

of land for the cultivation of jatrofa to be processed into biofuels and to be sold locally as well as exported to South Korea. For the first phase of the project Congo Agriculture Biotechnology intended to invest US\$3 million (Interviews with General Director of Congo Agriculture Biotechnology, Kinshasa 13 June 2011 and with manager of agriculture projects at ANAPI, Kinshasa 31 May 2011). However, in 2008 IF Incorporation lost a lot of money in stock market shares as a result of the financial crisis. In addition to that, the Korean currency lost 50% of its value at around the same time. As a result, Congo Agriculture Biotechnology was unable to proceed with its planned investments in the DRC (Interview with General Director of Congo Agriculture Biotechnology, Kinshasa 13 June 2011).

But not all foreign agricultural enterprises seeking to invest in the DRC are interested in the production of biofuels and biodiesels. A good example is the Canadian agricultural enterprise, Feronia PHC. In 2009 Feronia acquired three former palm plantations – totalling 107 892 hectares – that had fallen into disrepair in the Equateur and Orientale provinces of the DRC (Feronia, 2012). Feronia produces crude palm oil and palm kernel oil, which are transported to Kinshasa on the Congo River and sold to local markets and refineries (Feronia, 2012). In 2011 Feronia produced more than 65 000 tonnes of palm oil (Hogg, 2012). As mentioned above, palm oil is one of the staple foods in the DRC. As Table 5.6 shows, since 2006 the DRC has been unable to meet its internal consumption of palm oil and the country has had to rely on imports.

**Table 5.6 Production and import of palm oil in the DRC (in tonnes)**

Year	Production <sup>1</sup>	Importation <sup>2</sup>
2000	246221	
2001	238715	
2002	231440	
2003	234366	
2004	237329	
2005	240339	
2006	243386	30042
2007	246477	46379
2008	249608	15919
2009	252582	53654

2010	255988	48482
2011	258240	
2012	262532	

1 National Agricultural Statistics Service (SNSA), Ministry of Agriculture and Development

2 Quarantine Plant and Animal (SQSA), Ministry of Agriculture and Development

In addition to palm oil production, Feronia has also acquired a 10 000 hectares farmland in the Bas Congo province, south-west of the capital Kinshasa. In 2011 Feronia completed the planting of 1 200 hectares of rice on this farm. The rice was destined for domestic markets (Feronia, 2012).

#### 5.4 Customary land tenure systems

This section of the chapter introduces the reader to the land tenure patterns currently prevailing in Mozambique and the DRC. In order to achieve that, it provides a brief history that enables the reader to understand the underlying structural factors shaping the nature of land tenure systems in Mozambique and the DRC, as well as in much of sub-Saharan Africa.

Feder and Noromha (1987) and Adholla et al. (1991) hold that during the pre-colonial era, with the notable exception of Islamic societies, land access in Africa depended either on the basis of residence or on acquiring membership of a group or lineage. They hold that often land tenure was obtained by the person who first cleared the land and that such right could be passed on as a legacy. Feder and Noromha (1987) and Adholla et al. (1991), however, claim that access to land by all residential groups or relatives did not preclude the existence of land rights. On the contrary, they claim that the abundance of land, mostly as a result of low demographic pressures, the use of primitive technology – mainly hoes – to cultivate land and the need to shift the locations of farm plots to allow nutrients to regroup, implied less concern at the collective level with guaranteeing land titles over specific portions of land and instead emphasized control over large tracts of unutilized areas. As Feder and Noromha (1987:147) put it: “it thus made no sense to develop a system of rights to a particular parcel of land that could not be protected and had no utility until its fertility was restored”.

Feder and Noromha (1987), Adholla et al. (1991) and Peters (2004) argue that the colonial authorities misunderstood the African system of land tenure by mistaking it for communal land tenure. Feder and Noromha (1987), Adholla et al. (1991), Peters (2004) and Boone

(2004) hold that European colonialists officialised communal land tenure in Africa by empowered local chiefs – while creating chiefs in places where they did not exist – in order to manage the new system. Still, Peters (2004) and Boone (2004) hold that the establishment of communal land tenure served primarily to promote both state and European private interests in African colonies. Feder and Noromha (1987) also claim that the creation or empowerment of chiefs, as well as the restriction of the movements and trade of local people and goods to the newly established circles or districts, strengthened ethnic differences and gave a new salience to the notion of ethnicity in Africa. Feder and Noromha (1987), Adholla et al. (1991), Peters (2004) and Boone (2004) all argue that at independence only a few African countries decided to introduce individual land titles as a mean to promote agricultural development and economic growth. This was the case in Kenya and in the Ivory Coast. However, according to these scholars, the majority of African countries decided to maintain the communal land tenure system inherited from the colonial period. According to Feder and Noromha (1987), these countries can be divided into two groups. The first consists of countries that recognise different types of land tenure systems. For instance, Senegal and Sudan recognise both individual titles and nationalisation of non-titled lands. Botswana, Ghana, Lesotho, Liberia, Mali, Sierra Leone, Swaziland, Uganda and Zimbabwe recognise individual titles, communal systems and public lands. Cameroun acknowledges individual and group titles, as well as communal systems and public lands. The second group consists of countries that place land ownership under the sole control of the state. In these settings individuals have only use and occupancy rights over land. Countries such as Ethiopia, the DRC, Mauritania, Mozambique, Nigeria, Tanzania and Zambia are part of this group.

It is evident from the above paragraph that in several African countries two or more forms of land tenure systems co-exist. Even in countries where the land is the sole property of the state – such as in Mozambique and the DRC – the state recognises, at least tacitly, the rights of local communities and in particular local chiefs in the management of lands and in the process of allocating lands temporarily to national and foreign investors. In the case of Mozambique, the land law clearly states that national or foreign investors seeking to access land must first consult with local communities to ensure that the land desired is available and unoccupied ( Lei de Terras, ,1997:article 3). In the DRC the land law stipulates that investors seeking to access land must lodge a formal request with the relevant authority, which then conducts an investigation to find out the nature and the extent of rights that third parties might have over that tract of land (Code Foncier Immobiliers et Regime de Suretes, ,

2006:article 190). On a general note, in both Mozambique and the DRC individuals and groups seeking to access land for business projects are expected to first negotiate with local communities and to secure their approval before lodging formal applications for land titles with the relevant state structures. Without approval from local communities, national and foreign investors can barely hope to obtain land titles from the state (Interviews with the Programme Officer of the Rural Organisation for Mutual Help (ORAM) and with the Postdoctoral Fellow at the International Food Policy Research Institute (IFPRI), Maputo 5 April and 4 May 2011, and Interviews with the manager of agricultural projects at ANAPI and General Director of Congo Agriculture Biotechnology, Kinshasa 30 May and 13 June 2011). The above duality in land ownership in Mozambique and the DRC has important implications for access to land by Chinese investors and will be further discussed in the next two chapters.

Before closing this section, it is worth to mention that while the customary land tenure systems in Mozambique and the DRC are globally similar, they nevertheless exhibit some differences. These differences are the outcome of the varied policies implemented by the two countries in their post-independence era. In Mozambique, the Frelimo government dismantled the institutions of the native authority as the colonial-appointed chiefs and their administrations were replaced with party's cadres (Mamdani, 1996:25). In addition to that, the customary laws inherited from the colonial era were abandoned and replaced with a uniform judicial structure (Mamdani 1996). Furthermore, the Frelimo government established state farms by recuperating abandoned Portuguese farms and expropriating peasants from their lands. The expropriation of peasants from their lands created a class of labourers tied to state farms (Mosca, 2005). In addition, the government created communal villages in an effort to spur collective modes of production. However, in the face of resistance by peasants to join the communal villages, the state resorted to the forced removal of peasants from their traditional villages and their subsequent insertion into communal villages (Mamdani, 1996:177). Ultimately, the new form of social organisations that emerged around the state farms and the communal villages diluted the potency of customary laws, including the customary land tenure systems.

However, in the case of the DRC, the institutions of the Native authority and their administrations were maintained after independence (Mamdani, 1996). Moreover, the customary laws were also preserved in the rural areas, as the state simply favoured a dual structure of customary and modern courts, while providing for a single integrated review

process (Mamdani, 1996:130). Given that access to land in the DRC had continue to be firmly governed by customary laws, customary land tenure systems retained their full potency within rural areas.

### **5.5 Political economy of China**

This section of the chapter introduces the reader to the political economy of China, with particular emphasis on the role of the Chinese government in promoting outward investments of Chinese corporations, especially the state-owned corporations. Given that the outward investment policy or the “go-global” policy – which aims to promote Chinese overseas investments in areas perceived as strategic or important for the Chinese economy – took shape in the late 1990s (Freeman, 2008), this section focuses on the political economy of China since the late 1990s. However, one cannot explain the features of China’s political economy since the late 1990s without also considering Chinese domestic politics and its effects on China’s foreign policy since the late 1970s. In other words, China’s political economy is the product of interactions between domestic politics and China’s foreign policy since the late 1970s. Nevertheless, this section of the chapter does not aim to provide an analysis of China’s foreign policy – neither at a particular point nor over a specified period of time – as such an exercise would also require an assessment of the external environment which China faces as well as an evaluation of the perceptions, preferences and allocation of power of individuals who determine the background against which Chinese foreign policy issues are framed. Instead, this section seeks to highlight the joint effects of domestic politics and China’s foreign policy since the late 1970s on the features of the political economy prevailing in China since the late 1990s.

The Chinese government has two parallel government structures: one set of structures and institutions run by the Chinese Communist Party (CCP) and the other run by the Chinese state (Roy, 1998:63). The three top party organisations are the Politburo Standing Committee, which is comprised of nine members, the Politburo, 25 members, and the Central Committee, 371 members. The Central Committee includes different sections of the Chinese elite, such as ministers and senior government officials, provincial leaders, leaders of the military, heads of big state-owned corporations and representatives of minority communities (McGregor, 2010:12). The Central Committee elects members of the Politburo. In turn, the Politburo elects members of the Standing Committee, the inner sanctum of the leadership of the CPP (McGregor, 2012:13). The most powerful state organisations are the National People’s

Congress (NPC) and the State Council. The NPC is China's highest legislative body, while the State Council serves as the chief executive body, overseeing various government ministries (Roy, 1998:63).

However, despite the fact that the two government structures depicted above are parallel, they are not equal. The Chinese constitution clearly states that the CPP is "the source of all political power and authority in China, including the legitimacy of state organisations" (Roy, 1998:63). The Politburo sets the general policy direction of the country and enjoys undisputed hegemony over the state, the economy, the civil service, the military, the police and the media (McGregor, 2010:13). To enable the control of the state by the CPP, party organisations and their state counterparts are intertwined through an elaborate and opaque appointments system (Roy, 1998: 63; McGregor, 2010:15). Appointments and promotions within the government, civil service, state-owned corporations and judiciary are contingent upon the will of officials of the CPP (McGregor, 2010:15).

Throughout history territorial fragmentation by way of regional rebellions has been a constant fear among successive Chinese rulers (Roy, 1998: 54). The fear of territorial fragmentation has been motivated by cultural and ethnic divisions prevailing in Chinese society – illustrated by the presence of minority groups such as the Tibetans, Uighurs and Mongolians, some of whom are fighting for self-determination – as well as the tendency of the provinces to resist control from the capital, Beijing (Roy, 1998:54). The Chinese communist party too has been aware of the risks of territorial fragmentation of China since it took power in 1949. For that reason, upon its accession to power the CPP expended much effort – including militarily – to assert its effective control over the entire Chinese territory, especially in the troubled regions of Tibet and Xinjiang, where Tibetans and Xinjiang Muslims fight for self-determination (Roy, 1998). Equally, the CPP refused to recognise the independence of the Island of Taiwan, fearing that such an action might spur other secessionist movements within the Chinese empire. In recent years the CPP has perceived Western countries' actions and rhetoric in favour of democracy, on the right of minorities in China and on the independence of Taiwan as attempts to topple the CPP from power and to divide and weaken the country. Leaders of the CPP are suspicious of the West and believe that Western countries view a united and powerful China as a strategic competitor to the West, especially the United States (Roy, 1998:42). The CPP sees its continuation of leadership as vital to the maintenance of China's unity, stability and prosperity (Roy, 1998:43). However, the CPP leadership is aware that the legitimacy of the CPP and its ability to continue ruling China will depend on the ability of the

party to ensure economic development in order to gradually raise the standard of living of the Chinese people. In this perspective, the attainment of economic progress became a priority for the CPP leadership since the late 1970s. It therefore comes as no surprise that the CPP leadership makes little distinction between internal and external threats, and defines its national security policy in broader terms, which include not only the classical military component but also such internal factors as political stability and economic development (Roy, 1998:43).

The domestic politics of China, in particular the commitment of the CPP leadership to promote economic development in order to maintain internal political stability, has also influenced the trajectory of China's foreign policy since the late 1970s.

Chairman Mao, the president of the People's Republic of China, passed away in 1976. The country was in a state of severe economic crisis following years of autarky during the infamous Cultural Revolution. In the aftermath of Mao's death, a faction of the CPP leadership began to question China's isolationist policy. These leaders, led by Deng Xiaoping and Zhou Enlai, argued that the isolationist policy delayed the country's progress by preventing it from accessing foreign knowledge and technology. During the third plenum of the Eleventh Central Committee in December 1978 the CPP leadership opted for the abandonment of the policy of isolation in favour of an open policy (Roy, 1998:85; Shelton et al., 1999). The open policy embodied two dimensions. On the internal front, it aimed to gradually move away from central planning toward the free market economy by giving a greater role to market forces in determining prices, wages and production. It is in this context that the CPP leadership proceeded to the privatisation of small state-owned enterprises as well as the reform of the medium and large ones in order to give them greater autonomy and incentives for profits (Shelton et al., 1999). On the external front, the open policy sought to expand foreign trade and promote foreign investment. The CPP leadership hoped that foreign investments and trade would enable the country to gather sufficient funds and speed up the transfer of technology and knowledge from foreign to Chinese companies (Roy, 1998).

During the 1980s the Chinese government sought to restrict outward investments through a set of tight regulatory controls. As mentioned above, this was a period during which the Chinese government primarily aimed to attract foreign investments in order to acquire funds, technology and knowledge (Freeman, 2008). However, from the 1990s the Chinese government started encouraging outward investments by introducing regulations intended to



control the flow of outward investments. The first formal call for the formulation of a go-global policy occurred in December 2000, when the CPP Central Committee adopted its tenth national economic and social development five-year plan (Freeman, 2008). The Chinese government claims that the aim of the go-global policy is to make use of domestic and foreign resources and markets in order to enhance the technological capabilities of Chinese firms and/or industries, and to acquire access to strategic natural resources (Freeman, 2008).

In 2006 the National Development and Reform Committee of China (NDRC), the Chinese Ministry of Commerce (MOFCOM) and other government authorities issued the Outward Investment Sector Direction Policy. This document defines the basic policy on outward investments. It identifies those sectors in which outward investment is encouraged, permitted or prohibited. In addition to that, it also provides for policy support in the encouraged sectors and defines the basic aims of the government in encouraging outward investment (Freeman, 2008).

According to Freeman (2008), the sectors for which outward investment is encouraged are those which can:

- obtain resources or raw materials that are lacking within China and which are urgently required for the development of the national economy;
- stimulate the export of products, equipment and technology in which China has a comparative advantage and labour service exports; and
- advance China's technological capacities and make use of international advanced technology, management experience and human resources.

In addition, the Outward Investment Policy contains a catalogue in which encouraged, permitted and prohibited sectors are listed. Encouraged sectors cover a wide range of areas including natural resource exploitation, manufacturing and services, agriculture, forestry, animal husbandry and fisheries. For the agricultural sector, activities that are encouraged include the cultivation of natural rubber, oil-bearing crops, cotton and vegetables, and the transportation and planting of timber (Freedman, 2008).

The Outward Investment Policy also sets out the types of projects in which investment is prohibited. These include investments:

- that threaten China's national security or damage the public interest of society;

- that use proprietary techniques or technology, the export of which has been prohibited;
- in sectors in which Chinese law prohibits business operations;
- in industries in which the law of the recipient country prohibits investment, and in industries in which investment is prohibited by the provisions of international treaties which China has signed (Freeman, 2008).

Beside the encouraged and the prohibited sectors, all others sectors fall under “permitted”. Only outward investments in the encouraged sectors receive support from the Chinese government. Financial support is the main form of support provided by the government in the form of subsidies for outward investment. There are two main forms of financial support for outward investments: direct support for costs and interest subsidies (Freeman, 2008). Support for costs is in turn divided between pre-investment expenses and operating costs. Subsidies for pre-investment expenses are usually available for enterprises that engage in cooperative projects in agriculture, forestry or fisheries, contracting, labour services, high or new technology, R&D platforms, and design consultancy. Pre-investment expenses for which subsidies are available include: the cost for obtaining third party legal, technical or business consulting services, surveys or investigations, and project feasibility (Freeman, 2008). Subsidies for operating costs are mainly provided for enterprises that engage in labour services, development of foreign high and new technology, R&D platforms, and design consultancy.

Interest rate subsidies are loans provided by Chinese banks to enterprises that engage in outward investments or cooperative projects abroad in agriculture, forestry and fisheries. The loans provided must be medium- to long-term loans for a term of no less than one year. In principle, the interest rate subsidy for RMB loans may not exceed the People’s Bank of China’s base rate in effect, and for foreign currency loans it cannot exceed 3% (Freeman, 2008).

However, the policy support available for outward investments changes regularly. In 2006 additional forms of support were introduced by the Chinese government. These included a 20% subsidy for the transport of raw materials to China for enterprises engaged in the exploitation of raw materials. This measure applies only to transport companies with Chinese

equity shareholders and includes raw materials such as oil, natural gas, iron, copper and others minerals (Freeman, 2008).

Concerning the institutional architecture, various bodies are involved in the formulation and implementation of the outward investment policy. The two important bodies are the NDRC and the MOFCOM. In addition to them, several Chinese banks also contribute to the implementation of the outward investment policy by providing financial support to enterprises engaging in foreign investments. The most important banks are the Import-Export Bank of China (China Exim Bank) and the China Development Bank. Exim Bank specialises in providing concessionary loans to fund joint ventures, Chinese infrastructure projects and other mutually beneficial projects abroad (Brautigam & Xiaoyang, 2009). In addition, Exim Bank also provides export sellers and buyers credits to Chinese enterprises in order to promote the export of Chinese goods at competitive rates (Brautigam & Xiaoyang, 2009). As such, Exim Bank plays an important role in Chinese enterprises' foreign investments. China Development Bank's primary mission is to support China's domestic economic development. However, the Bank is also active internationally. The China Development Bank is responsible for managing the Africa Development Fund. The fund was established in 2006 by the Chinese government to encourage and support Chinese enterprises' investments in Africa. The fund was launched in March 2007, with a starting capital of US\$1 billion made available by the China Development Bank. Ultimately, the Africa Development Fund will operate with a capital of US\$5 billion (Freeman, 2008).

## **5.6 Conclusion**

The agricultural sectors of Mozambique and the DRC possess significant potential in the form of fertile land and water. This sector is relevant for the wellbeing of the population of the two countries as well as for their economic development. Moreover, the institutional contexts related to the agricultural sector in Mozambique and the DRC are unfavourable overall in the sense that they are having adverse effects on the entrepreneurial initiatives of smallholders and foreign agricultural enterprises.

Furthermore, as a result of historical, demographic and technological factors, two main patterns of land tenure coexist in Mozambique and the DRC: an official land tenure system that is governed by the state, and tacit communal land tenure systems governed by local communities through local chiefs. This duplication in the patterns of land tenure in

Mozambique and the DRC has important implications that will be discussed in the next two chapters.

Finally, since the late 1990s China has developed an outward investment policy that aims to promote foreign investments by Chinese enterprises in order to enhance the technological capacities of these enterprises; ensure access to lucrative foreign markets; and secure access to strategic raw materials needed by the Chinese economy. It is in this context that the Chinese government provides subsidies to its firms – including agricultural enterprises – in order to encourage their overseas operations.

## **CHAPTER 6: CHINESE AGRICULTURAL ENTERPRISES IN MOZAMBIQUE: ROLE AND BEHAVIOUR**

### **6.1 Introduction**

Chapter 5 provided background information on the characteristics and relevance of the agricultural sectors in Mozambique and the DRC; the nature of the respective institutional contexts related to the agricultural sector in both countries and the way in which they affect the activities of smallholders and foreign investors; the characteristics of the land tenure systems prevailing in Mozambique and the DRC; and the nature of the political economy of China, in particular the efforts of the Chinese government to promote foreign investments by Chinese enterprises. In this chapter I aim to discuss the motivations informing the activities of Chinese agricultural enterprises in Mozambique and the way in which the institutional context in that country shapes their behaviour and/modes of entry into local industries. This chapter consist of two sections. The first focuses on the motivations of Chinese agricultural enterprises operating in Mozambique. The second deals with the way in which the institutional context shapes the behaviours and/or the modes of entry of Chinese agricultural enterprises into local industries.

The analysis has shown that Chinese agricultural investments in the country are motivated by several objectives: 1) to acquire farmland in order to generate profits by way of farming activities; 2) to transfer agricultural commodities to China in order to supply Chinese markets with consumer goods and natural resources such as textiles, clothes and animal foods; and 3) to deliver agricultural aid by testing new varieties of crops brought from China and offering training to local farmers, students and technicians. However, the provision of agricultural aid is more of a secondary motive for Chinese agricultural enterprises managing the aid projects. This is because these enterprises primarily use the aid projects funded by the Chinese government to gain a foothold in Mozambique. Therefore, the motivations of Chinese agricultural enterprises operating in Mozambique can be seen as consistent with China's foreign policy, since these enterprises aim to better position themselves in local markets and access agricultural commodities for Chinese markets. For the moment Chinese agricultural enterprises operating in Mozambique do not aim to transfer primary staple food crops such as rice and maize to China. However, Chinese agricultural enterprises have demonstrated an interest in growing soybeans in Mozambique for Chinese markets.

The institutional context in Mozambique shapes the behaviours and/or modes of entry of Chinese agricultural enterprises through three institutional features: poor delivery of infrastructure, particularly in rural areas; complexity of access to land because of the duality in land ownership patterns; and the weak regulatory capacity of the state to monitor and enforce the land law at both the national and provincial levels. The inefficient infrastructure development appears to undermine the activities of Chinese agricultural enterprises by preventing further investments in agricultural production. Equally, difficulty in accessing land hinders large-scale Chinese agricultural investments in Mozambique. The difficulty of access to land is aggravated by lack of information on the availability of land and its main characteristics as a result of flaws in the monitoring and enforcement of the land law. This last obstacle seems to further compromise the operations of Chinese agricultural enterprises, especially the large ones, by preventing the identification of suitable lands for their activities.

## **6.2 Chinese agricultural engagement in Mozambique**

The presence of Chinese agricultural enterprises in Mozambique stretches back more than thirty years. Following Mozambique's independence in 1975, China began providing agricultural aid to the African country. Agricultural experts from the Chinese province of Sichuan arrived in Mozambique to develop 230 hectares of the 7 000-hectare Moamba state farm located at about 90 km north-west of Maputo ( Brautigam & Ekman, 2012). Chinese experts also helped develop the 3 000-hectare Matama farm, in Niassa Province. In the mid-1980s the Chinese government donated farm machinery and sent agricultural experts from Sichuan to assist with communal agricultural projects in Maputo's urban Green Zone (Brautigam & Ekman, 2012). However, the civil war prevented the implementation of these projects as Chinese experts left the country (Brautigam & Ekman, 2012). The current Chinese engagement in agriculture in Mozambique dates back to 2007. when Hubei Lianfeng began operating in Xai-Xai, Gaza province. Since contemporary Chinese engagement in Mozambique' agriculture is new, it is not surprising that few Chinese agricultural enterprises are currently operating in the country. This study has been able to identify four such enterprises operating in Mozambique, with one of them having two separate branches in the country. During my fieldwork I visited these enterprises, which figured on the list provided by the Mozambican Investment Promotion Centre (CPI) – the state agency in charge of guiding national and foreign investors seeking to invest in the country and registering investment projects.

Table 6.1 provides a summary of the nature and activities of Chinese agricultural enterprises operating in Mozambique. Nevertheless, it is important to note that several of the enterprises registered with the CPI are in reality not operational. This is particularly the case with the China Grain and Oil (Group) Corporation (CGOG), which apparently failed to start operating in Sofala province because of institutional hazards, which will be discussed in the second part of this chapter. In addition, it is important to note that it transpired from the fieldwork that the owner of ACE Agriculture and Aquaculture, mentioned in the table below, is actually from Taiwan and not from mainland China.

**Table 6.1: Nature and activities of Chinese agricultural enterprises in Mozambique**

Enterprises	Type of enterprise	Year of initial operation	Location/ province	Capital invested (US\$)	Activities	Size of concession (hectares)
Hubei Lianfeng Mozambique	State-owned	2007	Gaza	1 000 000	Grow and sell rice and seed. Provide technical aid to farmers.	300
Hubei Lianfeng Mozambique	State-owned	2011	Boane	6 000 000	Sell seeds, animals and vegetables. Provide training and conduct research.	52
China Africa Cotton Mozambique	State-owned	2007	Sofala	6 000 000	Sell cooking oil and hospital grade cotton. Transfer processed cotton to China.	NA
Sol e Mar	Private	2009	Sofala	12000 000	Export prawns to Europe.	
ACE Agriculture and Aquaculture	Private	2009	Sofala	1 000 000	Grow and sell rice, maize, sesame seeds and mushrooms.	600

Source: CPI and Information obtained from fieldwork in Mozambique

Furthermore, only a part of the Mozambican territory was covered during the fieldwork, mostly because of limited resources and time. Hence, this study does not claim to provide a complete list of all Chinese agricultural enterprises operating in the country. Figure 6.1 below provides an indication of the areas of Mozambique covered by the fieldwork.

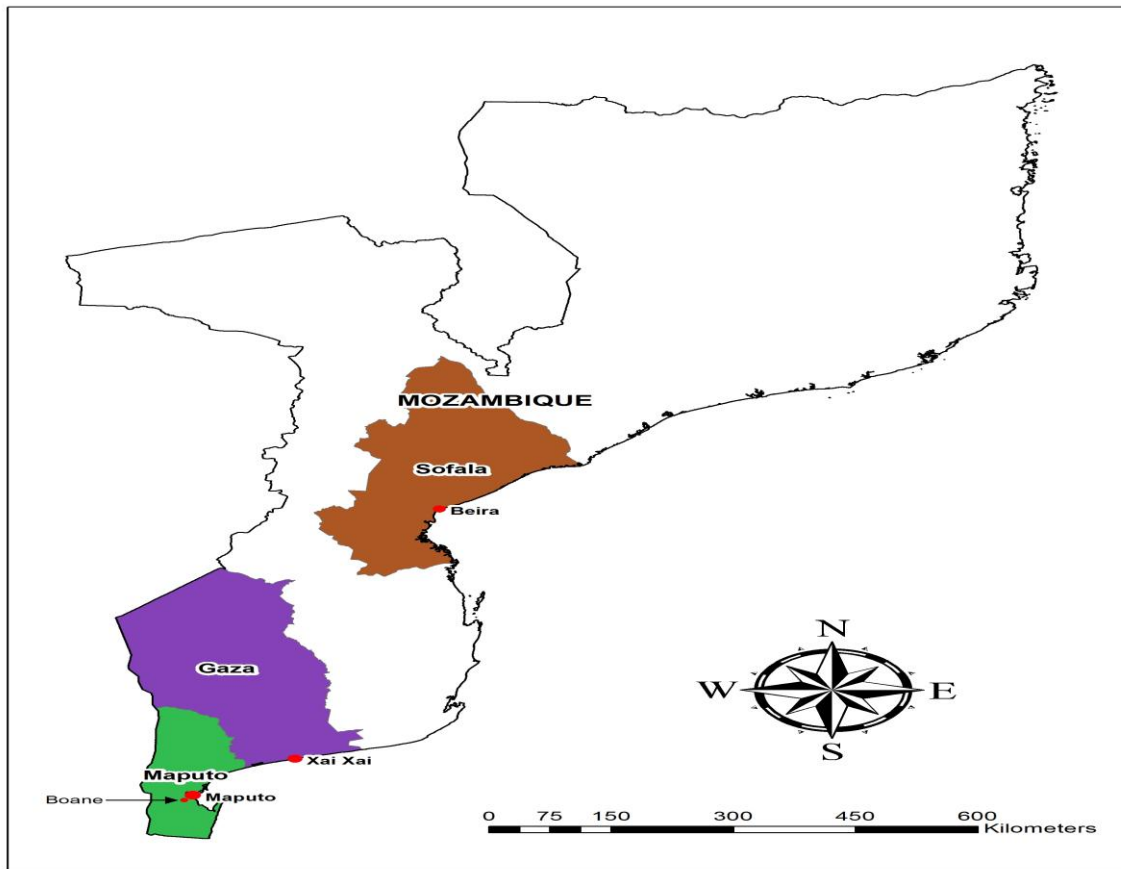
**Figure 6.1 Map of Mozambique**

Figure 6.1: The regions in colour were visited by the researcher during the fieldwork

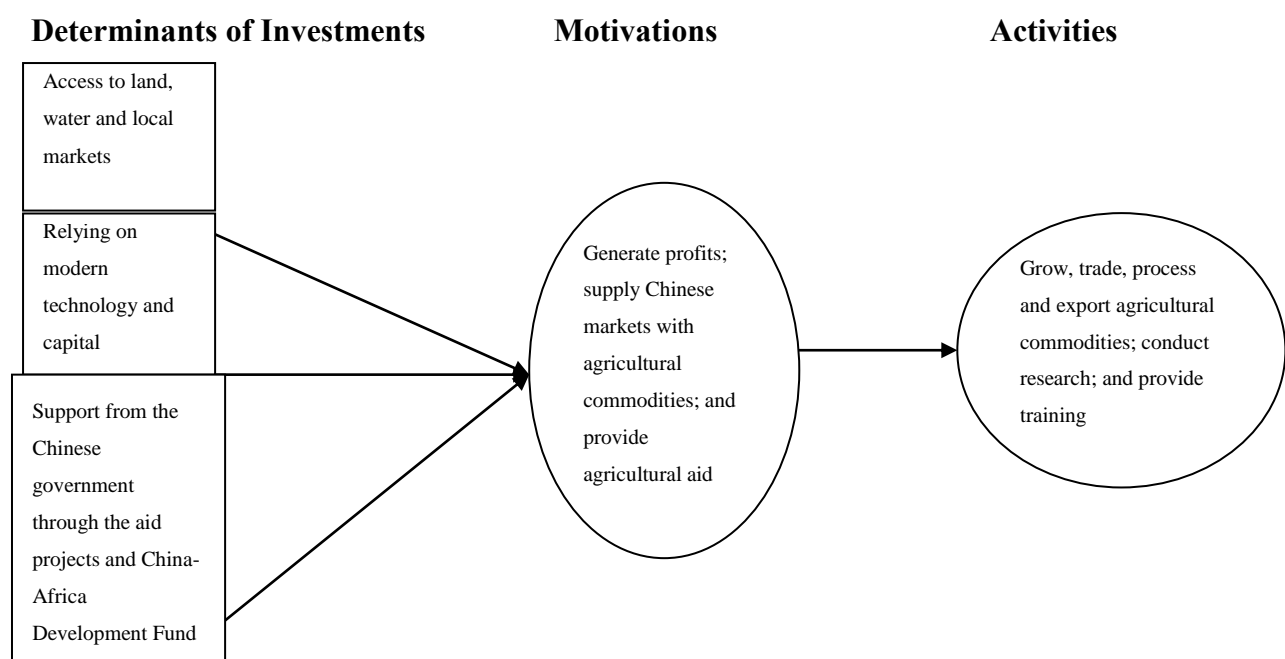
### 6.3 Chinese agricultural enterprises' motivations

Figure 6.2 details the conceptual framework, based on fieldwork data, which informs the discussion in this chapter on the motivations of Chinese agricultural enterprises operating in Mozambique as well as their activities. Three main factors determine these motivations. As shown in Figure 6.2, the first factor is access to local resources – mainly water and arable land – as well as local markets. The second is the availability of the modern agricultural technologies of Chinese agricultural enterprises, especially in the area of hybrid rice. The third element is the financial support that Chinese agricultural enterprises receive from the Chinese government in the form of subsidies – direct support for costs – provided through the aid projects or in the form of direct funding through the China-Africa Development Fund. Hence it is the complementarity between local resources (water, arable lands and local markets), agricultural technologies (hybrid rice, machinery and modern techniques) and subsidies from the Chinese government that determines the motivations of Chinese



agricultural enterprises. Therefore, the motivations of Chinese agricultural enterprises operating in Mozambique are to access farmlands in order to embark on commercial farming with several objectives in mind: to generate profits by exploiting local, South African and European markets; to supply Chinese markets with agricultural commodities; and to provide agricultural aid to local farmers, students and technicians. In order to achieve these aims Chinese agricultural enterprises intend to grow, trade, process, export agricultural commodities, to test new varieties of crops brought from China, and to provide training.

**Figure 6.2 Conceptual framework on the motivations of Chinese agricultural enterprises operating in Mozambique**



### 6.3.1 Determinants of the motivations of Chinese agricultural investments

Chinese agricultural enterprises operating in Mozambique rely on their specific ownership advantages in order to be able to compete with local firms. These specific advantages or assets are technology and knowledge. To start with, Chinese state-owned enterprises operating in Mozambique are in a position to access modern technologies – such as machinery, hybrid rice seedlings, chemicals and knowledge – from their respective mother companies in China and transfer them to Mozambique. This is especially true given the fact that the mother companies of the Chinese state-owned enterprises have had many years of experience in their specific areas of expertise in China and/or elsewhere. For instance, Hubei Lianfeng was founded by Hubei State Farming Agribusiness Corporation, which has

extensive experience and knowledge regarding the production of rice in China (Freeman et al., 2008). While China-Africa Cotton Development, Ltd – the mother company of China-Africa Cotton Mozambique – was founded by a consortium of Chinese enterprises such as China Coloured Cotton Group, Qingdao Huifu Textile Corporation and Qingdao Ruichang Cotton Industrial Corporation, all with extensive experience and knowledge in the cotton industry (Investor.com, 2011; Ecplaza Global, 2009). The goal of China-Africa Cotton Development is to facilitate China's access to Africa's cotton by using modern technologies (Interview with manager of China-Africa Cotton Mozambique, Beira 26 April 2011). The private Chinese agricultural enterprises are also able to access modern technology through various networks in China or via some Chinese state-owned agricultural enterprises operating in Mozambique (Interview with manager of ACE Agriculture and Aquaculture, Beira 26 April 2011).

In addition to specific advantages, Chinese agricultural enterprises operating in Mozambique also enjoy locational advantages. Chinese agricultural enterprises operating in Mozambique appear to be attracted by the presence of natural resources – land and water. This is because, as argued in chapter 5, Mozambique possesses sufficient land and water to support significant agricultural projects. In addition to that, Mozambique also possesses significant markets for agricultural commodities, since the country is in dire need of foodstuff such as rice. As a matter of fact, Mozambique appears to be a major consumer of rice. From 2002 to 2007 rice consumption in Mozambique more than doubled, surpassing 20 kg per person per year (International Rice Research Institute, 2001). In addition, between 2002 and 2008 rice imports exploded, rising from 75 000 to 350 000 tonnes per year. More importantly, rice demand in Mozambique is expected to continue to rise in the near future (International Rice Research Institute, 2011).

Furthermore, given that most Chinese agricultural enterprises operating in Mozambique are state-owned, they benefit from various forms of financial support from the Chinese government. For instance, Hubei Lianfeng Mozambique benefited – within the framework of the aid projects – from subsidies from the Chinese government in the form of pre-investment expenses. Today, Hubei Lianfeng Mozambique continues to receive support from the Chinese government in the form of subsidies for operating costs. The other Chinese state-owned enterprise, China-Africa Cotton Mozambique, also benefits from funding from the Chinese government, but this time through the China-Africa Development Fund. The China-Africa Development Fund provided capital for the construction of China-Africa Cotton

Development planting and processing facilities in Malawi, Zambia and Mozambique (China Development Bank, 2012; Ecplaza Global, 2009). The provision of capital by the Chinese government to its state-owned agricultural enterprises operating in Mozambique is related to the political economy of China, in particular the efforts of the Chinese government to promote foreign investment by Chinese enterprises to access foreign markets and resources, as discussed in Chapter 5. The private Chinese agricultural enterprises rely on personal savings and family networks in order to raise capital for investment in agricultural projects (Interview with manager of ACE Agriculture and Aquaculture, Beira 26 April 2011).

Chinese agricultural enterprises operating in Mozambique possess complementary ownership and locational advantages, which allow them to exploit their specific assets and successfully establish themselves in the local industry (Interviews with managers of Hubei Lianfeng Mozambique, Boane 7 April 2011 and Xai-Xai 12 April 2011; Interview with manager of China-Africa Cotton, Beira 26 April 2011). Moreover, Chinese agricultural enterprises also have internalization advantages as a result of the internalization of intangible assets – knowledge and technology – within the firms. In the case of China-Africa Cotton Mozambique, the internalization of processed cotton inside the firm, as it is sent to its mother company in China, features a vertical integration strategy (Interview with manager of China-Africa Cotton, Beira 26 April 2011). Therefore, the possession of ownership, locational and internalization advantages by Chinese agricultural enterprises operating in Mozambique, as well as the financial support that such enterprises receive from the Chinese government, enables them to pursue their objectives of accessing farmlands in order to generate profits through their farming activities to supply Chinese markets with agricultural commodities. In this way, the ownership, locational and internalization advantages outlined above – as well as the contextual variable in the form of the financial support by the Chinese government – are in line with Dunning's eclectic paradigm as discussed in Chapter 3.

### **6.3.2 Motivations and activities of Chinese agricultural enterprises**

#### **6.3.2.1 Generate profits through farming activities**

As explained in the introduction of this chapter, one of the motivations of Chinese agricultural enterprises operating in Mozambique is to grow food crops to sell them in local markets and to a lesser extent in South African and European markets in order to generate profits. In the process Chinese agricultural enterprises adopt various business strategies aimed at maximizing their profits.

Chinese agricultural enterprises operating in Mozambique are all involved – or planning to get involved – in the trade of agricultural commodities such as rice, maize, mushrooms, sesame seeds, rice seedlings, processed cotton and cooking oil (Interviews with managers of Hubei Lianfeng Mozambique, Boane 7 April 2011 and Xai-Xai 12 April 2011; Interview with manager of ACE Agriculture and Aquaculture Beira 26 April 2011; Interview with manager of China-Africa Cotton Mozambique, Beira, 26 April 2011). Rice, maize, mushrooms, cooking oil and rice seedlings are destined for local markets – as well as for South African markets in the case of brown rice (Interview with manager of ACE Agriculture and Aquaculture, Beira 26 April 2011; Interviews with manager of Hubei Lianfeng Mozambique, Boane 7 April 2011 & Xai-Xai 12 April 2011; Interview with manager of China-Africa Cotton Mozambique, Beira 26 April 2011). In addition to that, Chinese agricultural enterprises seem to charge higher prices for their agricultural commodities – especially rice – than those prevailing in local markets (Interview with manager of Hubei Lianfeng Mozambique, Xai-Xai 12 April 2011; Interview with manager of ACE Agriculture and Aquaculture, Beira 26 April 2011). Moreover, Chinese agricultural enterprises appear to focus on crops or seeds that experience significant local demand, while disregarding crops or seeds produced by local producers or lacking significant demand. This is especially the case for rice and rice hybrid seedlings (Interviews with managers of Hubei Lianfeng Mozambique, Boane 7 April 2011 & Xai-Xai 12 April 2011; Interview with manager of ACE Agriculture and Aquaculture Beira 26 April 2011). Likewise, Chinese agricultural enterprises – especially the private ones – also target lucrative markets in Europe with exports of sesame seeds and prawns (Interview with manager of ACE Agriculture and Aquaculture, Beira 26 April 2011). All these actions on the part of Chinese agricultural enterprises indicate profit maximisation strategies.

Furthermore, Chinese agricultural enterprises operating in Mozambique also seem to implement a strategy of product diversification by producing more than one commodity (Interview with manager of ACE Agriculture and Aquaculture, Beira 26 April 2011; Interview with manager of China-Africa Cotton Mozambique, Beira 26 April 2011). This mode of operation could be perceived here as a strategy aimed at reducing production costs – economies of scope – or at minimizing risks. Regardless of whether Chinese agricultural enterprises seek to reduce production costs or minimize risks, the production of more than one crop clearly indicates a profit-maximizing mode of production. Finally, Chinese agricultural enterprises also appear to employ permanent and casual workers (Interview with

manager of Hubei Lianfeng Mozambique, Xai-Xai 12 April 2011; Interview with manager of ACE Agriculture and Aquaculture, Beira 26 April 2011). The employment of local workers might signal an attempt on the part of Chinese managers to lower labour costs through efficient use of workers. This pattern of operation is also likely to enhance profit.

### **6.3.2.2 Supply Chinese markets**

Besides the generation of profits, the other motivation of Chinese agricultural enterprises is to transfer agricultural commodities to China. In this respect, China-Africa Cotton Mozambique is planning to transfer processed cotton within its firm to its mother company in China (Interview with manager of China-Africa Cotton Mozambique, Beira 26 April 2011). Moreover, it appears that the Chinese government is also keen to acquire tracts of land in Mozambique's Zambezi valley on behalf of Chinese agricultural enterprises and farmers in order to cultivate agricultural commodities and transfer them to China (Interviews with local researchers, Maputo 8 April 2011 and 14 April 2011). The Zambezi valley seems to be the most important region of Mozambique. The valley has a significant area of 250 000 km<sup>2</sup> and has huge reserves of natural resources – including water, timber, coal and gold, which makes it the richest region of the country (Macauhub, 2006). Given the availability of natural resources in this region, it is not surprising that it has attracted the interest of Chinese farmers and agricultural enterprises.

The Chinese government seems to be pushing for the creation of a large zone in the valley in which Chinese farmers and agricultural enterprises would produce agricultural commodities on a large scale destined for local markets and Chinese markets. This interest on the part of the Chinese government in the valley appears to explain the purpose of the US\$32 million loan provided by the Chinese EXIM Bank to China CAMC Engineering CO, Ltd (CAMCE) in 2011 for the construction of three processing factories – for husking rice, maize and cotton – in the Zambezi valley (Macauhub, 2011). It can also explain why the Chinese government has signalled its interests in funding investments projects – mostly through China EXIM Bank – such as the construction of dams and roads in the valley (Jansson & Kiala, 2009). In fact, these initiatives of the Chinese government aim to create a particular environment that would enable Chinese agricultural enterprises and farmers to operate under a vertical strategy – in order to serve local but primarily the larger Chinese markets. Beijing aims to establish clusters of Chinese agricultural enterprises and farmers in the valley, which will be linked to

Mozambican markets for rice and maize, and Chinese markets for cotton and soybean (Interviews with local researchers, Maputo 8, 14 April 2011).

Soybeans, cotton and sugar are projected to be amongst the agricultural commodities for which China will experience shortages in the long term (BOABC Company, 2010). Figure 6.3 below shows that in 2008 soybeans, palm oil and cotton featured amongst the top agricultural commodities imported by China. The high demand for palm oil in China is fuelled by the rising demand for cooking oil and biofuels, while the high demand in cotton is fed by the strong requirements of the textile industry. As for soybeans, the rise in imports of this commodity is due to the mounting consumption of meat in China, which compels Chinese farmers to import more soybeans abroad – especially from the United States – to feed animals (Normand, 2010; Freeman et al., 2008).

It appears from the above discussion that Chinese agricultural enterprises operating in Mozambique grow rice, maize and vegetables mainly for local markets and to a lesser extent for South African and European markets, where there is a demand for brown rice and prawns. On the other hand, it appears from this section that Chinese agricultural enterprises transfer or aim to transfer cotton and soybeans to China. However, it is worth mentioning here that soybean does not feature as one of the staple food crops in Mozambique, where it is often used for the processing of animal (poultry) foods and soybean oil (Opperman & Varia, 2011). Therefore, soybean constitutes more of a secondary food crop. It therefore seems that for the moment Chinese agricultural enterprises operating (or aiming to operate) in Mozambique do not transfer (or aim to transfer) staple food crops to China.

The above analysis is consistent with the claims made by Brautigam and Xiaoyang (2009) and Brautigam and Ekman (2012), according to which the Chinese interest in rice production in Mozambique is aimed at supplying only local markets because of the increasing demand in that country of this particular commodity. However, the interest shown by Chinese agricultural enterprises, especially CGOG, in the farming and export of soybeans from Mozambique to China suggests that in the long run – as the demand for agricultural commodities, including foodstuffs, is expected to rise in China (Freeman et al., 2008) – these enterprises might be willing to grow and export huge amounts of primary food crops from Mozambique not only to realise profits but also to serve the needs of Chinese markets and consumers.

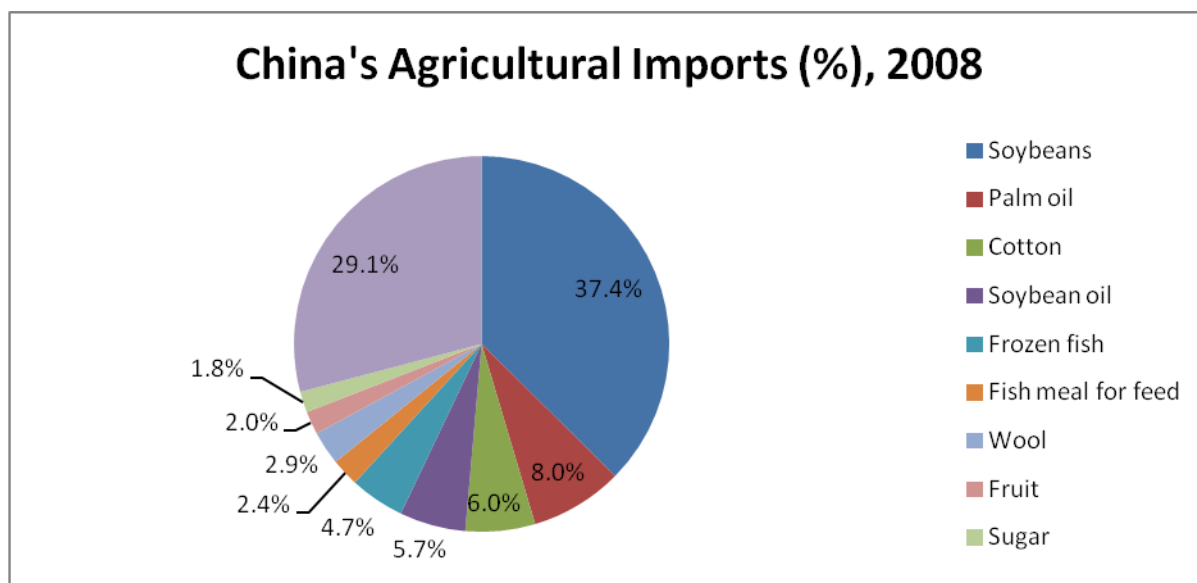


Figure 6.3: Proportions of agricultural commodities imported by China in 2008. Source: Collin Carter (China's Role in International Agricultural Markets)

### 6.3.2.3 Provide agricultural aid

Apart from conducting commercial activities, one Chinese agricultural enterprise operating in Mozambique – Hubei Lianfeng Mozambique – also aims to provide agricultural aid to farmers, students and technicians.

In contrast to other Chinese agricultural enterprises that are solely involved in profit-seeking activities, Hubei Lianfeng Mozambique is also involved in the provision of agricultural aid in Boane and Xai-Xai, Gaza province. In Boane, Hubei Lianfeng runs the Umbeluze research centre built by the Chinese government (Interview with manager of Hubei Lianfeng Mozambique, Boane 7 April 2011). The centre aims to conduct scientific research through the introduction and adaptation of new varieties of crops brought from China, and to provide training to local farmers, students and technicians (Interview with manager of Hubei Lianfeng Mozambique, Boane 7 April 2011). In Xai-Xai, Hubei Lianfeng provides technical support to surrounding farmers – introducing hybrid rice seedlings and new machines to them and teaching them new farming techniques (Interview with manager of Hubei Lianfeng Mozambique, Xai-Xai 12 April 2011).

However, the non-lucrative activities of Hubei Lianfeng Mozambique, both in Boane and Xai-Xai, appear to be limited in scope and to lack coordination with local institutions. In Boane, Hubei Lianfeng Mozambique has only seven staff members and yet plans to train 1 500 farmers, students and agricultural extension agents in three years (Interview with

manager of Hubei Lianfeng Mozambique, Boane 7 April 2011). It is unlikely that the Umbeluze Centre will be able to meet that target with this limited number of staff members. On the research front, the Umbeluze research centre lacks a well-structured framework of cooperation with the IIAM – Mozambique's leading agricultural research institute – that will ensure the adaptation of Chinese agricultural technologies to the needs of smallholders and their effective dissemination throughout Mozambique. At the Umbeluze research centre Chinese researchers are conducting research on their own without coordination with local research institutions. There is no guarantee that the activities of Chinese researchers at the Umbeluze research centre will be suitable to meet the needs of local farmers (Interview with the Director General of IIAM, Maputo 20 April 2011). The issue of the adaptability of Chinese technologies is an important one and comparable to the concerns raised by Hairong and Sautman (2010) with reference to Zambia. Hairong and Sautman argue that modern agricultural technology already exists in Zambia and that what is needed are mechanisms to adapt them to the needs of local farmers and ensure their dissemination rather than the mere establishment of a Chinese agricultural demonstration centre in the country.

I mentioned in Chapter 2 that since the mid-1990s China has adopted a new architecture for its agricultural aid projects in Africa that combines aid provision with business imperatives. Chinese agricultural enterprises are allowed to manage aid projects and provide agricultural aid, while at the same time pursuing profit-seeking activities. Chinese officials claim that such a model aims at ensuring the sustainability of aid projects – and therefore their effective contribution to the development of African agriculture (Brautigam, 2009:247-249). If the aim is, amongst other things, to ensure the sustainability of aid projects, then one would expect strong and well-structured collaboration between Chinese teams running the centres and local managers and researchers in order to build local capacity. However, at the Umbeluze research centre the Chinese team is currently conducting research in isolation. In addition to that, the manager of the Umbeluze research centre claims that his team will be working alone – without the participation of local staff and researchers – during its three-years period of management of the centre. The absence of scientific cooperation between Chinese and local managers and researchers at Umbeluze is therefore likely to hinder the enhancement of local capacities – and consequently the transfer of Chinese agricultural technologies to local research institutions. In addition, the absence of scientific cooperation between the two sides is also likely to undermine the sustainability of the activities of the Umbeluze research centre after the departure of the Chinese enterprise.



In Xai-Xai the activities of Hubei Lianfeng are also limited in scope. The Chinese agricultural enterprise is providing support to only six farmers per year. Not only is this number small and hence of limited effect, but more importantly all 46 farmers operating at the irrigation scheme – where Hubei Lianfeng is also operating – appear to be medium-level commercial farmers<sup>7</sup> (Interview with manager of Hubei Lianfeng Mozambique, Xai-Xai, 12 April 2011; Interviews with provincial inspector at the ministry of agriculture and with commercial farmer, Xai-Xai 13 April 2011). These commercial farmers obtained their farmland in the scheme after winning a bid. Given that these commercial farmers appear to be more socially stable than the average smallholder, this situation appears to illustrate a class bias in which fairly influential individuals are able to use their networks to secure access to limited resources – irrigated land – as well as foreign technologies at the expense of smallholder farmers.<sup>8</sup> This point is to some extent borne out by the work of scholars such as Ake (1996), Boone (1994) and Mamdani (1996), who have pointed to a bias in agricultural policies against smallholders in post-colonial Africa.

The analysis in this section regarding the limitation in scope, the inadequate planning of agricultural aid projects and lack of cooperation with local researchers and managers casts doubt on the sustainability, scope and effectiveness of the aid projects implemented by Hubei Lianfeng Mozambique. More importantly, it should be recalled that the implementation of the aid projects in Boane and Xai-Xai was made possible by the financial support of the Chinese government – central government and Hubei province – through the construction of the buildings and the acquisition of equipment and machinery. Also, the Chinese government continues to cover the salaries of Chinese staff (Interviews with managers of Hubei Lianfeng Mozambique, Boane 7 April 2011 and Xai-Xai 12 April 2011). Given the limited reach and the inadequate planning of the aid projects, it seems as if the primary objective of the establishment of the aid projects is to support the business activities of Hubei Lianfeng Mozambique. The financial contribution of the Chinese government to the realisation of the aid projects can be primarily perceived as a business strategy to enable Hubei Lianfeng to penetrate the Mozambican market. This analysis is comparable with that of Brautigam (2009). As discussed in Chapter 2, Brautigam (2009:249) argues that the Chinese ministry of

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<sup>7</sup> This information was provided to me by four respondents during my visit to Xai-Xai. They included an official of the provincial agricultural department, the local manager of Hubei Lianfeng, the driver and interpret of Hubei Lianfeng as well as a commercial farmer cultivating land in the same perimeter as Hubei Lianfeng.

<sup>8</sup> The commercial farmer as well as the interpret and driver of Hubei Lianfeng told me that some owners of the farms at the irrigation scheme were connected to local politicians.

commerce decided to provide three years of grant support to Chinese agricultural enterprises running the new agricultural demonstration centres established in Africa, during which time they will “explore how to operate in a commercial, sustainable, and mutually beneficial way”.

This is exactly what seems to be happening with Hubei Lianfeng in Xai-Xai. The Chinese state-owned enterprise operated for three years at the irrigation scheme in Xai-Xai, cultivating not more than 60 hectares of rice (Interview with manager of Hubei Lianfeng Mozambique, Xai-Xai 12 April 2011). During that period Hubei Lianfeng benefited from the support of the provincial government of Hubei. However, in late 2011 Hubei Lianfeng entered into a partnership with a Chinese businessman in order to create Wambao Agriculture Development, Ltd. The new agricultural enterprise started operating in 2012 and plans to farm over 6 000 hectares of rice in a new farmland located at the vicinity of the city of Xai-Xai (Phone Interview with manager of Hubei Lianfeng in Xai-Xai, Stellenbosch 24 October 2011). Conversely, the conduct of agricultural research at the Umbeluze research centre by Chinese researchers appears to be directed at developing varieties of crops adapted to local conditions. Such varieties might well be intended to enable Chinese agricultural companies to launch large commercial ventures successfully at later stages. As a matter of fact, access to appropriate seeds is of paramount importance for the success of any agricultural commercial enterprises – as I discuss in the next section. Hence, the aid projects run by Hubei Lianfeng Mozambique primarily operate within a commercial strategy. The provision of agriculture aid is more of a secondary motive.

This section of the chapter provides ample explanations of the linkages between the interests of the Chinese government with those of Hubei Lianfeng Mozambique. In chapter 3, this study held that one of the criticisms against Dunning’s eclectic paradigm expressed by Macharzina and Engelhard (1991) focuses on the alleged inability of the OLI paradigm to establish links between its main determinants, especially those that belong to different levels of analysis, by way of mediating mechanisms. However, the analyses conducted in this section tend to discard the above criticism, insofar as they have showed that Dunning’s eclectic paradigm is able to establish linkages between its main determinants when combined with an appropriate methodological approach, such as the case study design, that facilitates the enunciation of causal mechanisms through which the variables are linked.

The analyses enunciated in the preceding sections enable to conclude that the motivations of Chinese agricultural enterprises operating in Mozambique are to acquire farmland in order to

generate profits, to transfer agricultural commodities to their mother companies in China – which further process these commodities for Chinese markets – and the provision of agricultural aid to local farmers, students and technicians. However, the provision of agricultural aid by Hubei Lianfeng Mozambique is a secondary motive of the firm – the primary objective remains the generation of profits. The activities of Chinese agricultural enterprises operating in Mozambique are consistent with China's global foreign policy, as Chinese agricultural enterprises aim to better position themselves in local markets and secure natural resources for Chinese markets.

These findings are consistent with the claims made in the literature by Hairong and Sautman (2010) and Sun (2011). Hairong and Sautman argue that Chinese agricultural enterprises operating in Zambia – specifically state-owned agricultural enterprises – function under a capitalist framework and that their motivation is to generate profits and acquire long-term assets such as land. Sun (2011) argues that one of the aims of the presence of Chinese agricultural enterprises in Africa is to secure key agricultural commodities for the benefit of the Chinese economy. Moreover, the above findings are also comparable to the analysis of Brautigam (2009), Brautigam and Xiaoyang (2009), Brautigam and Ekman (2012), who have pointed to the new mode of Chinese involvement in Africa's agriculture that combines business activities with agricultural aid. However, in contrast with Brautigam (2009), Brautigam and Xiaoyang (2009), Brautigam and Ekman (2012) and Sun (2011), this study holds that Chinese aid projects in Mozambique primarily feature as part of the profit-seeking motivations of Chinese agricultural enterprises. Given that the provision of aid is a strategy of Hubei Lianfeng Mozambique mainly intended to get a foothold in Mozambique, distinguishing between foreign assistance and commercial activities becomes difficult. As such, the prioritization of the commercial interests of Chinese agricultural firms does not necessarily lead to a mutually beneficial situation. As argued by Grimm (2011), the mutually beneficial aspect of Chinese aid projects leaves unsettled the issue about the distribution of gains. In this case, it seems as if the distribution of gains is in the favour of Hubei Lianfeng Mozambique.

#### **6.4 Behaviour of Chinese agricultural enterprises**

As noted in the introduction, this chapter also endeavours to understand the effects of the institutional context in Mozambique on the behaviour and/or modes of entry of Chinese agricultural enterprises. In Mozambique the institutional context affects the behaviour and/or

modes of entry of Chinese agricultural enterprises in three different ways: 1) the poor condition of infrastructure; 2) the absence of basic information on soil and its main characteristics; and 3) the complexities of the land acquisition system.

Figure 6.4 below provides a conceptual framework that explains the way in which the institutional context in Mozambique affects the behaviour and/or modes of entry of Chinese agricultural enterprises. Figure 6.4 distinguishes two sorts of institutions: slow-moving and faster-moving. Slow-moving institutions refers to the set of informal constraints and formal rules that are strongly embedded in the society's culture and tradition. These kinds of institutions change slowly over time, often over centuries (Williamson, 2000; North, 1991). Figure 6.4 distinguishes two types of slow-moving institutions: the customary land tenure system – an informal constraint – and the land law – a formal rule. Both the customary land tenure system and the land law tend to change gradually over time, although the latter is expected to change faster than the former. Fast-moving institutions are basically constituted of political institutions. Levy (2004) and De Laiglesia (2006) define political institutions as the set of formal political rules, their governance structures and leadership. In other words, political institutions are described as the written constitution and laws that inform the constitutional form of the state as well as the process through which power is attributed and applied. Political institutions tend to change faster – over decades – than institutions deeply rooted in culture and tradition, such as customary land tenure systems and the land law.

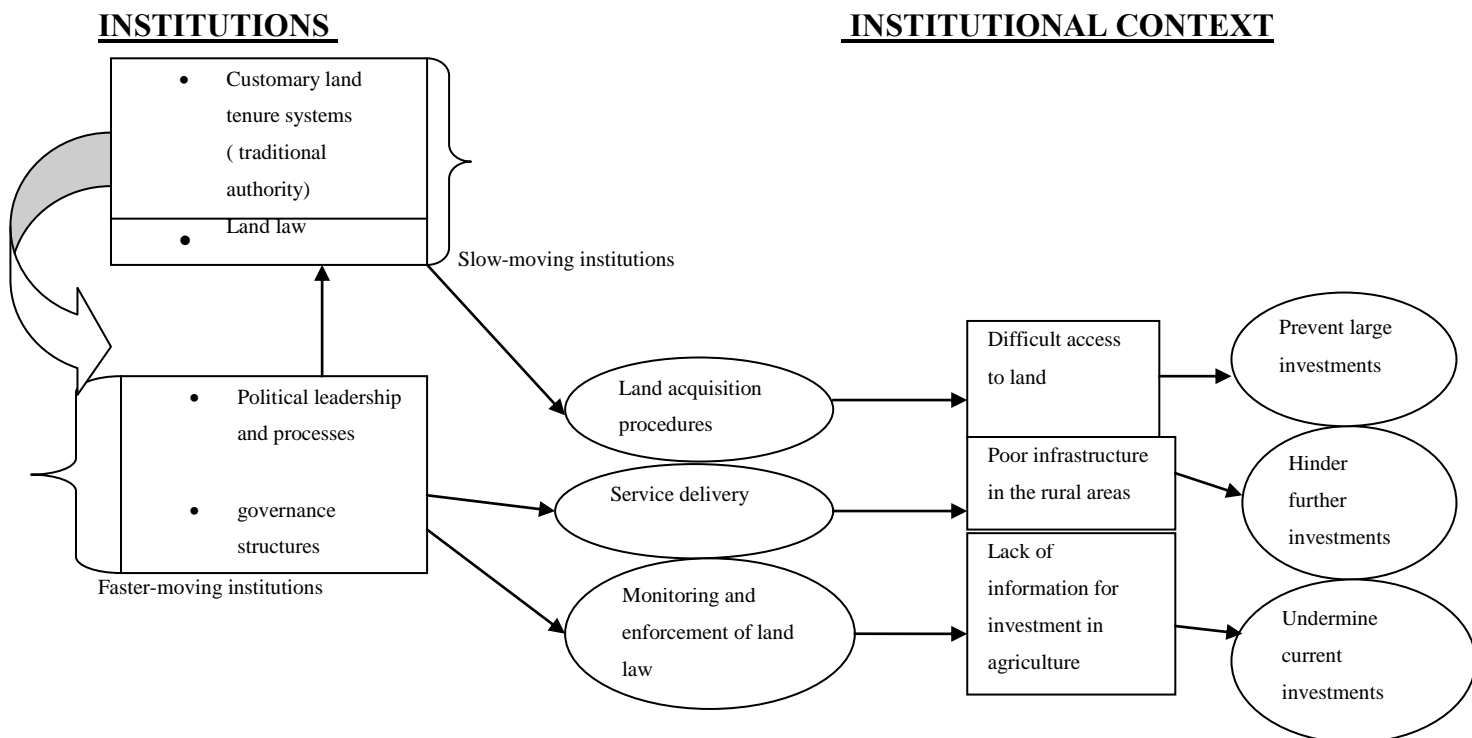
The first central postulate embodied in Figure 6.4 is the relationship that exists between political institutions, on one hand, and the customary land tenure systems on the other. In this way, customary land tenure systems affect the perceptions of political leaders on land issues. The second central assumption expressed in Figure 6.4 is the relationship between political institutions and the land law. The perceptions of political leaders influence the content of the land law. The content of the land law is therefore a product of interactions between customary land tenure systems and political institutions. In this way, the land law reflects both the traditional and official land tenure systems. As a result, access to land by Chinese agricultural enterprises is difficult.

The third central assumption exemplified in Figure 6.4 is the role of political institutions on the effectiveness of the bureaucracy. Levy (2004) and De Laiglesia (2006) claim that political institutions serve as a link between the broader society and the bureaucracy. According to them, the role of political institutions is, on the one hand, to contain pressures from the

various political and economic groups in the society by channelling their various and often contradictory interests into the policy process; and on the other hand, to set the policy, regulatory and service delivery goals of the bureaucracy and to ensure their implementation. Political institutions therefore determine the incentive structures that affect the performance of the economy. In Mozambique, political institutions provide an unfavourable incentive structure that impact negatively on the provision of services, and the monitoring and enforcement of the land law.

As a corollary, Chinese agricultural enterprises operating in Mozambique face challenges related to poor infrastructure in rural areas and lack of information in relation to agricultural investments.

**Figure 6.4 Conceptual framework on the behaviour of Chinese agricultural enterprises operating in Mozambique**



### 6.4.1 Dysfunctional political institutions

According to the conceptual framework developed in Figure 6.4, the unfavourable institutional context prevailing in Mozambique is mostly the outcome of dysfunctional political institutions. Recalling chapter 3, this study held that the new institutional theory is more suitable to explain the process of economic change in Western countries and therefore needs to be modified in order to provide understanding of the nature and operations of political institutions in sub-Saharan Africa states. As emphasized in chapter 3, the mastering of the operations of political institutions is fundamental in the quest of understanding economic change. Thus, this study attempts to incorporate the concepts relevant to the literature on African states in the new institutional theory in order to provide more grounded explanations of the ways in which institutions, including political institutions, shape the behaviours and/or modes of entry of Chinese agricultural enterprises into local industries in Mozambique.

In Sub-Saharan Africa, political institutions are usually weak. To understand the cause of this weakness, one should examine the nature of African states. Most African states are artificial entities in the sense that European colonial powers established their borders without paying attention to the homogeneity of the political systems and cultures that were included in territories that were being formed. As a result, most African states today embody several pre-colonial political systems and cultures, such as kingdoms and various stateless societies (Englebert, 2000a). Therefore, in much of Africa there is a situation of incongruity between pre-colonial institutions and post-colonial states (Englebert, 2000b). In addition to that, at the time of the independence of African states the bulk of their political elites were the product of European colonialism – essentially through access to European education, formal employment, or even integration into the trading networks of the formal economy (Englebert, 2000b; Bayard, 2006). In that context the power and authority of those political elites were often not rooted in the local relations of power and domination (Englebert, 2000b). Therefore, Englebert (2000a:2000b) argues that most sub-Saharan African states lack legitimacy. They lack horizontal legitimacy because of disagreements over the definition of the community that forms the state. They also lack vertical legitimacy because the powers of political elites are contested even within their own political or ethnic societies. As a result, the state in Africa is often in conflict with the society, since the right to govern of political elites is contested by various political, ethnic and social segments of the society. This situation of conflict between the state and the society leads to political instability (Englebert, 2000b). In

order to curb political instability, political elites resort to a neo-patrimonial system of rule. Neo-patrimonialism is a personalised system of rule that links the ruler at the helm of the state with intermediaries and their ramifying networks of clientele. Basically, the ruler provides his clients with money and the latter, in return, provide him with political support and even security (Young, 2004, Bayard, 2006, Clapham, 1996). By its very nature, neo-patrimonialism favours distributive policies over productive policies. In this way neo-patrimonialism breeds corruption, inefficiency, laziness and neglect of the rule of law (Englebort, 2000b, Clapham, 1996).

The destructive policies applied in the context of neo-patrimonial systems of rule undermine the strength of institutions – including political institutions, as the moral integrity of the political leadership and the process of acquisition and delegation of power are affected as well. The weakness of political institutions prevents the state from providing proper guidance and sufficient resources to the bureaucracy. The flaws in political institutions also allow interest groups in society to capture and dominate the bureaucracy. Thus, the bureaucracy becomes unable to perform its task of formulating and implementing sound policies and providing services to the community. The poor performance of bureaucracies in Africa should not only be perceived as an outcome of limited technical and managerial capacity. This is because bureaucracies are “embedded in a complex, interdependent system” that includes political institutions as well as social, economic and political interests (De Laiglesia, 2006:40 & Levy, 2004:11).

The Mozambican state and its institutions were severely weakened at the end of the civil war in 1992. However, since the return of peace the country has made significant progress in the area of state building. In particular, Mozambique initiated a process of decentralisation as part of a concerted effort between the country’s political elites and international donors to consolidate democracy by ensuring legitimate, accountable and inclusive institutions at all levels of the state. It was also hoped that decentralisation would ensure more efficiency in the provision of basic services at the level of districts and municipalities (Cuereneia, 2001; Ames et al., 2010). In 1996 Mozambique’s parliament approved the Local Government Act, which provided for the establishment of local authorities – rural districts and urban municipalities – endowed with administrative, financial and patrimonial autonomy (Cuereneia, 2001). At the same time, the provisions of the bulk of basic services remained the prerogative of provincial governments (Waterhouse, n.d). However, despite of the decentralisation reform, provincial and local governments have difficulties in providing basic services to local population. The

reason for this failure appears to be rooted in the continuing dysfunctional nature of political institutions. Several studies (Ames et al., 2010; Waterhouse, n.d; Do Rasario, 2011) have pointed to several political factors and institutional arrangements as explanations of the poor performance of the state bureaucracy. These include: political rivalry between Frelimo and Renamo that breeds neo-patrimonial rule and sabotage; lack of effective coordination and the definition of service responsibility between the central and local governments; ambiguous distribution of responsibilities between different provincial ministries; limited fiscal autonomy on the part of local governments; and shortages of technical capacity for the purpose of policy making, planning and advocacy.

#### **6.4.2 Poor infrastructure**

The above discussion suggests that governance structures and political leadership in Mozambique appear to have failed to provide the right guidance, incentive and resources to the bureaucracy in order to provide adequate infrastructure. The inadequacy of infrastructure – and in particular irrigation systems – has undermined the activities of one Chinese agricultural enterprise operating in Mozambique, ACE Agriculture and Aquaculture (Interview with manager of ACE Agriculture and Aquaculture, Beira 26 April 2011). For the moment ACE Agriculture and Aquaculture is the only Chinese agricultural enterprise affected by the problem of poor infrastructure. However, this does not mean that this is not a significant issue for Chinese agricultural enterprises operating in the country. The number of Chinese agricultural enterprises operating in Mozambique is still small. Thus, given the poor provision of infrastructure in the rural parts of Mozambique – such as roads and irrigation systems – one could anticipate that as the number of Chinese agricultural enterprises operating in Mozambique would increase over the next years, the issue of inadequate infrastructure will become a significant impediment for many of them. This will be especially true for Chinese agricultural enterprises that will evolve outside the aid projects funded by the Chinese government, as these enterprises will require large tracts of land that are likely to be located further in the countryside. Hence the absence of adequate infrastructure could inhibit the activities of Chinese agricultural enterprises operating in Mozambique. This finding is comparable to the analysis made by Sun (2011:21) on the negative effects of institutional arrangements in Africa on “indigenous entrepreneurship and wealth creation” abilities of smallholders and investors in Africa. Furthermore, the role of political institutions in shaping the ability of the state to provide infrastructure in the rural areas and, in turn, the apparent



effects of poor infrastructure on the operations of Chinese agricultural enterprises exemplify the way in which formal institutions can impact on economic performance.

### **6.4.3 Complex land acquisition system**

The land acquisition process in Mozambique is complex. The difficulty in accessing land is the outcome of the constraint that customary land tenure systems place on the formal land law. In other words, the complex process of accessing land in Mozambique stems from the duplication in the patterns of land tenure, as discussed in Chapter 5. The coexistence of traditional and formal land tenure systems makes difficult any access to land by investors, especially foreign investors, and gives rise to problems of land identification, community representation and negotiations. Investors are obliged to obtain agreements from local communities before launching official requests for land title with local officials. They are expected to find suitable farmland and then identify the community to which the land belongs and engage in negotiations with its representatives (Interview with Postdoctoral Fellow at IFPRI, Maputo 4 May 2011). During negotiations the local communities usually request compensation from the investor in the form of social services in exchange for access to their land. Such requirements obviously necessitate a great deal of financial resources, time and, of paramount importance, a good knowledge of local conditions and languages (Interview with manager of ACE Agriculture and Aquaculture, Beira, 26 April 2011).

The superposition of informal and formal patterns of land tenure has affected the mode of entry of one particular Chinese agricultural enterprise operating in Mozambique, China-Africa Cotton Mozambique. This Chinese enterprise opted to adopt an outsourcing mode of operation in order to dodge the institutional challenges associated with accessing farmland in Mozambique (Interview with manager of China-Africa cotton Mozambique, Beira 26 April 2011). China-Africa cotton Mozambique provides inputs and training to local farmers and in return purchases raw cotton from them. China-Africa Cotton has adopted a similar mode of operation in Zambia, Tanzania and Malawi (Interview with manager of China-Africa Cotton Mozambique, Beira 26 April 2011). Provided that it provides the right incentives to farmers in terms of purchasing price, this approach will surely enable China-Africa Cotton to minimise costs – both labour costs and those associated with accessing farmlands. This particular governance structure adopted by China-Africa Cotton Mozambique brings us back to the discussion held in chapter 3. Indeed, the analysis above has shown that the contractual model of governance structure chosen by this Chinese agricultural enterprise was in response

to the nature of the customary land tenure prevailing in Mozambique. This reality corroborates the claims made by Lowndes (1996) according to which firms are embedded in different patterns of social relations and hence, the type of governance structure they choose are related to particular characteristics of the state and society in which they operate. In this perspective, the argument put forward by Williamson (1973, 2000) according to which the choice of governance structures firms make depend on transaction costs is discarded by the particular case of China-Africa Cotton Mozambique. Indeed, while China-Africa Cotton is surely interested in transactions that are uncertain in outcome, repetitive and specific in terms of attributes, the Chinese agricultural enterprise has decided to go the route of a contractual model of governance structure, to the dismay of Williamson.

Furthermore, the superposition of the informal and formal land tenure systems in Mozambique also appears to limit room for manoeuvre for the Mozambican government to elaborate and implement policies in the areas of agriculture. In the case of the Zambezi valley, it appears that the Mozambican government has been reluctant to grant Chinese agricultural enterprises and farmers large tracts of farmlands in the valley, fearing social unrest (Interviews with local researchers, Maputo 8 April 2011 and 14 April 2011). The perception of the Mozambican political elites appears to be shaped to some extent by the superimposition of traditional and formal patterns of land tenure. Members of the ruling elites tend to believe that local communities have the primary right over land ownership. Hence, giving away large tracts of farmland to Chinese farmers and agricultural enterprises in an environment of high demographic pressures and persistent ethnic tensions might result in landlessness and fuel political conflict (Interview with local researcher, Maputo 14 April 2011). Hanlon and Mosse (2009) argue that it is precisely because of fears of landlessness that Mozambican ruling elites resisted pressure from the World Bank and the United States in the 1990s to privatise land in Mozambique. The superimposition of the traditional and formal land tenure systems coupled with the above perception on the part of Mozambican ruling elites seem to explain why there have not been any major Chinese investments in the agricultural sector in Mozambique so far.

This suggests that the Chinese government has supported the acquisition of large tracts of farmland in Mozambique's Zambezi valley by Chinese agricultural enterprises and farmers. This attitude of the Chinese government appears to have been motivated by a mercantilist strategy, as Beijing endeavours to encourage its enterprises and farmers to export cotton and soybeans from Mozambique in order to fuel the burgeoning Chinese economy and meet the

growing demand of Chinese consumers for more meat. Nevertheless, the attempt by the Chinese government, its enterprises and farmers to acquire large tracts of farmland in the Zambezi valley appears to have been undermined by the institutional context, especially in relation to informal constraints and formal laws pertaining to the land tenure system. The above findings show how informal constraints can have a bearing on formal laws, and the way in which formal laws can subsequently influence the direction of a segment of the economy.

#### **6.4.4 Poor monitoring and enforcement of the land law**

The difficulty of gaining access to land in Mozambique is made worse by the inability of the state to provide information to investors on the availability and characteristics of land in order to ensure the success of their investments. In Mozambique the National Land Cadastre was established by the land law of 1997 and mandated, amongst other things, to understand the different types of occupation and land uses, and to conduct assessments of soil fertility, forest tracts, hydraulic reserves, mining exploration zones and tourist destinations, and to organise efficiently the use of land as well as its protection and conservation (Lei de Terras, 1997: article 5). In short, the National Land Cadastre is tasked with the responsibilities of monitoring and enforcing the land law. However, in practice the National Land Cadastre lacks the capacity to do this (Interview with programme officer at ORAM, Maputo 5 April 2011; Interview with postdoctoral fellow at IFPRI, Maputo 4 May 2011). The poor performance of the National Land Cadastre appears to be the result of shortages in technical and managerial capacity on the part of the personnel of the organisation. As a matter of fact, most staff members are basic-level technicians, while the number of surveyors with high educational qualifications is very low, about 20 (Chemonics, 2006). However, this does not seem to be the only reason. Political institutions also appear to play a part in the poor performance of the National Land Cadastre. This occurs through the absence of a comprehensive strategy for the organisation as well as staff shortages – especially at the district level – and inadequate material resources, such as transport and communication equipment (Chemonics, 2006). The inability of officials working for the National Land Cadastre to collect information prevents the organisation from providing foreign and local investors with essential information that would have enabled them to make effective choices. The shortage of critical information might also point to a larger institutional problem that includes local research institutions. This is because, under normal conditions, the National Land Cadastre can only successfully carry out its mission with the effective collaboration of

local research institutions. The failure of the National Land Cadastre in this respect points either to loopholes in its cooperation with local research institutions or even perhaps to the inability of the latter to generate scientific information. It might even be possible that local research institutions are facing the same technical, managerial and financial constraints and lack of orientation as the National Land Cadastre, although it is beyond the scope of this study to ascertain this.

Shirley and Menard (1999) argue that information hazards and asymmetries increase the costs at which actors access information and therefore undermine their operations. Shirley and Menard (1999) also argue that information asymmetries can in turn be reduced through monitoring or competition. It is therefore not surprising that foreign and local investors in Mozambique's agricultural sector have been affected by information hazards and asymmetries. The case of CGOG – a large state-owned Chinese agricultural enterprise specialising in the purchase, processing, trade and transportation of a variety of grains and oil foods around the world and owning 21 subsidiaries (CGOG, Company Profile, 2012) – is quite illustrative. In 2005 CGOG decided to invest US\$12 million in the growing and processing of soybean for its foreign markets in the Nhamatanda district, Sofala province, Mozambique. However, CGOG's operations in Mozambique failed probably due to information asymmetries. It appears that it was the absence of appropriate information on the type of soil (fertility) for growing soybean as well as on suitable seeds and machines that led to the failure of CGOG operations in Mozambique (Interview with manager of ACE Agriculture and Aquaculture, Beira 26 April 2011).

This finding is important in the sense that it contradicts the arguments in the literature proffered by scholars such as Sun, who have assumed that Chinese state-owned agricultural enterprises operating in Africa, in light of their financial might and political connections, are more likely to resist the high costs of production induced by harsh institutional contexts than the smaller family-owned Chinese enterprises. But looking at the case of ACE Agriculture and Aquaculture, it appears that Chinese family-owned enterprises have greater flexibility, which enables them to take time to understand the local context and then take appropriate steps that enable them to dodge the challenges imposed by unfavourable institutional contexts.

Overall, political institutions tend to influence the ability of agents at the National Land Cadastre to monitor and implement the land law. The poor performance of agents of the

National Land Cadastre in turn appears to undermine the activities of Chinese agricultural enterprises. This finding demonstrates how formal institutions can constrain enforcement mechanisms and that this, in turn, determines the economic performance of agents.

The findings outlined in this chapter demonstrate that the institutional context in Mozambique affects the behaviour and/or modes of entry of Chinese agricultural enterprises. Specifically, the findings show this is the result of a combination of three institutional factors: the complexity of gaining access to land; poor infrastructure in the rural areas; and the limited capacity to monitor and enforce the land law. The behaviour and/or modes of entry of these enterprises also appear to be influenced by informal constraints, embodied in the customary land tenure system; formal rules such as the land law and political institutions; and enforcement mechanisms, the National Land Cadastre. This finding is in accordance with the concepts of institutions as developed by North and Williamson.

## **6.5 Conclusion**

The analysis in this chapter has drawn a number of important conclusions. First, as far as the first research question is concerned, there are three factors determining the motivations of Chinese agricultural enterprises operating in Mozambique: the ownership advantages held by Chinese agricultural enterprises in the form of technology and knowledge; their locational advantages in relation to investing in Mozambique in the form of access to fertile land, water and local markets; and the financial support that they receive from the Chinese government. Together these factors shape the motivations of Chinese agricultural enterprises operating in Mozambique. These motivations are: 1) to acquire farmland in order to generate profits through farming activities; 2) to transfer agricultural commodities to China in order to supply Chinese markets with consumer goods and natural resources such as textiles, clothes and animal foods; and 3) to provide agricultural aid by introducing new varieties of crops imported from China, and providing training to farmers, students and technicians. However, the provision of agricultural aid is more a secondary objective of Chinese agricultural enterprises, since the aid projects primarily serve to enable Chinese agricultural enterprises to enter Mozambican markets. Chinese agricultural enterprises become involved in the growing, trade, processing and export of agricultural commodities as well as the testing of varieties of crops and the delivery of training. The chapter has also argued that the activities of Chinese agricultural enterprises operating in Mozambique are generally consistent with China's foreign policy. This is particularly true with the activities of state-owned agricultural

enterprises running the aid projects or aiming to transfer agricultural commodities to China. Finally, it was claimed that Chinese agricultural enterprises operating in Mozambique generally grow and sell food crops in local and foreign markets other than Chinese markets. However, this is with the notable exception of soybeans, which CGOG – and possibly other Chinese farmers who sought to operate from the Zambezi valley – attempted to export to China. This chapter has held that as the demand for food crops continues to rise in China, Chinese agricultural enterprises might opt in the medium to long term to get involved in the growing of food crops in Mozambique destined for Chinese markets. These findings are consistent with claims made by scholars such as Hairong and Sautman (2010) and Sun (2011) in the literature on China-Africa relations. At the same time, the above findings are also slightly different from the claims made by scholars such as Brautigam (2009), Brautigam and Xiaoyang (2009), Brautigam and Ekman (2012), in that they show that the prioritisation of commercial activities within the framework of the aid projects – as informed by China’s foreign policy – casts doubt on the mutually beneficial character of these projects and leaves unresolved questions about the distribution of gains.

With regard to the second research question, this chapter has held that the institutional context in Mozambique affects the behaviour and/or modes of entry of Chinese agricultural enterprises through three institutional features: the complexity of the process of gaining access to land; the poor delivery of infrastructure and weak capacity in monitoring and enforcement of the land law.

The failure to provide infrastructure in rural areas appears to undermine the activities of Chinese agricultural enterprises, while the complex land acquisition system undermines investors’ access to farmland. This situation appears to affect the modes of entry of Chinese agricultural enterprises in Mozambique, as they opt to outsource land and labour.

Furthermore, the customary land tenure system – which in itself shapes the land acquisition system – appears to affect the perceptions of the ruling elites in the area of agricultural policy, which in turn hinders larger Chinese agricultural investments in Mozambique. Finally, the difficulty of gaining access to land is made worse by the lack of information on the availability and characteristics of land. At the level of the ministry of agriculture, the National Land Cadastre – as well as local research institutions – lacks the institutional and managerial capacity to monitor and enforce the land law. Such institutional weakness leads to an absence of information and guidance, which also appears to undermine the operations of Chinese agricultural enterprises, especially the larger ones.

The above findings are consistent with claims made by Sun (2011) in the literature on China-Africa relations. More importantly, however, three findings appear to make a new contribution to the literature. The first is the analysis showing how the complex process of gaining access to land shapes the mode of entry of China-Africa Cotton Mozambique. The second is the finding related to the effects of the lack of information on the soil and its key characteristics on the activities of Chinese agricultural enterprises – especially the larger ones. The third is the finding related to the effects of inadequate infrastructure on the activities of Chinese agricultural enterprises.

Finally, most of the findings above are in line with Dunning's eclectic paradigm and new institutional theory. This is because, on the one hand, Chinese agricultural enterprises operating in Mozambique enjoy ownership, locational and internalization advantages. On the other hand, the institutional context in Mozambique, influenced by informal constraints, formal rules and enforcement mechanisms, affects the behaviour and/or modes of entry of Chinese agricultural enterprises into local industries.

## **CHAPTER 7: CHINESE AGRICULTURAL ENTERPRISES IN THE DRC: ROLE AND BEHAVIOUR**

### **7.1 Introduction**

This chapter consist of two parts. In the first part I discuss the motivations of Chinese agricultural enterprises operating in the DRC. In the second the focus falls on the effects of the institutional context on the behaviour and/or modes of entry of these enterprises into local industries.

It is argued in this chapter that Chinese agricultural enterprises operating in the DRC are motivated by a number of objectives: 1) to acquire farmland in order to generate profits through farming activities; 2) to transfer agricultural commodities to China in order to supply Chinese markets with natural resources such as biofuels and cooking oil; and 3) to provide agricultural aid by introducing new varieties of crops imported from China and offering training to smallholders and students. However, the provision of agricultural aid by Chinese agricultural enterprises is a secondary motivation. The primary motivation of the enterprises running aid projects is to conduct profit-seeking activities. The aid projects funded by the Chinese government primarily aim to allow Chinese agricultural enterprises to establish themselves successfully in the DRC. Given that Chinese agricultural enterprises operating in the DRC primarily aim to access local markets and supply Chinese markets with agricultural commodities, their activities are consistent with China's foreign policy, as discussed in Chapter 5. Furthermore, it is held in this chapter that Chinese agricultural enterprises operating in the DRC are producing or aiming to produce food crops destined for local markets – rice, maize, vegetables and palm oil – as well as for Chinese markets – palm oil.

It is also shown in this chapter that the institutional context in the DRC affects the behaviour and/or modes of entry of Chinese agricultural enterprises by way of three institutional elements: difficulty of gaining access to land due to the duality in land ownership systems; the poor provision of infrastructure in rural areas; and conflicts over land ownership due to the inability of the state to effectively enforce land titles. To be more specific, the poor provision of infrastructure in the DRC appears to undermine further investments by Chinese agricultural enterprises. Conflicts over land control tend not only to discourage further investments, but also to compromise current investments. Moreover, the difficulty of gaining



access to land appears to hinder the operations of Chinese agricultural enterprises in the DRC. This is especially true for Chinese investments requiring large tracts of farmland. Finally, the harsh institutional context in the DRC appears to be shaping the model of business model of Chinese agricultural enterprises over time. For instance, the institutional context forced ZTE Agribusiness Congo to suspend its huge palm project in Equateur province and instead focus on small agricultural projects around Kinshasa.

## **7.2 Chinese engagement in the DRC**

Chinese involvement in the DRC agricultural sector is not new. The agriculture cooperation between the People's Republic of China and the then Zaire was launched in 1972, when President Mobutu's government recognised Beijing as the sole representative of the Chinese people. From then, the agricultural cooperation between the two countries evolved under the banner of the Chinese agricultural mission. During that period China would dispatch agricultural experts, equipment and funds to the DRC to help develop the country's agricultural sector (Interview with supervisor of Hubei Dadi, Kinshasa 18 May 2011). In 1991 the agricultural cooperation between the two countries was interrupted because of political instability and social unrest in Zaire. Agricultural cooperation between the two countries resumed in 1995 and since that year it has been implemented by Hubei Dadi International Corporation for Economic and Technical Cooperation – a state-owned enterprise from Hubei province established in 1995 by the Hubei Administration for Industry and Commerce (Xinhua & Lihua, 2011). Officially, the aim of the enterprise is to manage and implement Chinese agricultural aid projects in Africa. Therefore, in the past two decades Hubei Dadi International Corporation has provided agricultural aid for nine projects in five countries: the DRC, Nepal, Congo-Brazzaville, Guinea-Bissau and Botswana. In addition, Hubei Dadi Corporation has also sent more than 1 500 engineers and agricultural experts to various countries such as Mali, Nigeria, Ethiopia, Mauritania and countries in the Mediterranean, in the process completing 30 project contracts to the value of 0.18 billion Yuan ( Xianzhu & Lihua, 2011). Currently, besides the DRC, Hubei Dadi International Corporation is also operating in Nigeria and Ghana (Interview with supervisor of Hubei Dadi, Kinshasa 18 May 2011).

Table 7.1 below provides an overview of the nature and activities of Chinese agricultural enterprises operating in the DRC. This study has only been able to identify two Chinese agricultural enterprises operating in the DRC. Nevertheless, it should be noted that in the

course of the fieldwork, the researcher approached both the Office of the Economic Councillor of the Chinese Embassy in Kinshasa as well as the National Agency for the Promotion of Investments (ANAPI) – a body specialised in guiding and assisting foreign investors – and could not identify any additional Chinese agricultural enterprises operating in the country at the time. In addition to these two companies, China Overseas Engineering Group Corporation (COVEC), a world leading Chinese state-owned construction enterprise, attempted to invest in the agricultural sector but failed because of institutional factors, which will be discussed in the second section of this chapter.

**Table 7.1 Nature and activities of Chinese agricultural enterprises in the DRC**

Enterprise	Year	Location/Province	Capital Invested	Activities	Size of concession (hectares)
Hubei Dadi International Corporation	2010	Kinshasa	US\$1.464 000	Provide training to smallholders and students Grow and sell rice and pigs. Plan to set up a mill factory in Kinshasa	300 (Mikonga) 12 (Kingabwa)
ZTE Agribusiness Congo	2007	Kinshasa and Equateur	US\$5 million	Plant and process palm. Grow and sell maize. Plan to sell rice. Plan to provide training and conduct research	100 000 (equateur) 280 (Minkao) 600 ( Nsele) 75 ( Nsele)

Source: Information obtained from fieldwork in the DRC (May-June 2011)

As explained in Chapter 4, the researcher did not cover the entire Congolese territory during his fieldwork. Hence, this study does not claim to report a complete list of all Chinese agricultural enterprises operating in the country, nor to provide a complete and final understanding of the activities of Chinese agricultural enterprises operating in the DRC.

Figure 7.1 below provides an indication of the areas of the DRC covered by the fieldwork.

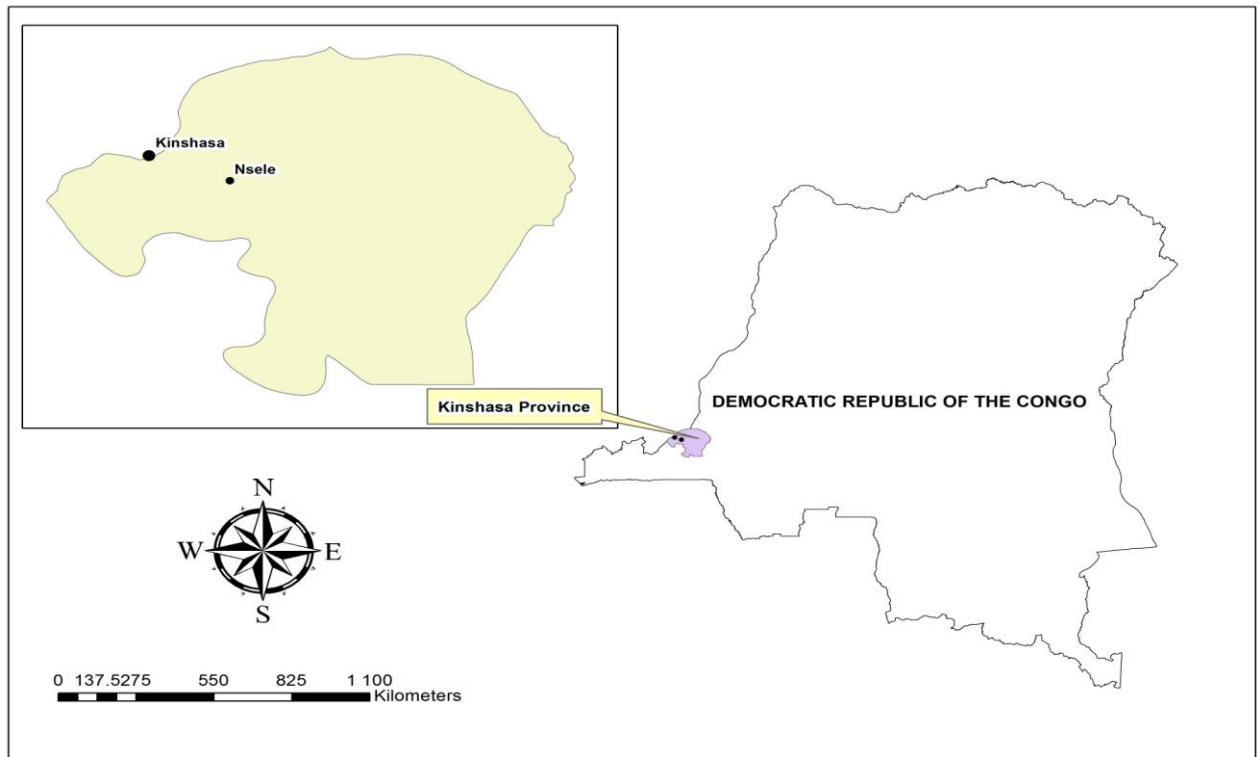
**Figure 7.1 Map of the Democratic Republic of Congo**

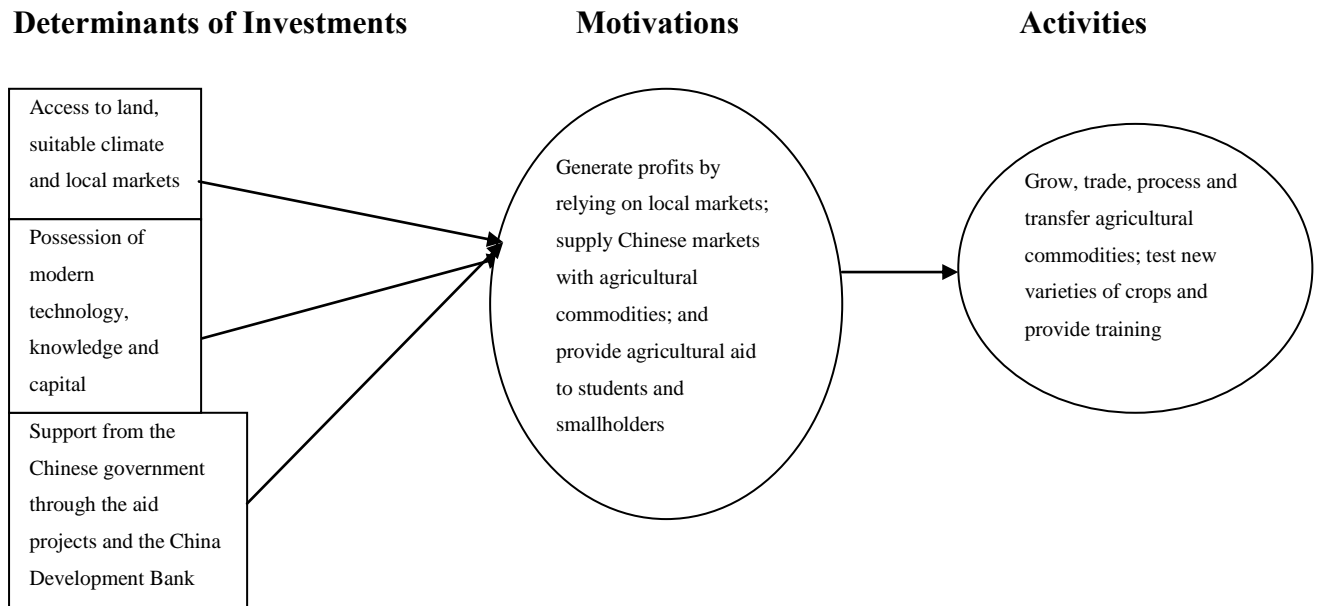
Figure 7.1 The region in colour was visited by the researcher during the fieldwork.

### 7.3. Chinese agricultural enterprises' motivations

Figure 7.2 below outlines the conceptual framework, based on fieldwork data, which guides the discussion in this chapter on the motivations informing the activities of Chinese agricultural enterprises operating in the DRC. As shown in Figure 7.2, the motivations of Chinese agricultural enterprises operating in the DRC are determined by three factors. The first factor is the specific assets or ownership advantages held by Chinese agricultural enterprises in the form of modern agricultural technologies, knowledge and capital. The second is the availability of arable land and suitable climate for particular crops as well as the existence of local markets for agricultural commodities. The third is the financial support provided by the Chinese government to its agricultural enterprises in the form of subsidies – direct support for costs – or through the China Development Bank as concessionary loans. As a result of the combination of these three factors, the motivations of Chinese agricultural enterprises operating in the DRC are to acquire farmland and embark on farming activities in order to generate profits; to transfer agricultural goods to China in order to supply Chinese markets with natural resources; and to provide agricultural aid by introducing new varieties

of crops brought from China and providing training to smallholders and students. In order to give effect to their motivations, Chinese agricultural enterprises intend to grow, trade, process and export agricultural commodities as well as to test new varieties of crops and provide training.

**Figure 7.2 Conceptual framework on the motivations of Chinese agricultural enterprises operating in the DRC**



### 7.3.1 Determinants of the motivations of Chinese agricultural enterprises

Chinese agricultural enterprises operating in the DRC rely on their ownership advantages in order to pursue their strategic objectives. The ownership advantages of Chinese agricultural enterprises are in the form of technology and knowledge – and capital in the case of ZTE Agribusiness Congo. Chinese agricultural enterprises operating in the DRC possess agricultural technologies that enable them to successfully establish themselves and operate in the country. These technologies are in the form of advanced seeds, machinery and knowledge arising from past experiences of operating in the same industry in China or elsewhere. For instance, as mentioned in the beginning of this chapter, Hubei Dadi International Corporation has a long history of running agricultural projects in several African countries. ZTE Agribusiness Congo has developed technical expertise over the years from the successful management of agricultural projects consisting of palm plantations and processing plants in

China, Malaysia and Indonesia (ZTE Energy Company Limited, n.d; Interview with General Director of ZTE Agribusiness Congo, Kinshasa 20 May 2011).

Besides their ownership advantages, Chinese agricultural enterprises operating in the DRC also enjoy locational advantages. These are in the form of natural resources and markets. These enterprises benefit from access to natural resources, in particular land, water and favourable climatic conditions; the DRC has abundant farmland and water. Climatic conditions are also suitable for growing crops such as rice, maize and palm, amongst others. For instance, palm trees can only be cultivated in regions located between a 10-degree latitude belt – 5 degrees north and 5 degree south of the equator. The localisation of the DRC within that range is the main reason that contributed to ZTE Agribusiness Congo's decision to invest in the country (Interview with General Director of ZTE Agribusiness Congo, Kinshasa 20 May 2011). Moreover, Chinese agricultural enterprises also enjoy the availability of local markets, in particular for rice and palm oil (Interview with General Director of ZTE Agribusiness Congo, Kinshasa 20 May 2011; Interview with supervisor of Hubei Dadi, Kinshasa 18 May 2011). The DRC regularly imports rice in order to fill the gap in local production of that commodity (Food Security Portal, 2012). Likewise, as mentioned in Chapter 5, the DRC also often imports palm oil in order to satisfy local demands in vegetable cooking oil.

Furthermore, Chinese agricultural enterprises operating in the DRC have access to financial resources that enable them to offset the costs of investing in the DRC. These financial resources are made available to them by the Chinese government in the form of subsidies – pre-investment expenses and operating costs – within the framework of the aid projects (Interview with the supervisor of Hubei Dadi, 18 May 2011; Interview with consultant of ZTE Agribusiness Congo, Kinshasa 2 June 2011; Protocol of Accord between Hubei Dadi International Corporation for Economic and Technical Cooperation and the Congolese Ministry of Agriculture, March 2010; Letter of the General Director of ZTE Agribusiness Congo to the Minister of Agriculture, 28 February 2011 ). In addition to that, ZTE Agribusiness Congo has access to loans from the China Development Bank. Moreover, ZTE Agribusiness Congo has also access to finance from non-Chinese banks (Interview with General Director of ZTE Agribusiness Congo, Kinshasa 20 May 2011).

The combination of ownership and locational advantages as well as the support from the Chinese government enables Chinese agricultural enterprises operating in the DRC to

establish their operations in the country. In addition, Chinese agricultural enterprises also possess internalization advantages as a result of the internalization of intangible assets – knowledge and technology – inside the firms and, at least for ZTE Agribusiness Congo, the internalization of palm oil inside the firm as well – featuring a vertical integration strategy. Therefore, Chinese agricultural enterprises operating in the DRC enjoy ownership, locational and internalisation advantages, as well as financial support from the Chinese government. All these assets enable Chinese agricultural enterprises operating in the DRC to implement their strategic objectives. These analyses are in line with Dunning's eclectic paradigm as discussed in Chapter 3.

### **7.3.2 Motivations and activities of Chinese agricultural enterprises**

#### **7.3.2.1 Generate profits through farming activities**

As mentioned above, a motivation of Chinese agricultural enterprises operating in the DRC is to grow food crops, process and sell them in local markets in order to make a profit. Indeed, these enterprises are involved in growing, processing and trading of agricultural commodities such as rice, rice seedlings, maize, palm oil and vegetables (Interviews with supervisor and employees of Hubei Dadi, Kinshasa 18 May 2011 and 27 May 2011; Interviews with General Director and Consultant of ZTE Agribusiness, 20 May 2011 & 2 June 2011). In doing so, Chinese agricultural enterprises seem to adopt several business strategies that point toward profit maximization behaviours. To start with, Chinese agricultural enterprises operating in the DRC appear to charge prices for their products that are at least equal to or even higher than prices charged at local market (Interviews with Supervisor and employees of Hubei Dadi, Kinshasa 18 May 20011 & 27 May 2011; Chaco, 2010). In addition to that, they tend to cultivate crops with significant local demand and for which they have modern technology – compared to local producers (Interviews with supervisor of Hubei Dadi, Kinshasa 18 May 2011; Interview with Director General of ZTE Agribusiness Congo, Kinshasa 20 May 2011). Moreover, the superior agricultural technology of Chinese agricultural enterprises coupled to the availability of local markets enables Chinese agricultural enterprises to serve local markets with better and additional products (Interviews with supervisor of Hubei Dadi, Kinshasa 18 May 2011; Interview with General Director of ZTE Agribusiness Congo, Kinshasa 20 May 2011). Furthermore, ZTE Agribusiness Congo appears to push for a diversification of its products by producing more than one agricultural commodity – rice, maize, vegetables and palm oil (Interviews with General Director and Consultant of ZTE

Agribusiness Congo, Kinshasa 20 May 2011 & 2 June 2011). This move by ZTE Agribusiness Congo could be aimed at reducing production costs – economies of scope – or at minimizing risks. On top of that, these enterprises employ permanent and casual labour. Casual labourers are employed based on current needs and agricultural seasons (Interview with General Director of ZTE Agribusiness Congo, Kinshasa 20 May 2011; Protocol of Accord between Hubei Dadi International Corporation for Economic and Technical Cooperation and the Congolese Ministry of Agriculture, March 2010). The various strategies outlined above feature as part of the profit-maximisation strategy. Hence, they tend to strongly suggest that the motivation of Chinese agricultural enterprises operating in the DRC is to generate profits through commercial activities.

### **7.3.2.2 Supply Chinese markets**

Besides producing crops for local markets, it appears as if ZTE Agribusiness Congo also intends to transfer palm oil to its mother company in China. The General Director of ZTE Agribusiness Congo claims that his enterprise does not intend to export palm oil to China because, according to him, the international transportation is expensive. He claims that palm oil produced by his enterprise will first be sold in local markets and only the remaining quantity will be locally processed into biofuels (Interview with General Director of ZTE Agribusiness Congo, Kinshasa 20 May 2011). However, this argument appears to be misleading for a number of reasons. First, given the large size of the palm plantation that ZTE is trying to establish in the DRC – ranging from 100 000 to 3 million hectares (Interview with General Director of ZTE Agribusiness Congo, Kinshasa 20 May 2011; Interview with the General Director of Congo Agriculture Biotechnology, Kinshasa 13 June 2011), it is unlikely that ZTE Agribusiness Congo will have the technical capacity locally to process such a vast amount of palm oil into biofuels – even after satisfying local demand. This is because the production of biofuels on a large scale requires significant financial resources in order to build factories. In addition to that, in China too the demand for palm oil has been surging. This has been stimulated not only by firms but also by households for their daily consumption (Freeman et al., 2008). As a matter of fact, palm oil featured among the main agricultural commodities imported by China in 2008 (see Figure 6.3). Furthermore, it should be noted that ZTE Agribusiness Congo owns a factory for processing biofuels in China's Inner Mongolia province and that it is also constructing another biofuel processing factory in China's Tianjin province (Interview with General Director of ZTE Agribusiness Congo, Kinshasa 20 May 2011; Brautigam, 2010). Given all this, it is unlikely that ZTE Agribusiness

Congo's true intention is to sell palm oil to local markets and convert the rest into biofuel in the DRC. The statement of the General Director of ZTE Agribusiness Congo, reported above, might be due to the sensitivity in the DRC around the processing of palm oil into biofuel in the country. Upon its arrival in the DRC, ZTE Agribusiness Congo's palm project raised major concerns in the country, with many officials in the government and civil society opposing the project on the ground that the processing of palm oil into biofuels would impact negatively on the country's food security. Congolese officials feared that the processing of biofuels in the DRC will induce speculation and incite local producers of palm oil to sell their products to ZTE Agribusiness Congo in order to take advantage of higher prices (Interview with the General Director of Congo Agriculture Biotechnology, Kinshasa 13 June 2011; Interview with manager of agricultural projects at ANAPI, Kinshasa 30 May 2011).

Thus, in light of the above analysis, it is likely that ZTE Agribusiness Congo plans – or planned when it arrived in the DRC – to transfer some of its palm oil to its mother company in China to be processed into biofuels as well as other manufactured products. In this way, the mother company of ZTE Agribusiness Congo can generate substantial profits by trading its products into lucrative Chinese markets, while at the same time contributing to the enhancement of the Chinese economy by providing cheaper and more environmental friendly energy.

The opposition of several Congolese officials to the idea of processing palm oil into biofuels has an important implication for this study. It suggests that palm oil is perceived in the DRC not as a secondary food crop but rather as a primary one. The importance of palm oil for the Congolese population contradicts the views expressed by Sun (2011), who has considered palm oil and cassava as “minor crops” in contrast to staple food crops. The classification of key crops such as palm oil and cassava as secondary food crops can be understood in the context of the culinary habits of Chinese consumers. However, this classification is arbitrary for most sub-Saharan African countries, since, as argued in Chapter 5, palm oil and cassava are widely used every day by consumers in the DRC – as well as in many other African countries. In this context, palm oil and cassava are considered as primary food crops in the case of the DRC. Therefore, given that palm oil is a staple food crop in the DRC, the processing of this commodity into biofuels – locally or in China – could have adverse consequences for the food security of the country.



### **73.2.3 Provide agricultural aid**

Beside their commercial activities, Hubei Dadi International Corporation and ZTE Agribusiness Congo are also involved in the management of aid projects funded by the Chinese government. Hubei Dadi International Corporation is involved in the provision of training to students and rice smallholders around Kinshasa (Interview with supervisor of Hubei Dadi, Kinshasa 18 May 2011). ZTE Agribusiness Congo has been selected by the Chinese government to manage the agricultural demonstration centre at Nsele. The Nsele research centre will be shortly constructed through funding from the Chinese government (Interview with consultant at ZTE Agribusiness Congo, Kinshasa 2 June 2011; Interview with the head of the department of plants production and protection at the Ministry of agriculture, Kinshasa 2 June 2011).

In its contract with the Congolese Ministry of Agriculture , Hubei Dadi International Corporation pledged to provide technical support to 5 000 rice smallholders and 300 university students, and to continue with the demonstration of rice production techniques over an area of 1 000 hectares around Kinshasa. In return, the Congolese government promised to put at the disposal of Hubei Dadi International Corporation 300 hectares of land at Mikonga for rice production, 12 hectares of land at Kingabwa for rice production as well as 1.3 hectares of land for vegetable production, and a pigsty at Masina Abattoir (Protocol of Accord between Hubei Dadi International Corporation for Economic and Technical Cooperation and the Congolese Ministry of Agriculture, March 2010). The two sides signed a contract in 2010 for a five-year period. The activities of Hubei Dadi International Corporation are funded by the Chinese government.

Since the signing of the contract, Hubei Dadi International Corporation has only been able to secure access to the 12 hectares of farmland in Kingabwa. Access to the 300-hectare and 1.3-hectare farms at Mikonga and Masina Abattoir have been undermined by land disputes with customary chiefs. As a result of this, Hubei Dadi International Corporation has not been able to provide agricultural aid as planned in the contract with the Ministry of Agriculture. Hubei Dadi International Corporation has only been able to provide training to local students. The technical support to smallholders and the demonstration activities have been abandoned (Interviews with supervisor and employees of Hubei Dadi, Kinshasa 18 May 2011 and 27 May 2011; Interview with rice smallholders, Kinshasa, 20 May 2011).

Thus, it appears that the provision of technical supports to smallholders is contingent upon the successful implementation of the “business side” of the contract between Hubei Dadi International Corporation and the Congolese Ministry of Agriculture – access to and cultivation of farmlands in Mikonga, Kingabwa and Masina Abattoir. The prioritisation of the commercial activities of Hubei Dadi International Corporation over the provision of agricultural aid casts doubt on the mutually beneficial character of this aid project.

For its part, ZTE Agribusiness Congo plans to manage the Nsele research centre for a three-year period during which the activities of the centre will be funded by the Chinese government (Interview with consultant at ZTE Agribusiness Congo, Kinshasa 2 June 2011; Letter of the General Director of ZTE Agribusiness Congo to the Minister of Agriculture, 28 February 2011). The Nsele research centre will cover 75 hectares of land. This will include classrooms, offices, accommodation residences, experimental and demonstration fields, rice field, husbandry and an agro-processing factory (Letter of the General Director of ZTE Agribusiness Congo to the Minister of Agriculture, 28 February 2011).

The objective of the Nsele research centre will be to conduct scientific research through the introduction and adaptation of new varieties of crops imported from China (rice, maize and soybean), and to provide training to smallholders and technicians. However, for the moment there is no provision made for institutional mechanisms that would ensure an effective and structured collaboration between the Nsele research centre and local research institutions for the research activities (Interview with the head of the department of plants production and protection at the Ministry of Agriculture, Kinshasa 2 June 2011). Without strong institutional mechanisms to ensure scientific cooperation between the team of ZTE Agribusiness Congo and local research institutions, the prospect of transfers of Chinese agricultural technologies through the Nsele research centre will be strongly undermined.

As mentioned in Chapter 2, China has adopted a new model of aid assistance that combines business with agricultural aid. Such a model encourages Chinese agricultural enterprises to provide agricultural aid and at the same time embark on lucrative commercial activities. Chinese officials have argued that such a model aims at ensuring the sustainability of aid projects and therefore their effective contribution to the development of African agriculture (Brautigam, 2009:247-249). However, in the case of the DRC the prioritisation of commercial activities over the delivery of agricultural aid by Hubei Dadi International Corporation and the poor planning of the Nsele research centre that ZTE Agribusiness Congo

intends to manage – especially concerning the absence of provision for scientific cooperation between the Nsele research centre and local research institutions – cast doubts on the scope and relevance of these aid projects. The limited scope and effectiveness of the aid projects, on one hand, and the financial contribution of the Chinese government to those projects, on the other, suggest that the aid projects run by Hubei Dadi International Corporation and ZTE Agribusiness Congo should primarily be perceived as subsidies from the Chinese government destined to enable these enterprises to establish their footprint in the DRC. This assertion is consistent with the analysis of Brautigam (2009). As indicated in Chapter 6, Brautigam (2009:249) argues that the aid projects funded by the Chinese government aim, among other things, to enable Chinese agricultural enterprises to successfully establish themselves in African countries. This finding in turn appears to explain the decision by the Chinese government to hand the management of the Nsele research centre to a private agricultural enterprise – ZTE Agribusiness Congo – with no prior experience in the delivery of agriculture aid.

However, the conceptualisation of the aid projects as instruments for enabling Chinese agricultural enterprises to establish a footprint in Africa is neither unique nor exceptional. Indeed, the Chinese government is well known for using aid projects to enable its construction companies – state-owned – to establish themselves in Africa. For instance, drawing on fieldwork conducted in Angola, Zambia, Tanzania, Sierra Leone and China, Corkin et al. (2008) argue that Chinese construction companies – often state-owned – have relied on the aid projects funded by the Chinese government to establish themselves in African construction industries and gain first-hand knowledge and experience of local environments in order to identify additional opportunities. Corkin et al. (2008) claim that over time Chinese construction companies have been in a position to expand their activities in particular countries or even at the regional level – often through commercial ventures with governments for large projects, or the private sector for small-scale projects. Similarly, Grimm (2011) argues that the Chinese “going out policy” that started in the late 1990s has altered the focus of China’s foreign policy, which now centres on access to natural resources for domestic development and the better positioning of Chinese enterprises – including through the awarding of large state grants tied to Chinese aid projects. Grimm (2011) argues that Chinese foreign aid has become an integral part of China’s foreign policy and this reality makes the distinction between development assistance and commercial activities difficult. Grimm (2011) concludes that the aspect of mutually beneficial relations (a win-win situation)

raises questions about the distribution of gains. It appears that the conceptualisation of the aid projects as instruments for supporting the activities of Chinese agricultural enterprises in the DRC is part of China's foreign policy – as Hubei Dadi International Corporation and ZTE Agribusiness Congo aim to use the aid projects as springboards to expand their commercial activities in the country. The provision of agricultural aid is relegated to becoming a secondary objective.

Just like in the preceding chapter, this section provides extensive elucidations of the linkages between the strategic motives of the Chinese government with those of Hubei Dadi International Corporation and ZTE Agribusiness Congo. In this perspective, the criticism enunciated by Macharzina and Engelhard (1991) against Dunning's eclectic paradigm tends once more to be unwarranted. The application of Dunning's eclectic paradigm together with a methodological approach that allows for an extensive investigation of several variables in conjunction with the context facilitates the identification of causal mechanisms through which the main determinants of the OLI paradigm, including the contextual variable, are linked.

The discussions conducted in the above sections lead to the conclusion that the motivations of Chinese agricultural enterprises involved in the DRC are to acquire farmlands in order to generate profits through farming activities; to transfer agricultural commodities – secondary food crops – to their mother companies in China; and to provide agricultural aid to smallholders, technicians and students – although this is a secondary motivation. Thus, the activities of Chinese agricultural enterprises operating in the DRC are generally consistent with China's foreign policy as these enterprises aim to better position themselves in local markets and access agricultural commodities for Chinese markets.

These findings are comparable to that of Hairong and Sautman (2010), who hold that Chinese agricultural enterprises operating in Zambia – including state-owned enterprises – aim to generate profits through the acquisition of farmland and the subsequent trading of agricultural commodities in local markets. These findings are also consistent with Sun's (2011) analysis, according to which Chinese agricultural enterprises aim to access agricultural commodities in Africa in order to serve Chinese markets. These findings also tend to support the work of Brautigam (2009), and Brautigam and Xiaoyang (2009), who have alluded to a new mode of Chinese involvement in Africa's agriculture that combines business activities with agricultural aid. However, in contrast to Brautigam (2009), Brautigam and Xiaoyang (2009),

Brautigam and Ekman (2012) and Sun (2011), this study holds that Chinese agricultural aid projects are aligned with China's foreign policy, which mainly promote the profit-enhancing activities of Chinese enterprises. As such, the mutually beneficial character of these aid projects becomes dubious as it raises questions about the distribution of gains.

Moreover, it appears that Chinese agricultural enterprises operating in the DRC – including COVEC which attempted to invest in the country's agriculture – intend to grow foodstuffs for local markets as well as for Chinese markets. On the one hand, Chinese agricultural enterprises are producing or aim to produce staple food crops – such as rice, maize and palm oil – for local markets. In addition to that, ZTE Agribusiness Congo is also planning to transfer palm oil to China to be further processed into biofuels.

Furthermore, as I argued in the preceding chapter, the demand for foodstuff in China is expected to continue growing at double-digit rates over the next 25 years (Freeman et al., 2008). Therefore, in case prices of staple food crops – such as cassava, maize and vegetables – were to substantially increase in China over the long run, Chinese agricultural enterprises and farmers might also enter into the DRC in order to grow those crops for Chinese markets. Such a scenario is even more plausible given that ZTE Agribusiness Congo already intends to process and export palm oil to China and, more worryingly, China already imports some 5 000 tonnes of cassava every year from Nigeria (Sun, 2011).

#### **7.4 Behaviour of Chinese agricultural enterprises**

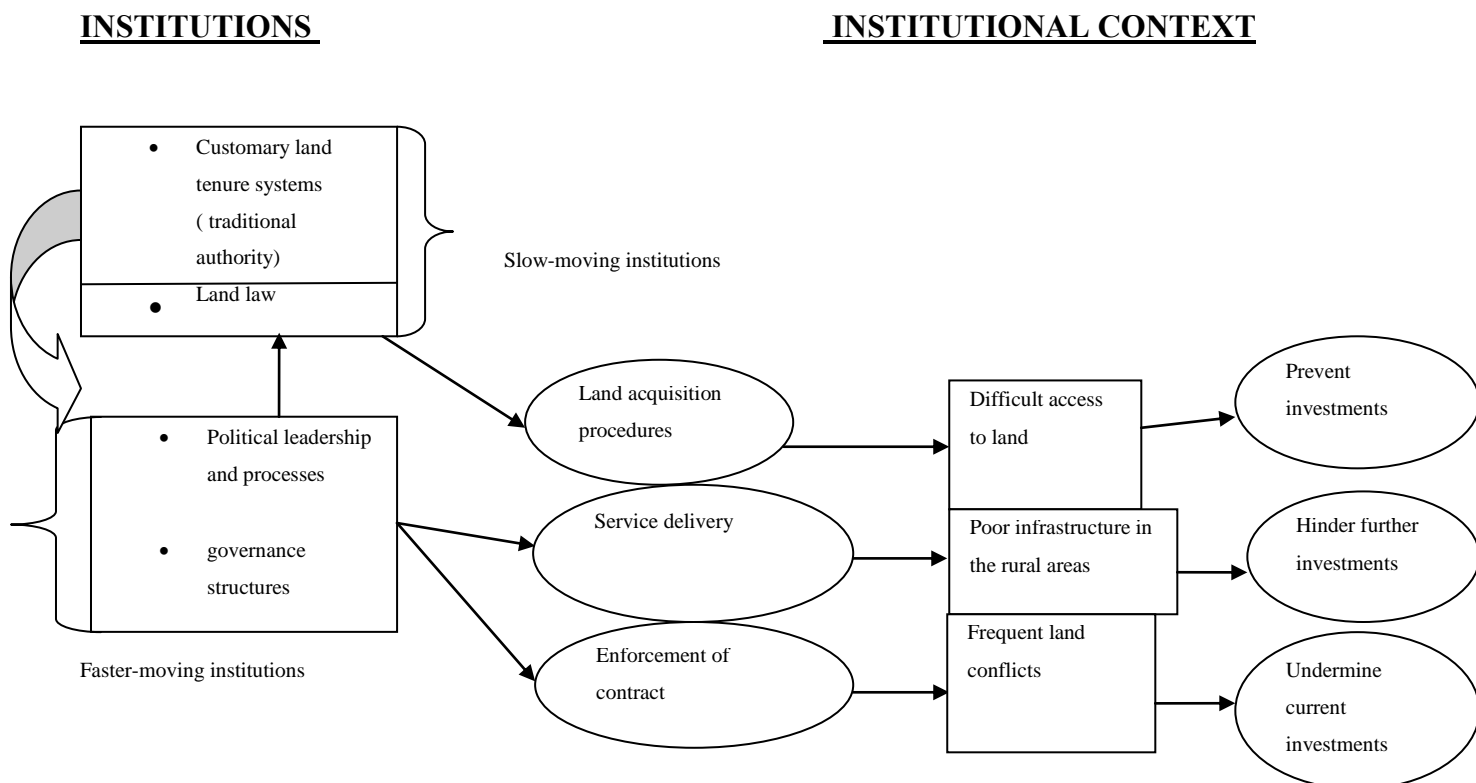
As in the case of Mozambique, the institutional context seems to affect the behaviour and/or modes of entry of Chinese agricultural enterprises operating in the DRC in three different ways: 1) poor provision of infrastructure; 2) complex land acquisition system; and 3) frequent occurrence of conflicts over land control in the DRC.

Figure 7.3 below provides a conceptual framework accounting for the way in which the institutional context in the DRC affects the behaviour and/or modes of entry of Chinese agricultural enterprises. In Figure 7.3 institutions are divided between slow-moving and fast-moving. Slow-moving institutions are the set of informal constraints and formal rules that are strongly embedded in the society's culture and tradition. These sorts of institutions change gradually over time, often over centuries (Williamson, 2000). Figure 7.3 distinguishes two types of slow-moving institutions: customary land tenure systems – informal constraints – and the land law – a formal rule. Both institutions tend to change gradually over time –

although the land law is expected to change faster than customary land tenure systems. Fast-moving institutions are less embedded in the society’s culture and tradition. In Figure 7.3, fast-moving institutions are political institutions. Recalling the discussion in Chapter 6, political institutions are defined as the set of formal political rules – including the constitution and laws – their governance structures and leadership (Levy, 2004). Political institutions tend to change faster – over decades – than the institutions embedded in society and tradition (Williamson, 2000). Figure 7.3 expresses three key assumptions. First, customary land tenure systems shape the perceptions of political leaders on land issues. Second, the political leaders shape the content of the land law. Third, political institutions influence the effectiveness of the bureaucracy.

Therefore, in the case of the DRC, the land law shapes the institutional context by determining complex land acquisition procedures. On their part, political institutions offer inadequate incentive structure to the bureaucracy that negatively affects the provision of infrastructure and the enforcement of contracts. As a result, as shown in Figure 7.3, Chinese agricultural enterprises operating in the DRC encounter various obstacles such as difficulty of access to land, poor infrastructure in rural areas and frequent conflicts over land control.

**Figure 7.3 Conceptual framework on the behaviour of Chinese agricultural enterprises operating in the DRC**



### 7.4.1 Dysfunctional political institutions

The rather adverse institutional environment depicted in Figure 7.3 is partially the outcome of dysfunctional political institutions in the DRC. However, as mentioned in the preceding chapter, in order to provide an understanding of the operations of political institutions in the DRC, the new institutional theory needs to be modified by integrating concepts related to African politics.

As discussed in Chapter 6, in Sub-Saharan Africa neo-patrimonial systems of rule undermine the strength and effectiveness of political institutions through a combination of corruption, mismanagement and lawlessness (Englebert, 2000a, 2000b). As a result, political institutions become unable to contain societal pressures and provide proper guidance to the bureaucracy. Thus, interest groups in the society are able to capture the bureaucracy, which is left without proper guidance and sufficient resources. This situation reduces the accountability and efficiency of the bureaucracy, including its ability to elaborate and implement policies as well as provide services. As argued by Levy (2004) and De Laiglesia (2006), the performance of the bureaucracy is not only the outcome of the technical and managerial capacity of agents, but also the product of the strength of political institutions and the nature of social norms.

In 2006 the DRC held its first democratic presidential and legislative elections in four decades, ending a transitional period of three years. A year earlier the country adopted by means of a referendum a progressive constitution that envisioned the establishment not only of a checks-and-balances mechanism to curtail the power of the executive, but also the diffusion of power from the central government to the provinces (International Crisis Group, 2010; Africa Development Bank, 2009; Yav, 2009). However, the successful implementation of the new constitution required essential institutional reforms, such as the implementation of the decentralisation process and the overhaul of the security sector (International Crisis Group, 2010). The aim of the new constitution as well as its associated institutional reforms was to enable the emergence of a democratic and stable country. Moreover, it was also intended to bring government closer to local people in order to enhance government's accountability and efficiency, especially in terms of transparency over the use of resources, policy formulation and implementation as well as service delivery (Africa Development Bank, 2009).

In 2008 the DRC president Joseph Kabila signed into law the bill on decentralisation that effectively set into motion the process of dividing the provinces. The law on decentralisation

envisaged the establishment within in 36 months of the new provinces with political, legal and financial autonomy (Yav, 2009). Despite the adoption of the law on decentralisation, its effective implementation has been undermined by political factors. First, the conceptualisation of the decentralisation process in the DRC appears to be flawed. The 2005 constitution envisaged increasing the number of provinces from the current 11 to 26. However, the establishment of the new provinces did not take into account more objective criteria such as the size of the new provinces, the size of the population and the availability of human and natural resources. On the contrary, the new provinces were designed according to ethnic or sub-regional affiliations (Interview with an academic from the University of Kinshasa, Kinshasa 27 May 2011; Yav, 2009). It appears as if the new provinces were conceptualised in the intention of distributing political power to the local segments of political elites rather than to provide effective services to local communities (Interview with an academic from the University of Kinshasa, Kinshasa 27 May 2011). As such, the creation of the new provinces has become politically sensitive, as it is seen by some observers as likely to ignite ethnically motivated conflicts over the control of natural resources (Interview with an academic from the University of Kinshasa, Kinshasa 27 May 2011; Yav, 2009). This issue can be compared to the analysis of Ake (1996) on the contradiction between the manifest and latent objectives of the policies elaborated by African political rulers in a context of a neo-patrimonial system of rule. Second, political elites in Kinshasa have been unwilling to alter the existing balance of power in their favour by allowing provinces to deduct 40% of their revenues at the source as stipulated in the constitution (International Crisis Group, 2010).

The 2005 constitution also envisaged the reform of the security services in order to consolidate democracy and political stability. Regarding security sector reforms, progress in that area has been disappointing (Melmot, 2008). As far as the reform of the judiciary is concerned, the constitution laid the foundation for an independent and efficient judiciary. However, the judiciary remains plagued with shortcomings in the form of low salaries for judges and a shortage of human and material resources (International Crisis Group, 2010). In addition to that, the judiciary continues to suffer from political intrusion, which undermines its independence (International Crisis Group, 2010). As a result, the judiciary in the DRC is considered to be “privatised at the service of strong men” as justice is often denied to ordinary citizens (Association Congolaise pour l’Acces a la Justice (ACAJ), cited in Radio Okapi, 2013).



As a result of the weakness and ineffectiveness of political institutions in the DRC, especially in term of leadership and governance structures, the bureaucracy suffers from inadequate policy guidance, control and support in material resources. In addition to that, the weakness of political institutions allows powerful interest groups in society to capture the bureaucracy and promote their sectarian interests. In this context, the bureaucracy is unable to fulfil its core responsibilities such as: the provision of infrastructure, especially in rural areas, and the enforcement of land titles. The above failures on the part of the bureaucracy appear to negatively affect the operations of Chinese agricultural enterprises operating in the DRC.

#### **7.4.2 Poor infrastructure**

The above discussion suggests that flawed political institutions are one of the main causes of the poor infrastructure observed in the DRC, especially in the rural areas. This is because the governance structure and political leadership appear to have failed to provide the right guidance, incentives and resources to the bureaucracy in order to provide basic services, in this particular case infrastructure. In Chapter 5 I argued that the poor state of infrastructure in the DRC affects the activities of agricultural enterprises and therefore undermine the development of the sector. It appears that the inadequate infrastructure also affects the activities of Chinese agricultural enterprises operating in the DRC. The poor state of infrastructure in the DRC, in particular transportation by road and river from Kinshasa to Mbandaka, has forced ZTE Agribusiness Congo to suspend its palm project in Equateur DRC (Interview in Kinshasa, 20 May 2011). For instance, the Director General of ZTE Agribusiness Congo claimed that transportation on the Congo River is primitive, since the channels are not cleaned. He held that he had planned to travel for three days on the Congo River from Kinshasa to Mbandaka, but instead he spent seven days on that river. He claimed that if ZTE Agribusiness Congo wants to establish a palm plantation in Equateur province, it has to transport all equipment, including machinery and fertiliser, from Pointe Noire in Congo Brazzaville and Matadi – the port cities – to Kinshasa and then to Mbandaka – the provincial capital. He stated that it is very difficult to transport equipment from the port cities to the farm in Equateur (Interview with General Director of ZTE Agribusiness Congo, Kinshasa 20 May 2011). Although for the moment ZTE Agribusiness Congo is the only Chinese agricultural enterprise that seems to have been affected by the constraint of poor infrastructure, given the huge problem posed by the inadequacy of infrastructure in rural areas, it is likely that in the future more Chinese agricultural enterprises will be affected by

this problem as the number of Chinese agricultural enterprises operating in the DRC increases.

Furthermore, it also appears that in light of the transportation problems encountered in relation to its palm project in Equateur – as well as the complex process of land acquisition – ZTE Agribusiness Congo has decided to focus on medium-scale agricultural projects of less than 1 000 hectares in the medium term. There seem to be two reasons for that decision (Interview with consultant at ZTE Agribusiness Congo, Kinshasa 2 June 2011). First, it is less costly in terms of time and financial resources to identify and negotiate with local communities when it comes to medium-sized rather than large farms. Also, for farmland below 1 000 hectares the investor does not need the approval of the head of state. Second, medium-scale farms can be operational and profitable in an environment affected by poor infrastructure, especially if they are located in close proximity to big cities. In contrast, large-scale farms – which are usually located in remote areas – require good infrastructure to ensure the transportation of equipment and the transport – possibly for export – of large quantities of commodities. Thus, it appears as if the poor state of infrastructure in the DRC together with the complex process of gaining access to land has affected the business model of ZTE Agribusiness Congo. Again, the above finding is comparable to the analysis made by Sun (2011) on the negative impacts of institutional arrangements – which prevail in many parts of sub-Saharan Africa – on the abilities of smallholders and investors to get involved in wealth-creation activities.

The above discussion shows how political institutions can affect not only the ability of the government to deliver infrastructure, but also the activities and business trajectory of enterprises. This case is an illustration of the way in which formal rules can affect economic performance.

### **7.4.3 Complex land acquisition system**

As in the case of Mozambique, the complexity of the land acquisition process in the DRC is the outcome of the constraining effect of customary land tenure systems – which were briefly discussed in Chapter 5 – on the formal land law. The land law of the DRC implicitly acknowledges the ownership of local community over land by making it compulsory that local communities be consulted before the land to which they are associated can be granted to investors (Code Foncier Immobilier et Regime des Suretes , 2006). The implicit recognition of the rights of local communities in the formal law leads, in practice, to a superimposition of

informal and formal patterns of land tenure. This is because, investors first need to consult and negotiate with local communities before introducing formal requests with the authorities. However, as noted in Chapter 6, negotiations with local communities are complex processes, as they require ample time, information and financial resources. In addition to that, the difficulty of access to land for foreign investors also appears to be related to the weakness in the regulatory capacities of the Congolese Ministries of Agriculture and Land Affairs, which are unable to provide the necessary guidance and advice to foreign investors seeking to invest in the DRC. In Chapter 5 I pointed to the limited regulatory capacity of the Congolese Ministry of Agriculture as a result of a multitude of factors such as limited financial and material resources, ageing and low-paid officials and centralisation in the formulation and implementation of projects in the capital, Kinshasa. The Congolese Ministry of Land Affairs also appears to be affected by the same problems that inhibit its capacity to monitor and enforce the land law (Interview with General Director of Congo Agriculture Biotechnology, Kinshasa 13 June 2011). The limited regulatory capacities of the Congolese Ministries of Agriculture and Land Affairs appear to emanate from the dysfunctional political institutions, as politicians fail to provide the necessary guidance and resources to these units of the bureaucracy.

The superimposition of informal and formal land tenure systems coupled with the institutional weakness of the Ministry of Agriculture has prevented COVEC from accessing land in the country. In 2007 COVEC lodged a formal application with the Ministry of Agriculture for 100 000 hectares of farmland in Bandundu province – East of Kinshasa – in order to grow rice (Interview with manager of agricultural projects at ANAPI, Kinshasa 30 May 2011; Deqing, 2008, cited in *Le Potentiel*, 2008). However, COVEC ignored the fact that issues pertaining to land in the DRC, including for agricultural projects, are examined by the Ministry of Land Affairs and not that of Agriculture (Interview with manager of agricultural projects at ANAPI, Kinshasa 30 May 2011). More important, COVEC did not understand the land law of the DRC as it failed to travel to the countryside, identify potentially suitable farmlands and negotiate with local communities. Thus, after waiting for almost one year without getting feedback from the Ministry of Agriculture, COVEC abandoned its project in 2009 (Interview with manager of agricultural projects at ANAPI, Kinshasa 30 May 2011; Deqing, 2008, cited in *Le Potentiel*, 2008).

The superimposition of informal and formal land tenure systems plus the institutional weakness of the Ministry of Land Affairs also delayed ZTE Agribusiness Congo's access to

land in Equateur province. When ZTE Agribusiness Congo arrived in the DRC it requested 3 million hectares of farmland to establish palm plantations in several DRC provinces (Interview with General Director of Congo Agriculture Biotechnology, Kinshasa 13 June 2011). However, the ZTE Agribusiness Congo request was turned down and the Ministry of Agriculture agreed instead to grant to the private Chinese agricultural enterprise 100 000 hectares of farmland (Interview with General Director of Congo Agriculture Biotechnology, Kinshasa 13 June 2011). Then ZTE Agribusiness Congo approached the Ministry of Land Affairs for assistance in accessing land in Equateur province. After a long period of inaction from the Ministry of Land Affairs, ZTE Agribusiness Congo eventually took the initiative and conducted air surveys over the localities of Bikoro, Ingende, Basankusu and Mbandaka in Equateur province. Among these localities ZTE Agribusiness decided to focus its investigations at the site of Bikoro, located 40 km from Mbandaka. ZTE Agribusiness Congo conducted several analyses of soil and vegetation samples as well as investigating the means of communication at Bikoro. In addition to that, ZTE Agribusiness Congo also held meetings with local leaders as well as the local community. The outcome of those investigations and meetings were positive, which enabled ZTE Agribusiness Congo to lodge a formal request for land with the governor of Equateur. The governor of Equateur province approved the request and asked ZTE Agribusiness Congo to start the formal process by getting in touch with the provincial ministries (Letter of the General Director of ZTE Agribusiness Congo to the Minister of Agriculture, 25 February 2011).

These cases demonstrate how political institutions tend to influence the ability of agents at the Ministries of Agriculture and Land Affairs to provide guidance to Chinese investors as well as monitor and enforce the land law. The poor performance of these two ministries – rooted in dysfunctional political institutions – in turn appear to undermine the activities of Chinese agricultural enterprises. These cases demonstrate how informal and formal institutions – political leadership and processes – can determine the quality of enforcement mechanisms – the regulatory capacities of the Ministries of Agriculture and Land Affairs – and in turn affect the performance of economic agents.

#### 7.4.4 Land conflicts

Chinese agricultural enterprises operating in the DRC have encountered several conflicts over land control. First, the activities of Hubei Dadi International Cooperation have been hampered by conflicts over land in Mikonga and Masina Abattoir. At Mikonga the supervisor of Hubei Dadi International Corporation in Kinshasa notes that the two customary chiefs in charge of the area demanded that his enterprise pays to them the sum of US\$70 000 and US\$30 000, respectively – in addition to providing some goods – before it could start operating on the farm. He claims that Hubei Dadi International Corporation brought the matter to the attention of the Congolese government. However, the Congolese government was unable to successfully resolve the dispute (Interview with supervisor of Hubei Dadi, Kinshasa 18 May 2011). At Masina Abattoir, the sons of the customary chief in charge of the area contested the right of Hubei Dadi International Corporation over the 1.3 hectare concession and called in the police, who expelled the Chinese enterprise from the farm. As the result of the land dispute with the sons of the customary chiefs, Hubei Dadi International Corporation lost all of its products – vegetables and pigs. The Chinese state-owned agricultural enterprise no longer breeds any pigs at its Masina Abattoir pigsty (Interview with employees of Hubei Dadi, Kinshasa 27 May 2011).

Second, ZTE Agribusiness Congo operations in Menkao have also been disturbed by conflicts over land. In 2010-2011 ZTE Agribusiness Congo was involved in two conflicts over the control of its Menkao farm. The first involved local farmers who claimed that some portions of ZTE Agribusiness Congo's farm belonged to them. The second involved the Reserve Strategique Generale – a structure of the presidency – which also claimed that some portions of ZTE Agribusiness Congo's farm belonged to the presidency (Interviews with General Director and Consultant of ZTE Agribusiness Congo, Kinshasa 20 May 2011 and 2 June 2011; Letter of the General Director of ZTE Agribusiness Congo to the Minister of Agriculture, 25 February 2011). ZTE Agribusiness managed to resolve those conflicts after many months of court arbitration – for the first conflict – and negotiations – for the second one. The General Director of ZTE Agribusiness Congo holds that the enforcement of land contracts is a big issue in the DRC. He claims that out of every 100 legal disputes in the DRC 60 are related to land disputes (Interview with General Director of ZTE Agribusiness Congo, Kinshasa 20 May 2011).

In the DRC the judiciary has the prerogative of resolving various types of conflicts, including conflicts over land control. As mentioned above, in the DRC the judiciary is neither efficient nor independent. The shortcomings of the judiciary are the outcome of the nature of political institutions, especially as ruling elites endeavour to maintain their grip on judges, on the one hand, and balk at providing sufficient resources to the courts, on the other hand. However, political intrusion in judicial processes as well as shortage of resources within the judiciary might not be the only ways through which political institutions affect the ability of courts to resolve land conflicts. Political institutions themselves might be affected by informal constraints. As North (1990:59) argues, the enforcement of contracts is uncertain, especially in developing countries, not only because of ambiguities in legal doctrine but also because of uncertainty with respect to the behaviour of agents such as judges and lawyers. In other words, North holds that the perception of judges and lawyers is influenced by their ideologies. In the case of the DRC, the influence of the customary land tenure system on the land law makes it possible for this system to influence the perception of judges when presiding over issues related to conflicts over land ownership. Judges might share the belief that the land belongs primarily to local communities. Therefore, when conflicts over land control arise, investors are often expected to negotiate with local communities in order to find consensual solutions. This finding demonstrates how informal constraints – customary land tenure systems – influences formal law – land law – and enforcement mechanisms – the perceptions of judges – affect the performance of economic agent. This analysis is comparable with the analysis made by Brautigam (2009) concerning the inability of the Sierra-Leonean government to successfully enforce the contract that it signed with Complaint – the Chinese Sugarcane enterprise operating in Sierra-Leone – which was engulfed in conflict over land control with the local community.

Conflicts over land control have prompted Hubei Dadi International Corporation to adopt a new business model. It has decided to open a milling factory in Kinshasa in order to buy maize from surrounding smallholders, process it and sell it to local customers (Interview with supervisor of Hubei Dadi, Kinshasa 18 May 2011). In this way the enterprise hopes to generate profits by dodging the constraints imposed by the uncertainties over access to land. Again, this case demonstrates how informal constraints, formal law and enforcement mechanisms can impact on the economic trajectory of agents.

The findings outlined in the second part of this chapter demonstrate that the institutional context in the DRC is affecting the behaviour and/or mode of entry of Chinese agricultural enterprises. Specifically, the findings show that this occurs through a combination of three institutional factors: the poor state of infrastructure; the complexity of the land acquisition system; and the occurrence of conflicts over land control. Furthermore, these findings also demonstrate that the institutional context in the DRC is also shaping the business model of Chinese agricultural enterprises over time. Therefore, the behaviour and/or modes of entry of Chinese agricultural enterprises appear to be influenced by informal constraints – in the customary land tenure system – formal rules – such as the land law and political institutions – and enforcement mechanisms – the judiciary. This finding is in accordance with the concepts of institutions developed by North and Williamson.

## **7.5 Conclusion**

The analysis in this chapter has illustrated a number of pertinent observations. Concerning the first research question, it has argued that there are three factors that determine the motivations of Chinese agricultural enterprises operating in the DRC: the ownership advantages of Chinese agricultural enterprises – mostly in the form of modern agricultural technology, knowledge and capital ; the locational advantages – in the form of arable land and a suitable climate for particular crops as well as the existence of markets for agricultural commodities in the DRC; and the financial support provided by the Chinese government to its agricultural enterprises via the aid projects or indirectly through the China Development Bank. Together these three factors determine the motivations of Chinese agricultural enterprises operating in the DRC. These motivations are: 1) to acquire farmlands in order to generate profits through farming activities; 2) to transfer agricultural commodities to China in order to supply Chinese markets with natural resources such as biofuels and cooking oil; and 3) to provide agricultural aid by introducing new varieties of crops imported from China and providing training to smallholders, students and technicians. However, the provision of agricultural aid is a secondary motivation, since Chinese agricultural enterprises running the aid projects funded by the Chinese government primarily aim to promote and expand their commercial activities. This chapter has also established that the activities of Chinese agricultural enterprises operating in the DRC are in line with China's foreign policy, as Chinese agricultural enterprises aim to better position themselves in local markets and access natural resources. Therefore, it was held that Chinese agricultural enterprises operating in the DRC aim to grow food crops destined for local markets – rice, maize, vegetables and palm oil – as well as for

Chinese markets – palm oil. This chapter has further argued that as the demand for food crops is expected to continue rising in China, Chinese agricultural enterprises might in the medium to long term decide to grow and transfer food crops – other than palm oil – from the DRC to China.

These findings are comparable with the claims made by scholars such as Hairong and Sautman (2010) and Sun (2011) in the literature on China-Africa. Moreover, this study has also observed that the above findings are somewhat different to the claims made by scholars such as Brautigam (2009), Brautigam and Xiaoyang (2009), Brautigam and Ekman (2012) and Sun (2011). This is because the alignment of the aid projects with China's foreign policy – that gives impetus to the commercial activities of Chinese enterprises operating abroad – discredits claims about their mutually beneficial nature and points to an uneven distribution of gains in favour of Chinese agricultural enterprises.

Concerning the second research question, it was argued that the institutional context in the DRC affects the behaviour and/or the mode of entry of Chinese agricultural enterprises through three institutional characteristics: the poor provision of infrastructure, the complex land acquisition system; and the conflicts over land control. First, the failure to provide adequate infrastructure appears to undermine the activities of Chinese agricultural enterprises. Second, the complex land acquisition system – coupled with the inability of the Congolese Ministries of Agriculture and Land Affairs to monitor and implement the land law and provide guidance to investors – prevents or delays Chinese agricultural enterprises in accessing land in the DRC. Third, conflicts over land control in the DRC also appear to undermine the activities of Chinese agricultural enterprises. Finally, the institutional context in the DRC also appears to be shaping the business model of Chinese agricultural enterprises over time. This happens as Chinese agricultural enterprises attempt to adopt a new business model in order to respond to adverse institutional arrangements.

In conclusion, this chapter has maintained that most of the findings outlined above are in conformity with the Dunning's eclectic paradigm and new institutional theory. On the one hand, Chinese agricultural enterprises operating in the DRC enjoy ownership, locational and internalization advantages. On the other hand, the institutional context in the DRC, shaped by informal constraints, formal rules and enforcement mechanisms, seems to affect the behaviour and/or mode of entry as well as the business model of Chinese agricultural enterprises.



The above findings are consistent with the claims made by scholars such as Sun (2011) and Brautigam (2009) in the literature on China-Africa relations. . More importantly, however, three findings appear to make a new contribution to the literature. The first is related to the effects of inadequate infrastructure on the activities of Chinese agricultural enterprises. The second is the effects of the complexity of the land acquisition process on the activities of Chinese agricultural enterprises. The third is the way in which the institutional context in the DRC shapes the business models of Chinese agricultural enterprises.

## **CHAPTER 8: CONCLUSION**

### **8.1 Introduction**

This study aimed to investigate two main research questions. The first concerned the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC. The second focused on the way in which the institutional context related to the agricultural sectors in Mozambique and the DRC affects the behaviours and/or modes of entry of Chinese agricultural enterprises. Therefore, this study had two main research questions: 1) what are the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC? 2) In which manner do the institutional contexts in Mozambique and the DRC affect the behaviours and/or modes of entry of Chinese agricultural enterprises into local industries?

The chapter is divided into three main sections. In the first I present the main findings for each country. I then proceed to the comparison of the findings for both countries and draw the necessary conclusions in term of theoretical generalisations. In the second I provide an assessment of the theoretical framework and the research methodology applied in this study by focusing on their strengths and limitations. I then offer some suggestions and avenues for future theoretical development and the application of a new research methodology in order to enhance our understanding of the research questions posited in this study. Lastly, I engage in a discussion on institutional reform – centred on the decentralisation process and the scientific agricultural cooperation between China, on one hand, and Mozambique and the DRC, on the other. The recommendations put forward in this chapter aim at enabling the governments of Mozambique and the DRC to improve their institutional contexts in order to serve the interests of the state, local communities and the ecosystem, while at the same time facilitating investments by Chinese agricultural enterprises. They also aim to encourage these two countries to develop indigenous institutional models that would ensure effective transfers and adaptation of Chinese agricultural technologies.

## 8.2 Summary of the main findings

### 8.2.1 Mozambique

The main findings for Mozambique are divided into two issues: one on the motivations informing the activities of Chinese agricultural enterprises and the other on the way in which the institutional context affects the behaviours and/or modes of entry of Chinese agricultural enterprises into local industries. Regarding the first issue, the initial results obtained from this study suggested that the motivations informing the activities of these agricultural enterprises are: 1) to acquire farmland in order to generate profits by growing and selling food crops such as rice and maize, and processed products such as cooking oil in local and adjacent markets; 2) to transfer agricultural commodities such as soybeans and cotton to their mother company in China in order to supply Chinese markets with natural resources and consumer goods such as textiles, clothes and animal foods; and 3) to provide agricultural aid by testing new varieties of crops brought from China and offering training to local farmers, students and technicians. However, the contention of this study is that the provision of aid is a secondary motive of Chinese agricultural enterprises, since Chinese agricultural enterprises rely primarily on the aid projects to establish their footprint in Mozambique. Chinese agricultural enterprises running the aid projects intend to use them as springboards from which they can adapt and expand their commercial activities.

This study has also argued that Chinese agricultural enterprises rely on the complementarities between their specific assets embodied in their technologies and knowledge, the locational advantages in the form of arable land and local markets, and financial support from the Chinese government in the form of subsidies. This study has concluded that the activities of Chinese agricultural enterprises operating in Mozambique are generally in accordance with China's foreign policy as they aim to access local markets and secure natural resources. Finally, this study has held that Chinese agricultural enterprises operating in Mozambique generally produce food crops destined for local markets as well as for South African and European markets. However, the notable exception was CGOG, which attempted to grow soybeans destined for Chinese markets. Still, in the context of Mozambique, soybeans should be considered more of a secondary food crop than a staple food crop, as it is primarily used in the processing of animal foods. Thus, this study has held that for the moment Chinese agricultural enterprises operating in Mozambique do not transfer or aim to transfer staple food crops to China. Nevertheless, this study has concluded that as demand for foodstuffs is

expected to continue rising in the medium to long term in China, Chinese agricultural enterprises might decide to grow foodstuffs in Mozambique in order to supply Chinese markets.

Concerning the second issue, the initial results obtained from this study suggested that the institutional context in Mozambique affects the behaviour and/or modes of entry of Chinese agricultural enterprises into local industries in three ways: through the complex process of gaining access to land; the poor delivery of infrastructure; and weak state capacity in monitoring and enforcement of the land law. In particular, this study has held that the poor quality of infrastructure – particularly the failure of the irrigation system – tends to undermine further investments by Chinese agricultural enterprises. In addition, this study has also argued that the difficulty of gaining access to land resulting from the superimposition of traditional and formal land tenure systems appears to hinder Chinese agricultural investments, especially for large agricultural investments. The difficulty of gaining access to land is compounded by the poor monitoring and implementation capacity of the state – especially the National Cadastre of Land and local agricultural research institutions – which are unable to provide information on the availability and main characteristics of soils in different regions of the country. The inability to provide such crucial information seems to compromise the operations of Chinese agricultural enterprises, especially the large ones.

### **8.2.2 Democratic Republic of Congo**

As in the case of Mozambique, the main findings on the DRC are also separated in two issues: one is related to the motivations informing the activities of Chinese agricultural enterprises and the other to the way in which the institutional context shapes the behaviour and/or the entry of these enterprises into local industries.

Starting with the first issue, the preliminary results collected in this study suggested that the motivations of these enterprises are: 1) to acquire farmland in order to generate profits through farming activities; 2) to transfer agricultural commodities to China in order to supply Chinese markets with natural resources such as biofuels and cooking oil; and 3) to provide agricultural aid by introducing and adapting new varieties of crops imported from China and providing training to smallholders, technicians and students. However, this study has noted that the provision of agricultural aid is a secondary motive of Chinese agricultural enterprises operating in the DRC. Instead, the aid projects funded by the Chinese government aim

primarily at enabling Chinese agricultural enterprises to better position themselves in the DRC by gaining access to local markets.

Moreover, this study held that these motivations are determined by the complementarities of three factors: the ownership advantages of Chinese agricultural enterprises embodied in their modern technologies, advanced knowledge and accessible capital; the location advantages of the DRC in the form of the availability of huge tracts of arable land, the suitable climate and the local markets for rice, maize and palm oil; and the financial support provided by the Chinese government to Chinese agricultural enterprises, mainly in the form of subsidies. Overall, this study has argued that the activities of Chinese agricultural enterprises operating in the DRC are consistent with China's foreign policy as these corporations aim to access the DRC's markets and natural resources. In addition, this study has held that Chinese agricultural enterprises operating in the DRC grow or intend to grow and trade food crops destined for local and Chinese markets. While the rice, maize and vegetables are destined for local markets, palm oil is destined both for local and Chinese markets. Given this situation and taking into account the expected gradual rise in the demand for foodstuffs in China in the medium to the long term, this study has claimed that Chinese agricultural enterprises might operate in the DRC to produce food crops other than palm oil for Chinese markets.

Concerning the second issue, the preliminary findings from this study have suggested that the institutional context in the DRC affects the behaviour and/or the modes of entry of Chinese agricultural enterprises through three institutional characteristics: the poor provision of infrastructure, the complex land acquisition system, and the conflicts over land control. The poor provision of infrastructure in the DRC – especially roads and transportation – appears to undermine further investments by Chinese agricultural enterprises. In addition, conflicts over land control resulting from the inability of the state to enforce land titles tend not only to discourage further investments, but also to compromise current investments. Moreover, the difficulty of gaining access to land – coupled with the inability of the Ministries of Agriculture and Land Affairs to monitor and implement the land law – appears to hinder the operations of Chinese agricultural enterprises in the DRC. This is especially true of Chinese investments requiring large tracts of farmland. Finally, the institutional context in the DRC also seems to be shaping the business model of Chinese agricultural enterprises over time. Chinese agricultural enterprises seem to be changing their business model in order to cope with the harsh institutional context prevailing in the DRC. In this context, Chinese agricultural enterprises operating in the DRC tend to adopt smaller-scale agricultural projects

of less than 1 000 hectares or move from farming into the processing of agricultural commodities in order to avoid the institutional constraints associated with poor infrastructure, difficult access to land and inadequate enforcement of land titles.

### **8.2.3 Comparison between Mozambique and the DRC**

This study was a comparative case study of Mozambique and the DRC. As mentioned in Chapter 4, these two countries were selected because of their significant agricultural potential and their similar institutional contexts in relation to the agricultural sector. The researcher anticipated that the results of the motivations informing the activities of Chinese agricultural enterprises in both countries and the way in which the institutional contexts shape the behaviour of those enterprises would be similar. The preliminary results obtained in this study corroborate the researcher's projection.

On the issue on motivations, it appears from the initial results generated in this study that the motivations informing the activities of Chinese agricultural enterprises in Mozambique and the DRC are fairly analogous. That is, in both countries Chinese agricultural enterprises aim to acquire farmlands and to generate profits through farming activities. Chinese agricultural enterprises operating in both countries also intend to transfer agricultural commodities to China in order to supply Chinese markets. In addition to that, they provide agricultural aid to farmers, students and technicians in Mozambique and the DRC. However, the provision of agricultural aid is a secondary motive. Furthermore, it also appears that in both countries the motivations of Chinese agricultural enterprises are consistent with China's foreign policy, as they aim to better position themselves in local markets and secure natural resources – palm oil, soybeans and cotton. Chinese agricultural investments in Mozambique and the DRC do not appear to be fundamentally different from Chinese investments in the oil, mining and infrastructure sectors of African economies, as all these investments aim to access and secure natural resources or local markets – as discussed in Chapter 2 of this study.

However, the preliminary findings on their motivations show slight differences concerning the markets of destination for food crops produced by Chinese agricultural enterprises. In the case of Mozambique, they generally produced food crops generated for local markets and to a lesser extent for South African and European markets – this is the case for brown rice and prawns. In addition, Chinese agricultural enterprises also attempted to grow soybean for Chinese markets. However, while soybean is a food crop, it is widely considered as a secondary food crop in Mozambique, as it is primarily used to produce animal foods. Thus,

the initial evidences from this study show that these enterprises operating in Mozambique are not yet transferring or aiming to transfer staple food crops to China. In the case of the DRC, they generally produce or attempt to produce staple food crops for local and Chinese markets. While food crops such as rice, maize are destined for local markets, palm oil appears to be destined for both local and Chinese markets. The initial results from this study show that the enterprises operating in the DRC are aiming to transfer a staple food crop – palm oil – to China.

However, it remains to be seen whether the differentiation between the Chinese agricultural enterprises operating in Mozambique and the DRC is relevant in term of markets of destination for staple food crops, given that in the medium to long term they might also get involved in the growing of staple food crops in Mozambique destined for Chinese markets.

The effects of the institutional context on the behaviours and/or modes of entry of Chinese agricultural enterprises also appear to be quite similar in Mozambique and the DRC. In both countries three elements of the institutional context seem to negatively affect the behaviour and/or modes of entry of Chinese agricultural enterprises: the poor quality of infrastructure, the difficulty of access to land, and the weak capacity to monitor and implement the land law.

However, while conflicts over land control seem to be an important element in shaping the behaviour of Chinese agricultural enterprises operating in the DRC, no incident related to land conflicts involving Chinese agricultural enterprises has been reported in Mozambique during the course of this study. Perhaps the most important difference in the effects of the institutional context noted in this study is the way in which it shapes the business model of Chinese agricultural enterprises operating in the DRC. Such interaction between the institutional context and the business model of Chinese agricultural enterprises has not been identified in Mozambique.

The similarities of the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC, on the one hand, and of the effects of the institutional contexts on their behaviour and/or modes of entry, on the other, could have one important implication. They might imply that the results obtained in this study could be generalised to other sub-Saharan African countries along the same theoretical lines. In other words, the motivations informing the activities of these enterprises operating in these two countries specifically might be generalised to sub-Saharan African countries with significant arable land and water available as well a tropical climate. Equally, the impacts of the

institutional contexts in Mozambique and the DRC on the behaviour and/or modes of entry of Chinese agricultural enterprises might be generalised to sub-Saharan African countries with similar customary land tenures systems, land laws and political institutions.

### **8.3 Theories and methodology applied and new areas for research**

#### **8.3.1 Reflection on theories and methodology applied**

This study has relied on Dunning's eclectic paradigm to understand the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC. Dunning's eclectic paradigm has for long been the best analytical framework for understanding the determinants of firms' FDI. This is because Dunning's eclectic paradigm is not a theory but rather an envelope of several competing and complementary theories of international business that draw the attention of the researcher to the most relevant theories for the problem at hand. In addition to that, the contextual variable featured in Dunning's eclectic paradigm enhances its explanatory power by drawing the attention of the researcher to specific contexts of firms' FDI. It is precisely because of its ability to integrate competing and complementary theories and its contextual embeddedness that Dunning's eclectic paradigm has provided such a powerful theoretical framework for this study. Dunning's eclectic paradigm enabled the researcher to include in a single analytical framework concepts informed by competing theories applied in the literature on China-Africa relations. As such, the researcher was able to include and compare concepts informed by mercantilism, liberalism and structuralist approaches of International Political Economy. In the context of China's involvement in Africa's agriculture, the mercantilist approach would argue that Chinese agricultural investments aim at promoting China's national economic interests. The liberal approach would hold that Chinese agricultural enterprises aim at realising profits for the benefit of these enterprises as well as the host countries by providing jobs and contributing toward attaining food security. The structuralist approach would claim that Chinese agricultural enterprises intend to help African countries develop their agricultural sectors and ultimately their economies in order to boost the power of developing countries and so change the world order. The results obtained in this study tend to demonstrate that the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC are primarily determined by concepts informed by the liberal and mercantilist approaches, while those informed by the structuralist approach play a secondary role.



This study has also relied on the new institutional theory of microeconomics to study the impacts of institutional contexts in Mozambique and the DRC on the behaviours and/or modes of entry of Chinese agricultural enterprises. New institutional theory aims to understand the way in which informal constraints, formal rules and enforcement mechanisms shape the external environments that humans derive and how these in turn affect the economic performance of a particular society. Therefore, new institutional theory is strongly contextual as it focuses on a society's culture, norms and tradition, formal laws, political hierarchical structures, the ability of agents to enforce the laws, and how all of them generate the institutional contexts that constrain the actions of economic agents. New institutional theory was ideal to study the impact of the institutional contexts on the behaviours and/or modes of entry of Chinese agricultural enterprises. While the focus of the analysis was on the institutional contexts, new institutional theory allowed the researcher to demonstrate how informal constraints in the form of customary land tenure systems, and formal rules in the form of land laws and political hierarchical structures, and enforcement mechanisms including the ability of agents to enforce land laws or land titles produce the particular institutional environments prevailing in Mozambique and the DRC. New institutional theory enabled the researcher to conduct more in-depth analyses of the impacts of the institutional contexts in Mozambique and the DRC on the behaviours and/or modes of entry of Chinese agricultural enterprises.

### **8.3.2 New areas for research**

While Dunning's eclectic paradigm has enabled this study to assess the respective weight of the concepts of the three perspectives of IPE in explaining the problem at hand – the motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC – it is still unable to provide an explanation as to why Chinese agricultural enterprises provide agricultural aid in Mozambique and the DRC regardless of the secondary nature of this motivation. Perhaps this is because the provision of agricultural aid is more a motive of the Chinese government than of the Chinese agricultural enterprises. Indeed, the provision of agricultural aid appears to be inconsistent with the theory of the firm, to the extent that this theory generally associates the strategic goal or motive of the firm with the realisation of profits. Therefore, a single theory is needed in order to account for all the motivations of Chinese agricultural enterprises operating in Africa. Such theory should seek to integrate concepts of economic science – or international business – with those of political science.

In the attempt to build a single theory, one could be inspired by the work of Peng et al. (2008) and Lu et al. (2010), who have developed a conceptual framework – the strategy tripod – to explain the strategy and performance of firms from emerging countries. Peng et al. (2008) argue that traditionally the industry-based view and the resource-based view have been used to explain firms' strategy and performance. The industry-based view argues that the strategy and performance of a firm are mainly determined by conditions within its industry – such as the level of technology and competition (Lu et al., 2010; Peng et al., 2008). The resource-based view claims that it is a firm's specific assets – resources that are rare and valuable and sometimes not imitable and not substitutable – that to a large extent determine the strategy and performance of that firm. Such resources can take the form of capital, technology, knowledge and so on (Peng et al., 2008; Priem and Butler, 2001). However, for the strategy tripod, Peng et al. (2008) and Lu et al. (2010) include a third perspective – the institution-based view – in order to explain the strategy and performance of firms from emerging economies – such as that of China. The institution-based view builds on work produced by scholars such as North, Williamson and Hart, and defines institutions as the set of formal rules and informal constraints that structure human interaction. Peng et al. (2008) and Lu et al. (2010) claim that in emerging economies institutions play a greater role in determining the strategy and performance of firms – given the weakness of market-supportive institutions as well as the heterogeneous internal resources and capabilities of firms. Peng et al. (2008) and Lu et al. (2010) hold that in emerging economies the strategy and performance of firms are better explained by the combination of the three perspectives: the industry-based view, the resource-based view and the institution-based view.

The strategy tripod could serve as a good point of departure in the process of constructing a theory on the motivations informing not only the activities of Chinese agricultural enterprises operating in Africa, but also of Chinese state-owned corporations operating in the oil, mining and infrastructure industries in Africa. In particular, it will be important to assess whether concepts of political science or international relations could be integrated with the institution-based view.

As mentioned above, the primary interest of the researcher lies in understanding the impacts of the institutional contexts on the behaviours and/or modes of entry of Chinese agricultural enterprises. The researcher accordingly devoted limited attention, especially in the course of the fieldwork, to the causal mechanisms through which political institutions structure the institutional contexts in Mozambique and the DRC. Therefore, in future research endeavours

it would be interesting to seek an understanding of the process through which political institutions structure institutional contexts.

Furthermore, it is important to recall that this study has relied entirely on a qualitative method to collect data on the motivations and behaviour of Chinese agricultural enterprises operating in Mozambique and the DRC. As discussed in Chapter 4, a quantitative approach can only be used when the cases are of a similar nature and are involved in analogous activities.

However, when this study was launched, the researcher possessed little information on the number, nature and activities of Chinese agricultural enterprises in Mozambique and the DRC. In this sense, this study was also an exploratory project. However, as information on the number, nature and activities of Chinese agricultural enterprises operating in Africa begins to increase, it would be important to combine the qualitative approach with a quantitative method in order to enhance the credibility of the findings. Case studies of three to four countries combining a qualitative and quantitative approach would be a good start. Ultimately, as more information emerges on the nature and activities of Chinese agricultural enterprises operating in Africa, a survey design might be warranted to study the motivations, behaviour and impacts of Chinese agricultural enterprises in a dozen or more of African countries.

Finally, it is worth reminding the reader that this study did not rely on any of the three traditional perspectives of IPE because of their lack of utility so far as the main research questions posited in this study are concerned. As mentioned in chapter 3, the traditional perspectives of IPE were not suitable to investigate the motivations of Chinese agricultural enterprises operating in Mozambique and the DRC because of the complexity of this phenomenon, as it embodies several dimensions. Equally, the perspectives of IPE were not relevant to understand the behaviour of Chinese agricultural enterprises operating in Mozambique and the DRC, since the study of human behaviour entails the investigation of more abstract notions – such as norms, traditions and perceptions – as well as the formal rules of the game.

However, it is the view of this study that Dunning's eclectic paradigm can somewhat contribute to the consolidation of the main perspectives of IPE. Since the end of the cold war and particularly the beginning of the twenty first century, issues such as trade, FDI, global warming and terrorism have increasingly gained pre-eminence within the field of IPE. While the main perspectives of IPE are well equipped to deal with the more traditional macro-issues

related to the behaviour of states and the structure of the inter-state system, they are nevertheless limited when it comes to the more meso issues related to the motivations of MNCs operating in foreign countries or of terrorist groups operating across states' borders. In this perspective, the main perspectives of IPE could borrow some concepts from the OLI paradigm to enhance their assessments of the motivations and impacts of MNCs operating in foreign countries. Of specific interests, IPE perspectives could integrate the static and dynamic approaches to FDI as defined by Dunning to understand the diverse and contradictory natures and impacts of FDI across countries.

## **8.4 Policy suggestions**

### **8.4.1 The decentralisation process**

The decentralisation processes in Mozambique and the DRC have been stalled by series of political problems related to the neo-patrimonial system of rule discussed in Chapters 6 and 7. In the case of Mozambique, these problems have mainly taken the form of political rivalries between the two main political parties, Frelimo and Renamo. In the DRC the problems have been caused by selfish political ambitions and political rivalries for control of resources. The sound formulation and implementation of a decentralisation process is important for the establishment of legitimate governments at local and provincial levels. As local and provincial governments become more representative, accountable and closer to local communities, they will be more effective in providing services to local communities, promoting development at grassroots level and in resolving local conflicts.

Legitimate and effective local and provincial governments will also be able – in close collaboration with national governments – to monitor and enforce the land laws and formulate and implement policies that facilitate access by Chinese agricultural enterprises to farmlands, while sustaining the interests of local communities and the environment. Local communities are unlikely to oppose policies granting access to land to Chinese agricultural enterprises when such policies are formulated and implemented by legitimate and effective local and provincial governments, who are careful in ensuring that the activities of Chinese agricultural enterprises are aligned to the interests of local communities, especially in terms of the preservation of customary lands, the preservation of forest areas, jobs creation, agricultural inputs, markets for farmers' outputs and even construction of infrastructure.

As a matter of principle, the policies should encourage Chinese agricultural investments only in areas with sufficient land. The policies should focus on addressing the competition between food and cash crops by ensuring that even when Chinese investors are growing cash crops, their activities concomitantly promote the cultivation of food crops by smallholders. Such paradoxical objectives can be achieved through contractual arrangements between investors and local communities. In this way, Chinese agricultural enterprises aiming to invest in the growing of cash crops must be encouraged to enter into contractual arrangements with smallholders in order to promote the cultivation of food crops by the latter.

Furthermore, while policies should encourage Chinese agricultural enterprises to produce food crops for local markets – in order to curb food insecurity – the local processing of food crops, especially primary staple foods such as palm oil and cassava or maize, into biofuels should be discouraged. Indeed, the processing of food crops into biofuels in Mozambique or the DRC could push prices of these crops up and aggravate the food insecurity prevailing in those two countries. Finally, local or provincial and national governments should restrict the cultivation of land-intensive crops – such as cotton and palm plantations – in order to preserve the forests. Perhaps, and especially relevant in the case of the DRC, governments should encourage national and foreign investors to recuperate and rehabilitate old farms that have been abandoned – instead of destroying the forests in the search of new tracts of land.

#### **8.4.2 Scientific agricultural cooperation**

The provision of agricultural aid in the form of training by Chinese agricultural enterprises operating in Mozambique and the DRC is limited in scope. At the Umbeluze research centre in Mozambique the number of Chinese personnel in charge of delivering aid is limited. Second, in the case of the aid project managed by Hubei Lianfeng Mozambique in Xai-Xai, Mozambique, and the one run by Hubei Dadi International Corporation in Kinshasa, DRC, the provision of training and other services to smallholders is also limited. The provision of agricultural aid by Chinese agricultural enterprises operating in Mozambique and the DRC in the form of research support is ineffective, given the absence of institutional mechanisms to ensure scientific collaboration between managers and technicians of Chinese agricultural enterprises running the aid projects and local agricultural research institutions.

Given the limited scope and effectiveness of the provision of agricultural aid by Chinese agricultural enterprises, it is unlikely that Chinese agricultural technologies will be effectively

transferred, adapted to the need of smallholders and disseminated to smallholders under the so-called aid projects funded by the Chinese government.

Several studies such as those by Eicher (1999), Roling and Fliert (1988), the World Bank (World Bank: Independent Evaluation Group, 2001) and the AATF (2010) have insisted on the need for developing countries to build strong agricultural research centres, agricultural extension services and universities (faculties of agriculture or agricultural colleges) as a prerequisite for the emergence of a modern agricultural sector. They argue that strong collaboration between agricultural faculties of universities, agricultural research centres and extension services is necessary in order to develop and disseminate agricultural technologies that are suitable to meet the needs of smallholders and agri-business corporations.

Therefore, in order to develop new agricultural technologies and adapt them to the needs of smallholders and disseminate them to the latter, Mozambique and the DRC should mainly aim to build and consolidate their universities (the faculties of agriculture), their agricultural research institutions and extension services. In addition to that, the two countries should develop institutional models in order to operationally link universities, agricultural research institutions and extension services. Such an agricultural triangle (Eicher, 1999) would enable them to respond to the particular needs of smallholders in their respective countries.

However, for the institutional models to be relevant to the needs of smallholders, they will have to be indigenously conceived in order to be consistent with the agro-ecological and geographical conditions as well as other particularities of each country (Eicher, 1999).

While Mozambique and the DRC should first rely on their own efforts in order to raise financial resources to consolidate the agricultural triangle, these two countries should also establish scientific cooperation with China in this area. Perhaps China could be more useful in transferring its agricultural technologies in Mozambique and the DRC by helping to build capacity within universities' faculties of agriculture and agricultural research institutions. More specifically, China could provide scholarships to Mozambican and Congolese students to further their post graduate education in agriculture in China. Such a contribution would be even more significant given that Africa's traditional donors have reduced the number of scholarships offered to African students since the 1990s (Eicher, 1999). Furthermore, China could also send its scientists to Mozambique and the DRC for short-term visits in order to work with local scientists on common research projects. Surely such scientific cooperation extended over a long period of time will make a significant difference in the modernisation of

Mozambican and Congolese agriculture – provided that the right institutional models are in place and soundly operational. However, China, Mozambique and the DRC should avoid a situation where too many scientists and students are trained in a short period of time, while the expansion of organisations such as universities and agricultural research institutions is not able to keep pace with the growth in human resources. If this is allowed to happen, the inability of existing organisations to absorb or reward new staff members will surely result in the exit of competent and ambitious researchers and scientists to the private sector. Indeed, this is what is currently happening in Mozambique, where technicians employed and trained by the extension services often subsequently leave the organisation for greener pastures in the private sector.

### **8.5 Conclusion**

The main motivations informing the activities of Chinese agricultural enterprises operating in Mozambique and the DRC is to better position themselves in local markets and access agricultural commodities for the benefit of Chinese markets. As such, the motivations of Chinese agricultural enterprises operating in the two countries are not fundamentally different from those of Chinese mining, oil and construction companies operating on the African continent in the sense that they are all aligned with China's foreign policy. However, Chinese agricultural enterprises are currently struggling to operate successfully in Mozambique and the DRC as a result of unfavourable institutional contexts. The dilapidated infrastructure, difficulty of gaining access to land, weak capacity in monitoring and enforcement of the land law, and insecure land titles discourage further investments, hinder current investments and even lead to cancellation of investments.

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## **ANNEXURES**

### **Annexure 1 Interview schedules**

#### **Semi-structured interviews**

#### **Questionnaire 1: Managers of Chinese agricultural enterprises**

- 1) When did your corporation establish itself in this country and for which reason(s)?
- 2) The nature of the corporation;
  - What does it produce?
  - For which market (s) are the goods destined?
  - What is the size of your farm?
  - Is the business profitable?
  - Others
- 3) Behaviours on the ground
  - Has your enterprise encountered any problem related to the implementation of its objective?
  - If yes, specify
  - Does your enterprise abide to the land and environmental laws of this country?
  - Is the government providing you with the necessary assistance in ensuring the implementation of the contract and the smooth running of your business?
- 4) The type of linkages with the local population:
  - Do your corporation employ local workers?
  - If yes, what is their proportion compared to Chinese workers?
  - Do you think your corporation is contributing to the development of this country?



- Do you have a good relationship with the rural population?
- Others

5) The type of relations with the Chinese government

- What is the nature of the contractual relationship between your corporation's management and the headquarter in China ( in term of autonomy in decision-making, sharing of profits and employment of local staffs)
- Does your enterprise receive any support from the Chinese government or the Chinese banks such as EXIM Bank and CDB
- Others

**Questionnaire 2: managers of Chinese agricultural enterprises managing aid projects**

- 1) What is the aim of your project?
- 2) What is the scope and nature of services you provide to farmers (smallholders)?
- 3) Specify,
- 4) Do you work or collaborate with local research institutions?
- 5) Specify
- 6) Have you encountered any problem related to the implementation of your objective?
- 7) Do you have a good relationship with the rural population?
- 8) Is the government providing you with the necessary assistance in ensuring the smooth implementation of your project?
- 9) Others
- 10) The type of relations with the Chinese government
  - What is the nature of the contractual relationship between your corporation's management and the headquarter in China ( in term of autonomy in decision-making, sharing of profits and employment of local staffs)?

- Do your corporation receive any support from the Chinese government or the Chinese banks such as EXIM Bank and CDB?
- Others

### **Questionnaire 3: Researchers and NGO's managers**

- 1) What is your general assessment of the contemporary relationship between China and your country?
  - Others
- 2) Are you aware of the activities of Chinese agricultural enterprises in your country?
  - If yes, what are the number and activities of those Chinese agricultural enterprises?
- 3) According to you, what are the motivations of Chinese agricultural enterprises operating in your country?
- 4) What are the challenges encountering Chinese agricultural enterprises on the ground?
- 5) How do they react to these challenges?
- 6) Do Chinese agricultural enterprises abide by the land and environmental laws of your country?
- 7) According to you, in which manners can China help develop your country's agriculture sector?
- 8) How do you compare the level of salary paid by Chinese agricultural enterprises with those offered by firms of other nationalities?
- 9) Others

### **Questionnaire 4: Government officials at the department of Agriculture**

- 1) What are the Chinese organisations (i.e. state-owned/private enterprises, research institutions) currently involved in agricultural projects in your country?
- 2) Do you have an idea of the number and activities of Chinese agricultural enterprises operating in your country
- 3) According to you, what are the motivations of Chinese agricultural enterprises operating in your country?
- 4) What are the challenges encountering Chinese agricultural enterprises on the ground?
- 5) How do they react to these challenges?
- 6) Do Chinese agricultural enterprises abide to the law of your country?
- 7) As the government of this country, what is the scope and nature of support you expect from Chinese agricultural enterprises in order to develop your country's agriculture sector?
- 8) So far, are you satisfied with the implementation of the contracts signed with Chinese agricultural enterprises?
- 9) Specify,

#### **Questionnaire 5: Private agribusiness corporations**

- 1) When did you start your business in this country?
- 2) Which goods does your corporation produce and for which markets are they destined?
- 3) Are you aware of the presence and operations of Chinese agricultural enterprises in the country?
- 4) If yes, provide more information on their number and activities
- 5) According to you, what are the motivations informing the activities of those Chinese agricultural enterprises?
- 6) In your view, what are the problems these Chinese agricultural enterprises are encountering on the ground?

- 7) How do they react to such problems?
- 8) Do Chinese agricultural enterprises abide by the laws (land and environmental) of your country?
- 9) Others

**Questionnaire 6: Interviews with farmers (preferably smallholders)**

Main issues to be discussed (The aim here is to obtain the assessment of the activities of Chinese agricultural enterprises from farmers 'perspectives):

- 1) Do farmers receive training from the Chinese agricultural enterprises?
- 2) If yes, specify
- 3) Do farmers receive new varieties of seeds, fertilisers and equipments from the Chinese agricultural enterprises?
- 4) If yes, specify
- 5) Have Chinese agricultural enterprises invested in infrastructures work in the area?
- 6) If yes, specify
- 7) Are farmers' communal lands protected from arbitrary acquisition by Chinese agricultural enterprises?
- 8) What is the general level of collaboration between Chinese managers on the one hand and rural populations on the other hand?
- 9) Have the social conditions of farmers improved as a result of the presence of Chinese agricultural enterprises?
- 10) If yes, in which manner?

## Annexure 2

### Code book

#### Acquisition of land

- Size of concession ( SC)
- More land (ML)
- Export food to China + (EFC+)
- Export food to China – (EFC-)
- Import of Chinese labourers + (ICL+)
- Import of Chinese labourers - (ICL-)
- Enforcement of land act +(ELA+)
- Enforcement of land act – (ELA-)
- Grasp Land (GL+)
- Grasp Land (GL-)
- Status of Land (SL)
- Utilisation of Land for food crops (UL)
- Utilisation of Land for cash crops (UL-)

#### 1) LOCATIONAL ADVANTAGES

- Market size (MS)
- Quality of land & amount of water (QLW)
- Geographical location (GL)
- Cheap local labour (CLL)
- Climatic conditions (CC)
- Competitiveness (C)

#### 2) INSTITUTIONAL CONTEXT

- Land disputes (LD)
- Infrastructure problems (IP)
- Rent seeking (RS)

- Scientific information ( Information on soil quality, type of seeds, fertilisers) (SI)
- Political stability (PS)
- Cultural differences (CD)
- Cadastral system ( LPP)
- Legal and administrative problems (LAP)
- Collusion of Interests (CL)

### 3) PROFIT DRIVEN ACTIVITIES

- Good transactions (GT)
- Service transactions (ST)
- Repatriation of profit (RP)
- Vertical integration (VI)
- Profit seeking strategy (PSS)
- Adaptability Behaviour (AB)
- Market Destination (MD)

### 4) TECHNOLOGY TRANSFER

- Introduction of seeds (IS)
- Introduction of hybrids (IH)
- Provision of seeds +(PS+)
- Provision of seeds – (PS-)
- Provision of hybrids + (PH+)
- Provision of hybrids – (PH-)
- Cooperation with local institutions + (CLI+)
- Cooperation with local institutions – (CLI-)
- Provision of equipments + (PE+)
- Provision of equipments- (PE-)
- Training local +(TL+)
- Training local – (TL-)
- Sustainability of project +(SP+)
- Sustainability of project – (SP-)

- Objective of Project (OP)
- Future objective (FO)
- Provision of technology (PT+)
- Provision of technology ( PT-)
- Provision of Fertiliser and Pesticides (PFP)
- General Support ( GS+)
- General Support (GS-)
- Government Officials opinion (GOO)

#### 5) SCARCE FINANCIAL RESOURCES

- Limited funding (LF)

#### 6) Past Chinese Project

- Past Provision of Seeds (PPPS+)
- Past Provision of Seeds (PPPS-)
- Past Provision of Equipments (PPE+)
- Past Provision of Equipments (PPE-)
- Past Training Local (PTL+)
- Past Training Local (PTL-)

### Annexure 3 Contingency table

#### CONTINGENCY TABLE

#### MOZAMBIQUE

Main Concepts	Sources
Flaws in the cooperation with local institutions (CLI-)	<ul style="list-style-type: none"> <li>• Ecalistas Bias</li> <li>• Ferdinand Songane</li> <li>• Jose Gaspart</li> </ul>
Inability to Enforcement of the land law (ELA-)	<ul style="list-style-type: none"> <li>• Felix Kosa</li> <li>• Raphael Uaiene</li> </ul>

Grapping of Land (GL+) ( Risk)	<ul style="list-style-type: none"> <li>• Castel Carlos</li> <li>• Jose Gaspar</li> <li>• Wen Cheng</li> <li>• Joao Mosca</li> <li>• Sergio Chichava</li> <li>• Ping</li> </ul>
Grapping of Land ( GL-) ( Risk)	<ul style="list-style-type: none"> <li>• Felix Kosa</li> <li>• Ferdinand Songane</li> <li>• Jose Gaspar</li> <li>• Joao Mosca</li> <li>• Castel Carlos</li> </ul>
Transaction of agricultural commodities (GT)	<ul style="list-style-type: none"> <li>• Wen Cheng</li> <li>• Lee</li> <li>• Ping</li> <li>• Veronica</li> <li>• Marino</li> </ul>
Introduction of hybrids (IH)	<ul style="list-style-type: none"> <li>• Lee</li> <li>• Ping</li> <li>• Veronica</li> </ul>
Infrastructure problems (IP)	<ul style="list-style-type: none"> <li>• Castel Carlos</li> <li>• Wen Cheng</li> <li>• Xiangyun</li> <li>• Raphael Uaiene</li> <li>• Sergio Chichava</li> </ul>



	<ul style="list-style-type: none"> <li>• Veronica</li> </ul>
Cadastral system (LPP)	<ul style="list-style-type: none"> <li>• Wen Cheng</li> <li>• Raphael Uaiene</li> </ul>
Market destination of commodities ( MD)	<ul style="list-style-type: none"> <li>• Wen Cheng</li> <li>• Xiangyun</li> <li>• Ping</li> <li>• Veronica</li> </ul>
Objective of the projects (OP)	<ul style="list-style-type: none"> <li>• Jose Gaspar</li> <li>• Ferdiand Songane</li> <li>• Ecalista Bias</li> <li>• Castel Carlos</li> <li>• Lee</li> <li>• Ping</li> <li>• Marino</li> </ul>
Profit Seeking Strategy (PSS)	<ul style="list-style-type: none"> <li>• Chen Weng</li> <li>• Xiangyun</li> <li>• Raphael Uaiene</li> <li>• Ping</li> <li>• Veronica</li> </ul>
Provision of technology (PT+)	<ul style="list-style-type: none"> <li>• Veronica</li> <li>• Marino</li> <li>• Meneses</li> <li>• Chen Weng</li> <li>• Xiangyun</li> </ul>

	<ul style="list-style-type: none"> <li>• Ping</li> </ul>
Rent Seeking (RS)	<ul style="list-style-type: none"> <li>• Veronica</li> <li>• Marino</li> <li>• Wen Cheng</li> </ul>
Size of the concession (SC)	<ul style="list-style-type: none"> <li>• Wen Cheng</li> <li>• Raphael Uaiene</li> <li>• Ping</li> <li>• Lee</li> </ul>
Scientific Information (SI) ( Access to information)	<ul style="list-style-type: none"> <li>• Wen Cheng</li> <li>• Raphael Uaiene</li> </ul>
Training of locals (TL+)	<ul style="list-style-type: none"> <li>• Wen Cheng</li> <li>• Xiangyun</li> <li>• Ping</li> <li>• Veronica</li> </ul>
Vertical Integration (VI)	<ul style="list-style-type: none"> <li>• Xiangyun</li> <li>• Joao Mosca</li> </ul>

### DEMOCRATIC REPUBLIC OF CONGO

Main concepts	Sources
Flaws in the cooperation with local institutions (CLI-)	<ul style="list-style-type: none"> <li>• Mvi Macramen</li> <li>• Innoncent Bashige</li> <li>• Andre Lusakweno</li> <li>• Xu</li> </ul>
Grapping of Land (GL+) ( Risk)	<ul style="list-style-type: none"> <li>• Nzumi Mumpene</li> </ul>

	<ul style="list-style-type: none"> <li>• Andre Lusakweno</li> <li>• Mutombo Bilolo</li> <li>• Michel Kipundo</li> <li>• Xu</li> <li>• Philippe Buyoya</li> <li>• Jean Omasombo</li> </ul>
Grapping of Land ( GL-) ( Risk)	<ul style="list-style-type: none"> <li>• Kewen Wang</li> <li>• Xu</li> <li>• Michel Kipundo</li> <li>• Mukenge Betu</li> </ul>
Transaction of agricultural commodities (GT)	<ul style="list-style-type: none"> <li>• Nzumi Mumpiene</li> <li>• Mvi Macramen</li> <li>• Kewen Wang</li> <li>• Mutombo Bilolo</li> </ul>
Introduction of hybrids ( IH)	<ul style="list-style-type: none"> <li>• Nzumi Mumpiene</li> <li>• Kutala , Mabanza</li> <li>• Landu</li> </ul>
Infrastructure Problems (IP)	<ul style="list-style-type: none"> <li>• Kewen Wang</li> <li>• Andre Lusakweno</li> <li>• Xu</li> <li>• Michel Kipundo</li> </ul>
Land disputes (LD)	<ul style="list-style-type: none"> <li>• Nzumi Mumpiene</li> <li>• Kewen Wang</li> <li>• Innoncent Bashige</li> </ul>

	<ul style="list-style-type: none"> <li>• Kutala, Mabanza</li> <li>• Mutombo Bilolo</li> <li>• Mukenge Betu</li> </ul>
Cadastral System (LPP)	<ul style="list-style-type: none"> <li>• Michel Kipundo</li> <li>• Mukenge Betu</li> <li>• Andre Lusakweno</li> </ul>
Market destination of commodities (MD)	<ul style="list-style-type: none"> <li>• Nzumi Mumpiene</li> <li>• Kewen Wang</li> <li>• Mvi Macramen</li> <li>• Kutala, Mabanza</li> </ul>
Profit Seeking Strategy (PSS)	<ul style="list-style-type: none"> <li>• Nzumi Mumpiene</li> <li>• Kutala, Mabaza</li> <li>• Kewen Wang</li> <li>• Motombo Bilolo</li> </ul>
Provision of technology (PT+)	<ul style="list-style-type: none"> <li>• Nzumi Mumpiene</li> <li>• Landu</li> <li>• Kutala, Mabanza</li> </ul>
Rent Seeking (RS)	<ul style="list-style-type: none"> <li>• Nzumi Mumpiene</li> <li>• Mutombo Bilolo</li> <li>• Mukenga Betu</li> </ul>
Size of the concession (SC)	<ul style="list-style-type: none"> <li>• Nzumi Mumpiene</li> <li>• Kewen Wang</li> <li>• Mutombo Bilolo</li> <li>• Michel Kipundo</li> </ul>

	<ul style="list-style-type: none"><li>• Innoncent Bashige</li></ul>
South Korea ( SK)	<ul style="list-style-type: none"><li>• Mukenge Betu</li><li>• Michel Kipundo</li><li>• Andre Luswakeno</li></ul>
Training of locals (TL+)	<ul style="list-style-type: none"><li>• Nzumi Mumpiene</li><li>• Kewen Wang</li><li>• Kaziama, Bukalambe</li></ul>