

China-Africa forest trade and investment

An overview with analysis for Cameroon, Democratic Republic of Congo, Mozambique and Uganda

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China's investment and trade in Africa's natural resource sectors have significant implications for Africa's forests. Many investments are in forest areas. Some directly engage in logging while others, such as mining, infrastructure and agribusiness, affect forests and rural livelihoods. This report provides an overview of trends, evidence and issues related to the impacts on forests of Chinese investments in four African countries: Cameroon, Democratic Republic of Congo, Mozambique and Uganda. It explains Chinese overseas investment policies and presents data on trends in forest-related trade and investment in these four countries. It highlights issues of concern and opportunities for engaging with Chinese and African stakeholders to support improved forest governance.

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Summary

China's investment and trade in Africa's natural resource sectors have significant implications for Africa's forests. In addition to forest trade and forest sector investments, Chinese companies are investing in mining, road and energy infrastructure, and agribusiness, often in forest areas. China's impact on African forests has become a topic of increasing interest and speculation. This report presents available evidence on Chinese forest-related trade and investment in four African countries: Cameroon, Democratic Republic of Congo (DRC), Mozambique and Uganda, and explains trends and issues in their Chinese, African and international contexts.

Section 1 gives an overview of Chinese laws and policies related to forest product trade and overseas forestry investment. As China's international trade and overseas investment has boomed, numerous laws and policies have been issued, updating the legal and policy framework in response to changing national and international conditions. Many of these laws pertain to trade and investment in general, and few are specific to forestry. Policies have generally encouraged trade and overseas investments in forestry. Chinese policymakers have become increasingly aware of environmental, social and reputational risks associated with forest trade and investment. Guidelines have been issued to regulate the business practices of Chinese companies investing overseas, but compliance is voluntary. China is also engaging with bilateral and multilateral initiatives to eliminate illegal timber trade, which will help to ensure that future regulatory development in China is in line with international best practices.

Section 2 discusses China-Africa trade in forest products has specific characteristics, determined mostly by the nature of Chinese demand for forest products. African exports to China account for a small proportion of China's total forest product imports, but in some African countries China accounts for a significant proportion of total exports. Most exports are in the form of logs. Some African countries have begun to restrict export of primary logs. Patterns of trade with China thus reflect in part African countries' forest sector and trade regulations. Chinese investments in the African forestry sector also reflect governance processes in those countries. Case studies presented in this section of trade and investment in Cameroon, DRC, Mozambique and Uganda illustrate the diverse range of trade and investment patterns, and highlight the influence of African domestic policies as well as policies in other markets, such as Europe.

Investments in mining, infrastructure, energy and agriculture may impact on forest resources. Section 3 collates available information on Chinese companies' engagement in these sectors in Cameroon, DRC, Mozambique and Uganda. The level of Chinese companies' engagement in these sectors varies between countries. There is limited evidence on actual environmental impacts, but projects in specific sectors in some countries appear more likely to impact on forest resources. Chinese companies are highly active in the artisanal mining sector in DRC, as well as in hydropower development and oil extraction in Uganda. Chinese companies also have a significant presence in hydropower development in DRC and Cameroon and in infrastructure construction in Cameroon and Uganda. The potential for impacts on forest resources of Chinese-financed or implemented projects in these sectors warrants further research on the specific impacts of Chinese companies' operations.

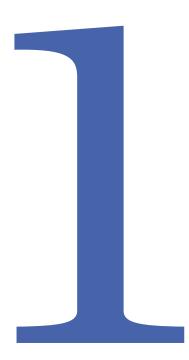
Section 4 focuses on China-Africa forestry cooperation beyond the private sector. A number of forestry cooperation agreements have been signed between the Chinese and African governments, and China has funded aid projects and technical training. The Forum on China-Africa Cooperation (FOCAC) provides a framework for political dialogue and economic cooperation between Chinese and African governments, but forestry is not prominent on the FOCAC agenda. Some recent trends that point to opportunities for enhancing future cooperation include: growing interest in some African countries in enhancing national capacities for forest sector value addition; increased attention being paid in African countries to forest ecosystem services, including carbon forestry; and China's engagement with an increasingly diverse range of international cooperation mechanisms.

Section 5 highlights key challenges in China-Africa forest trade and investment. Illegal and unsustainable harvesting and trade, although sometimes linked to Chinese companies, are also engaged in by some

African and European companies. This reflects the fundamental need for improving forest governance in Africa at the national level. In addition, the Chinese government often has limited oversight and enforcement powers on Chinese companies operating overseas - in particular the private companies - and some Chinese companies are not well informed about forest laws and regulations in the countries they operate in. These challenges highlight the importance of law enforcement and governance in African countries. While some Chinese companies export from Africa to European or other markets, the nature of Chinese market demand strongly affects their business incentives. Further development and implementation of a Chinese timber legality verification system that is linked with international legality processes could fundamentally change the nature of Chinese market demand. A higher profile for forestry in the FOCAC agenda, and increased governmental cooperation supported by civil society, would enhance cooperation towards sustainable, propoor Chinese trade and investment in Africa's forests.

Chinese government policies on forest trade and overseas investment

As China's international trade and overseas investment have boomed, numerous laws and policies have been issued, though few are specific to forestry. Policies have generally encouraged trade and overseas investments in forestry. Chinese policymakers are increasingly aware of risks associated with forest trade and investment, and are engaging with international initiatives and issuing guidelines to regulate Chinese companies overseas.



1.1 Introduction

With almost 624 million hectares of forest, about 20.6 per cent of the total land area of Africa is forested, accounting for about 15.6 per cent of global forest land.1 These forests include the Congo Basin, which is the second largest primary tropical rainforest in the world. In addition Africa has about 367 million hectares of other wooded land, accounting for over 30 per cent of other global woodland. In discussions on trade, it is often forgotten that in addition to forest product exports of over US\$5 billion in 2014,2 Africa's forest resources also provide the main energy source for over 80 per cent of African households, support the livelihoods of millions of people, and provide a range of ecosystem services of local, regional and global value.3 However, between 1990 and 2015, Africa lost an estimated 81.6 million hectares of forest, roughly equivalent to 11 per cent of the 1990 forest area and accounting for more than 60 per cent of global decrease in forest area over this period.4 Between 1990 and 2015, the top ten countries accounted for about 75 per cent of the loss of forest area. The proportion accounted for by these countries increased in the 2010-15 period, while a growing number of other African countries saw an increase in forest area in this period.

Most deforestation and forest degradation in Africa is thought to be due to agricultural expansion for subsistence and commercial agriculture, as well as wood fuel provisioning needs,⁵ while timber extraction has not been seen as a predominant driver of deforestation in Africa as a whole.⁶ However, there are some reasons for concern about the role of forest product trade in driving deforestation and forest degradation in Africa. First, with its unique biological resources, Africa is a source of particular species. Selective logging is common, and while this practice may reduce overall impacts of timber extraction on

forest biomass and biodiversity,⁷ the risk of excessive extraction of particular high-value species may be a concern. Second, variation in forest governance and in the structure of business models for timber production and processing mean that the opportunities for communities to benefit from commercial activities vary greatly.⁸ Weak governance may also be associated with illegal logging and forest product trade, including trade in protected species, and may hinder the sustainable development of the forest sector and the healthy development of governance in African countries.⁹

China's influence on Africa has received increasing attention in recent years. China is now sub-Saharan Africa's largest export partner. Trade patterns can be seen as reflecting comparative advantage, as Africa imports mainly manufactured goods and consumer products, while China mostly imports primary commodities from Africa.¹⁰ A similar pattern is also seen in Africa's exports of forest products to China, which mostly consist of roundwood logs rather than processed products.11 More than a third of Africa's forest product exports by value go to China.12 Thus, China's influence on African forests and forest sector governance has also received increasing attention.¹³ While some early commentators saw a strong role of the Chinese state in China-Africa trade and investment,14 it is now increasingly understood that a diverse range of actors, including individual entrepreneurs and private businesses, are involved, some of which have a clear link to Chinese state institutions, but many of which do not.15 The extent to which these actors are pursuing a state-mandated agenda and are amenable to influence through Chinese government policy is a question of interest to those seeking to find ways to ensure positive outcomes of Chinese involvement in Africa's forest sector.

FAO, Global Forest Resources Assessments. www.fao.org/forest-resources-assessment/explore-data/flude/en

 $^{^2}$ FAO, FAOSTAT. http://faostat3.fao.org/download/F/*/E

³World Bank (2012) Forests, trees and woodlands in Africa: an action plan for World Bank engagement.

⁴FAO, Global Forest Resources Assessments. www.fao.org/forest-resources-assessment/explore-data/flude/en

⁵ Kissinger, G *et al.* (2012) Drivers of deforestation and forest degradation: a synthesis report for REDD+ policymakers. Lexeme Consulting, Vancouver. ⁶ Mayaux, P *et al.* (2013) State and evolution of the African rainforests between 1990 and 2010. *Philosophical Transactions of the Royal Society of London B: Biological Sciences*, 368(1625).

Medjibe, V et al. (2011) Impacts of selective logging on above-ground forest biomass in the Monts de Cristal in Gabon. Forest Ecology and Management 262(9) 1799–1806; Putz, FE et al. (2012) Sustaining conservation values in selectively logged tropical forests: the attained and the attainable. Conservation Letters 5(4) 296–303.

⁸Weng, X, et al. (2014) The Africa-China timber trade: diverse business models call for specialized policy responses. CIFOR, Bogor.

⁹ German, L et al. (2009) Governing Africa's forests in a globalized world. Earthscan, London.

¹⁰ Renard, M (2011) China's trade and FDI in Africa. Africa Development Bank Group, Tunis.

[&]quot;Kozak, R and Canby, K (2007) Why China prefers logs: explaining the prevalence of unprocessed wood in China's timber imports. Forest Trends Information Bulletin: China and East Asia 9.

¹² FAO, FAOSTAT. http://faostat3.fao.org/download/F/*/E

¹³Eg Huang, W *et al.* (2013) Who is importing forest products from Africa to China? An analysis of implications for initiatives to enhance legality and sustainability. *Environment, Development and Sustainability* 15(2) 339–354; Wertz-Kanounnikoff, S *et al.* (2013) Facing China's demand for timber: an analysis of Mozambique's forest concession system with insights from Cabo Delgado Province. *International Forestry Review* 15(3) 387–397; Weng, X *et al.* (2014) The Africa-China timber trade: diverse business models call for specialized policy responses. CIFOR, Rogor

Africa-China timber trade: diverse business models call for specialized policy responses. CIFOR, Bogor.

14 Eg Corkin, L (2008) China's strategic infrastructural investments in Africa. In: Guerrero, D and Manji, F (eds) China's New Role in Africa and the South. Fahamu, Capetown, pp.134–150.

¹⁵ Weng, X et al. (2014) The Africa-China timber trade: diverse business models call for specialized policy responses. CIFOR, Bogor.

In this context, the purpose of this chapter is to review Chinese legislation, policies and initiatives affecting China-Africa forest product trade and investment. The first section presents the main laws and regulations related to forest product trade and overseas investment in forestry. These laws are mainly general laws relating to trade and investment, with few forest-specific regulatory measures. The second section presents the main policies relating to international trade and overseas investments. The third section summarises the trends and issues relating to regulation and promotion of sustainable forest product trade and cooperation. The last section provides an overview of key timber legality and associated trade initiatives that the Chinese government has been engaged in.

1.2 Chinese laws and regulations related to forestry trade and investment

1.2.1 Overview of the Chinese legislative and regulatory system

Chinese legislation on foreign trade and investment can broadly be divided into national laws, administrative regulations and procedural regulations. National laws are promulgated by the National People's Congress and apply to all related activities. These laws often create specific mandates for government agencies in implementation of the law. Administrative regulations are issued by the responsible government agency, often setting out specific implementation regulations in response to general principles set out in a law, and apply to all related activities. Procedural regulations, which are sometimes issued in the form of circulars or notifications, are issued by the responsible government agency and set out specific procedures to be followed by that agency in implementing activities within its legal mandate. Laws and regulations are occasionally revised, with most revisions aiming either to further promote trade, to facilitate more effective regulation by the relevant authorities over trading activities, or to strengthen the force of the laws and impose tougher penalties for non-compliance.

1.2.2 National laws and regulations on forest product trade

Forest trade activities are subject to national laws and administrative regulations covering international trade. Table 1 presents the main national laws and regulations governing international trade. These laws and regulations cover trade in general; inspection of imports; quarantine; and trade in protected species. Some laws and regulations are specific to products that are relevant to forestry, such as regulations on quarantine of timber and laws and regulations on trade in plants and protected species. There are no laws or administrative regulations specific to forest trade and investment. The main agencies responsible for implementing these laws include the Ministry of Commerce (MOFCOM); China Customs; and the General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ). In addition, the State Forestry Administration (SFA) is responsible for approvals for the import and export of endangered wild fauna and flora, and quarantine for imported roundwood.

For trade in forest products, the main practical relevance of these laws lies in the establishment of institutions and procedures for inspection and quarantine of imported products, including products that are restricted under the Convention on International Trade in Endangered Species of Wild Fauna and Flora. The Foreign Trade Law applies to all international trading activities, 16 and Article 21 states that the state shall establish a system for certification, examination and quarantine for imported and exported goods.¹⁷ The implementation of this article is further specified in the Law on Import and Export Commodity Inspection and the Regulation for Implementation of the People's Republic of China's (PRC) Law on Import and Export Commodity Inspection. Pursuant to this law, the State Bureau for Commodity Inspection issues a list of products that are subject to statutory inspection upon import, and many types of timber and wood products are included in the list.18 This list is updated through the release of notifications by the responsible government agencies, and the 2012 update cancelled statutory inspection for some wild animal products but not for wood products.¹⁹ The main purposes of inspection are to protect human, plant, animal and environmental health, and prevent deceptive practices by ensuring conformity with standards.

¹⁶ PR China (2005) 中华人民共和国对外贸易法 (Foreign Trade Law of the PR China) www.gov.cn/flfg/2005-06/27/content_9851.htm

¹⁷ In accordance with this law, MOFCOM may also issue notifications on banned import items, such as the ban on imports of charcoal from Somalia which was issued to implement UN Security Council Resolution 2036 in 2012.

¹⁸ General Administration of Quality Supervision, Inspection and Quarantine of the PR China (1995) 商检机构实施检验的进出口商品种类表 (List of import and export commodities subject to inspection) www.people.com.cn/zixun/flfgk/item/dwjjf/falv/6/6-2-25.html

¹⁹ General Administration of Quality Supervision, Inspection and Quarantine of the PR China (2012) 关于取消部分商品进/出口检验检疫监管的公告 (Notification of cancellation of import / export inspection on some commodities) www.aqsiq.gov.cn/xxgk_13386/xxgkztfl/lhgg/201207/t20120731_227169.htm

Table 1. China's main laws and regulations on trade in forest products

TITLE	ISSUING AUTHORITY	YEAR OF ISSUE AND REVISION
The PRC's Foreign Trade Law	Standing Committee of the National People's Congress	Enacted 1994; revised 2004
The PRC's Customs Law	Standing Committee of the National People's Congress	Enacted 1987; revised 2013
Implementation Regulations for Administrative Punishment by PRC's Customs	State Council	2004
The PRC's Law on Import and Export Commodity Inspection	Standing Committee of the National People's Congress	Enacted 1989; revised 2002, 2013
Regulations for the Implementation of the PRC's Law on Import and Export Commodity Inspection	The State Council	Implemented 2005; revised 2013
Law of the PRC on the Entry and Exit Animal and Plant Quarantine	Standing Committee of the National People's Congress	Enacted 1991; revised 2009
Regulations for the Implementation of the Law of the PRC on the Entry and Exit Animal and Plant Quarantine	The State Council	Implemented 1997
Border Health and Quarantine Law	National People's Congress	2007
Implementation Regulations for the Border Health and Quarantine Law	State Council	Implemented 1989, revised 2010
Requirements for Quarantine of Roundwood Timber Imports	AQSIQ; General Administration of Customs; State Forestry Administration; Ministry of Agriculture; MOFTEC	2001
Law of the PRC on the Protection of Wildlife	Standing Committee of the National People's Congress	Enacted 1989; revised 2004, 2009
Regulation of the PRC on the Administration of the Import and Export of Endangered Wild Fauna and Flora	The State Council	Implemented 2006

Notes: MOFTEC: Ministry of Foreign Trade and Economic Cooperation; PRC: People's Republic of China.

The Regulation for Implementation of the Law on Import and Export Commodity Inspection specifies the procedures and type of documentation that must be submitted when goods requiring statutory inspection are to be imported. The regulation was amended in 2013 so that import agents are no longer required to be registered with the state inspection agencies and the requirements regarding the technical qualifications of state inspection agency staff were relaxed.²⁰ The 2013 revisions were intended to ensure that inspection activities are consistent with the transition towards greater regulatory roles for state agencies rather than direct implementation.

The Law on the Entry and Exit Animal and Plant Quarantine also requires importers of plant products (including timber) to apply for inspection to prevent import of diseased products, insects, soils and weeds. Regulations for the Implementation of the Law on the Entry and Exit Animal and Plant Quarantine state that the State Bureau of Animal and Plant Quarantine shall exercise quarantine responsibilities at entry and exit ports in accordance with the provisions of the law, and sets out specific requirements. The Border Health and Quarantine Law and its implementation regulations further specify that products imported from infected areas shall undergo compulsory quarantine and sterilisation, and Requirements for Quarantine of Roundwood Timber Imports set out the procedures to be followed by the agencies involved. The Law on the Protection of Wildlife²¹ and the Regulation of the PRC on the Administration of the Import and Export of Endangered Wild Fauna and Flora²² explicitly ban the import of endangered species without the appropriate permit, set out procedural requirements for import applications, and specify how violations shall be treated. Amendments in 2009 to the Law on Entry and Exit Animal and Plant Quarantine and the Law on the Protection of Wildlife both aimed to enhance the laws' effectiveness by clarifying the criminal liabilities involved.

The Customs Law designates the General Administration of Customs as the agency with overall mandate for customs, and specifies its authority and responsibilities.²³ The General Administration of Customs is responsible for exercising control over items entering or leaving China, collecting duties, taxes and fees, and compiling customs statistics. The Customs Law also establishes a system of registration for importers and import agents. In addition, prevention and investigation of suspected smugglers is a key part of their responsibilities. Where violations of the Customs Law or other laws are criminal acts, they are dealt with according to criminal law. Where violations are not criminal, they are dealt with according to procedures set out in the Implementation Regulations for Administrative Punishment by the Customs of the People's Republic of China.

1.2.3 National laws and regulations on forest investments

In 2013, overseas foreign direct investment (OFDI) in agriculture, forestry and fisheries accounted for about 1.8 per cent of China's total OFDI flows of US\$107 billion.²⁴ Overseas investments in the forest sector are thus a very small proportion of China's total OFDI. Development of the legal and regulatory framework has therefore largely been driven by trends in other sectors. Following China's adoption of an explicit strategy, 'Going Out' in 2002, regulatory developments have also been significantly influenced by changing policies.²⁵

Overseas investment by Chinese companies was only allowed after 1979, and regulations setting out procedures for making such investments have gradually developed since the 1980s. Initially, regulations required companies to seek approval from government agencies for overseas investments and for the use of foreign exchange. New accounting regulations were also brought in to cover overseas investments. Until the

²⁰ State Council of the PR China (2013) 国务院关于废止和修改部分行政法规的决定 (Decision of the State Council regarding abolition and amendment to certain administrative regulations) www.bjciq.gov.cn/Contents/Channel_2199/2013/0904/43192/content_43192.html
²¹ PR China (1988) 中华人民共和国野生动物保护法 (Law on the Protection of Wildlife). www.npc.gov.cn/wxz/gongbao/2000-12/10/content_5004512.htm

^{**}PR China (1988) 中华人民共和国野生动物保护法 (Law on the Protection of Wildlife). www.npc.gov.cn/wxzl/gongbao/2000-12/10/content_b004b12.htm
**2*State Council of the PR China (2006) 中华人民共和国濒危野生动植物进出口管理条例 (Regulation of the PRC on the Administration of the Import and Export
of Endangered Wild Fauna and Flora). www.forestry.gov.cn/zny/3557/content-542013.html
**2*PR China (2000) 中华人民共和国海关法 (Customs Law of the PR China). www.customs.gov.cn/tabid/65549/InfoID/3420/frtid/399/Default.aspx

²⁸ PR China (2000) 中华人民共和国海关法 (Customs Law of the PR China). www.customs.gov.cn/tabid/65549/InfoID/3420/frtid/399/Default.aspx 24 MOFCOM, NSB and SAFE (2014) 商务部、国家统计局、国家外汇管理局《2013年度中国对外直接投资统计公报》(2013 China Overseas Foreign Direct Investment Statistical Bulletin).

²⁵ A number of policies are summarised in Bernasconi-Osterwalder *et al.* (2013) *Chinese outward investment: an emerging policy framework.* International Institute for Sustainable Development, Winnipeg. The interaction of policies on overseas investment and development of the regulatory framework is analysed in Huang, W and Wilkes, A (2011) *Analysis of China's overseas investment policies.* CIFOR, Bogor.

late 1990s, most overseas investment was by state-owned companies. With an increase in the contribution of private companies to the Chinese economy and their role in OFDI, as well as the rise of new forms of investment such as mergers and acquisitions, further regulatory reforms were required. In particular, following the adoption of the Going Out strategy in 2002, which explicitly supported the expansion of overseas investments, further reforms were made to regulations relating to overseas investment approvals, foreign exchange management and taxation. The main current legislation and regulations are summarised in Table 2.

Revisions to regulations over time have gradually relaxed the requirements for approving overseas investments. The Management Method for Overseas Investment, issued in 2014, initiated a dual-track system whereby some investment types only require lodging the information with the relevant authorities, while other types of investment require authorisation. ²⁶ Investments in sensitive countries or industries require authorisation, while for all other investments, companies need only lodge related information with the relevant authorities. Sensitive countries are defined as those

with no diplomatic relations with China and those under UN sanctions. Sensitive industries are industries with products or technologies under export restrictions. National-level state-owned enterprises must lodge overseas investment information with MOFCOM, while all other companies do so with the provincial department of commerce. Former regulations requiring companies to seek approval or authorisation for the use of foreign exchange in overseas investments have been cancelled, and such transactions are now recorded by the banks involved, and the State Administration for Foreign Exchange now supervises the use of foreign exchange through reports on OFDI submitted by the banks.27 With the exception of certain categories of investment, therefore, companies have a large amount of freedom in making overseas investment decisions. Taxation policies were also revised to specify eligibility for tax reductions and exemptions for revenues derived from overseas investments. Specific regulations have also been issued regarding the employment of Chinese workers overseas.²⁸ There are no national laws or administrative regulations specifically regarding overseas investment in forestry.

Table 2. The main laws and regulations on overseas investment in forestry

TITLE	ISSUING AUTHORITY	YEAR OF ISSUE AND REVISION
Management Method for Overseas Investment	MOFCOM	First issued 2009; revised 2014
Management Regulations for Domestic Companies Making Overseas Investments	SAFE	2009
Opinion on Good Implementation of Taxation Services and Management of Overseas Companies	SAT	2007
Circular on Income Tax Reduction and Exemptions for Overseas Investing Enterprises	MOF, SAT	2009
Overseas Labour Cooperation Management Regulations	State Council	2012

Notes: MOFCOM: Ministry of Commerce; SAFE: State Administration of Foreign Exchange; SAT: State Administration of Taxation; MOF: Ministry of Finance.

²⁶ MOFCOM (2014) 海外投资管理办法 (Management Method for Overseas Investment). www.mofcom.gov.cn/article/b/c/201409/20140900723361.shtml ²⁷ SAFE (2015) 国家外汇管理局关于进一步简化和改进直接投资外汇管理政策的通知 (Notification from the State Administration of Foreign Exchange on further simplifying and improving direct investment foreign exchange management policies). http://tinyurl.com/jddkrye

²⁸ State Council of the PR China (2012) 对外劳务合作管理条例 (Overseas labour cooperation management regulations). www.gov.cn/zwgk/2012-06/11/content_2157905.htm

1.3 Chinese government policies on forestry trade and investment

As the preceding section has illustrated, although legislation is distinct from government policy, policy often plays a key role in promoting regulatory development. This is particularly clear in the area of trade and investment, where fundamental reforms of China's trade and investment policies in recent decades have spurred the development of regulatory measures. Chinese government policies can broadly be distinguished as either guiding strategies or sectoral policies. These policies are implemented through sectoral plans and a range of specific policy measures. Policy measures include both promotional measures and measures to regulate the environmental and social impacts of forestry activities overseas.

1.3.1 Guiding strategies and policies

Since the late 1970s, increasing international trade has been a key national economic development strategy. China has gradually implemented reforms in finance, taxation, banking, foreign trade and foreign exchange, reduced trade barriers and administrative intervention, rationalised government responsibilities in foreign trade administration, and joined the World Trade Organisation in 2001. International trade has made important contributions to economic development in China, and guiding policies such as those outlined in a 2011 White Paper, China's Foreign Trade, 29 continue to stress the importance of trade to realise complementary advantage and mutual benefit.

In 2012, the General Office of the State Council issued the Several Opinions of the General Office of the State Council on Promoting the Steady Increase in Foreign Trade,30 which highlighted priority areas for tradepromoting reforms, including improvements in access to trade finance, and trade facilitation measures such as streamlining customs procedures. This document was then followed with specific measures implemented by the relevant government agencies. For example, the General Administration of Customs undertook various measures to improve the services it provides to customers.31

Trade and investment also support the implementation of national sectoral policies. In the forest sector, since the 1990s major policies and programmes have been in place aiming to improve the environment by increasing forest cover and the quality of China's domestic forest resources. Increasing reliance on imported forest products supports the implementation of these domestic objectives. A guiding policy issued in 2003, Decision of the Chinese Communist Party Central Committee and the State Council on Accelerating the Development of Forestry, 32 sets targets for national forest cover of 23 per cent by 2020 and 26 per cent by 2050. The decision also highlights the need to actively develop the wood processing industry and strengthen China's international competitiveness in wood product markets. Therefore, trade in forest products can be expected to continue to be of great importance for achieving national sectoral policy objectives.

China increased its overseas investment with the adoption of the Going Out strategy in 2001. On the one hand, investment is encouraged in sectors with resources in short domestic supply. On the other hand, deepening Chinese companies' international engagement is expected to strengthen their global competitiveness. Both state-owned and private companies are encouraged to invest overseas. In the forest sector, the Decision of the Communist Party of China Central Committee and the State Council on Accelerating the Development of Forestry also mentioned support for overseas investment in the sector.

In the forestry sector, the Twelfth Five-Year Plan for Forestry Development (2011-2015) set out the government's priorities for international trade and investment in the forest sector during that period.33 In terms of trade, one priority was to offset the decrease in demand for exports to traditional western markets by increasing the proportion of value-added exports, and by diversifying export markets. In terms of overseas investment, the strategy outlined was to support overseas investments in key partner countries as defined by their resources, the investment environment and bilateral relations, with the objective of supporting the development of globally competitive, vertically integrated multinational companies. The Thirteenth Five-year Plan for Forestry Development (2016-2020) continues this strategy,34 with an emphasis on

²⁹ Information Office of the State Council of the PR China (2011) China's Foreign Trade. www.china-embassy.org/eng/zt/bps/t943740.htm

³⁰ General Office of the State Council (2012) 国务院办公厅关于支持外贸稳定增长的若干意见 (Several Opinions of the General Office of the State Council on Promoting the Steady Increase in Foreign Trade). www.gov.cn/zhengce/content/2014-05/15/content_8812.htm ³¹ General Administration of Customs (2012) 海关总署公告2012年第45号——海关总署关于促进外贸稳定增长的若

⁻海关总署关于促进外贸稳定增长的若干措施 (Announcement No. 45 of the General Administration of Customs: GAC on Several Measures to Promote Steady Growth of International Trade). http://fangtan.customs.gov.cn/tabid/271/InfoID/886/ frtid/270/Default.aspx

³º Chinese Communist Party and State Council of the PR China (2003) 中共中央 国务院关于加快林业发展的决定 (Decision of the Chinese Communist Party Central Committee and the State Council on Accelerating the Development of Forestry). www.forestry.gov.cn/Zhuanti/content_ly60/266025.html 33 State Forestry Administration (2011) 林业发展十二五规划 (Twelfth Five-Year Plan for Forestry Development: 2011-2015). www.forestry.gov.cn/portal/main/ govfile/13/govfile_1902.htm ³⁴ State Forestry Administration (2016) 林业发展十三五规划 (Thirteenth Five-Year Plan for Forestry Development: 2016–2020). http://tinyurl.com/j2crfxx

increasing the value added of Chinese exports, and encouraging Chinese companies to invest in forestry resources and processing facilities in Russia, Southeast Asia, Central and Eastern Europe, Latin America, Oceania and Africa.

1.3.2 Trade and investment promotional policies and measures

Forest trade and investment is affected by both general trade and investment policies and sector-specific policies. Implementation Opinions on Encouraging and Guiding Private Enterprises to Actively Conduct Overseas Investment, issued in 2012, sets out 18 measures to support private enterprises in overseas investment.³⁵ These measures include general guidance (such as improving provision of information on potential investment destinations, assessment of investment risks), policy support (such as improvements in taxation policies and provision of financial support, streamlining customs systems), simplifying overseas investment management (such as simplifying investment approval and improving foreign exchange regulations) and improving services (such as economic and consular services, concluding bilateral investment agreements, provision of information services), and measures to reduce overseas investment risks and improve security.

In terms of specific measures, international trade and overseas investments have for some years been supported by specialised financial institutions, including the Export-Import Bank of China, China Development Bank and the China-Africa Development Fund.³⁶ In addition, in 2014, the Ministry of Finance (MOF) and the Ministry of Commerce (MOFCOM) combined several existing funds to create a special fund to support overseas trade.³⁷ These funds are allocated to each province, which sets its own priority areas for investment support.

1.3.3 Policies and measures to facilitate trade and investment

Another set of policies and policy measures aims to facilitate trade and investment by addressing particular barriers. For example, in 2011, the People's Bank of China announced new measures for piloting the settlement of outward investments in Chinese yuan. 38 To address economic, political, policy and natural risks affecting overseas investments, in 2010 MOFCOM established a system to provide early warning and information on such risks. 39 The General Administration of Customs has also taken action to improve the services it provides. 40 The National Development and Reform Commission and MOFCOM have also issued a set of country-specific investment guides, which provide information on destination countries, priority sectors for investment and relevant national laws and regulations.

Risks arising from the social and environmental impacts of Chinese firms' overseas operations have also been an area of government intervention. A number of guidance documents have been released. In 2008, MOFCOM, the Ministry of Foreign Affairs and the State Council jointly issued the Notification on Further Standardising Chinese Companies' Overseas Investment Cooperation.⁴¹ This notification, issued to government agencies and state-owned companies, aimed primarily to address the occurrence of labour disputes, environmental problems and sub-standard performance by some Chinese companies. It stressed the need to establish management systems to address these issues and specified penalties where companies' actions had had severe adverse consequences. In 2012, another document was issued by seven ministries exhorting both state-owned and private companies to comply with laws in their destination countries, improve ethical standards, perform their social responsibilities and improve relations with local communities.42 Guidance on staff

³⁵ National Development and Reform Commission *et al.* (2012) 关于印发鼓励和引导民营企业积极开展境外投资的实施意见 (Implementation Opinions on Encouraging and Guiding Private Enterprises to Actively Conduct Overseas Investment). www.saic.gov.cn/zwgk/zyfb/lhfw/lhfw/xxzx/201207/t20120710_127786.html

³⁶ Huang, Wand Wilkes, A (2011) Analysis of China's overseas investment policies. CIFOR, Bogor.

³³ Ministry of Finance and MOFCOM (2014) 外经贸发展专项资金管理办法 (Management Method for International Trade Development Funds). www.mofcom.gov.cn/article/b/fwzl/201405/20140500573898.shtml

³⁸ People's Bank of China (2011) 境外直接投资人民币结算试点管理办法 (Measures for the Pilot RMB Settlement of Outward Direct Investment). www.scofcom. gov.cn/kjrmbjszcfg/227712.htm?language=tc

³⁹ MOFCOM (2012) 对外投资合作境外安全风险预警和信息通报制度 (Foreign investment and cooperation overseas safety risk early warning and information

³⁹MOFCOM (2012) 对外投资合作境外安全风险预警和信息通报制度 (Foreign investment and cooperation overseas safety risk early warning and information reporting system). www.mofcom.gov.cn/aarticle/i/jyjl/k/201202/20120207967111.html
40 General Administration of Customs (2012) 海关总署公告2012年第45号——海关总署关于促进外贸稳定增长的若干措施 (Announcement No. 45 of the Gen

⁴º General Administration of Customs (2012)海关总署公告2012年第45号——海关总署关于促进外贸稳定增长的若干措施 (Announcement No. 45 of the General Administration of Customs: GAC on several measures to promote steady growth of international trade). http://fangtan.customs.gov.cn/tabid/271/InfoID/886/frtid/270/Default.aspx

⁴¹ MOFCOM *et al.* (2008) 商务部、外交部、国务院国有资产监督管理委员会关于进一步规范我国企业对外投资合作的通知 (Notification on Further Standardising Chinese Companies' Overseas Investment Cooperation). www.mofcom.gov.cn/aarticle/b/g/200808/20080805721680.html

⁴² MOFCOM *et al.* (2012) 中国境外企业文化建设若干意见 (Several Opinions on Construction of Enterprise Culture of Chinese Firms Overseas). www.mofcom. gov.cn/article/b/bf/201205/20120508126444.shtml

behaviour, employment practices and fair competitive practices for Chinese firms overseas has also been issued.43 In 2013 MOFCOM, together with seven other ministries, issued Measures for Bad Credit Records in the Fields of Foreign Investment Cooperation and Foreign Trade (Trial Implementation), which authorises various government agencies (including embassies overseas) and trade associations to collect information on illegal activities and other violations of ethical standards by Chinese companies and their employees working overseas.44 Names of companies with a 'bad credit' record are published.45

In the fields of environment and forestry, further guidelines have been issued. Two forestry-specific guidelines have been issued: Guide on Sustainable Overseas Silviculture by Chinese Enterprises (2007) and a Guide on Sustainable Management and Utilisation of Overseas Forest by Chinese Enterprises (2009). A set of guidelines on sustainable overseas forestry products trade and investment for Chinese companies is also being drafted, and IIED is supporting the participation of some African stakeholders in consultations on the documents.⁴⁶ In 2013, MOFCOM and the Ministry of Environmental Protection issued Guidelines on Environmental Protection in Outbound Investment and Cooperation. This document urges enterprises to timely identify and prevent environmental risks, and encourages enterprises to actively fulfil social responsibilities for environmental protection, establishing a good reputation for Chinese enterprises and supporting the sustainable development of the host country. The Guide on Sustainable Overseas Silviculture by Chinese Enterprises and Guide on Sustainable Overseas Forest Management and Utilisation by Chinese Enterprises aim to encourage Chinese enterprises engaged in outward forestry investment and business activities to recognise sustainability as the guiding principle for forest resource use, by formulating a series of standards and codes of conduct. These guidelines are general, and further detailed guidance is needed to make them operational.⁴⁷ Adherence to these guidelines is not compulsory.

1.4 Key initiatives on forestry trade and investment engaged in by the Chinese government

The effectiveness of Chinese regulations or policies to prevent the import of illegal timber needs to continually be improved, and China is facing pressure to meet new legislative requirements issued by key international market partners (such as the European Union (EU) Timber Regulation, the US Lacey Act and the Australian Illegal Logging Prohibition Act) and to demonstrate responsible management of its overseas forestry investments. The Chinese authorities are increasingly aware not only of the reputational risks associated with the country's global forest investment footprint, but also of the possible implications of current trends for timber supply and market access for Chinese timber and wood products. In recent years, the Chinese government has been engaged in several bilateral and multilateral initiatives to tackle these issues and build the capacity of key stakeholders.

1.4.1 Bilateral initiatives

US-China Forum on Combating Illegal Logging and Associated Trade

Within the framework of the US-China Strategic and Economic Dialogue, the US and Chinese governments signed a memorandum of understanding (MoU) on combating illegal logging and associated trade in 2007. A central element of the MoU is the creation of a Bilateral Forum to increase cooperation between the two countries. The Bilateral Forum includes multiple agencies from both governments to ensure a comprehensive approach to addressing the challenges. In China, the working group members consist of the State Forestry Administration (SFA), Ministry of Commerce and General Administration of Customs. The American members of the working group are the Department of State, Department of Justice and the US customs agency. The Bilateral Forum meets annually, with the location alternating between China

⁴³ MOFCOM et al. (2011) 境外中资企业 (机构) 员工管理指引 (Staff Management Guidance for Chinese Enterprises (Institutions) Overseas). www.mofcom.gov. cn/article/b/bf/201103/20110307466483.shtml; MOFCOM (2013) 规范对外投资合作领域竞争行为的规定 (Regulations to standardize competitive behavior

in foreign investment and cooperation). www.mofcom.gov.cn/article/b/g/201309/20130900322914.shtml

44MOFCOM et al. (2013) 对外投资合作和对外贸易领域不良信用记录试行办法 (Measures for Bad Credit Records in the Fields of Foreign Investment

Cooperation and Foreign Trade (Trial Implementation)). www.mofcom.gov.cn/article/h/redht/201309/20130900316370.shtml

45 MOFCOM. Bad Credit Record. http://zsmtjhzs.mofcom.gov.cn/gsapp/pages/zsmwp/gov/BadRecordListShow.html

46 Sun, X et al. (2014) Chinese views of African forests: evidence and perception of China-Africa links that impact the governance of forests and livelihoods. IIED,

⁴⁷ Sun, X et al. (2014) op. cit.

and the US. Bilateral exchange focuses on such topics as the implementation of Lacey Act Amendments, timber legality verification, private sector dialogue, and customs data exchange, in order to enhance mutual understanding and promote practical cooperation. Both sides have also resolved to continue coordinating with and involving relevant ministries and agencies, and to work with civil society and private partners. The two governments are working together to hold the seventh US-China Bilateral Forum in the United States in the second half of 2016.48

EU-China Bilateral Coordination Mechanism on Forest Law Enforcement and Governance

On January 30th, 2009, the SFA and European Commission (EC) formally agreed on a Bilateral Coordination Mechanism (BCM) on Forest Law Enforcement and Governance. Activities under the BCM include awareness raising, facilitating Chinese forestry business dialogue with overseas suppliers on chain of custody management, timber tracking and tracing, and information sharing. The BCM also supports cooperation with countries in Southeast Asia, Africa and Russia to help eliminate illegal logging through capacity building and demand-side measures in both markets. The respective lead agencies are the EC's Directorate General for Environment and the Chinese SFA. The Chinese Academy of Forestry (CAF) and the European Forest Institute's EU Forest Law Enforcement, Governance and Trade (FLEGT) Facility implement the work plan, in close collaboration with EU member states.49

China-UK Cooperation on International Forest **Investment and Trade**

The China-UK Cooperation on International Forest Investment and Trade is a three-year grant programme funded by the UK's Department for International Development, initiated in February 2014. The programme goal is to reduce the impacts of China's international trade in timber products and other commodities grown on forest land whose production causes forest degradation. Outputs include developing and implementing a Chinese timber legality verification system (CTLVS), strengthening the implementation of the forestry guidelines for Chinese overseas investments, and developing new guidelines for

responsible overseas investment and trade in palm oil and rubber. CAF, authorised by SFA and the Department for International Development, is leading the timber legality policy work. The China Chamber of Commerce for Import and Export of Foodstuffs, Native Produce and Animal By-Products is taking the lead on developing oil palm guidelines, while the China Chamber of Commerce of Metals, Minerals and Chemicals Importers and Exporters is developing guidelines on rubber.

1.4.2 Multilateral initiatives

APEC's Expert Group on Illegal Logging and **Associated Trade**

The Expert Group on Illegal Logging and Associated Trade (EGILAT) is a forum within the Asia Pacific Economic Cooperation (APEC) forum that was established in 2011. The APEC ministers responsible for trade directed officials to establish EGILAT in order to promote trade in legally harvested forest products, combat illegal logging, and build capacity. At the APEC leaders' meeting in Hawaii in 2011, leaders committed to work to implement appropriate measures to prohibit trade in illegally harvested forest products, and to undertake additional activities in APEC to combat illegal logging and associated trade. SFA took the leading role in contributing to the EGILAT discussions and participating in the EGILAT meetings on behalf of China. A Workshop on Developing Timber Legality Assurance Systems was organised by SFA in Qingdao, which was held back-to-back with the fifth EGILAT meeting in 2014. During the workshop, timber trade and forestry experts from APEC economy government agencies, non-governmental organisations (NGOs), certification bodies, research institutions and timber industry associations shared their experiences in developing timber legality assurance systems. China committed to use the lessons learned in the workshop to further develop its national timber legality assurance system. To further enhance transparency, an APEC EGILAT Timber Legality Guidance Template was developed in 2015.50 APEC economies will compile laws or regulations governing timber production and trade in line with the template, with a goal of supporting legal timber trade between APEC members. SFA is working with its partners (such as CAF) to develop China Timber Legality Guidance consistent with the template.

⁴⁸ US Department of State (7 June 2016) US-China Strategic and Economic Dialogue Outcomes of the Strategic Track. www.state.gov/r/pa/prs/

ps/2016/06/258146.htm

⁴⁹ Speechly, H (2016) Scoping study on EU-China relationships in the forestry sector. Fern, Brussels.

⁵⁰ APEC EĞILAT (2015) Timber legality guidance template. www.apec.org/~/media/Files/Groups/EGILAT/15_sce3_018_EGILAT guidance template.docx

1.5 Discussion

This chapter has given an overview of key features of the regulatory, policy and initiatives environment related to forest trade and overseas investment by Chinese companies. International trade and expansion of overseas investment have been key components of China's development strategy. The basic legislative, regulatory and policy framework affecting forest product trade and forestry investment is given by China's national laws and policies on international trade and investment. Continuous growth in the scale of trade and investment activities, policy developments and lessons from practical experiences have required continual development of legislative, regulatory and policy measures. Many laws and regulations have been updated and revised in response to these factors.

Assessing the changes made in many aspects of law and regulation, it is apparent that the general direction of change is away from direct state involvement in directing international trade and overseas investment, towards a system of supervision and facilitation by government, with greater autonomy for enterprises to make and bear responsibilities for their trade and investment decisions. At the same time, the government encourages companies to regulate their own behaviour and fulfil corporate social responsibilities. This direction of change is in line with the broader transformations in Chinese society away from a state-planned economy towards a market-based economy with government performing regulatory and service provision roles. The Chinese government has a number of policies to promote and facilitate trade and investment, and while state-owned companies may dominate in the volume of forest product imports from Africa,51 an increasing number of private companies are also involved in Chinese trade and investment in the forest sector of many African countries.

While early policies and regulations focused more on the expansion of trade and investment, in recent years a number of measures have also been taken to address risks associated with trade and investment and to improve the social impacts of Chinese companies operating overseas. Government agencies now provide information on social, economic and political risks affecting investment decisions. They have also issued guidelines to assist companies in identifying and avoiding the occurrence of risks related to issues such as labour relations and environmental impacts of overseas operations. These guidelines are voluntary, and there has been little assessment of their specific effects on Chinese companies' trade or investment practices.

Chinese companies involved in forest product trade and forestry operations in Africa are increasingly diverse. They are also engaging with local laws, customs and practices that vary considerably from place to place.⁵² The specific risks and impacts for local communities and the environment are therefore also diverse. There is also evidence suggesting that not all trade in roundwood logs to China is legal.⁵³ This suggests that effective measures to improve the legality and sustainability of forest product trade will require improvements in regulatory mechanisms both in China and in African partner countries. The active engagement of the Chinese government and other stakeholders in bilateral and multilateral initiatives will help ensure continued developments in line with international best practices.

⁵¹ Huang, W *et al.* (2013) Who is importing forest products from Africa to China? An analysis of implications for initiatives to enhance legality and sustainability. *Environment, Development and Sustainability* 15(2) 339–354.

⁵² Weng, X, et al. (2014) The Africa-China timber trade: diverse business models call for specialized policy responses. CIFOR, Bogor.

⁵³ Eg Chang, Y and Peng, R (2015) Timber flow study: export/import discrepancy analysis China vs. Mozambique, Cameroon, Uganda and DRC. IIED, London; Huang, W and Sun, X (2013) Tropical hardwood flows in China: Case studies of rosewood and okoumé. Forest Trends, Washington DC.

China-Africa forest product trade and investment

Although Africa accounts for only a small proportion of China's forest product imports, Africa's exports to China often have significant implications for exporting countries. Patterns of trade and forest sector investment by Chinese companies vary between countries, highlighting the importance of national forest governance in shaping the influence of Chinese companies' activities.



Since China's opening up to international trade and the more recent adoption of its Going Out strategy, forest product trade and investment between China and Africa have taken off. In 2014, China's forest product trade with Africa was worth about US\$2.9 billion, a fivefold increase on its value in 2000.54 It is also estimated that by 2011, about US\$124 million had been invested by Chinese firms in the forestry sectors of African countries.⁵⁵ Most of these investment projects are located in countries with rich forest resources, such as Cameroon, Democratic Republic of Congo (DRC), Gabon and Mozambique.

This chapter describes the recent trends and characteristics of China's trade and investment in the forestry sector in African countries. The first part gives an overview of the main characteristics of China-Africa forestry trade, and illustrates the diversity of trends and patterns at country level through short summaries focusing on Cameroon, DRC, Mozambique and Uganda. The second part presents the general situation of Chinese forest sector investments in Africa, and provides short sketches of the situation in Cameroon, the DRC, Gabon and Mozambique. The third part discusses issues related to the social, economic and environmental impacts of China's forest trade and investment in Africa.

2.1 China-Africa forest product trade

2.1.1 The main features of China-Africa forest product trade

With a consistent gap between demand and supply in China's domestic timber market, China's forest product imports have steadily increased over the past decade or more. Total forest product imports increased from about US\$5.5 billion in 1997 to almost US\$43 billion in 2011.56 Imports of roundwood have also increased by more than tenfold over this period. However, within China's forest product trade, trade in products between China and Africa has some particular features.⁵⁷

Africa's share in China's total timber imports is small, and import volumes fluctuate considerably year-on-year: China's forest product imports from

Africa account for a relatively small proportion of China's total forest product imports. Forest product imports from Africa account for only about 3 per cent of China's total forest product imports, not including wood pulp and paper. Since 1997, China's global forest product imports have grown continuously and at a rapid pace. However, imports from Africa have grown at a slower pace, and import volumes have fluctuated over time. These fluctuations reflect various factors. First, following successive years of growth between 1997 and 2007, China's total imports of timber products declined in 2008 and 2009, only recovering to the 2007 level by 2012. This mainly reflected the effects of the global financial crisis on forest product demand in China's domestic economy and in China's main export markets. Second, forest product imports from Africa have also been affected by changing forest trade policies in African countries. For example, a decrease in imports from Africa in 2003–4 partly reflected a cessation of all wood exports from Liberia, which had in 2003 supplied about half a million cubic meters of roundwood equivalent (RWE) to China. This was in response to United Nations-imposed sanctions prohibiting the timber export from Liberia.58 Third, in the case of exports to China from particular countries, fluctuations can also reflect the operations of individual companies, which sometimes significantly decrease export volumes after a year of large export volumes. Despite Africa's small share of China's total forest product and timber imports, Africa accounts for a significant proportion of Chinese imports of particular commodity types. Tropical hardwood timber imported by China from Africa tends to be of high value. In value terms, China imports 13.6 per cent of its total tropical hardwood logs and lumber from Africa, although these imports only account for about 6.5 per cent of tropical hardwood logs by volume.59

Timber exports to China have significant implications for African countries: Although Africa accounts for only a small proportion of China's forest product imports, the timber trade often has significant implications on the African side. China accounts for a significant proportion of total exports from some African countries. For example, before its log export ban was enforced in late 2009, Gabon was consistently the top timber exporter to China, exporting timber worth an average of more than US\$200 million per year to

⁵⁴ FAO, FAOSTAT. http://faostat3.fao.org/download/F/FT/E

⁵⁵ State Forest Administration of the PR China (2012) 国家林业局.2011年非洲中资企业基本情况统计(内部资料) (Statistics on the basic situation of Chinese companies in Africa, 2011). Unpublished internal document.

⁵⁶FAO, FAOSTAT. http://faostat3.fao.org/download/F/FT/E

⁵⁷ See also the in-depth analysis in Sun, X (2014) Forest products trade between China and Africa: an analysis of import and export statistics. Forest Trends, Washington DC.

⁵⁸ Canby, K et al. (2008) Forest products trade between China and Africa: an analysis of imports and exports. Forest Trends, Washington DC.

⁵⁹ Sun, X (2014) Forest products trade between China and Africa: an analysis of import and export statistics. Forest Trends, Washington DC.

China between 2000 and 2009.60 Furthermore, more than 50 per cent of timber resources exported from Equatorial Guinea, Mozambique and the Republic of Congo (not to be confused with its neighbour, Democratic Republic of Congo), are exported to China.61

Logs dominate in Africa's timber exports to China:

Most of Africa's export of forest products to China is in the form of roundwood logs. Until 2009, more than 80 per cent of China's timber imports from Africa were in the form of logs.⁶² Since then, the proportion of imports in the form of sawn wood and pulp, which is mainly from South Africa, has increased, and the proportion of logs in total imports has gradually been declining, reaching 60 per cent in 2012. Overall, however, despite Africa's capacity to produce valueadded wood products - as evidenced, for example, by annual average processed wood product exports of about US\$600 million to Europe⁶³ - China's imports from Africa are still dominated by logs. Chinese companies' preference for logs can be explained by the relatively high efficiency of Chinese sawmills and strong domestic demand for by-products, such as woodchips, shavings and sawdust.64 However, some African countries have begun to impose restrictions on the export of primary logs, and the proportion of logs in exports to China can be expected to continue to decrease.

China exports limited forest products to Africa:

China is a net importer of forest products from Africa. It is sometimes assumed that China's manufacturing industry can produce cheap forest products and export them to timber-supplying countries in Africa. However, except for South Africa, none of the top ten African timber-exporting countries import a large amount of forest products from China. The main countries importing Chinese forest products are Egypt, Nigeria and other North African countries. These countries mainly import plywood and fibreboard, while South Africa mainly imports furniture and paper from China. In aggregate, however, Chinese forest product exports to Africa have been increasing more rapidly than its imports from Africa.65 While in 2007, for every 100 cubic metres RWE imported from Africa, China exported around 68m3 to Africa, and by 2012 this had increased to 85.5m³.66

2.1.2 Forest product trade between China and selected African countries

This section presents summaries of the trends and patterns in forest product trade between China and Cameroon, Democratic Republic of Congo, Mozambique and Uganda. All of these countries are partners in IIED's China-Africa Forest Governance project.

China and Mozambique: Mozambique has long been a significant producer and exporter of tropical logs and sawn wood on the international market. Recent policies to support the domestic forestry industry have increased production of processed products. However, the exclusion of many Mozambican enterprises from access to European markets has left China as the main export market, where roundwood logs are the main product in demand.

Mozambique's log and sawn wood production have both increased in the last decade. In 2012, Mozambique produced 239,000 cubic metres of sawn wood, which was almost ten times the volume produced in 2003. This huge growth is mainly a result of the Mozambican government's policies to encourage the export of processed forest products. However, most Mozambican forest products are primary processed products. According to Food and Agriculture Organization (FAO) data, industrial roundwood was only about 8 per cent of its total log production in 2012. This is mainly due to lack of capital, outdated equipment, and low market demand.

Mozambique is a net exporter of primary forest products. Official data suggest that in 2012 China's imports from Mozambique were worth US\$229 million, while its exports to Mozambique were worth about US\$2 million, mostly consisting of plywood, with small amounts of veneer sheets, particle board and sawn wood. In order to promote the export of processed forest products, the Mozambican government has issued several policies, including the introduction of simple licenses and forest concession licenses, and an export ban on first class precious species, such as red sandalwood, panga panga and other hardwoods. Mozambique's exports of industrial roundwood and sawn wood to China have significantly increased over the past decade, particularly

⁶⁰ FAO, FAOSTAT. http://faostat3.fao.org/download/F/FT/E

⁶¹ Sun, X (2014) Forest products trade between China and Africa: an analysis of import and export statistics. Forest Trends, Washington DC.

⁶² Sun, X (2014) op. cit.

⁶³ FAO, FAOSTAT. http://faostat3.fao.org/download/F/FT/E

⁶⁴ Kozak, R and Canby, K (2007) Why China prefers logs: explaining the prevalence of unprocessed wood in China's timber imports. Forest Trends, Washington

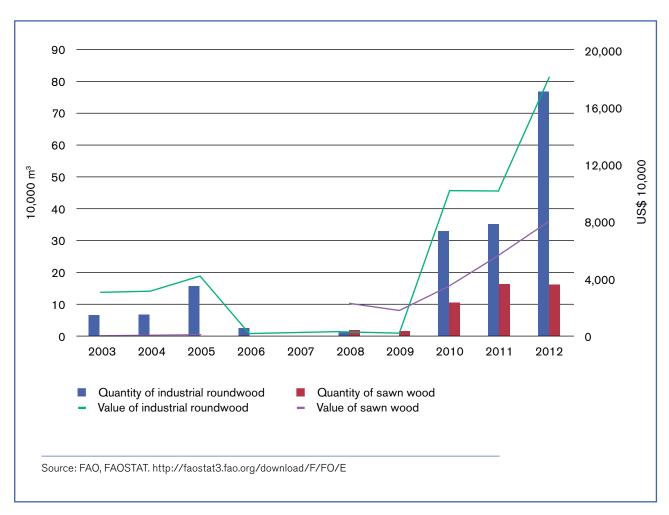
⁶⁵ Sun, X (2014) Forest products trade between China and Africa: an analysis of import and export statistics. Forest Trends, Washington DC.

⁶⁶ Canby, K et al. (2008) Forest products trade between China and Africa. Forest Trends, Washington DC; Sun, X (2014) op. cit.

since 2009 (Figure 1). The 2012 officially reported value of forest product trade between China and Mozambique (US\$231 million) was more than ten times the value in 2009. Despite these policies to promote the domestic timber industry, however, Mozambique's timber exports are still dominated by primary products. More than 95 per cent of Mozambique's roundwood exports are to China.⁶⁷ Reportedly, one fundamental reason for the high proportion of exports to China in Mozambique's total forest product exports is that most Mozambican timber companies lack Forest Stewardship Council certification, which limits their access to European markets, leaving China as the main source of market demand.⁶⁸

Moreover, commentators have pointed to significant and persistent discrepancies between export data reported by the Mozambican government and import data reported by China Customs. ⁶⁹ Analysis of this data and in-depth investigation of practices in the sector in Mozambique suggest that a lot more unprocessed logs are exported than are reported in official Mozambican data, suggesting significant illegal exports to China. Illegal exports are likely to be of logs harvested in excess of logging quotas as well as logs misreported or unreported in the export process. ⁷⁰

Figure 1. Mozambique's forest product exports to China, 2003 to 2012



 $^{^{67}\,\}text{FAO},\,\text{FAOSTAT}.\,\text{http://faostat3.fao.org/download/F/FT/E}$

⁶⁸ Ekman, S et al. (2013) Chinese trade and investment in the Mozambican timber industry: a case study from Cabo Delgado Province. CIFOR, Bogor.

⁶⁹ Ekman et al. (2013) op. cit.; EIA (2014) First class crisis: China's criminal and unsustainable intervention in Mozambique's Miombo forests.

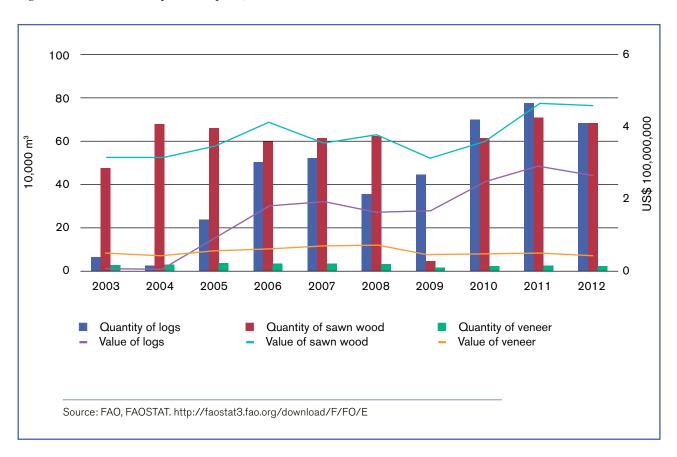
⁷⁰ Ekman *et al.* (2013) op. cit.; EIA (2014) op. cit.

China and Cameroon: Rich forest resources and good natural conditions have made Cameroon one of the main tropical timber exporters in the world. Production and consumption of most forest products, such as logs and sawn wood, in Cameroon have steadily increased over the past decade. Cameroon's forest product trade is dominated by exports. In 2011, Cameroon ranked tenth among tropical timber exporters worldwide, and was the second largest timber exporter after the Republic of Congo in International Tropical Timber Organization producer countries. Its main export destinations are the EU (40 per cent) and Asia (25 per cent). In 2012, Cameroon's total import and export of forest products reached US\$713 million, of which exports contributed about 93 per cent.⁷¹ Cameroon's main exports are sawn wood, logs and veneer (Figure 2).

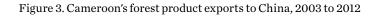
The main destinations for Cameroon's logs include China, France, India, Italy, Turkey and Vietnam, among which China is the largest importer, accounting for 15 per cent of Cameroon's forest products exports by value in 2012. Two thirds of these exports were in the form of industrial roundwood, accounting for about half of Cameroon's roundwood exports. Most of the remainder exported to China was sawn wood (Figure 3).

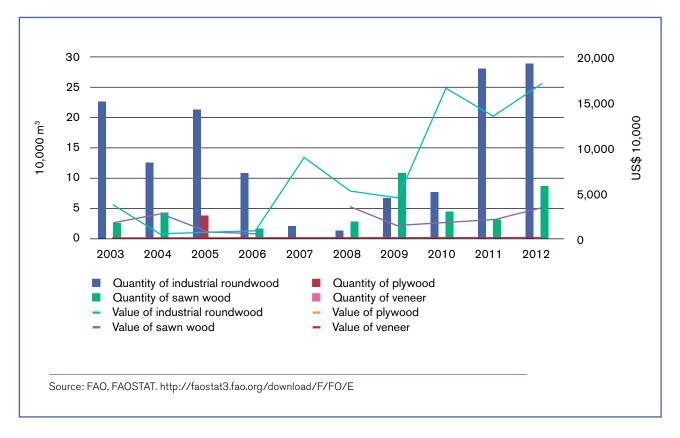
Forest product exports contribute about 7 per cent of Cameroon's total exports to China. Prior to the global financial crisis in 2008, China accounted for only a small proportion of Cameroon's forest product exports. As demand in European markets fell, Asian countries became increasingly important. From 2008 to 2012, Cameroon has exported between 35 per cent and 60 per cent of its logs to China. In 2012, China's





 $^{^{71}\,\}text{FAO},\,\text{FAOSTAT}.\,\,\text{http://faostat3.fao.org/download/F/FT/E}$





share of Cameroon's log exports was 57 per cent and its share of sawn wood exports was about 8 per cent. Cameroon is among China's top ten largest sources of log imports in terms of value. China's imports of sawn wood have also increased gradually over time, accounting for about 8 per cent of Cameroon's sawn wood exports since 2008. Cameroon's restrictions on log exports of certain species have played a role in limiting its log exports and promoting its sawn wood exports.

China and Uganda: Logs are the main forest product produced in Uganda, with much smaller volumes of charcoal, sawn wood, wood panels, paper and paperboard. In the past decade, log production has increased significantly, and sawn wood output has increased since 2010. China's forest product trade with Uganda has been dominated by Chinese exports

of paper and paperboard to Uganda (Figure 4). In 2012, Uganda's imports from China accounted for 98 per cent of the value of bilateral trade in the forestry sector. The main products imported by Uganda are paper, paperboard, plywood, and fibreboard. Paper and paperboard contributed about one third of the total forest products imported from China. Uganda's forest product exports to China are less than 1 per cent of China's total imports from African countries. Most of Uganda's forest product exports to China are sawn wood and industrial roundwood. In some years, Uganda exported no roundwood to China, while sawn wood exports have been highly variable. Both import and export volumes fluctuate considerably between years. This most likely reflects the purchasing decisions of particular companies among the relatively small number of large firms involved in the China-Uganda forest product trade.

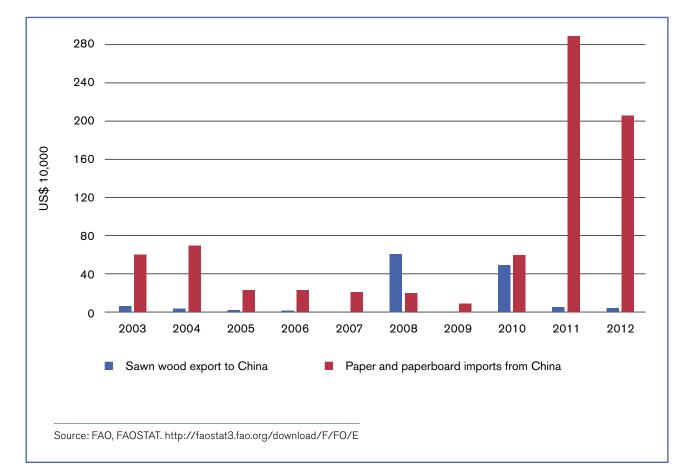


Figure 4. China-Uganda forest product trade, 2003-2012

China and Democratic Republic of Congo: Timber production in DRC steadily increased between 2001 and 2013.⁷² Roundwood production rose from about 70 million to about 85 million cubic metres over this period. Sawn wood production increased tenfold, but remains small, at about 150,000m³. Export quantities have risen much faster, with roundwood exports increasing more than ninefold and sawn wood by almost eightfold over this period.⁷³ Industrial roundwood is the main export product, accounting for 76 per cent of DRC's forest product exports in 2013. Until 2010,

Europe was the main export destination for forest products from DRC. Since then, China has become the largest importer of forest products from DRC, responsible for an average of 55 per cent of DRC's forest product exports by value. Exports to China of industrial roundwood and sawn wood have increased significantly since 2007, and since 2010, China has accounted for more than 50 per cent of DRC's exports of industrial roundwood by value (Figure 5). Thus, primary timber products dominate in bilateral trade.

⁷² FAO, FAO Yearbook of Forest Products. www.fao.org/forestry/statistics/80570/en

⁷³ FAO, FAOSTAT. http://faostat3.fao.org/download/F/FT/E

70,000 60,000 50,000 40,000 30,000 20,000 10,000 0 2010 2012 2013 2002 2003 2005 2006 2009 2011 Industrial roundwood Sawn wood Source: FAO, FAOSTAT. http://faostat3.fao.org/download/F/FO/E

Figure 5. Forest product exports from DRC to China, 2001–13

2.2 China's forest investment in Africa

2.2.1 The main features of Chinese investment in the African forestry sector

Driven by the optimism about the global timber market, some Chinese companies have begun to invest in African forest resources to secure a long-term supply of timber. Records of outward investment approvals by the Chinese Ministry of Commerce (MOFCOM) from 2002 to May 2013 show approvals for Chinese investment in forests in 14 African countries. The main intended destinations are Cameroon, Equatorial Guinea, Gabon, Liberia, Republic of Congo, and Zambia. Gabon alone accounted for nearly 23 per cent of all the investment approval records. However, these approvals do not all imply that subsequent investments were actually made.

Most Chinese applications for forest-related investments are for timber harvesting and sawmills, which account for more than 70 per cent of the total forest investment applications. Although the number of applications suggests considerable investment activity, the picture on the ground is more complex, as described below.

The forest sector accounts for a small proportion of total Chinese investment in Africa. With the deepening of China-Africa economic cooperation in recent years, especially after the establishment of the Forum on China-Africa Cooperation, Chinese enterprises have been very active in Africa. By the end of 2013, China's direct investment stock in Africa had reached US\$24.5 billion.⁷⁵ According to MOFCOM, 2,529 Chinese enterprises have applied to invest in Africa, although many private businesses making smaller investments are not required to apply to the Chinese authorities. Most Chinese investment in Africa is concentrated in service sectors, manufacturing, and natural resources (such as oil, petroleum and mining).⁷⁶

⁷⁴ Huang, W and Wilkes, A (2011) Analysis of approvals for Chinese companies to invest in Africa's mining, agriculture and forestry sectors. CIFOR, Bogor.

⁷⁵ MOFCOM et al. (2014) 2013 Statistical Bulletin on China's Outward Foreign Direct Investment. China Statistics Press, Beijing.

⁷⁶ Chen, W et al. (2015) Why is China investing in Africa? Evidence from the firm level. Brookings Institute, Washington DC.

Investment in agriculture and forestry accounts for only about 5 per cent of the total number of intended investments in Africa.⁷⁷

Second, Chinese forestry investment in Africa is concentrated in a few countries. Chinese enterprises are mainly concentrated in the countries in the Congo Basin and the Miombo woodland with rich forest resources and a stable political environment. Geographically, Chinese forest investment is mainly located in Central and Southern Africa, followed by West Africa. Investment in East and North Africa is relatively small.

Third, China's forest investment is clustered in labour-intensive primary processing industries. Chinese enterprises have mainly invested in timber harvesting, timber and rubber processing, and other labour-intensive industries. In contrast, fewer companies have engaged in paper, flooring and other capital-intensive industries. Most Chinese enterprises produce and export logs and other semi-finished products, while few companies directly engage in the production and export of manufactured forest products.

Fourth, large-scale enterprises investing in joint ventures are playing a leading role in Chinese investment in African forests. Both large state-owned enterprises and small and medium enterprises have invested in Africa, but large state-owned enterprises, such as Jilin Sengong Group in Equatorial Guinea and Zhong Lin International in Gabon, are leading in terms of their scale of investment. At the same time, some large private Chinese enterprises have also increased their investment in African forest resources. Yihua Wood, which acquired 350,000 hectares of forests from Huajia Wood in 2012, is one example. At the same time, there are also a number of small and medium enterprises investing in the forestry sector in Africa.⁷⁸ Most such investments operate in the form of joint ventures with local partners, in order to avoid regulations limiting the entry of foreign capital and to mitigate operational risks.

2.2.2 Chinese forest investment in selected countries

Cameroon: Cameroon's Forest Code (1994) recognises three types of harvesting right: long-term forest concessions, sales of standing timber on areas up to 2,500 hectares, and small titles for limited harvesting up to 300 cubic metres.⁷⁹ In recent years, Chinese companies have increased their engagement in timber harvesting in the country. In 2009, Chineseowned companies had harvesting rights covering 494,000 hectares, and by 2014, 19 harvesting rights covering 653,000ha had been granted to Chineseowned companies or partnerships involving Chinese investment.80 These logging titles are concentrated in the southeast area of East Region. In 2009, four forest concessions had been allocated to Chinese-owned companies, including one concession to a partnership involving Chinese capital. By 2014, six forest concessions had been allocated to Chinese companies, including one to a partnership with Chinese investment. In 2014, 13 standing timber harvesting rights had been sold to enterprises with Chinese investment, mostly partnerships with at least one Chinese partner (Table 3). Some of these standing timber sales were allocated to the Chinese companies close to major infrastructure projects, such as the deep water port of Kribi and the Memve'ele hydroelectric dam project. This suggests that Chinese involvement in forest harvesting in Cameroon is not solely driven by forest sector investments with a longer-term perspective.

Cerutti et al. (2011) compare the social and environmental performance of one of the active Chinese companies with a forest concession to European holders of forest concessions in Cameroon.⁸¹ This is a private company based in Hong Kong, which acquired companies in Cameroon formerly owned by a French company. In 2010, the Chinese company reportedly held six forest concessions through its subsidiary companies, totaling 570,000 hectares, equal to about 10 per cent of all forest concessions in Cameroon.

⁷⁷ Huang, W and Wilkes, A (2011) Analysis of approvals for Chinese companies to invest in Africa's mining, agriculture and forestry sectors. CIFOR, Bogor. ⁷⁸ Gao, X and Song, W (2010) 中国对非洲林业直接投资问题分析 (An analysis of problems in China's direct investment in Africa's forestry). *Forestry Economics* (1) 90–93.

⁷⁹ Forest Legality Alliance, Risk tool: Cameroon. www.forestlegality.org/risk-tool/country/cameroon-0

⁸⁰ Mala, W and Mougou, J (2015) État des lieux et problématique des investissements chinois affectant l'utilisation des terres forestières au Cameroun. Unpublished report, WWF and IIED.

at Cerutti, P et al. (2011) Is China unique? Exploring the behaviour of Chinese and European firms in the Cameroonian logging sector. International Forestry Review 13(1) 23–34.

 $Table\ 3.\ Cameroon\ forest\ harvesting\ rights\ awarded\ to\ Chinese\ companies\ and\ investment\ partnerships,\ 2014$

LOGGING RIGHTS	NO.	TITLE NO.	COMPANY ABBREVIATION	COMMUNE	CONCESSION SUB-DIVISION	TOTAL AREA (HA)	VOLUME (M3)	PLOT AREA (HA)	OWNERSHIP
Forestry	-	1004	CIBC	Moloundou	4-1	130,273	46,126	3,576	Chinese
concession	2	1010	SEBC	Salapoumbé	4-2	122,294	23,727	4,079	Chinese
	က	1013	SAB	Salapoumbé	4-2	48,554	11,895	1,403	Chinese
	4	1025	CFC	Yokadouma	3-1/4-3	193,105	57,540		Chinese
	2	1064	COFA	Mvangane	2-3/2-4	66,007	44,211	4,611	Partnership
	9	1084	SOFOHNY	Messamena/ Somalomo	2	68,030	36,311	2,500	Chinese
National sale of	7	09 01 209	JEAB	Djoum			50,049	2,117	Chinese
standing timber	æ	09 03 225	LEFANG	Mvengue			37,025	2,437	Partnership
	6	09 03 304	SALI NDJIDA	Kribi 1			109,443	2,032	Partnership
	10	09 03 305	SEXTRANSBOIS	Kribi 1			79,521	1,330	Partnership
	11	908 80 60	SBAC	Kribi 1			45,277	1,920	Partnership
	12	09 03 307	BOISCAM	Kribi 1			71,396	2,224	Partnership
	13	608 80 60	SOCEF	Kribi 1			32,007	978	Partnership
	4	09 03 312	SEXTRANSBOIS	Kribi 1			690'89	1,375	Partnership
	15	09 03 315	SALI NDJIDA	Lokoundjé			29,613	1,042	Partnership
	16	09 04 200	LEFANG	Ma'an			82,375	2,011	Partnership
	17	10 01 220	CFC	Salapoumbé			47,809	2,443.5	Chinese
	18	10 01 221	SEBC	Salapoumbé			51,650	2,389.5	Chinese
	19	10 02 209	SOFOHNY	Lomié			54,495	2,500	Chinese
		1		:					

Source: Mala and Mougou (2015) État des lieux et problématique des investissements chinois affectant l'utilisation des terres forestières au Cameroun. Unpublished report, WWF and IIED. Notes: ha: hectare.

One of the subsidiary companies was been reported to export about 75 per cent of its harvested logs to China, although some European logging companies operating in Cameroon export even higher proportions to China.⁸² The Chinese company also exports some sawn wood to China as well as to other markets, and had reportedly obtained timber legality and traceability verification certification.

Gabon: Particularly since Gabon's ban on log exports was announced in 2009, investment in forest resources management and processing has become an important strategy for Chinese companies in Gabon. One third of all logging companies in Gabon are under Chinese ownership.83 By mid-2010, Chinese companies held concession permits to about 2.67 million hectares, accounting for about 20 per cent of the number of forest concessions in the country.84 Some of these concessions were granted directly to the Chinese companies, while others were rented or purchased along with the assets of forestry companies acquired by Chinese firms. Some of these companies have made very large investments, with eight companies investing a total of almost US\$100 million.85 Only a minority of these companies are state-owned enterprises, the majority being private companies.86 Some manage forests and process timber products, while others are mainly involved in timber processing. In recent years, there have also been cases of Chinese companies taking over local or other foreign-owned businesses in financial distress or providing loans in exchange for timber. These companies are often Chinese private companies, whose operations are quite independent from policy or financial support from the Chinese state.87 Some Chinese firms export their products to Europe and other markets, but as a consequence of the change in Gabonese policy and Chinese companies' investments, roundwood logs have fallen significantly as a proportion of Gabon's exports to China, while sawn wood and veneer sheet exports have increased dramatically. A number of Chinese firms in Gabon have made public commitments to sustainable forest management, and one firm is reportedly pursuing Forest Stewardship Council certification.88

Mozambique: Chinese companies are involved to different extents in various stages of forest product supply chains in Mozambique. Mozambique's regulations allow for Mozambican nationals to hold simple licenses for timber harvesting within a given guota, and for the granting of longer-term forest concessions. Companies with concessions mostly also operate a sawmill. In Cabo Delgado region, Chinese companies held 30 per cent of forest concessions in 2010, second only to Mozambican companies, of which more than half also had processing facilities.89 Many of these companies entered Mozambique as timber traders, but have sought concessions in order to secure raw material supplies, while continuing to also source from holders of simple licenses.90 Some companies have also invested in sawmills in response to the government ban on exporting primary logs of certain species.91 Given the dominance of China as an export destination, Chinese companies also dominate the timber export business. Some Chinese companies engaged in export also have manufacturing and retail operations in China, while others have concessions and processing operations in Mozambique but do not engage in downstream activities after export.92

Democratic Republic of Congo: DRC has the second largest area of rainforest in the world. Following the civil wars of 1996-2001, in 2002 logging permits to 23.4 million hectares of logging operations were cancelled, and a moratorium on new logging licenses was put in place.93 On the reallocation of concession titles in 2008, no Chinese company received a concession. Thus, all Chinese companies operating in DRC operate outside the formal industrial sector and through informal linkages with holders of logging rights, in particular those in the artisanal logging sector, where Chinese capital, technical means and market connections can complement the logging rights held by those who have them under DRC ownership.94 Between 2009 and 2012, 57 artisanal permits were granted to 17 companies, mostly in Equateur province and Bandundu province. By law, these permits should not exceed a total of 2,850 hectares, but in practice they cover over 22,000ha. This points to the weak governance of

⁸² Cerutti, P *et al.* (2011) op. cit.

⁸³ Sun, X (2014) Chinese views of African forests: evidence and perception of China-Africa links that impact the governance of forests and livelihoods. IIED, London.

⁸⁴ Putzel, L. et al. (2011) Chinese trade and investment and the forests of the Congo Basin: synthesis of scoping studies in Cameroon, Democratic Republic of Congo and Gabon. CIFOR, Bogor. More recent NGO reports suggest that the proportion has increased since then: see WWF (22 June 2016) 12 Chinese forestry companies commit to responsible forest management in Gabon. http://tinyurl.com/zv42t3k

⁸⁵ Sun, X (2014) Chinese views of African forests: evidence and perception of China-Africa links that impact the governance of forests and livelihoods. IIED, London.

⁸⁶Weng, X, et al. (2014) The Africa-China timber trade: diverse business models call for specialized policy responses. CIFOR, Bogor.

⁸⁷ Jansson, J and Kiala, C (2009) Patterns of Chinese investment, aid and trade in Mozambique. Centre for Chinese Studies, Stellenbosch.

⁸⁸ WWF (22 June 2016) 12 Chinese forestry companies commit to responsible forest management in Gabon. http://tinyurl.com/zv42t3k

⁸⁹ Wertz-Kanounnikoff, S *et al.* (2013) Facing China's demand for timber: an analysis of Mozambique's forest concession system with insights from Cabo Delgado Province. *International Forestry Review* 15(3) 387–397.

Weng, X, et al. (2014) The Africa-China timber trade: diverse business models call for specialized policy responses. CIFOR, Bogor.

⁹¹ Ekman, S *et al.* (2013) Chinese trade and investment in the Mozambican timber industry: a case study from Cabo Delgado Province. CIFOR, Bogor. 92 Ekman, S *et al.* (2013) op. cit.

⁹³ Counsell, S (2006) Forest governance in the Democratic Republic of Congo: an NGO perspective. Fern, Moreton in Marsh and Brussels.

⁹⁴ Mala, W and Mougou, J (2015) État des lieux et problématique des investissements chinois affectant l'utilisation des terres forestières au Cameroun. Unpublished report, WWF and IIED.

forest management in DRC. In this context, Chinese companies are engaged in the sector in a variety of ways. According to the Forest Code, forest concession holders may not rent, lease or exchange concessions or transfer permits without prior permission, and outsourcing forest management activities also requires notification of the licensing authority. Some concession holders have signed partnership contracts with Chinese operators, such as those between Chinese companies and ITB (Entreprise Industrielle de Transformation de Bois) in Oshwe Territory, and SCTP (Société Commerciale de Transport et des Ports) and NBK (Nouvelle Banque de Kinshasa) in Mushie Territory.95 The terms of these agreements are not transparent, and observers report that Chinese operators engaged in this way do not apply sustainable management. 96 Similarly, in the artisanal sector, Chinese operators partner with Congolese artisanal loggers to harvest and export logs using the artisanal permits as legal cover. However, such arrangements operate in a legal grey area, and it is suspected that the complicity of customs and other institutions obscures widespread unsustainable and inequitable harvesting and export of DRC's forest resources, undermining forest governance in the DRC.97

2.3 Social, economic and environmental impacts of China's forest investment and trade in Africa

In 2009, China surpassed the USA to become Africa's single largest trading partner. China's OFDI stock in Africa has increased from US\$1 billion in 2004 to \$24.5 billion in 2013.98 China's increasing investment, especially in natural resources, has drawn attention to and concerns about its potential impact from African and Western countries. While robust empirical evidence on the social, economic and environmental impacts of China's forest investments and trade in Africa is very limited, available evidence suggests that they are

most likely having mixed impacts, and that impacts vary greatly between countries and companies. On the one hand, China's trade and investment in African forests have undoubtedly created local jobs and provided income for their workers and suppliers, including smallscale loggers.99 While not all Chinese businesses in Africa's forest sector export their products to China, a significant number certainly do, thus facilitating access to China's large and growing market for forest products. In some countries, this has been particularly important since the global financial crisis, when European demand declined. Some Chinese firms have also brought capital, technology and know-how to the countries they invest and operate in. On the other hand, China's involvement in African forests has also faced criticisms from various stakeholders in some African and Western countries. These criticisms have commonly focused on the distribution of economic benefits and a perception that Chinese involvement undermines governance in African countries. Such criticism is commonly underpinned by a perceived lack of transparency of Chinese companies' transactions and operations.

In several African countries, the forestry sector makes major contributions to employment.100 Anecdotal evidence is sometimes reported that employment opportunities and indirect economic benefits, such as through procurement of food and other goods by Chinese employees, is limited.¹⁰¹ Several countries also mandate that forest concession management plans must include plans to promote local community development. There are some reports that Chinese firms with concessions have not made management plans and thus do not support community development activities, or that the benefits of community investments are not felt.102 However, similar reports also abound for European companies, and one comparison of European and Chinese companies found that the latter may outperform the former. 103 China's preference for unprocessed logs has also been said to limit employment creation opportunities and value-adding capabilities.¹⁰⁴ Several studies report, though, that various factors - including the lack of technology and

⁹⁵ IIED (2015) Current situation regarding Chinese investments in the Democratic Republic of Congo. IIED, London.

⁹⁶ Mala, W and Mougou, J (2015) Etat des lieux et problématique des investissements chinois affectant l'utilisation des terres forestières au Cameroun. Unpublished report, WWF and IIED.

⁹⁷ Boyd, O (2012) Chinese companies using "illegal" permits for large-scale logging in the Congo. http://tinyurl.com/jla49pj; Greenpeace (2013) Cite it out: illegal logging in the Democratic Republic of Congo. Greenpeace Africa, Kinshasa, Benneker, Č (2012) Forest governance in DRC: artisanal logging. Tropenbos International. www.etfrn.org/file.php/62/1.4.c.benneker.pdf

⁹⁸ Zhou, L and Leung, D (28 January 2015) China's overseas investments, explained in ten graphics. www.wri.org/blog/2015/01/china's-overseas-investmentsexplained-10-graphics

⁹⁹ Ekman, S et al. (2013) Chinese trade and investment in the Mozambican timber industry: a case study from Cabo Delgado Province. CIFOR, Bogor; Weng, X et al. (2014) The Africa-China timber trade: diverse business models call for specialized policy responses. CIFOR, Bogor.

¹⁰⁰ Putzel, L. et al. (2011) Chinese trade and investment and the forests of the Congo Basin: synthesis of scoping studies in Cameroon, Democratic Republic of Congo and Gabon. CIFOR, Bogor. ¹⁰¹ Putzel, L. *et al.* (2011) op. cit.

¹⁰² Assembe-Mvondo, S et al. (2015) Socioecological responsibility and Chinese overseas investments: the case of rubber plantation expansion in Cameroon. CIFOR, Bogor,

¹⁰³ Cerutti et al. (2011) Is China unique? Exploring the behaviour of Chinese and European firms in the Cameroonian logging sector. International Forestry Review 13(1) 23-34.

capacity for high-quality processing, the economics of transporting processed goods and the lack of direct access by African firms to Asian markets – mean that in some situations the export of unprocessed logs may be the best business option, at least in the short term.¹⁰⁵

Low profit margins in a highly competitive sector have also been linked to illegal harvesting, smuggling, noncompliance with national laws and corruption involving Chinese firms. 106 This impedes the development of local forestry and livelihoods, and in the longer term, unsustainable forest management represents lost future opportunities for African stakeholders. On the one hand, it is important to note that such illegal practices are not limited to Chinese companies, and often reflect the combination of economic incentives and weak governance in the forestry sector of African countries. In this regard, it is relevant to note that China's investment is mainly concentrated in countries with rich forests and weak forest governance.¹⁰⁷ On the other hand, the broader concern is whether a Chinese market with limited regulatory requirements for demonstrating legality of forest products undermines African and international initiatives to improve governance over time. While the EU strengthens its requirements on timber imports, China's relatively loose requirements provide strong incentives for an increase in African timber exports to China. Although there are many causes for customs data discrepancy (misreporting, different customs criteria and so on), bilateral trade data often shows that import figures reported by China are higher than African countries' reported exports, which is strongly suggestive of illegal logging and export.¹⁰⁸ For example, it was reported that in the early 2000s China's timber imports from Tanzania were about ten times larger than the exports reported from the Tanzanian side.109 Illegal logging is not only an environmental issue; significantly, African governments lose a large amount of tax payments, causing huge economic losses.

2.4 Discussion

China's forest product trade with Africa has grown steadily over the past decades. Nevertheless, less than 15 per cent of China's total tropical hardwood imports come from Africa. As the volume of trade has grown, a number of Chinese firms have invested in forestry operations in Africa, mainly in countries with rich forest resources such as Cameroon, Equatorial Guinea, Gabon, Mozambique and Zambia. Both state-owned and private enterprises are involved in forest product trade, forest management and processing. The diversity of country experiences summarised in this paper show that patterns of trade and Chinese investment vary considerably between countries. Domestic policies, such as restrictions on the export of unprocessed logs, have in some countries led to a change in the structure of forest product trade with China. They have also caused some Chinese firms to shift from engagement in timber trade to investment in forest management and timber processing. Patterns of trade between African countries and China are also affected by trade with and policies in other parts of the world, such as Europe.

Concern is often expressed about the social, economic and environmental impacts of Chinese companies' involvement in African forestry and forest product trade. Regarding social and economic impacts in particular, there is seldom sufficient robust evidence to assess the actual scale and nature of these impacts. Many available publications are based on anecdotal evidence and more in-depth research is needed to provide the evidence to support a more comprehensive understanding. The few relatively systematic comparisons of Chinese and non-Chinese firms suggest that socioeconomic and environmental issues associated with Chinese firms are not because of these firms' nationality. 110 Many issues reflect challenges in forest governance in the African countries where they operate, and are common to companies owned in Europe and elsewhere. The bigger question appears to be the lack of legality, traceability and sustainability requirements in the Chinese market,

¹⁰⁴ Mackenzie, C (2006) Forest governance in Zambezia, Mozambique: Chinese take-away! FONGZA, Mozambique.

¹⁰⁵ Ekman, S et al. (2013) Chinese trade and investment in the Mozambican timber industry: a case study from Cabo Delgado Province. CIFOR, Bogor; Terheggen, A (2011) The tropical timber industry in Gabon: a forward linkages approach to industrialization. University of Cape Town, Cape Town. ¹⁰⁶ Eg Ekman, S et al. (2013) op. cit.; ElA (2012) Appetite for destruction: China's trade in illegal timber; Sun, X (2014) Chinese views of African forests: evidence and perception of China-Africa links that impact the governance of forests and livelihoods. IIED, London; Mackenzie (2006) Forest governance in Zambezia, Mozambique: Chinese take-away! FONGZA, Mozambique; Milledge, S et al. (2007) Forestry, governance and national development: lessons learned from a logging boom in southern Tanzania. TRAFFIC East/Southern Africa, Dar es Salaam; Roque, P (2009) China in Mozambique: a cautious approach. South African Institute of International Affairs, Braamfontein.

¹⁰⁷ Sun, X (2014) Chinese views of African forests: evidence and perception of China-Africa links that impact the governance of forests and livelihoods. IIED, London.

¹⁰⁸ EIA (2012) Appetite for destruction: China's trade in illegal timber.

¹⁰⁹ Milledge, S *et al.* (2007) Forestry governance and national development: lessons learned from a logging boom in southern Tanzania. TRAFFIC East/Southern Africa, Dar es Salaam.

¹¹⁰ Cerutti et al. (2011) Is China unique? Exploring the behaviour of Chinese and European firms in the Cameroonian logging sector. International Forestry Review 13(1) 23–34; Assembe-Myondo, S et al. (2015) Socioecological responsibility and Chinese overseas investments: the case of rubber plantation expansion in Cameroon. CIFOR, Bogor.

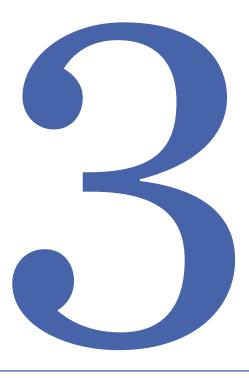
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since this provides markets for companies using any procurement practice, irrespective of their nationality.

This realisation is also growing in China, where various initiatives are working with government, private sector and non-governmental stakeholders to eradicate illegal logging, to inform importing industries about the laws and regulations in timber-producing countries, and to develop policies and standards so as to gradually shape market preference for legal and sustainable timber products. The Chinese government has also become more aware of social and environmental issues associated with Chinese businesses 'going global'. As a result, it has released a number of guidelines that set out a framework for Chinese enterprises to conduct sustainable investment overseas. The Chinese government has also signed a series of bilateral agreements with timber-producing countries to combat illegal logging, and plans to establish a Chinese timber legality verification system. The guidance provided to Chinese firms and inter-governmental efforts to combat illegal timber trade need to be further enforced on the ground.

Chinese investments in non-forest landuse sectors and their impacts on forests in four African countries

Investments in mining, infrastructure, energy and agriculture may impact on forest resources. The level of Chinese companies' engagement in these sectors varies between countries. There is limited evidence of actual environmental impacts, but projects in specific sectors in some countries appear more likely to impact on forest resources.



This chapter presents a profile of Chinese investments in non-forest land-use sectors: mining, agriculture, infrastructure and energy industries; and discusses the potential impacts of these projects on the environment and society. It is based on existing literature on four African countries: Cameroon, Democratic Republic of Congo, Mozambique and Uganda. Information on Chinese investments is rarely compiled in a single source, and some reports by the media, NGOs or academic media may be unreliable or contain inaccuracies. This chapter attempts to present as comprehensive a picture as possible, but many omissions remain. In particular, information on the impacts of Chinese investments on forest resources is very sparse. Available information is used to highlight countries and sectors where possible impacts are more likely to be a concern.

3.1 Democratic Republic of Congo

3.1.1 Overview of China-DRC investment relations

China and the Democratic Republic of Congo (DRC) first formed political relations in the 1970s. Since then, China has continued to provide aid and investment to DRC, with a shift towards a more mutually beneficial relationship since the 1990s.¹¹¹ Significant bilateral trade and cooperation agreements have been signed, including bilateral agreements in 1973 and 1988, which established Most Favoured Nation status in trade between the two countries,112 and the Sino-Congolese Cooperation Agreement, signed in 2007 between the Congolese government and a group of Chinese stateowned enterprises. This agreement sets out the terms of a minerals-for-infrastructure exchange, under which Chinese enterprises will build roads, railways, hospitals and other infrastructure prioritised by the Congolese government, in exchange for revenues from copper and cobalt extraction.113 These investments are to be financed by the Chinese stated-owned Export-Import Bank of China, with an expected total investment of

US\$9 billion in exchange for up to 400,000 tons of copper ore and 19,000 tons of cobalt ore. This novel model of cooperation was at one time considered a template for future Chinese investment in Africa, but has encountered widespread controversy and repeated difficulties. 114 As with some other reports of investments in other sectors in DRC, it is often difficult to identify actual investments that have occurred as a result of this agreement. Data on approved investments provided by the Congolese Agence Nationale pour la Promotion des Investissements (ANAPI)¹¹⁵ relate only to sectors for which they have an institutional mandate, while investments in mining, petroleum and military-related sectors, and projects closely related to the bilateral relations, are not managed by ANAPI. This chapter draws on multiple sources to characterise Chinese investments in DRC. However, due to lack of transparent information, much more needs to be done to better document and assess the impacts of actual investment projects by Chinese actors in DRC.

3.1.2 Chinese investments in non-forest land-use sectors in DRC, and their environmental and social impacts

Mining: DRC has abundant mineral resources, producing gold, diamonds, copper, cobalt, tin, tantalum, tungsten, uranium, and semi-precious stones. The value of untapped mineral resources in DRC has been estimated at US\$24 trillion. 116 Despite this potential, industrial mining remains relatively limited and most mining activities are artisanal. This industry structure grew out of the decline of the Congolese state-owned monopoly enterprise, Gécamines, which suffered from falling international metal prices in the 1990s and the uncertainty created by civil war. Many people turned to artisanal mining after losing their jobs. After the collapse of Gécamines, international mining companies from Europe and North America also rushed into the industry. It was in this context that the Sino-Congolese Cooperation Agreement was signed in 2007. Today, there are three main modes of mining in DRC: largescale industrial mining, with large infrastructure and long-term workers; small and medium-sized mining,

¹¹¹ Shinn, D (2008) Military and security relations: China, Africa and the rest of the world. In: Rotberg, R (ed.) China into Africa: Trade, Aid, and Influence. The World Peace Foundation, Cambridge, MA.

¹¹² Ministry of Foreign Affairs of the PRC (2007) Relations between China and the Democratic Republic of Congo. http://wcm.fmprc.gov.cn/pub/chn/pds/gjhdq/gj/fz/1206_14/sbgx
113 EITI (2014) Guidance Note 15 on infrastructure provisions and barter arrangements; Global Witness (2011) China and Congo: friends in need.

¹¹³ EITI (2014) Guidance Note 15 on infrastructure provisions and barter arrangements; Global Witness (2011) China and Congo: friends in need.

114 Jansson, J (2013) The Sicomines agreement revisited: prudent Chinese banks and risk-taking Chinese companies. Review of African Political Economy 40(135) 152–162.

¹¹⁵ See Putzel, L et al. (2011) Chinese trade and investment and the forests of the Congo Basin: synthesis of scoping studies in Cameroon, Democratic Republic of Congo and Gabon. CIFOR, Bogor.

¹¹⁶ UNEP (2011) Democratic Republic of Congo: post-conflict environmental assessment synthesis for policy makers. UNEP, Nairobi, Kenya.

without large finance and relying mostly on temporary employees; and artisanal mining undertaken by families or individuals, who may either work alone or on behalf of a company. 117 There are thus two aspects to Chinese activities in the mining sector. The first relates to large-scale industrial mining and the Sino-Congolese Cooperation Agreement, and the second to links with the artisanal mining sector.

The Sino-Congolese Cooperation Agreement established the Sino-Congolaise des Mines (Sicomines), a cooperative project linking the DRC government, represented by Gécamines, with a consortium of Chinese firms known as China Venture, including China Railway Engineering Corporation (CREC), Sinohydro and Zhejiang Huayou Cobalt Limited. The resulting joint venture, registered in 2008, is 32 per cent owned by Gécamines and 68 per cent by the Chinese joint venture. The mining operations of the Sicomines cooperation focus on mining concessions at Mashamba West and Dikuluwe, which were previously held by companies based in Switzerland and Belgium. The infrastructure to be constructed in turn consists of a number of roads and a hospital in Kinshasa, and road connections between a number of provincial towns.¹¹⁸

Prior to the Sicomines cooperation, CREC had been active in the mining sector in DRC since 2005, with subsidiary companies involved in joint ventures with Gécamines that mine copper and cobalt and run smelting operations.¹¹⁹ The CREC subsidiary, China Overseas Engineering Group Corporation Limited (COVEC), has been active in the DRC's mining sector since 2005 as party to two joint ventures: COMILU (Compagnie Minière de Luisha) and COMMUS (Compagnie Minière de Musonoï). COMILU is a joint venture in which Gécamines holds 28 per cent, COVEC 35 per cent and China Railway Group Limited 37 per cent. Established in 2006, this joint venture mines the 26.1 million tonnes of Luisha copper and cobalt deposits, the 1.45 million tonnes of Kalumbwe and Myunga deposits, and has a fairly large smelting operation. COMMUS is a 73:27 joint venture between COVEC and Gécamines.

In addition to the two mines specified in the Sicomines agreement, a number of other Chinese companies have been active in the mining sector in recent years. More than 35 Chinese companies have received approval from the Chinese government to invest in DRC's mining sector.¹²⁰ However, not all of those companies will have actually proceeded with their investments. Those companies that have formally registered with DRC to engage in mining and recorded in the Extractive Industries Transparency Initiative (EITI) documentation for DRC are shown in Table 4.121 A second common form of engagement by Chinese companies in DRC is through joint ventures with Congolese partners that hold mineral extraction concessions, with the Chinese partner providing the capital for exploration and extraction. In particular, after the liberalisation of DRC's mining sector, a large number of small companies became involved in this sector. Research by IIED and the World Wide Fund for Nature (WWF) in 2015 identified several additional companies engaged in DRC's mining sector that do not appear in EITI documentation (see Table 5).

Many of DRC's mining concessions are located in the southern and eastern areas of the country.122 Mining concessions often encroach on forested areas, including national parks. A mapping study conducted by the World Resources Institute indicates that in some regions of DRC, the majority of lands on which exploration permits have been granted are currently under forest cover, with particularly high concentrations north of Matadi in the southeast, north of Kananga in the south central region, and in the east and north of the country (Figure 6). However, few field studies have been conducted on the effects of mining on forest cover and forest quality. In general, the mining industry has several impacts on forest resources. Direct impacts in the form of deforestation occur in mine areas. Indirect impacts also occur through the construction of roads and hydropower facilities needed to support mining activities. One study of deforestation in the Congo Basin highlighted road construction as one of the strongest predictors of deforestation, mainly due to improved access for subsistence agriculture.¹²³

¹¹⁷ Putzel, L et al. (2011) Chinese trade and investment and the forests of the Congo Basin: synthesis of scoping studies in Cameroon, Democratic Republic of Congo and Gabon. CIFOR, Bogor.

¹¹⁸ Jansson, J (2011) The Sicomines agreement: continuity and change in the Democratic Republic of Congo's international relations. South African Institute of International Affairs, Johannesburg.

⁹ Jansson, J (2011) op. cit.

¹²⁰ Huang, W and Wilkes, A (2011) Analysis of approvals for Chinese companies to invest in Africa's mining, agriculture and forestry sectors. CIFOR, Bogor. ¹²¹ ITIE (2015) Rapport ITIE RDC 2014. www.itierdc.net/wp-content/uploads/2016/03/rapport-ITIE-RDC-2014-Final-signé.pdf

¹²² CAMI, DRC Mining Cadastre Portal. http://portals.flexicadastre.com/drc/en

¹²³ Megavand, C et al. (2013) Deforestation trends in the Congo Basin: reconciling economic growth and forest protection. World Bank, Washington DC.

Table 4. Chinese enterprises identified in the Extractive Industries Transparency Initiative Annual Report for DRC, 2013

OFFICIAL COMPANY NAME	TYPE OF ACTIVITY	DATE OF ESTABLISHMENT
Societé Anhui Congo d'Investissement Minier (SACIM)	Diamond extraction	18/03/2013
Ruashi Mining SAS (RUMI)	Quarrying and mining	01/11/2001
Congo International Mining Corporation SAS (CIMCO)	Quarrying and mining	30/04/2005
Long Fei Mining (LONG FEI)	Quarrying and mining	18/06/2006
Compagnie Minière Luisha (COMILU)	Quarrying and mining	07/04/2006
Metal Mines SPRL (MTM)	Quarrying and mining	13/07/2007
Congo Dongfang International Mining SARL (CDM)	Quarrying and mining, agrifood business	26/06/2006
Feza Mining (FEZA)	Quarrying and mining	28/05/2002
Shituru Mining Corporation SAS (SMCO)	Quarrying and mining	04/10/2005
CNMC Huachin Mabende Mining SPRL (CNMC)	Quarrying and mining	Missing data
Congo Jin Ju Cheng Mining Company SARL (CJCMC)	Quarrying and mining	Missing data
Congo Loyal Will Mining (CLWM)	Quarrying and mining	Missing data
Huachin Mining SPRL	Quarrying and mining	Missing data
JMT Mining (JMT)	Quarrying and mining	2006
Cota Mining	Quarrying and mining	Missing data

Source: IIED/WWF (2016) Investissements chinois et utilisation des terres forestières: situations et tendances en RD Congo. Unpublished report based on EITI (2015) Rapport ITIE RDC 2014. https://eiti.org/sites/default/files/migrated_files/rapport_de_conciliation_itie_rdc_2014_-_final.pdf

Notes: SARL: société à responsabilité limitée (limited liability company); SPRL: société privé à responsabilité limitée (private limited liability company).

 $Table \, 5. \, Companies \, with \, Chinese \, ownership \, or \, majority-share \, ownership \, in \, the \, DRC \, mining \, sector \, not \, listed \, in \, EITI \, reports, \, first \, quarter \, of \, 2015 \, .$

NAME	LEGAL STATUS	PURPOSE	REGISTRATION (RCCM)
Interface Innovations	SARL	Mining of minerals, precious stones and quarry products	CD/KIN/RCCM/15-B-6936
Hua Feng International	SARL	Mining	CD/KIN/RCCM/15-B-7322
Yunying Li	Individual	Mining	CD/KIN/RCCM/15-A-26102
Midon Resource Congo Investment	SARL	Mining, processing and trade in minerals	CD/KIN/RCCM/15-B-7902
Iris Qianjin	SARL	Mining gold, diamonds, copper and cobalt	CD/KIN/RCCM/15-B-6736

Source: IIED/WWF (2016) Investissements chinois et utilisation des terres forestières: situations et tendances en RD Congo. Unpublished report.

Notes: RCCM: Registre du Commerce et du Crédit Mobilier (trade and personal property credit register); SARL: société à responsabilité limitée (limited liability company).

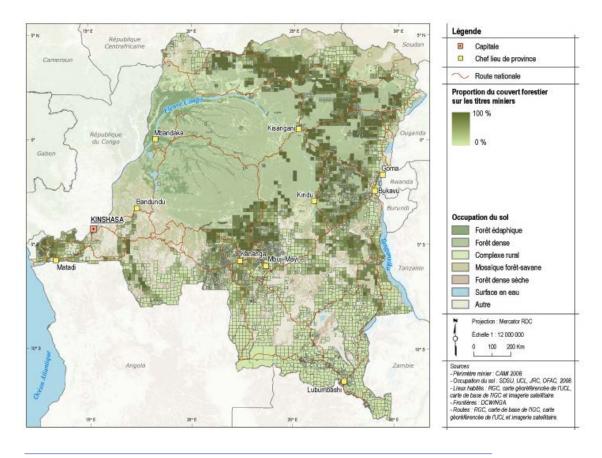


Figure 6. Proportion of mining concessions under forest cover

Source: Bélanger, L and Mertens, B (2011) Interactive forest atlas for Democratic Republic of Congo. www.wri.org/sites/default/files/rdc_permis_miniers_sous_couvert_forestier.png

Additionally, the influx of a large number of mine workers into forest areas can increase the risk of unplanned logging and poaching activities. The indirect and induced effects of mining are likely to have a larger impact on forest cover and forest quality than the direct impacts of mining activities alone.

Much media and civil society attention has been placed on the potential impacts of the Sicomines cooperation. Extraction rights under that agreement refer to concessions in Dikulwe-Mashamba, near Kolwezi. These rights were purchased from the former Belgian owner. Therefore, most of the associated deforestation has most likely previously occurred and additional impacts on forests should be limited. Congolese law requires that mining operations are preceded by the preparation and approval of an environmental impact study and an environmental management plan. It is not known whether the Sicomines agreement was preceded by such assessments, and owing to the ownership structure of the joint venture, it is not clear who should be responsible for environmental due diligence measures. In the meantime, production at the

¹²⁴ IIED/WWF (2016) Investissements chinois et utilisation des terres forestières: situations et tendances en RD Congo. Unpublished report.

mines began in late 2015, but production will not reach full capacity until power supplies to the mine have been secured from a newly planned hydropower station.¹²⁵

Aside from the Sicomines project, many Chinese companies are involved in smaller mining operations in DRC, including mining, processing and trade, as well as service companies to the sector.¹²⁶ A number of these are concentrated in Katanga province, where artisanal mining is common, and where Chinese firms own the majority of processing plants. A study conducted in 2008, involving 140 interviews with Chinese and Congolese workers, suggested that social standards are often not upheld, with reports of employment discrimination; infringements of labour law; poor working conditions; child labour; and other adverse conditions. 127 National government capacities to conduct legally mandated environmental inspections are also severely limited by lack of staff and training. The report also highlighted, however, that poor conditions are not limited to Chinese companies operating in the area. Moreover, the fragmented industry structure in this region makes it difficult to easily characterise the environmental impacts of Chinese companies' operations. 128 Copper processing enterprises, many of which are Chinese, use charcoal that consumes forest resources, resulting in forest degradation. In some cases, however, Chinese companies are intermediaries in the value chain, but the impacts of artisanal mining (including environmental impacts of temporary workers' camps) cannot fully be attributed to the Chinese firms' involvement.

Agriculture: Agriculture is an extremely important sector in DRC, contributing 43 per cent of gross domestic product (GDP) and employment for 70 per cent of the workforce. 129 Expansion of subsistence agriculture is the main driver of deforestation in DRC, and deforestation due to agriculture is projected to continue as yield increases are not expected to keep pace with demand.¹³⁰ Over

the years, a number of Chinese investments have been made in the agriculture sector, including some initiatives specifically aiming to increase crop yields - such as a rice project, a fertiliser plant and pilot farm at N'Djili. There are also a number of corporate investments in agriculture, some of which reportedly involve large areas of land, raising concerns over 'land grabbing', pressure on land resources and potential effects on vegetation cover.

Reports compiled from a variety of sources identify ten companies operating in or with approval for investment in DRC's agriculture sector whose partners or majority shareholders are of Chinese nationality (Table 6).

There are few reports on the environmental or social impacts of these agricultural operations. However, significant concerns were raised by reported oil palm investment plans by ZTE Agribusiness, which did not in fact materialise. In 2007, the DRC Ministry of Agriculture signed a contract with ZTE Corporation, a Chinese mobile communications giant, to use the abandoned plantations in Bandundu and Equateur provinces for palm oil plantation development. News quickly, and inaccurately, spread that this would be a project of 3 million hectares and US\$1 billion investment, whereas the actual contracted land area was only 100,000 hectares with no identified specific project location. Locations were to be determined progressively through community work by ZTE.¹³¹ Poor transportation infrastructure hindered moving the equipment needed by the palm oil plantations to the project location, forcing ZTE to discontinue the palm oil project. In the end, ZTE only developed small-scale agricultural projects on an area of less than 1,000 hectares, including a 256ha maize farm and a 600ha farm producing rice, corn and beans. 132 Analysis suggests that difficulties in securing land rights and factors such as high transportation costs affect the business case and feasibility of agribusiness investments in DRC.133

¹²⁵ Wilson, T (15 October 2015) Congo, China partners near deal for \$600 million power plant. Bloomberg. www.bloomberg.com/news/articles/2015-10-15/ congo-chinese-partners-near-deal-for-660-million-power-plant

¹²⁶ Jansson, J (2011) The Sicomines agreement: continuity and change in the Democratic republic of Congo's international relations. South African Institute of International Affairs, Johannesburg.

²⁷ Rights and Accountability in Development (2009) Chinese mining operations in Katanga, Democratic Republic of the Congo.

¹²⁸ Putzel, L et al. (2011) Chinese trade and investment and the forests of the Congo Basin: synthesis of scoping studies in Cameroon, Democratic Republic of Congo and Gabon. CIFOR, Bogor.

¹²⁹ World Bank, World Bank Open Data. http://data.worldbank.org

¹³⁰ Megavand, C et al. (2013) Deforestation trends in the Congo Basin: reconciling economic growth and forest protection. World Bank, Washington DC.

¹³¹ Asanzi, P (2011) Understanding the challenges of Chinese agricultural investments in Africa: an institutional analysis. Academic Research Journal of Science and Research 2(5) 76–87.

Brautigam, D (2015) Will China feed Africa? Oxford University Press, Oxford.

¹⁸³ Asanzi, P (2011) Understanding the challenges of Chinese agricultural investments in Africa: an institutional analysis. Academic Research Journal of Science and Research 2(5) 76-87.

Table 6. Agriculture companies with Chinese nationality partners or majority shareholders operating in or with approval to invest in DRC

NO.	NAME	LEGAL FORM	ACTIVITIES	REGISTRATION (RCCM)
1	Interface Innovations ^a	SARL	Promotion of agriculture, livestock and fishery and SMEs; cultivation and mixed farming	CD/KIN/ RCCM/15-B-6936
2	Yang Business YB ^a	Individual	Agriculture and fishery	CD/KIN/ RCCM/15-A-24261
3	Entreprise de la construction et de réparation ^a	SARL	Agriculture and livestock	CD/KIN/ RCCM/15-B-7856
4	Anny Solar	Individual	Plantations, livestock, farms	CD/KIN/ RCCM/15-A-21748
5	Etablissements Ferme AMICA ^a		Crop and livestock farm	Missing data
6	SMIK / FAUX PLANFONDS ^a		Industrial fishing unit	Missing data
7	SMIK / PECHE ^a		Industrial fishing unit	Missing data
8	ZTE Agribusiness / Zongery ^b		Oil palm (Equator province)	Missing data
9	ZTE Agribusiness / Zongery ^b		Mixed farming, N'Selel-DAIPN	Missing data
10	Hubei Land International Economic and Technical Cooperation Company ^c		300 hectares (Mikonga) 12 hectares (Kingabwa)	Missing data

Sources:

Notes: RCCM: Registre du Commerce et du Crédit Mobilier (trade and personal property credit register); SARL: société à responsabilité limitée; SMEs: small and medium-sized enterprises.

Infrastructure construction: Across the Congo Basin, transportation infrastructure is a significant predictor of deforestation, mainly by enabling subsistence and semi-commercial farmers to access forested lands for agricultural expansion.¹³⁴ Currently, poor transport infrastructure availability in DRC limits agricultural production, but ambitious plans to rehabilitate and expand the road network suggests that infrastructure construction will have greater impacts on DRC's forests in the future. Multilateral development banks and bilateral development agencies all support the development of DRC's road network. A number of Chinese companies are active in infrastructure construction in DRC. In many cases, they are contractors on donor-funded projects, or operating as contractors to the DRC government. This again suggests that attributing environmental impacts

to Chinese actors is not a simple exercise, as many of these projects would have continued if Chinese firms had not won the implementation contracts.

The Sicomines cooperation involves the construction of infrastructure in return for mineral resource rights. Two of the ten projects listed in the agreement relate to roads outside the capital, Kinshasa. There are also a number of less well-known infrastructure construction projects supported by the Chinese government or implemented by Chinese companies in DRC. These include a road rehabilitation project between Bukavu and Kavumu airport, which is partially funded by the Chinese government, a number of projects funded by Congolese provincial and municipal authorities, and projects funded by the World Bank (such as roads between Matadi and Kimpesi and between Beni and Niania) which are constructed by Sinohydro

^a IIED/WWF (2016) Investissements chinois et utilisation des terres forestières: situations et tendances en RD Congo. Unpublished report.

^b China Africa Research Inititative, SAIS-CARI database. www.sais-cari.org/data-chinese-agricultural-investments-in-africa

[°] Asanzi, P (2011) Understanding the challenges of Chinese agricultural investments in Africa: an institutional analysis. *Academic Research Journal of Science and Research* 2(5) 76–87.

¹⁹⁴ Megavand, C et al. (2013) Deforestation trends in the Congo Basin: reconciling economic growth and forest protection. World Bank, Washington DC.

Corporation.¹³⁵ These infrastructure projects thus have diverse funding sources, and Chinese involvement may take the form of investment or contracting. A small number of Chinese firms are also involved in producing construction materials in DRC.¹³⁶ Table 7 lists Chinese firms registered with the Chinese Ministry of Commerce as active in infrastructure construction in DRC.

Hydropower: Energy consumption in DRC is almost entirely dependent on fuelwood, and access to electricity is limited in rural areas. Fuelwood collection and charcoal production are major drivers of deforestation and forest degradation. Hydropower electricity generation is a national priority in DRC. Congolese hydropower potential has been estimated at

Table 7. Chinese companies in DRC engaged in infrastructure construction

NO.	COMPANY NAME	TYPE OF ACTIVITY
Econo	mic aid	
1	China State Construction Engineering Corporation (CSCEC)	Economic aid for the People's Palace and stadium
Engin	eering contracting	
1	China Railway Congo (DRC) Infrastructure Project Management Company	Engineering contracting
2	China Railway Seventh Group	Engineering contracting
3	China Railway Eighth Group	Engineering contracting
4	China Railway Ninth Group	Engineering contracting
5	China Communications Construction Group First Road Engineering Company	Engineering contracting
6	Weihai International Economic and Technical Cooperative Co. Ltd (WIETC) Congo (DRC) Office	Engineering contracting
7	Jiangsu Construction Engineering Group Co. Ltd.	Engineering contracting
8	Beijing UNI-Construction Company (BUCC)	Engineering contracting
9	Guangdong Provincial Changda Highway Engineering Co. Ltd Overseas Office	Engineering contracting
10	China Geo-Engineering Corporation (CGC)	Engineering contracting
Teleco	oms investment and cooperation	
1	ZTE Office	Communications equipment and projects
2	Huawei Technologies Co., Ltd	Communications equipment and projects
3	China International Telecommunication Construction Corporation (CITCC)	Communications projects

Source: MOFCOM (2016) 中华人民共和国商务部.2016年.驻刚果 (金) 中资机构一览表 (Chinese companies in Democratic Republic of Congo). http://cd.mofcom.gov.cn/article/c/201510/20151001134694.shtml

¹³⁵ Megavand, C *et al.* (2013) op. cit.

wegavanu, et al. (2016) lp. et al. (2017) pp. et

¹³⁷ Megavand, C et al. (2013) Deforestation trends in the Congo Basin: reconciling economic growth and forest protection. World Bank, Washington DC; Mpoyi, A et al. (2013) The context of REDD+ in the Democratic Republic of Congo: drivers, agents and institutions. CIFOR, Bogor, Indonesia.

1 million megawatts, which is equivalent to 13 per cent of the world's total and more than sufficient to supply the entire country's energy needs. 138 However, it has been estimated that only 3 per cent of Congolese hydropower capacity has been utilised.¹³⁹

Chinese involvement in the sector relates to both investment and contracting, but as with projects in other sectors, controversy and uncertainty in the project process mean that actual projects and Chinese engagement are often unclear. The biggest potential hydropower investment in DRC is the Inga 3 project. The project was being developed with support of the African Development Bank and the World Bank. However, controversy over the selection of contractors for social and environmental assessment, among other factors, has stalled the process. 140 There are unconfirmed reports that a consortium of Chinese firms may be in discussions to continue the project with Chinese funding. A second major hydropower project is the 150-megawatt Zonga II project, under construction by the Chinese firm Sinohydro with US\$376 million investment financed by the Export-Import Bank of China.¹⁴¹ An agreement has also been signed for Chinese firms to build the 240-megawatt Busanga Hydropower Station, which will reportedly provide 170MW to the Sicomines project, with finance from the Export-Import Bank of China.142

Controversy over the environmental impacts of large hydropower investments has been one reason for the slow progress in bringing some projects to fruition. The NGO International Rivers suggests that the massive Inga 3 project would severely impact biodiversity and the Congo River system, while recent large investments in rehabilitation in the nearby Inga 1 and Inga 2 dams may imply that managing environmental impacts of the huge Inga 3 project will be a challenge. 143 Politically,

large hydropower projects are costly and historically have been associated with corruption. In addition, commentators cast doubt on the extent to which the project would benefit Congolese citizens, many of whom would have to be served by transmission lines crossing large distances of the country.¹⁴⁴ These downsides strongly suggest that small hydropower projects, due to their lower impact and high flexibility in location, might be a more effective and adaptable approach to power generation for the DRC.

3.2 Mozambique

3.2.1 Overview of China-Mozambique investment relations

China provided aid to Mozambique's struggle for independence as early as the 1960s, and the two countries established formal diplomatic relations in 1975, when Mozambique achieved independence. Over the past several decades frequent high-level diplomatic exchanges have occurred and bilateral trade has developed most rapidly after the end of Mozambique's civil war in 1992. In 2008, China became the second largest foreign investor in Mozambique after South Africa. In 2016, China and Mozambique agreed to establish a comprehensive strategic cooperative partnership between the two countries, which is likely to be followed by investments in Mozambique's natural gas exploitation, manufacturing, agriculture and infrastructure sectors.145 Official data from Mozambique's Investment Promotion Centre suggest that apart from the mining sector, most of China's investments in Mozambique have focused on manufacturing, agriculture, fishery, construction and other industries (Figure 7).

¹³⁸ UNEP (2011) Democratic Republic of Congo: post-conflict environmental assessment synthesis for policy makers. UNEP, Nairobi, Kenya.

Norton Rose Fulbright (2012) Scaling-up renewable energy in Africa: Democratic Republic of Congo. http://tinyurl.com/zo9vawf 140 Bosshard, P (26 May 2016) World's largest hydropower project unravels. https://www.internationalrivers.org/blogs/227/world's-largest-hydropower-project-

¹⁴¹ Sinohydro, DR Congo, HPP Zongo II. http://eng.sinohydro.com/index.php?m=content&c=index&a=show&catid=42&id=174

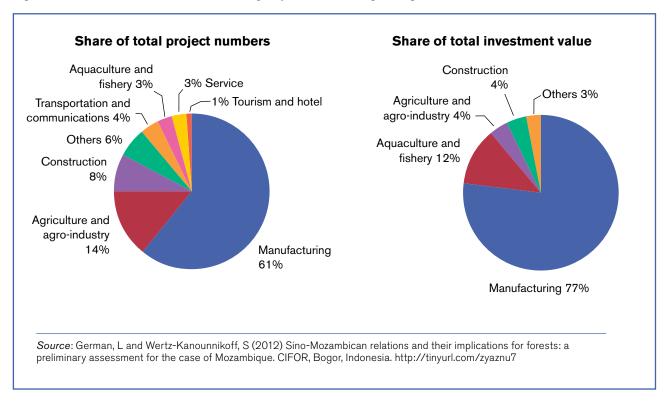
Ollionydio, S.K. Sanger, M. 2016) DRC awards \$600 million contract for 240-MW Busanga hydroelectric project in Africa. http://tinyurl.com/gnjsuad

¹⁴³ International Rivers, Grand Inga Dam, DR Congo. www.internationalrivers.org/campaigns/grand-inga-dam-dr-congo

¹⁴⁴ Vidal, J (21 May 2013) DR Congo waits on funding for world's largest hydropower project. The Guardian. www.theguardian.com/environment/2013/may/21/ dr-congo-funding-world-largest-hydropower-dam

¹⁴⁵ Xinhua News Agency (18 May 2016) China, Mozambique establish comprehensive strategic cooperative partnership. http://news.xinhuanet.com/ english/2016-05/18/c_135369704.htm

Figure 7. China's direct investment in Mozambique by sector (excluding mining) 2000-2010



3.2.2 China's investments in nonforestry land-use sectors and their environmental impacts in Mozambique

Agriculture: Agriculture accounts for more than 30 per cent of GDP and provides livelihood for more than half of the population.¹⁴⁶ In recent years, agriculture has developed rapidly in Mozambique, maintaining a double-digit growth rate between 2003 and 2013.¹⁴⁷ However, Mozambican agriculture is still dominated by smallholder production, and due to a lack of irrigation facilities, fertilisers and other modern inputs, there is further potential for technical inputs to increase growth.

The Mozambican government has employed financial subsidies and provided supporting services to attract investment and promote agricultural modernisation. Foreign direct investments in Mozambican agriculture

sector are mainly from Europe and South Africa.148 Portugal has invested in jatropha, soybeans, tobacco and rice, the United Kingdom and Italy in biomass energy (ethanol made from sugar canes and jatropha), and South Africa in bananas and coffee. Compared with these countries, China's investment in the agriculture sector is small, despite some unfounded rumours of potential large-scale investments.149 Agriculture also accounts for a small proportion of China's total investments in Mozambique (Figure 3.2), with investments mainly focused on poultry, rice and jatropha. Difficulties in securing land-use rights, technical challenges and poor supporting infrastructure are reported as key constraints faced by Chinese firms considering investment in the sector.150 Tables 8 and 9 list Chinese investments in Mozambique's agriculture sector.

¹⁴⁶ World Bank, World Bank Open Data. http://data.worldbank.org

¹⁴⁷ FAO, FAOSTAT. http://faostat3.fao.org/download/F/FO/E

¹⁴⁸ German, L and Wertz-Kanounnikoff, S (2012) Sino-Mozambican relations and their implications for forests: a preliminary assessment for the case of Mozambique. CIFOR, Bogor. http://tinyurl.com/zyaznu7

¹⁴⁹ China Africa Research Initiative (12 January 2012) 'The Zambezi Valley: China's first agricultural colony?' Fact or fiction? www.chinaafricarealstory.

¹⁴⁹ China Africa Research Initiative (12 January 2012) 'The Zambezi Valley: China's first agricultural colony?' Fact or fiction? www.chinaafricarealstory.com/2012/01/zambezi-valley-chinas-first.html

¹⁵⁰ Asanzi, P (2011) Understanding the challenges of Chinese agricultural investments in Africa: an institutional analysis. *Academic Research Journal of Science and Research* 2(5) 76–87.

Table 8. China's direct investment in Mozambique's agriculture sector, 2012

PROJECT NAME, YEAR OF INVESTMENT	PROVINCE	CAPITAL (US\$)	STAFF
African Workers Union, 2003	Sofala	1,000,000	150
Chinese Grains and Oils Group - CGOG Africa, 2005	Sofala	5,500,000	150
Xin Jian Companhia, 2006	Zambezia	195,000	200
Bioworld International, 2006	Tete	200,000	215
10,000 hectares rice production plan, Hubei Lianfeng Mozambique, 2007	Gaza	1,200,000	6
Wen Cheng Liao, 2009	Sofala	60,000	60
Luambala Jatropha, 2010	Niassa	200,000	160
Sunway Import and Export Co. Ltd, 2010	Nampula	500,000	50

Source: German, L and Wertz-Kanounnikoff, S (2012) Sino-Mozambican relations and their implications for forests: a preliminary assessment for the case of Mozambique. CIFOR, Bogor, Indonesia. http://tinyurl.com/zyaznu7

 ${\bf Table\,9.\,Chinese\,agriculture\,investments\,reported\,in\,the\,literature}$

FARM OR PROJECT NAME	COMPANY	YEAR OF REPORTED INVESTMENT	LAND AREA ACQUIRED (HECTARES)	CROP
Xai-Xai ^a	Hubei Lianfeng/Wanbao	2006	20,000	Rice
Chokwea	Wanbao	2014	6,000	Rice
Inhambaneª	Hao Shengli	2000s	2,024	Tevia, mix
Nampula ^a	Rizhao Sunway	2010	500	Oilseeds
Sofalaa	Hubei Hefeng Grain and Oil	2012	2,000	Rice, cotton
Sofalab	China Grain and Oil Group Corporation	2005	Planned but not implemented	
Sofala ^b	China-Africa Cotton Mozambique	2007	Unknown	
Sofalab	Sol e Mar	2009	12	
Sofala ^b	ACE Agriculture and Aquaculture	2009	600	

Sources:

^a Reported in China Africa Research Inititative, SAIS-CARI database. www.sais-cari.org/data-chinese-agricultural-investments-in-africa

^b Reported in Asanzi, P (2011) Understanding the challenges of Chinese agricultural investments in Africa: an institutional analysis. *Academic* Research Journal of Science and Research 2(5) 76-87

The largest potential Chinese agricultural investment in Mozambique is in the Xai-Xai irrigation area. The original plan by provincial governments was for rice cultivation on 10,000 hectares. Hubei Lianfeng Mozambique Company initially signed an agreement to cultivate 300 hectares and transfer technology to local farmers. This Chinese company operated in the region from 2007 to 2012. Trials were also conducted in 2008–9 by scientists from the Chinese Academy of Agricultural Sciences. However, the company was reportedly unable to fulfill the terms of the agreement, and in 2012 another Chinese company took over the agreement with the objective to cultivate 20,000 hectares. The latest available report suggests that the project's actual cultivated area is only 300 hectares.¹⁵¹

While agriculture is one of the main causes for forest degradation in Mozambique, the impact of Chinese agricultural investments is unclear. Very few reports are available relating to the environmental and social impacts of Chinese agricultural investments in Mozambique. German and Wertz-Kanounnikoff (2012) relate only unconfirmed circumstantial evidence regarding potential environmental and social impacts of Chinese sesame imports from Mozambique.¹⁵²

Mining: Mining has been identified as a potential threat to Mozambique's forest resources. 153 According to German and Wertz-Kanounnikoff (2012), China has just begun to engage in Mozambique's mining sector. As of 2012, the largest Chinese investor in Mozambique's mining sector was the Wuhan Iron and Steel Group Company, which had 40 per cent ownership of the Zambeze coal project. That report only identified one other Chinese company with active concession rights. However, a number of Chinese companies held prospecting licenses covering a total land area of 460,000 hectares (Table 10). Due to the small scale of current Chinese investment in Mozambican mining, there is no clear report on their direct impact on forests. However, since many Chinese companies own prospecting rights, investment in mineral extraction may increase in the coming years, including in provinces with rich forest and mineral resources, such as Niassa, Zambezia and Cabo Delgado.

Hydropower: Chinese companies have made few hydropower investments in Mozambique. Some reports indicate that in 2006, the Export-Import Bank of China signed a memorandum of understanding regarding investments in the Mepanda Nkua and Moamba Major dams.¹⁵⁴ However, other reports indicate that construction of both dams may be proceeding with finance from other countries. 155 Securing the financing for Mozambique's hydropower projects is a challenging process, and reports of potential Chinese financing continue to emerge.¹⁵⁶ Some of these potential dam projects are highly controversial due to projected impacts on local communities and the environment.¹⁵⁷

Infrastructure: As in many other African countries, Chinese companies are active in winning contracts to build infrastructure for projects financed by multilateral banks, national and local governments. In 2012, the Chinese government signed agreements with Mozambique to provide finance for infrastructure projects, and further investments will follow the recent signing of a strategic partnership agreement between the two countries.¹⁵⁸ Chinese policy banks have also provided finance for infrastructure development, including rehabilitating roads.159 One widely cited statistic states that in 2009 Chinese companies were responsible for contracts on one third of Mozambique's roads, totalling 600 kilometres, though the original source for this figure could not be identified. 160 As elsewhere, proximity to roads has been found to be associated with deforestation, so road construction and rehabilitation may drive deforestation and forest degradation in Mozambique.161 However, no specific information on the environmental impacts of Chinese infrastructure construction projects could be identified, and this remains an area for future research.

¹⁵¹ Chichava, S (2013) Xai-Xai Chinese rice farm and Mozambican internal political dynamics: a complex relation. LSE, London.

¹⁵² German, L and Wertz-Kanounnikoff, S (2012) Sino-Mozambican relations and their implications for forests: a preliminary assessment for the case of Mozambique. CIFOR, Bogor. http://tinyurl.com/zyaznu7

¹⁵³ Sitoe, À *et al.* (2012) The context of REDD+ in Mozambique: causes, actors and institutions. CIFOR, Bogor. http://tinyurl.com/ahaxyxy

¹⁵⁴ AidData, China Exim Bank signs MOU with Mozambique for Moamba-Major dam for 2.3 billion USD. http://china.aiddata.org/projects/241 155 Macauhub (25 March 2015) New dam adds 3,600 megawatts of power production in Mozambique. http://tinyurl.com/jgw5g9a; Macauhub (25 January 2008) Mozambique: Brazil's Camargo Morrea to build Mphanda Nkuwa dam. www.macauhub.com.mo/en/2008/01/25/4441; Macauhub (4 November 2014) Construction of Moamba-Major dam begins in Mozambique. http://tinyurl.com/z7j5ask

¹⁵⁶ Macauhub (23 June 2015) Hydropower projects in Mozambique attract Chinese groups Three Gorges and State Grid. http://tinyurl.com/jraebpy ¹⁵⁷ International Rivers, Mphanda Nkuwa Dam, Mozambique. https://www.internationalrivers.org/campaigns/mphanda-nkuwa-dam-mozambique

¹⁵⁸ Xinhua News Agency (24 September 2012) Mozambique, China sign 25 mln USD agreements. http://news.xinhuanet.com/english/world/2012-09/24/c_131868320.htm; Xinhua News Agency (18 May 2016) China, Mozambique establish comprehensive strategic cooperative partnership. http://news. xinhuanet.com/english/2016-05/18/c_135369704.htm

159 Xinhua News Agency (16 November 2013) China Eximbank lends Mozambique 416.5 mln USD for road rehabilitation. www.globaltimes.cn/content/825297.

¹⁶⁰ Schiere, R and Rugamba, A (2011) Chinese infrastructure investments and African integration. African Development Bank, Belvédère, Tunisia.

¹⁶¹ Sitoe, A et al. (2012) The context of REDD+ in Mozambique: causes, actors and institutions. CIFOR, Bogor. http://tinyurl.com/ahaxyxy

Table 10. Chinese companies with prospecting licenses, 2010 $\,$

COMPANY NAME	NUMBER AND LOCATION OF LICENSES	RESOURCES LICENSED	LAND AREA (HECTARES)
Africa Great Wall Mining Development	7 in total (2 in Nampula 2 in Zambezia 1 in Inhambane 1 in Manica 1 in Cabo Delgado)	Copper, gold (Nampula); copper, heavy sands (Zambezia); limestone (Inhambane); gold (Manica); copper, cobalt, nickel (Cabo Delgado)	82,400 in total (28,960 in Nampula 26,800 in Zambezia 6,800 in Inhambane 9,760 in Manica 10,080 in Cabo Delgado)
African Mining and Exploration Company	2 (Manica)	Gold	7,080
Africa Yuxiao Mining Development	8 in total (1 in Zambezia 1 in Gaza 1 in Inhambane 3 in Manica 2 in Cabo Delgado)	Heavy sands (Gaza, Inhambane, Zambezia); gold, tin, niobium, titanium (Manica); heavy sands (Cabo Delgado)	86,680 in total (23,600 in Zambezia 8,520 in Gaza 7,800 in Inhambane 21,020 in Manica 25,740 in Cabo Delgado)
China-Mozambique Mining Development	2 (Sofala)	Limestone	12,660
Jiangxi Mozambique Mining Co., Lda	13 in total (3 in Zambezia 2 in Sofala 6 in Tete 1 in Niassa 1 in Manica)	Copper, iron, gold, nickel, mica (Zambezia); beryllium, iron, fluorite (Sofala); lead, copper, iron, nickel, alumina (Tete); lead, iron, gold (Niassa); stannite, iron, (Manica)	254,720 in total (31,520 in Zambezia 38,620 in Sofala 140,660 in Tete 22,400 in Niassa 21,520 in Manica)
Lian Zheng Mineral Resources, Lda	2 (Gaza)	Heavy sands	12,880
Sheng Bao International, Lda	1 (Zambezia)	Tantalum	1,860
Zong-Hua Lda	2 (Zambezia)	Aquamarine, amethyst, bismuth, quartz	3,600

Source: German, L and Wertz-Kanounnikoff, S (2012) Sino-Mozambican relations and their implications for forests: a preliminary assessment for the case of Mozambique. CIFOR, Bogor. http://tinyurl.com/zyaznu7

Notes: LDA: Limitada (private limited liability company).

3.3 Cameroon

3.3.1 Overview of Sino-Cameroon investment relations

China and Cameroon established diplomatic relations in 1971. Since then, Chinese aid projects to Cameroon have included the construction of Cameroon Parliament Building, Yaoundé Conference Centre, Yaoundé Women and Children's Hospital, a stadium, embroidery workshops, well drilling, road projects, and medical and education assistance. Chinese investment in Cameroon is relatively small, but has increased steadily since 2000, reaching an investment stock of US\$25 million in 2009.¹⁶²

3.3.2 The environmental impacts of China's investment in non-forestry landuse sectors in Cameroon

Agriculture: Agriculture is the mainstay of Cameroon's economy, contributing 43 per cent of GDP, and providing employment to 70 per cent of the working population. Dominant discourses maintain that large tracts of land are unproductive, and the Cameroonian government has been encouraging large-scale agribusiness investments. Here is a perceived lack of transparency about the process of land acquisition in these deals. One study covering 2005–13 listed 16 firms (mostly international) controlling or requesting control over a total of at least 1.27 million hectares for a variety of agricultural purposes. Of these, two firms were under Chinese ownership. Other data record a small number of additional Chinese firms active in Cameroon's agriculture sector (Table 11).

Table 11. Chinese agricultural operations in Cameroon

COMPANY	AREA OF AGRICULTURAL OPERATION	TYPE OF FARMING ENTERPRISE
HEVECAM-GMG ^a	59,974 hectares	Rubber
Sud Hévéaª	45,200 hectares	Rubber
Beihail Fishery Co.b		Fishery
Cameroon Xiongshi Co. Ltd.b	>15 hectares ^c	Eggs, chickens, feed processing
Dima Gabriel (Jin Li Fishery) ^b	-	Fishery
Sino-Cameroon IKO Agriculture Development Co. Ltd. ^b	100 hectares	Rice planting, cassava processing, ostrich farming
		A sui sultural resoluir suu
Societe Agromac Import-Export ^b	-	Agricultural machinery

Sources

¹⁶⁵ Nguiffo and Sonkoue (2015) op. cit.

^a Data from: Nguiffo and Sonkoue Watio (2015) Agro-industrial investments in Cameroon: large-scale land acquisitions since 2005. IIED, London

^b Data from: MOFCOM. 中华人民共和国商务部.在喀麦隆注册的中资企业 (16家) (16 Chinese companies registered in Cameroon). http://cm.mofcom.gov.cn/sys/print.shtml?/zxhz/zzjg/200810/20081005824387

^c Data from: China Poultry Information Net. 中国家禽业信息网.喀麦隆雄狮牧业成功的经验 (The successful experience of Xiongshi Livestock, Cameroon). www.zgjq.cn/jysc/ShowArticle.asp?ArticleID=200817

¹⁶² Putzel, L *et al.* (2011) Chinese trade and investment and the forests of the Congo Basin: synthesis of scoping studies in Cameroon, Democratic Republic of Congo and Gabon. CIFOR, Bogor.

¹⁶³ World Bank, World Bank Open Data. http://data.worldbank.org

¹⁶⁴ Nguiffo, S and Sonkoue, M (2015) Agro-industrial investments in Cameroon: large-scale land acquisitions since 2005. IIED, London.

One of these firms has been the subject of some speculation in research reports on 'land grabbing' in Cameroon.¹⁶⁶ According to these reports, Sino-Cameroon IKO Agriculture Development Company Limited, a company formed with the participation of a Chinese company from Shanxi province, announced its plans in 2006 for cereal crop production on an area of several thousand hectares near the town of Nanga Eboko, with finance from the Export-Import Bank of China. The most recent report of the area under cultivation by the company stands at 120 hectares. The Chinese company, a subsidiary of a state farm in China, has also reportedly won the contract to establish a Chinese aid-funded agricultural demonstration centre, with a reported planned total area of 10,000 hectares.¹⁶⁷ One report further implied that the transfer of land to the company represents improper transfer of state land resources, 168 while another raised concerns that the agricultural output would be primarily destined for export markets, rather than local markets. 169 The conflicting reports on the public or private status of the company, its source of funds, its purpose, and the land area under its control point to the lack of transparency in agribusiness deals in the country. This issue is reportedly widespread and not specific to Chinese companies.170

More than 100,000 hectares of land have been acquired by companies now majority-owned by Sinochem (Hevecam société anonyme (SA)¹⁷¹ and South Hevea Cameroon SA own 80 per cent) for rubber cultivation. The acquired lands were previously owned by the state-owned rubber company, which was then acquired by a Singaporean owner, and later the majority of shares in these companies were sold to Sinochem. This complex history of corporate evolution has led to a number of unresolved problems being passed on to these international owners, including uncompensated land acquisition, dispossession by the government, failure to fulfil promises of employee share-ownership and poor employment conditions.¹⁷² Although the problems are not fully resolved, researchers report that Sinochem is adopting higher standards of corporate social responsibility than previous owners.

Mining: Cameroon is rich in mineral resources, but mineral exploitation is currently dominated by artisanal mining. Analysis of the EITI conciliation report for 2013 reveals that of 129 mining titles valid to mid-2014, 25 exploration licenses were awarded to firms under Chinese ownership (although not all firms disclosed their beneficial ownership).¹⁷³ These exploration permits cover a wide variety of materials: iron and metallic substances, rutile and related substances, gold and polymetallic substances, and uranium and related substances. Four companies control 20 mining titles, namely: First Choose Mineral Resources Cameroon SA (7 titles), Longsheng Cameroon SA (6 titles), Investments International Corporation Coast (4 titles) and Mining and Fametal Resoures Cameroon (3). These exploration licenses cover an area of 13,942 square kilometres, or 17.2 per cent of the total area of allocated prospecting permits, and are concentrated in the Cameroon southern forest, particularly in the eastern, South, Central and Southwest regions (see Appendix 1). It is expected that Cameroon's mining sector will continue to develop, and this may provide more opportunities for Chinese involvement in diverse ways. For example, media reports indicate that majority stakes in some Cameroonian firms have recently been purchased by Chinese firms.¹⁷⁴ There are no reports on the environmental or social impacts of Chinese mining activities in Cameroon, possibly because the majority of activities are at the exploration stage.

Infrastructure: Appendix 2 lists 13 infrastructure projects being implemented by Chinese companies (mostly state-owned enterprises) in Cameroon. In Cameroon, In

¹⁶⁶ Putzel, L et al. (2011) Chinese trade and investment and the forests of the Congo Basin: synthesis of scoping studies in Cameroon, Democratic Republic of Congo and Gabon. CIFOR, Bogor; Jansson, J (2009) Patterns of Chinese investment, aid and trade in Central Africa (Cameroon, the DRC and Gabon). Centre for Chinese Studies, Stellenbosch, South Africa.

¹⁶⁷ Yijiayi, 亿家益.陕西农垦 (Shaanxi Nongken). www.zgyijiayi.com/nmtj/nm.asp?id=272

¹⁶⁸ Putzel, L et al. (2011) Chinese trade and investment and the forests of the Congo Basin: synthesis of scoping studies in Cameroon, Democratic Republic of Congo and Gabon. CIFOR, Bogor.

¹⁶⁹ Brautigam, D (2015) Will China feed Africa? Oxford University Press, Oxford.

¹⁷⁰ Nguiffo, S and Sonkoue, M (2015) Agro-industrial investments in Cameroon: large-scale land acquisitions since 2005. IIED, London.

^{171 &#}x27;Anonymous society', roughly equivalent to a public limited company.

¹⁷² Assembe-Mvondo, S *et al.* (2015) What happens when corporate ownership shifts to China? A case study on rubber production in Cameroon. *European Journal of Development Research* 28(3) 465–478.

¹⁷³ EITI (2015) Cameroon Conciliation Report 2013. EITI, Oslo.

¹⁷⁴ Business Wire (24 September 2014) Geovic Mining Corp. announces extension of definitive agreement of Geovic Cameroon Plc with China's JXTC anticipating a strategic investment in the Nkamouna project, http://tinyurl.com/zgvva4p

¹⁷⁵ Mala, W and Mougou, J (2015) État des lieux et problématique des investissements chinois affectant l'utilisation des terres forestières au Cameroun. Unpublished report. WWF and IIED.

report, the deep-water port at Kribi sits on an estimated 30,000 hectares of forest land. Other studies confirm the effect of increasing road access on conversion of forest to agricultural land in Cameroon.

Hydropower: The most prominent Chinese investment in Cameroon is Sinohydro Corporation's contract to construct the Lagdo Dam in northern Cameroon in 1977-82, which is currently managed by a North American company. While the funder of the Lagdo Dam is unknown, studies have noted that China was at least partially involved.¹⁷⁸ This dam provides power to downstream areas and irrigation water for rice cultivation. One report in 2012 stated that water discharge from the dam caused flooding with human casualties in Nigeria.¹⁷⁹ Cameroon pledged in 2013 that it would no longer carry out similar flood discharges.¹⁸⁰ In 2011, Sinohydro was reported to have won the bid to construct the Lom Pangar Dam. 181 This project is to be jointly financed by the World Bank International Development Association, the French Development Agency, the African Development Bank and the European Investment Bank. However, large-scale hydropower stations often have potentially adverse social and environmental impacts. International Rivers, an international NGO, gave a negative evaluation of the social and environmental impacts of the Lom Pangar Dam, claiming that it will flood part of the Deng Deng Forest Reserve and push local residents to engage in hunting in nearby protected areas.¹⁸² In addition to that project, Sinohydro is building the 200-megawatt Memve'ele Hydropower Station, with finance from the Export-Import Bank of China. 183

3.4 Uganda

3.4.1 Overview of China-Uganda investment relations

China was one of the first countries to establish diplomatic relations with Uganda when it gained independence and the two countries have maintained a long friendship. In 2004, China and Uganda signed an agreement on mutual investment promotion, and an agreement on economic and technical cooperation in 2014.¹⁸⁴ By mid-2014, China's foreign direct investment (FDI) in Uganda had reached US\$400 million, and China is emerging as Uganda's largest source of FDI.¹⁸⁵ Between 1993 and 2012, 310 Chinese enterprises were registered in Uganda with planned investments of US\$683 million, and projected job creation for more than 30,000 local people. Chinese companies are active in nearly every economic sector, and the Export-Import Bank of China is a key source of financing for several infrastructure projects.

3.4.2 China's investments in land-use sectors and their impacts on forests in Uganda

Agriculture: Between 1993 and 2016, 22 Chineseowned companies received approvals from the Uganda Investment Authority to invest in agriculture. Approval records indicate that the main economic activities for which approvals were sought were crop farming (including rice, maize, sweet potatoes and horticulture); fish farming and processing; tree planting and timber processing; beverage manufacture; and grain milling. Other activities include mushroom growing, livestock farming, agri-food processing, agricultural equipment assembly, cotton and textiles, and coffee processing.

 $^{^{\}rm 176}\,\text{Mala}$ and Mougou (2015) op. cit.

¹⁷⁷ Mertens, B and Lambin, E (2000) Land-cover-change trajectories in southern Cameroon. *Annals of the Association of American Geographers* 90(3) 467–494.

¹⁷⁸Tschotsoua, M *et al.* (2008) The socio-economic downstream impact of large dams: a case study from an evaluation of flooding risks in the Benue River Basin downstream of the Lagdo Dam (Cameroon). *Journal of African Studies* 5(1) http://hdl.handle.net/2027/spo.4761563.0005.101

¹⁷⁹ Akinbooade, L (29 August 2012) Disaster from Cameroon: excess water from Lagdo Dam kills 15 in Kano. *Vanguard*. http://tinyurl.com/c47lv7n

¹⁸⁰ Alli, Y (26 July 2013) Flood: We won't release water from Lagdo Dam, Cameroon tells Nigeria. *The Nation Online*. http://tinyurl.com/zzldxpc
181 Xinhua News Agency (13 May 2011) Chinese firm wins bid on Cameroon hydropower project. http://news.xinhuanet.com/english2010/business/2011-05/13/c_13873930.htm

¹⁸² International Rivers, Lom Pangar Dam, Cameroon. https://www.internationalrivers.org/sites/default/files/attached-files/lp_factsheet.pdf

¹⁸³ Sinohydro, Cameroon, Memve ele hydropower station. http://eng.sinohydro.com/index.php?m=content&c=index&a=show&catid=42&id=129
184 People's Republic of China and Republic of Uganda (2004) Agreement between the government of the People's Republic of China and the government of the Republic of Uganda on the reciprocal promotion and protection of investments. http://investmentpolicyhub.unctad.org/Download/TreatyFile/790; MOFCOM (18 December 2014)中国和乌干达两国政府签署经济技术合作协定 (Governments of China and Uganda sign economic and technical cooperation agreement).
www.mofcom.gov.cn/article/i/jyj/k/201412/20141200837417.shtml

¹⁸⁵ IMF (2016) Uganda: Sixth review under the policy support instrument and request for a one-year extension: press release, staff report and statement by the executive director for Uganda.

Most of these companies are privately owned, and most are companies registered in Uganda but fully owned by Chinese investors. A small number had parent companies in China or were joint ventures between Chinese and Ugandan partners. Of the Chinese companies active in primary agricultural production, most engaged in rice growing, processing and marketing, supplemented by other agricultural activities such as fish, poultry or horticulture. Interviews with five of these companies suggest that most target Uganda's local market, rather than export markets (Table 12).

Foreign enterprises in Uganda are allowed to lease land for up to 99 years. Most Chinese investors lease land from private landowners. However, one report indicates that where the private landowner is an influential local leader, control of the leased lands may have occurred through involuntary expulsion of previous land users, such as squatters, who should be entitled to compensation for eviction.¹⁸⁶ Most employees in Chinese-invested agricultural enterprises are Ugandan, working without contracts; high standards of employee health and safety (such as when using pesticides) are not always followed. Legally required environmental impact assessments are not always undertaken, and some farming activities, such as rice farm drainage into lakes, diversion of river courses, inappropriate application of fertilisers and farming in wetlands, may have adverse environmental impacts. No impacts on forests have been reported, because the farms are

not located in forest areas. Reportedly, inspection and regulation by national agencies is weak when the land title holder is an influential politician.¹⁸⁷

In addition, private companies are involved in formal bilateral agriculture cooperation. The China-Uganda Agricultural Industrial Park is reportedly managed by a private company.¹⁸⁸ The park was established through a South-South Cooperation Agreement between Uganda, China and the Food and Agriculture Organization of the United Nations (FAO), and is also privately owned. The first phase of the tripartite cooperation involved technical support from Chinese agricultural technicians, and in the second phase it is proposed to expand the agricultural activities demonstrated in the park to cover a total of 380 hectares.¹⁸⁹

Infrastructure: Large Chinese state-owned and private enterprises are active in Ugandan infrastructure construction and contracting. According to official Chinese sources, more than 50 Chinese companies are involved in telecoms, road and housing construction and contracting in Uganda, including Huawei, ZTE, China Communications Construction Company, China Railway Seventh Group, China Railway Fifth Group, Sinohydro Corporation, China International Water and Electric Corporation, Chongqing International Construction Corporation, China Henan International Cooperation Group Company Limited, China National Aero-Technology Import and Export Corporation,

Table 12. Characteristics of five selected Chinese companies in Uganda's agriculture sector

NO.	OWNERSHIP	% OF CHINESE OWNERSHIP	MAIN ACTIVITY	TARGET MARKET	LEASE PERIOD (YEARS)	LAND SIZE (ACRES)
1	Private	100	Rice growing and processing	Local	5	1,000
2	Private	100	Tea processing	China	N/A	N/A
3	Private	100	Rice growing, poultry and horticulture	Local and export	99	947
4	Private	100	Rice growing and processing	Local	20	400
5	Private	60	Rice growing and sweet potato growing	Local	5	200

Source: Ggoobi, R and Barungi, J (2016) Chinese agricultural investments and their effects on forest land use in Uganda. Unpublished report. IIED, London.

¹⁸⁶ Ggoobi, R and Barungi, J (2016) Chinese agricultural investments and their effects on forest land use in Uganda. Unpublished report. IIED, London.

¹⁸⁷ Maiyo, J (2014) The political ecology of Chinese agriculture investment in Uganda: the case of Hanhe Farm. School of Advanced International Studies, John Hopkins, Baltimore.

¹⁸⁸ Ggoobi, R and Barungi, J (2016) Chinese agricultural investments and their effects on forest land use in Uganda. Unpublished report. IIED, London
189 People's Government of Sichuan Province, 16 Sichuan agricultural experts assist in Uganda. www.sc.gov.cn/10462/10758/10760/10765/2016/1/15/103

China National Complete Engineering Corporation, Nanjing International Group, Yanjian Group, and the Bureau of Geophysical Prospecting of the Chinese National Petroleum Company. 190 Contracts signed have exceeded US\$200 million each year between 2010 and 2012. Many state-owned enterprises are engaged in contracting on projects funded by the Chinese government and other international sources, such as the World Bank and African Development Bank, as well as the Ugandan government.¹⁹¹ Major projects contracted by Chinese companies include the World Bank-funded road from Fort Portal to Hima, the African Development Bank-funded Bundibugyo-Lamia road, the Ugandan government-funded upgrade of the Olwiyo-Pakwach road, and the Chinese government-funded Kampala-Entebbe Airport Expressway.

Hydropower: Chinese entities are involved in both the financing and construction of dams and hydropower stations in Uganda. The Export-Import Bank of China is financing the construction of the 600-megawatt Karuma dam (constructed by Sinohydro Corporation) and the 183MW Isimba dam (constructed by China International Water and Electric Corporation). The Karuma dam is located on the White Nile in northwestern Uganda, across a vast forest belt and close to the Murchison Falls National Park. Media reports point to a history of failings in transparency and social safeguards surrounding the project, from which the World Bank and other international partners had previously withdrawn. 192 The Isimba dam is not located inside a forest area, but Mabira, Kalagala and Nile Bank forest reserves are located nearby, which are habitats for endangered grey crested cranes. 193 Assessments of the impact of the Isimba dam on other areas reserved for natural protection to offset the impacts of other hydropower projects are ongoing.¹⁹⁴ In addition, the Chinese government is reportedly the financier of the 600-megawatt Ayago hydropower station, located downstream from the Karuma dam, within Murchison Falls National Park. 195 The construction tender has reportedly been awarded to China Gezhouba Group Corporation.

Mining: Chinese enterprises' involvement in Uganda's mining sector appears to be relatively recent. However, media reports point to increasing interest and activity in the sector. A Chinese joint venture consisting of China Tibetan Xima Industrial Company Limited, Shanghai Baosteel and others reportedly plan to restart the Kilembe Copper Mine in western Uganda, which has been closed for more than thirty years, with mining activities due to begin in 2016. Reports say that in the 1950s, wastewater treatment was a major issue caused by the mine, with heavy metals directly discharged into rivers. 196 The Industrial and Commercial Bank of China, in cooperation with Standard Chartered of South Africa (which is part owned by the bank), has agreed to finance Guangzhou Dongsong Energy Group, a Chinese private enterprise, to develop the Sukulu Phosphate Project.¹⁹⁷ This project is planned to include a mine and a processing plant producing 300,000 tonnes of phosphate fertiliser per year, a 12-megawatt power generation plant and a steel mill. In another agreement, Shandong Province Bureau of Geology and Mineral Resources has agreed to support construction of the national mineral laboratory, mineral geological exploration and purchase of mining equipment. 198

Oil: Oil reserves in the Lake Albert region are estimated at 6.5 billion barrels, with 1.8-2.2 billion recoverable barrels.199 China National Offshore Oil Corporation, together with Tullow Oil (UK) and Total (France), is involved in developing Uganda's Lake Albert oilfield, with expected investment of more than US\$12 billion. The construction of refineries and pipelines is also proposed. However, specific investments are still in the negotiation and design phase. This project raises several serious environmental concerns due to the proximity of Lake Albert, the seventh largest lake in Africa; the Albertine Rift is an important biodiversity hotspot.²⁰⁰ The oilfield overlaps with nature reserves, and apart from the oil fields themselves, large amounts of other infrastructure will be required for refining, storing and transporting oil. Commentators warn that, in the current context of limited environmental management capacities, there will be close scrutiny of companies involved in the sector.201

¹⁹⁰ Economic and Commercial Counsellor's Office of the Embassy of the PR China in the Republic of Uganda (2013) 2013年.工程承包 (Engineering Contracting). http://ug.mofcom.gov.cn/article/zxhz/201305/20130500117045.shtml

¹⁹¹ Warmerdam, W and van Dijk, M (2013) Chinese state-owned enterprise investments in Uganda: findings from a recent survey of Chinese firms in Kampala. Journal of Chinese Political Science 18(3) 281–301.

¹⁹² Ndyabawe S (16 November 2015) The Ugandan government has not learned from Bujagali. FIVAS. http://fivas.org/frontsak/the-ugandan-government-has-not-learned-from-bujagali

¹⁹³ Oleny, S (18 March 2014) Isimba Dam resurrects old environment-development debate. New Vision. www.newvision.co.ug/news/653652-isimba-dam-resurrects-old-environment-development-debate.html

¹⁹⁴ World Bank (21 March 2016) Statement by the World Bank Group following an advert by China Water and Electric Corporation on Isimba Dam in Uganda.

Press release. http://tinyurl.com/j668lgv

¹⁹⁵Uganda Electricity Generation Company Limited, Ayago hydro power station (840MW). http://uegcl.com/Projects/ayago-hydro-power-station-600mw ¹⁹⁶Golder Associates, Understanding the impacts of a mine in Uganda. www.golder.com/archive/Technically-Speaking/TS_59/09.html

Golder Associates, onderstanding the impacts of a milite in oganda. www.golder.com/archive/reclinically-opeaking/15_59/09.html

197 Solomons, I (4 March 2016) \$240m China, SA investment for Uganda phosphate project. *Mining Weekly*. http://tinyurl.com/hnm792r

¹⁹⁸ Angurini, T (24 September 2015) Uganda, China sign deal to boost mining sector. All Africa. http://allafrica.com/stories/201509240969.html

¹⁹⁹ Patey, L (2015) Oil in Uganda: hard bargaining and complex politics in East Africa. Oxford Institute for Energy Studies, Oxford.

²⁰⁰ Plumptre, A et al. (2003) Biodiversity of the Albertine Rift. Wildlife Conservation Society, New York.

²⁰¹ Patey, L (2015) Oil in Uganda: hard bargaining and complex politics in East Africa. Oxford Institute for Energy Studies, Oxford.

3.5 Discussion

China has investments in mining, agriculture, infrastructure and hydropower projects in all four African nations surveyed (Cameroon, DRC, Mozambique and Uganda). In some sectors, Chinese investment has already reached a significant scale (such as oil and hydropower in Uganda, mining in DRC, road construction in Mozambique), while in others Chinese investment is small, or recent and possibly emerging (such as agriculture in Uganda, DRC and Mozambique, and hydropower and mining in Mozambique). Information on Chinese investors and investment projects is often hard to come by, and existing compilations of related information are unlikely to be complete and may contain inaccuracies. Information on the impacts of Chinese investments on forests in these African nations is particularly sparse. This is due to several reasons. First, environmental impact assessment reports of major investment projects are often not publicly available. Second, few dedicated studies have been conducted to identify ex-post impacts. Third, apart from wholly owned investments, Chinese companies engage in African economies in diverse ways, including joint ventures, acquisitions of existing firms and sites, contracting, and trading. The attribution of environmental impacts to Chinese involvement is therefore difficult.

The sectors surveyed in this chapter are similar across the four countries, with Chinese involvement in agriculture, mining, hydropower development and infrastructure construction in all four countries. Currently, it is mostly only possible to highlight sectors and activities where Chinese companies are involved and where potential risks to African forest resources may be a concern. The main findings are summarised in Table 13.

Table 13. Level of Chinese involvement and forest-related environmental impacts in four African countries

		SCALE OF POSSIBLE	FOREST-RELATED ENVIR	ONMENTAL IMPACTS
		High	Moderate	Low
	High	DRC artisanal miningUganda hydropowerUganda oil	DRC industrial miningMozambique road construction	
CHINESE INVOLVEMENT	Moderate	 DRC hydropower (high local impacts) Cameroon infrastructure construction Cameroon hydropower Uganda infrastructure 	DRC infrastructure	Cameroon agriculture
LEVEL OF CHIN	Low			 DRC agriculture Cameroon mining Mozambique agriculture Mozambique mining Mozambique hydropower Uganda agriculture Uganda mining

Mining sector: The direct impacts of mining on forests are likely to be smaller than indirect and induced impacts, such as the construction of roads and hydropower facilities needed to support mining activities, and the influx of a large number of mine workers into forest areas that may increase unplanned logging and poaching activities. In some countries, Chinese involvement in mining is still at a small scale or exploratory phase (Cameroon, Mozambique, Uganda). In Cameroon, however, Chinese firms have numerous prospecting licenses, and if viable deposits are identified and subsequent investments made, environmental impacts on forests may increase in the future. In the DRC, there is a significant degree of overlap between mining concessions and forested area. Industrial mining in DRC may have limited direct impacts, especially where the mines operated by Chinese companies were previously opened mines. However the artisanal sector, in which Chinese companies are involved in various ways, has been reported to have various impacts on forests, including forest resource use by miners and their families, and charcoal use by smelting plants. Overall, however, there have been few detailed studies of the impacts of Chinese mining operations on forest resources in any of these four countries.

Agriculture sector: Despite media reports of large-scale investments and land acquisition, actual involvement of Chinese companies in agriculture in DRC, Mozambique and Uganda is relatively small. Even where one or two dozen Chinese firms are operating, the total land area occupied is not large. Moreover, with a focus on rice and other crops, many agricultural operations are unlikely to be conducted in forest areas. Some Chinese investments in crop commodities in some countries (such as rubber in Cameroon) have, however, reached a moderate scale, and large impacts are possible.

Infrastructure construction: In all four countries, road construction is associated with forest clearance for agricultural cultivation. Chinese companies are involved in financing road construction projects, as well as contracting engineering projects financed by other sources. Infrastructure construction is also sometimes associated with other Chinese-funded projects, such as mines or hydropower stations.

Chinese involvement in road construction appears to be more significant in Mozambique and Uganda, but no reports of specific environmental impacts were identified. By contrast, commentators have identified that some Chinese-funded infrastructure investments in Cameroon are located in forest areas. Some logging permits in Cameroon have also been issued to Chinese companies involved in infrastructure construction.

Hydropower: Fuelwood is the dominant energy source in all four countries, so hydropower could present an alternative energy source. However, large-scale planned hydropower projects in Cameroon, DRC, Mozambique and Uganda have been criticised for their potential environmental impact. Several contracted projects in Uganda are located in ecological hotspot areas with reports indicating that the projects could affect some rare species. The Inga 3 project in DRC poses risks to biodiversity in the Congo River system. Some projects in Mozambique that were formerly associated with Chinese finance or construction companies have also aroused controversy over their social and environmental impacts, but were subsequently financed from other sources.

Oil: A consortium of European and Chinese firms are planning to develop oil fields in Uganda. The development of the Ugandan oil and petroleum sector could potentially have environmental impacts well beyond the site of oil extraction operations.

Overall, the mapping presented in this chapter suggests a number of possible hotspots of Chinese non-forest land-use investment impacts on forest resources. More detailed studies are required to understand not only specific environmental impacts, but also the governance processes surrounding these impacts. That some controversial projects have subsequently proceeded with finance from non-Chinese sources, and that many Chinese companies are involved in contracting for other governments and international agencies, highlights the difficulty in identifying what is particularly 'Chinese' about any identified environmental impacts. From the range of sectors with potential impacts on forests, it is clear that in all these countries improvement in forest management and forest governance alone will be insufficient to prevent adverse impacts of non-forest investments on forest resources.

Features and trends of China-Africa cooperation on forestry

The Forum on China-Africa Cooperation provides a framework for political dialogue and economic cooperation between Chinese and African governments. Placing forestry higher on the FOCAC agenda could enhance Chinese support for value-added activities in Africa, the multifunctional values of African forests, and forest governance processes in Africa.



Sino-African political, economic and cultural relationships have expanded over the past few decades. These relationships were further strengthened when the Forum on China-Africa Cooperation (FOCAC) was established in 2000. FOCAC is a multilateral platform for political dialogue and economic cooperation.²⁰² Fifty African states have now joined the Forum. Recognising opportunities to collaborate on climate change and environmental protection, the Beijing Action Plan agreed at the 5th Ministerial Conference of FOCAC in 2012 mentioned cooperation in forest protection and management as an area for future cooperation.²⁰³ The Johannesburg Action Plan agreed at the 6th Ministerial Conference in 2015 mentions support for cooperation projects in forestry and a plan to develop a China-Africa Joint Research Centre on biodiversity cooperation, sustainable forest management and other environmental fields.²⁰⁴ For the Chinese government, commitments at FOCAC provide a framework within which specific cooperative actions are agreed. In addition, other actors, such as western donors and Western and Chinese non-governmental organisations, have been promoting China-Africa cooperation on forestry issues. This chapter reviews these various forms of non-trade economic cooperation.

4.1 Overview of governmental cooperation between China and Africa in the forestry sector

Since the establishment of FOCAC, forestry cooperation between China and Africa has developed rapidly at the government level. The deepening relationship between the two regions has been reflected through a number of cooperation mechanisms, including bilateral agreements, and the establishment and operation of the dedicated funds and partnership programmes.

To date, China has signed memoranda of understanding (MoUs) on forestry cooperation with Cote d'Ivoire, Egypt, Lesotho, the Republic of Congo, South Africa and Uganda, among other countries (Table 14). In the spirit of FOCAC, China committed in 2013 to add six African countries (including Kenya and Zimbabwe) into potential forest cooperation projects and to contribute US\$284 million in forestry materials and equipment assistance to countries such as Cameroon, Gabon and the Republic of Congo.205 These agreements set out

Table 14. African countries' memoranda of understanding with China

YEAR	COUNTRY	SCOPE
2003	Egypt	Forestry, environment, and biotechnology
2004	Lesotho	Forestry
2006	South Africa	Forestry policy, research, capacity building, business and trade
2006	Cote d'Ivoire	Forestry
2010	Republic of Congo	Sustainable development and forestry
2013	South Africa	Wetlands and desert ecosystems, wildlife conservation
2015	Uganda	Sustainable forest management, social forestry, bamboo, forest product trade, wetland conservation

Sources: Xinhua Press Agency (2003) 中埃两国签署林业和环境合作谅解备忘录 (Memorandum of understanding on cooperation in forestry and the environment between China and Egypt); MOFCOM (2012) 对外投资合作国别 (地区) 指南-莱索托 (Overseas Investment Country Guide: Lesotho); MOFCOM (2015) 对外投资合作国别(地区)指南·科特迪瓦 (Overseas Investment Country Guide: Cote d'Ivoire); SFA (2006) Director Jia Zhibang successfully completes a friendly visit to South Africa. www.forestry.gov.cn/lmzm/1347/content-144060. html; SFA (2010) China signs a forestry MoU with Congo. www.forestry.gov.cn/main/196/content-449145.html; International Cooperation Section of the State Forestry Administration (14 September 2014) SFA signs forestry cooperation agreement with Uganda Ministry of Water Resources and Environment. http://gjs.forestry.gov.cn/portal/ghs/s/2375/content-800764.html

²⁰² FOCAC, Forum on China-Africa Cooperation. www.focac.org/eng ²⁰³ FOCAC (2012) The fifth ministerial conference of the Forum on China-Africa Cooperation Beijing Action Plan (2013–2015). www.focac.org/eng/zxxx/

²⁰⁴ FOCAC (2015) The Forum on China-Africa Cooperation Johannesburg Action Plan (2016–2018). www.focac.org/eng/ltda/dwjbzjjhys_1/t1327961.htm 205 SFA (2014) 2014年中国林业发展报告 (2014 China Forestry Development Report). China Forestry Press, Beijing.

areas for bilateral cooperation, with specific actions supported through a number of mechanisms that have been developed on the Chinese side.

Through training programmes managed by the Chinese ministries of commerce (MOFCOM) and science and technology (MOST), the Chinese government has funded the participation of African government officials and researchers in training workshops to enhance their capacity on forest management, forestry resources development, and environmental protection. From 2005 to 2012, MOFCOM funded 67 forestry training classes for developing country participants. African representatives took part in 61 of the training classes, and 11 classes were specifically designed for African participants. The training has included areas such as combatting desertification, wildlife protection, forestry industry development models, bamboo planting and processing technology, wetland restoration technology, forest law enforcement and governance, as well as biodiversity conservation. MOST's training programme has covered areas such as bamboo processing, tea cultivation and desertification control. China has also provided opportunities for African students to study forestry through short-term courses and degree programmes. China provides scholarships and covers living expenses for African students, and has trained a large group of African forestry professionals.

Developing industrial capacity is one area of cooperation agreed within the FOCAC framework. There are various mechanisms through which this is being promoted. Joint investment in economic cooperation zones and industrial parks is one approach. For example, the Nigeria Guangdong Economic and Trade Cooperation Zone, which is majority-owned by a Guangdong-based state-owned enterprise and partowned by the Nigerian government, was one of the first six overseas cooperation zones. There are plans to include timber processing in this zone.²⁰⁶ Governmentbacked funds, such as the China-Africa Development Fund, have also invested in establishing industrial parks. In 2016, a new fund was created using China's foreign exchange reserves and Export-Import Bank of China funds, dedicated to investment in expanding Africa's industrial productive capacity. This fund may also invest in industrial parks as well as specific processing facilities.²⁰⁷ Chinese official overseas aid, which is managed by MOFCOM, has also been used to provide forestry equipment and promote forest

product processing.²⁰⁸ For example, the Rwanda-China bamboo project has supported bamboo cultivation, training for artisans and capacity building for bamboo processing.²⁰⁹ At present, however, forestry is not a national priority in China's aid programmes to Africa.

4.2 China-Africa nongovernmental forestry cooperation

In addition to cooperation at the government level, non-governmental interactions between China and Africa have also played an important role. Nongovernmental organisations have been active in promoting business partnerships, mutual understanding and capacity building on issues related to sustainable forest management.

In the business sector, one of the key institutions in China-Africa non-governmental forestry cooperation is the China-Africa Business Council.²¹⁰ It was initiated by the United Nations Development Programme and the International Economic and Technical Exchange Center of the Ministry of Commerce in 2005. As a non-profit organisation registered in China, the Council's mission is to promote trade and investment between China and Africa, as well as to assist Chinese enterprises investing in Africa. The China-Africa Business Council has worked with Chinese companies, African governments and NGOs to establish information-sharing systems and business service platforms to promote business cooperation between China and Africa.

In 2014, IIED and partners launched a major China-Africa Forest Governance project designed to build evidence, capacity and concrete measures to promote sustainable Chinese investment in Africa's forests. Running until 2017, the project is working in China and the four African countries featured in this report: Cameroon, Democratic Republic of Congo (DRC), Mozambique and Uganda. In China, the partners include the Research Institute of Forestry Policy and Information under the Chinese Academy of Forestry (CAF), the Global Environmental Institute and the World Wide Fund for Nature (WWF). Through research, dialogue and joint action, IIED and its partners are contributing to improving forest governance, by promoting sustainable and pro-poor Chinese trade and investment in Africa's

²⁰⁶ Gao, C (2014)尼日利亚广东经济贸易合作区 走进非洲的新选择 (Nigeria Guangdong Economic and Trade cooperation zone: a new choice for entering Africa).

SFA (2014) 2014年中国林业发展报告中国林业出版社,北京 (2014 China Forestry Development Report). China Forestry Press, Beijing.

Republic of Rwanda (2011) National Bamboo Policy. Ministry of Forestry and Mines, Kigali. http://rnra.rw/uploads/media/Rwanda_Bamboo_Policy.pdf ²¹⁰ CABC, China-Africa Business Council. www.cabc.org.cn

forests. The project has included training in Africa and China to promote sustainable forestry practices among Chinese companies investing in African forests, as well as for African NGOs to better engage with Chinese companies. It has engaged government departments in the five countries. Two China-Africa Forest Governance Learning Platform events have been held to date, and a third will be held in October 2016 in Beijing. IIED and partners have undertaken studies and published knowledge products about the timber trade and investment between China and Africa. The project has sponsored Chinese journalists to visit Africa in order to learn about and report on issues of forest governance, and African journalists will also visit China to report on related topics.

A number of NGOs have also been active in promoting dialogue and capacity building, involving academics, government officials and forest enterprises from both Africa and China. CAF and WWF have organised experts to provide training to Chinese enterprises in countries such as Cameroon, DRC, Gabon and Mozambique, based on the Guide on Sustainable Overseas Silviculture by Chinese Enterprises and the Guide on Sustainable Overseas Forest Management and Utilisation by Chinese Enterprises, which were produced by the Chinese State Forest Administration (SFA). This training has contributed to improving the environmental awareness and management capacity of Chinese enterprises in Africa. During the training, Chinese forest experts worked with the Ministry of Forests in Gabon and the Ministry of Agriculture in Mozambique to provide training to Chinese enterprises on local regulations for forest operations, timber processing, and forest products trade. They also conducted in-depth interviews with experts along with field research to discuss challenges and solutions in sustainable business management. The training and assessment process has helped Chinese enterprises improve their understanding of laws and regulations in their host countries. As a result, companies are also more aware of timber legality and ways to improve their operations.

WWF and the International Union for the Conservation of Nature have also organised workshops and study tours to promote dialogue and cooperation between Chinese and African governments, NGOs and other forest sector stakeholders.²¹¹ Several of these workshops and training activities have involved the SFA

and provided valuable opportunities for Chinese officials to understand African stakeholders' concerns and identify opportunities for collaboration on issues such as forest policy, governance, trade issues, sustainable forest management and timber legality. These processes have also promoted awareness among Chinese companies of the importance of sustainable forest management and timber legality, and a number of Chinese companies have publicly committed to adhere to the requirements of the *Guide on Sustainable Overseas Forest Management and Utilisation by Chinese Enterprises* issued by SFA, and with relevant laws, regulations and international conventions' good practices.²¹²

4.3 Future perspectives on China-Africa forestry cooperation

Protecting the environment and promoting sustainable development is a common goal between China and African nations. With the gradual development of governmental political and economic cooperation frameworks, such as FOCAC and bilateral agreements, increasing attention is being paid to cooperation on environmental issues, although forestry is often not high on the agenda. Recent trends in forestry trade, investment and cooperation point to a number of possible trends and key issues to address in future cooperation.

First, in some countries and for some timber species, a number of factors are supportive of increasing Chinese investment in value-added stages of forest product value chains. For example, where African countries have banned or restricted the export of unprocessed logs, there are often incentives for Chinese companies to become increasingly involved in processing. However, access to capital, machinery and technical skills and capacities often constrain the development of valueadded operations in these countries. Value-added activities often require not only large investments but also supportive services from other companies in a timber industry cluster. Further development of Chinese investment in value-added activities in African forestry sectors is likely, therefore, to require support from both Chinese and African governments. This may include financial support from Chinese government-backed

²¹¹ COMIFRAC (2010) COMIFRAC workshop: experience sharing between China and Central Africa countries on sustainable management and use of forests. http://pfbc-cbfp.org/docs/news/July-September2010/China_COMIFAC_April2010_ENG.pdf; IUCN (2008) Promoting China's engagement in Africa: Chinese forest delegation study tour to West and Central Africa, 24 April – 10 May 2008. https://cmsdata.iucn.org/downloads/chinese_forest_delegation_study_tour_2008.pdf

^{2&}lt;sup>12</sup> SFA (2011) 中国企业境外森林可持续经营利用倡议书正式发布 (Declaration on sustainable management and use of overseas forests by Chinese enterprises is formally released). www.forestry.gov.cn/portal/main/s/586/content-490024.html; WWF (22 June 2016) 12 Chinese forestry companies commit to responsible forest management in Gabon. http://tinyurl.com/zkv64k8

funds, but also bilateral coordination in developing industrial parks, including preferential policies to address investment risks and encourage investment.

Second, while timber harvesting and trade are the core economic activities that underlie much of China-Africa forest cooperation, increasing attention should also be paid to the diverse functions of forests and forestry activities. For example, non-timber forest products with food, medicinal or industrial uses can have important economic value and support the implementation of forest protection policies. Chinese companies and the Chinese government both have extensive experience of developing value chains for non-timber forest products, so increasing attention should be paid to cooperation in this area. Both African and Chinese governments also put great value on forest ecosystem services. Given global concern about climate change, and China's growing experience with carbon forestry, there is high potential for international cooperation in the management of forests for carbon sequestration and avoidance of carbon emissions. For example, China is a member of the Forest Carbon Partnership Facility, along with 14 African nations that are included in the facility's 37 pilot countries. Sharing experience with African countries could promote the development of reduced emissions from deforestation and forest degradation in Africa.

Addressing the potential adverse impacts of Chinese investment and trade on African forest resources will also require that the Chinese government and Chinese companies strengthen their coordination with and support for forest law enforcement and governance processes in Africa. Imposing legality requirements as a condition for forest product entry to the Chinese market will be an essential building block of a solution to many of the current challenges. A Chinese national

legality verification system has begun to be drafted. However, at present, there is a lack of effective coordination mechanisms, limited understanding of Chinese trade and investment and their impacts, weak forest governance in many African countries, and weak incentives for compliance by Chinese companies. While there are a large number of Chinese small and medium enterprises engaged in forest product trade in Africa, there are a relatively small number of geographically concentrated large-scale importers to China, which implies that the transaction costs of addressing the legality of timber imports to China may not be excessively high.213

In terms of cooperation mechanisms, it can be expected that the current diverse range of economic and political cooperation mechanisms will continue to play a role in China-Africa cooperation. These will include governmental forums, such as FOCAC, as well as bilateral economic and political relations. Chinese government-backed funds, banks, stateowned enterprises and private investors will continue to provide finance for cooperation. In the future, multilateral mechanisms may also be increasingly used to support South-South forestry cooperation. Looking at the experience of China-Africa cooperation in other sectors, such as agriculture and climate change, Chinese governmental support may be linked in various ways to multilateral institutions, such as the agencies of the United Nations. China may initiate multilateral platforms for dialogue and cooperation, as seen for example in the case of the Asia-Pacific Network for Sustainable Forest Management.²¹⁴ The diversity of future governmental cooperation mechanisms will also provide diverse opportunities for non-governmental cooperation in support of common objectives between Chinese and African stakeholders.

²¹³ Huang, W et al. (2013) Who is importing forest products from Africa to China? An analysis of implications for initiatives to enhance legality and sustainability. Environment, Development and Sustainability 15(2) 339-354.

²¹⁴ APFNet, Asia-Pacific Network for Sustainable Forest Management and Rehabilitation. www.apfnet.cn

Challenges and policy recommendations for China-Africa forest trade and investment

Addressing the challenges relating to China's roles in African forest trade and investment will require action on multiple levels. The development of a Chinese timber legality verification system linked with African and international processes can be supported through bilateral and international cooperation, with support from non-governmental organisations.



China-Africa forest trade and investment relates to a number of issues, including timber legality, sustainable forest management, corporate social responsibility, and forest sector development in African countries. At the present stage of development, the lack of a legality verification system in China is paramount among these issues, as it allows both Chinese and non-Chinese companies that do not follow legal requirements to access China's rapidly growing market. This can undermine local, national and international efforts to improve forest law enforcement and governance in African countries, and is also a challenge for those Chinese companies that are attempting to adopt legal and sustainable practices, as it puts them at an unfair disadvantage in the market. The current context thus presents both challenges and opportunities for further China-Africa collaboration in improving sustainable forest management in Africa.

5.1 Main challenges

Beyond the rapid growth in forest products trade that underlies China-Africa forestry cooperation, other forms of cooperation on legality and sustainability issues remain at an early stage. Future initiatives will need to address a number of challenges relating to business practices, laws and policies and cooperation mechanisms.

5.1.1 Business practices

Illegal and unsustainable business practices:

Forest product trade involves a large number of Chinese companies, while a smaller number of companies have engaged in forest management and processing. Analysis of trade statistics and information from country case studies suggests that illegal harvesting and timber export occurs, with more widespread practice in some countries than in others. There have also been reports of some Chinese companies not complying with national forest laws in other respects. These practices are not limited to Chinese companies, and are also engaged in by some African and European companies, and in many cases also involve other national stakeholders, including government and law enforcement agencies. This situation highlights the importance of law enforcement and governance in African countries to the practices of Chinese companies.

Incentives and business risks for Chinese companies: In some African countries that have imposed bans or restrictions on log exports, data show an increase in sawn wood and other processed products. In some countries (such as Gabon), this has been accompanied by Chinese companies increasing investment in forest management and timber processing. African national forest sector policies can therefore impact on the longer-term strategies of Chinese companies in Africa; stable,

long-term forest sector policies can enable investment. However, companies can be discouraged from making investments that might increase employment and value added in African countries where governance is weak and corruption is rampant, or where systems of fees and fines are not transparent. Lack of human resources for value addition is also a common constraint, resulting in some Chinese enterprises preferring to use technicians from China, rather than hire local people. Chinese companies may also be able to realise higher financial gains from illegal or legal export of unprocessed logs than from processing and manufacture incountry. Reducing political, economic and technical constraints in the African forest sector could reduce risks and increase the potential financial returns for Chinese companies.

Corporate social responsibility: Many Chinese enterprises have limited experience of investing in African forest resources, and have limited knowledge of local culture, customs and national regulations, or of international conventions and standards. Many have failed to integrate environment and corporate social responsibility into their business management plans, and have not paid adequate attention to the voices of local stakeholders, workers, communities, media, and non-governmental organisations. Chinese enterprises have often been criticised for poor operations on these grounds, although these issues may also affect companies of other nationalities.

5.1.2 Laws and policies

Chinese government oversight of Chinese companies in Africa is limited: Although China has published several environmental and social requirements in the guidelines to influence the practice of Chinese investors overseas, these requirements have played a limited role due to the lack of incentives and effective enforcement. These guidelines are voluntary, and many Chinese companies operating in the African forestry sector are not registered with Chinese authorities in the host country. It is therefore difficult to monitor and enforce these guidelines. In addition to the forest sector guidelines, there are also guidelines to phase out investment by Chinese financial institutions in environmentally unfriendly businesses. Pursuant to these guidelines, many financial institutions supporting investments overseas have implemented internal regulations requiring environmental and social impact assessments for certain types of projects. However, the impacts of these changes in banking sector practice on forestry investments overseas is not known because investments may be made with diverse sources of finance and information on investments and their impact assessments is not made public. At present, therefore, there are few effective mechanisms available to the Chinese government to monitor and ensure that Chinese enterprises engaged in forestry

activities in Africa adopt legal and sustainable practices. In fact, relatively few Chinese companies maintain close coordination with Chinese embassies in African countries, so it is difficult to coordinate government and the private sector.

Limited knowledge of forest laws and regulations by Chinese companies and inadequate enforcement by African governments: Forest laws and regulations cover many aspects of the forest sector, including land tenure, use rights, forest management, transportation, processing and trade, as well as employment, taxation and other legal areas. These laws and regulations vary from country to country and even within countries. It is not uncommon for Chinese companies to have inadequate knowledge of and clarity on rules and requirements applicable to their operations. In addition, in many African countries, government officials may be complicit with illegal activities and unwilling to enforce laws and regulations, because corruption is rife. All of these factors impede socially and environmentally responsible forest investment on the part of domestic and foreign enterprises.

Limited linkages between FLEGT-VPA and Chinese legality verification processes: More and more countries have signed Forest Law Enforcement, Governance and Trade Voluntary Partnership Agreements (FLEGT-VPAs) with the EU. In Africa, these include Cameroon, the Central African Republic, DRC, Ghana, Liberia and the Republic of Congo. Cote d'Ivoire, DRC and Gabon are in the process of negotiating their VPAs.215 It is hoped that, once implemented, VPAs will contribute to improved forest governance and recognition of tenure rights of forest communities, help regulate the trade in illegal timber and reduce corruption. VPA processes in Africa could also support China's efforts to promote legal timber trade and overseas investment because the VPA countries are putting in place legality assurance systems and building capacity among their stakeholders for timber legality verification. China is currently developing and testing its China timber legality verification system (CTLVS). However, China's efforts to combat illegal logging haven't been well connected with VPA processes in African countries.

5.1.3 Cooperation mechanisms

Chinese and African governments lack forestry dialogue and communication mechanisms: China-Africa forestry cooperation mainly relies on the Forum on China-Africa Cooperation (FOCAC) and is reflected in MoUs, official visits, and forestry training and workshops. However, the lack of an overall and strategic China-Africa forestry dialogue and the ineffectiveness of the current cooperation system have held back forestry work on both sides. For example, forestry is not yet a priority in China's overseas aid programme, so the support available to follow through on intentions expressed in FOCAC is limited. By contrast, China has established regular forestry dialogue or working group meeting mechanisms with other countries, including Australia and the US, as well as the EU. This allows for effective bilateral communication between countries and has a positive impact on the development of forestry.

The role of civil society in promoting China-Africa forestry cooperation needs to be strengthened:

While some civil society initiatives have played key roles in engaging the Chinese government and enterprises in discussion on legality and sustainability issues, much of this work has been based on individual projects and lacks continuity. Such work could be greatly strengthened with a more systematic approach to understanding the needs of Chinese enterprises, their capacities, and their willingness to engage in capacity building to address legality and sustainability issues.

5.2 Recommendations

5.2.1 Laws and policies

At the current stage of China-Africa forest trade and investment, the biggest impact would be made by developing stringent and enforceable regulations to control illegal trade in timber, so as to reduce the negative impacts of China's trade and investments on global forests. For this, it will be important to foster synergies between international efforts to combat illegal logging and smuggling and the CTLVS development process. Improving the enforcement of Chinese voluntary guidelines and strengthening the role of financial institutions in improving the overseas performance of Chinese companies may play a supportive role.

²¹⁵EU FLECGT Facility, In Africa. www.euflegt.efi.int/vpa-africa

The Center for International Forest Products Trade of the State Forestry Administration has been working on the CTLVS development process since 2009. A greater understanding of how to develop a credible and practical timber legality verification system has been achieved through pilot testing, stakeholder consultation and international cooperation. However, these efforts are at an early stage, and the CTLVS is still at the piloting stage at the time of writing. In order to translate these insights into concrete actions for businesses, careful strategic planning is required. China needs to develop a long-term goal to combat global deforestation and forest degradation, put in place a CTLVS monitoring system and develop measures that address the consequences of non-compliance. In this way, the CTLVS could be an effective tool to encourage responsible timber trade and Chinese overseas forest investment.

In order to improve forest governance and strengthen forestry cooperation between China and Africa, efforts could begin with those countries that are major timber suppliers to China and that have signed VPAs (such as Cameroon). Linking the CTLVS to FLEGT-VPA processes would require efforts to build Chinese stakeholders' understanding of FLEGT-VPA and to connect them with those engaged in the VPA processes in Africa. FLEGT-VPA processes can help spur Chinese companies' interest in identifying legally sourced timber and take risk mitigation measures for their forest investments in Africa. Connecting with VPA processes could also provide significant resources to support China's efforts to combat illegal logging when China develops its own CTLVS. China could, in turn, strengthen VPA processes by informing VPA and other African countries about its own efforts through information sharing and capacity development. For example, China could share lessons and experience learned from its domestic forest management experience, and help African countries improve forest governance. Thereby, forest law enforcement and governance could be strengthened on both sides.

In the absence of an operational CTLVS, a variety of means are available to improve Chinese companies' understanding of and compliance with local laws and regulations and to establish environmental and social risk control mechanisms. Due to a variety of reasons (such as language limitations), many Chinese enterprises have limited knowledge of local laws and regulations, especially the latest policy updates. Host countries and their partners (for instance international NGOs) can support Chinese companies by making laws and regulations on timber harvesting, processing, transportation, trade, labour and taxation available in the Chinese language. Chinese enterprises can

also be supported to develop policies for sustainable forest management, and the management of social and environmental risks. Training and capacity building for Chinese enterprises in Africa, and dialogue with national and local forest sector stakeholders on these issues, can all assist in incremental improvements in performance. For this, needs assessments expressed through industry association platforms or through targeted research can support the development of relevant training and capacity-building activities.

The implementation of voluntary guidelines issued by the Chinese government can also help enterprises improve their compliance with laws and regulations in host countries. It is therefore necessary to provide continual training for targeted Chinese companies on applying the guidelines. The visibility of these companies' efforts to implement sustainable forest management could be strengthened by developing a robust assessment framework, with credible and transparent assessments conducted by independent third parties. At a minimum, Chinese companies that have committed to comply with the guidelines should conduct regular self-evaluations and publicly release the results.

Inspired by international standards such as Equator Principles and the International Finance Corporation's Environmental and Social Performance Standards, as well as the Chinese government's own efforts, Chinese financial institutions are developing policies to mitigate social and environmental risks associated with the investments they finance. The longer-term objective might be to introduce a green credit management system for international projects based on project categorisation and environmental and social risks and impacts assessment processes, and to improve the capacity of both financial institutions and forestry companies to conduct complex evaluations and monitoring work.

5.2.2 Forestry cooperation

The various relationships between China and Africa in the forestry sector can be supported through dialogue and cooperation.

Raise the profile of forestry in FOCAC: At

inter-governmental level, FOCAC is a key forum for dialogue and cooperation, constituting an important framework for specific follow-up actions by the Chinese government. Government and non-government stakeholders should work to ensure that forestry is high on the agenda of the next FOCAC summit, and that the meeting leads to agreed action plans to promote further cooperation. Leveraging the platform of FOCAC would contribute to increasing the profile of forestry on both sides.

Promoting diverse forms of governmental

cooperation: Coordination between Chinese and African governments on forestry cooperation should be strengthened. Concluding forestry MoUs between China and a few African countries establishes a good foundation. Establishing forestry working group mechanisms with major countries to expand the communication platform between China and Africa would also bring opportunities to China-Africa forestry cooperation. Such working groups could focus on select key topics relating to sustainable forest trade and investment. The Bilateral Forum under the US-China MoU on combatting illegal logging and associated trade provides one working example. The forum includes multiple agencies from both governments to ensure a comprehensive approach to addressing challenges presented by illegal logging and trade. On some such questions, dialogue platforms are most appropriate for increasing mutual understanding and promoting inter-governmental cooperation. On other issues, it may also be appropriate to explore opportunities for Chinese aid in the forestry sector to strengthen support for forestry agencies in African countries and provide technical support and policy recommendations on forest governance. Such initiatives may also be linked to related United Nations initiatives, such as REDD+ and the Food and Agriculture Organization, to maximise synergies between Chinese and African national and international initiatives.

Strengthening the role of civil society in China-Africa forestry cooperation. Civil society groups often play a key role in drawing attention to problems and in pioneering new approaches. For example, WWF's China for a Global Shift Initiative and its Global Forest and Trade Network (GFTN) have promoted the mainstreaming of environmental and social sustainability in trade and investment between China and other regions, including Africa. In cooperation with the Gabonese Ministry of Forests, WWF created the Union for Asian Industrial Logging Companies as a platform for bringing together Asian (especially Chinese) forestry companies in Gabon to promote sustainable forest management.²¹⁶ Such activities promoted by civil society groups can strengthen and supplement official development cooperation. NGOs have also been key actors in organising the delivery of training and other capacity-building activities for Chinese officials and companies. Developing well-funded programmes of support will ensure that the unique roles of civil society are put on a long-term footing.

 $^{^{216}} WWF, Forest\ Programme.\ www.wwf-congobasin.org/where_we_work/gabon/forest_programme$

Appendix 1.

 $Mining\ exploration\ titles\ in\ Cameroon\ owned\ by\ Chinese-owned\ companies, valid\ in\ mid-2014$

SINOSTEEL CAM LOBE (154) M. ZHENG	° Z	HOLDER	NAME OF TITLE OWNER	OWNER	REGION/ DEPARTMENT	SUBSTANCES	LAND AREA (KM²)	VALIDITY PERIOD	COMMENTS
CORETICOAST MESSENG (255) JANGXIN GEO. Central substances A71 O4/02/2014 - O3/04/2017 INVESTMENTS MESSENG (255) JANGXIN GEO. Central substances A83 O5/07/2014 - O5/07/2014 INVESTMENTS MEK (256) JANGXIN GEO. Central substances A90 O5/07/2014 - O7/07/2014 INVESTMENTS MEK (256) AMERAL DEV. CO. LTD. (China) Co. LTD. (Chinase, 90%) Co. LTD.	-	SINOSTEEL CAM	LOBE (154)	M. ZHENG ZHENGHAO	South	Iron and related substances	500		3rd renewal
SOCIÉTÉ COAST INVESTMENTS MESSENG (256) MINERAL DEV. JIANG XIN GEO- MINERAL DEV. Central Rutile and related SARL 493 05/07/2011 SARL BEK (256) MINERAL DEV. MINING SARL BP CO.LTD. (China) SARL East Uranium and related substances 490 05/07/2014 ORENTAL BOUGMA (257) MR. WANG WEI Routhwest Gold and related substances 470.3 05/07/2014 ORENTAL GADII (272) MR. WANG WEI Southwest Gold and related substances 470.3 05/07/2014 LONGSHENG CRABCOUA (283) ARN CALOPHA CAMERON SA ARN CALOPHA (Chinese, 90%) South substances South substances 56/03/2014 LOBEKE EST GAROUA (288) Guy Djouken East Gold and polymerallic 419.34 26/10/2014 (286) ANOS EST (292) ARN CALOPURI East Diamonds and related substances 669.08 16/11/2014 BATOURI BATOURI East Diamonds and related substances 669.08 16/11/2014 BATOURI East Gold and polymerallic 450 22/11/2014 <	7		LOBE II (319)	(97.5%)	South	Iron and related substances	471	04/02/2014 – 03/04/2017	Still valid
NGOLND COLID COLID Colines	က	SOCIÉTÉ COAST INVESTMENTS	MESSENG (255)	JIANG XIN GEO- MINERAL DEV.	Central	Rutile and related substances	493		Still valid
BOUGMA (257) North Gold and related 490 05/07/2011	4	INTERNATIONAL SARL	BEK (256)	CO. LTD. (China) represented by Mr. Huang Xiaohai	East	Uranium and related substances	468		Still valid
ORIENTAL MINING SARL BP MINING SARL BP MINI	2		BOUGMA (257)		North	Gold and related substances	490		Still valid
ORIENTAL MINING SARL BP CAMERON SA (283) MR. WANG WEI Grinese, 90%) Southwest related substances South substances Substances South substances Substances South substances	9		NGOUNDI (258)		East	Gold and related substances	470.3		Still valid
LONGSHENG SANGMELIMA (283) Mr. GUOHUA (283) South substances Iron and related substances 540.99 26/10/2011 - 25/10/2014 CAMEROON SA (283) Tepresented by Mr. BOULAI (284) East (304) and polymetallic (384) Gold and polymetallic (385) 26/10/2011 - 25/10/2014 LOBEKE EST (285) AYOS EST (292) Central (384) Central (384) 26/10/2011 - 25/10/2014 BATOURI (285) AYOS EST (292) East (384) Gold and polymetallic (384) 16/11/2011 - 38/11/2014 BATOURI (285) East (384) Gold and polymetallic (384) 16/11/2011 - 38/11/2014 BATOURI (285) East (384) Gold and polymetallic (384) 16/11/2011 - 38/11/2014 BODOMO (293) East (384) Gold and polymetallic (384) 16/11/2011 - 38/11/2014	2	ORIENTAL MINING SARL BP	GADJI (272)	MR. WANG WEI (Chinese, 90%)	Southwest	Gold, diamonds and related substances	500	26/09/2011 – 25/09/2014	Still valid
GAROUA BOULAI (284) represented by Mr. Guy Djouken East Gold and polymetallic substances 419.34 26/10/2011 – 25/10/2014 LOBEKE EST (285) East Diamonds and related substances 190.7 26/10/2011 – 25/10/2014 AYOS EST (292) Central Rutile and related substances 669.08 16/11/2011 – 15/11/2014 BATOURI OUEST (291) East Gold and polymetallic substances 998 16/11/2011 – 15/11/2014 BODOMO (293) East Gold and polymetallic substances 450 22/11/2011 – 21/11/2014	ω	LONGSHENG CAMEROON SA	SANGMELIMA (283)	Mr. GUOHUA ZHANG (Chinese),	South	Iron and related substances	540.99		Still valid
LOBEKE EST (285) East biamonds and related substances 190.7 (26/10/2011 – 25/10/2014 – 25/10/2014 – 25/10/2014 AYOS EST (292) Central Rutile and related substances 669.08 (669.08 (67/11/2011 – 20/11/2014	0		GAROUA BOULAI (284)	represented by Mr. Guy Djouken	East	Gold and polymetallic substances	419.34	26/10/2011 – 25/10/2014	Still valid
AYOS EST (292) Central substances Rutile and related substances 669.08 (69.08 16/11/2011 – 15/11/2014 – 15/11/201	10		LOBEKE EST (285)		East	Diamonds and related substances	190.7		Still valid
BATOURI East Gold and polymetallic 998 16/11/2011 – OUEST (291) East Gold and polymetallic 450 22/11/2011 – BODOMO (293) East Gold and polymetallic 450 22/11/2011 –	11		AYOS EST (292)		Central	Rutile and related substances	80.699	16/11/2011 – 15/11/2014	Still valid
BODOMO (293) East Gold and polymetallic 450 22/11/2011 – substances 21/11/2014	12		BATOURI OUEST (291)		East	Gold and polymetallic substances	866	16/11/2011 – 15/11/2014	Still valid
	13		BODOMO (293)		East	Gold and polymetallic substances	450		Still valid

HOLDER	EK	NAME OF IIILE OWNER	OWNER	REGION/ DEPARTMENT	SUBSTANCES	(KM ²)	VALIDII Y PERIOD	COMMENIS
		SANGMELIMA SUD (287)	HENG XING INTERNATIONAL	South	Iron and related substances	417.8	16/11/2011 – 15/11/2014	Still valid
PREMIER	IER	GAROUA BOULAI SUD (288)	COMPANY LTD represented by Mr. Guy Djouken	East	Gold and polymetallic substances	428.87	16/11/2011 – 15/11/2014	Still valid
CHOOSE MINERAL RESOLIR	CHOOSE MINERAL RESOLIRCES	BATOURI EST (289)		East	Gold and polymetallic substances	476	16/11/2011 – 15/11/2014	Still valid
CAM	CAMEROON SA	BANGBEL OUEST (261)		ADAMAOUA and East	Gold and polymetallic substances	009	22/07/2011 – 21/07/2014	Still valid
		MVANGAN (262)		South	Iron and other metals	006	22/07/2011 – 21/07/2014	Still valid
		BANDONGWE (249)		East	Gold and polymetallic substances	500	03/06/2011 – 02/06/2014	Still valid
FAMI	FAMETAL MINING RESOURES	AKONOLINGA NORD (294)		Central	Rutile and related substances	800	22/11/2011 – 21/11/2014	Still valid
CAM	CAMEROON	BOULOU		East	Gold and polymetallic substances	991.5	13/05/2011 – 12/05/2014	1st renewal ongoing
		MOMPWE		East	Gold and polymetallic substances	997.3	13/05/2011 – 12/05/2014	1st renewal ongoing
TIAN	TIAN YU MINING	KETTE (312)	MR. REN XIAOJUN (Chinese)	East	Gold and related substances	500	05/03/2014 – 04/03/2017	Still valid
CAN MEIC DEV CON	CAMEROON MEIGE MINING DEVELOPMENT COMPANY (CMMDC) LTD	MEIGANGA SUD-OUEST (329)	MR. LIU ZHONGNAN (Chinese)	ADAMAOUA	Gold and related substances	495	10/06/2014 – 09/06/2017	Still valid
INTERN, MINING COMPA	INTERNATIONAL MINING COMPANY LTD	KOUMOU (318)	SHAANXI ZHUOCHENG INDUSTRIAL CO. represented by Mr. Wang Zhong (Chinese)	East	Gold and related substances	175	26/03/2014 – 25/03/2017	Still valid

Source: EITE (2015) Rapport de conciliation ITIE au titre de l'année 2013.

Notes: SA: société anonyme (anonymous society, roughly equivalent to a public limited company); SARL: société à responsabilité limitée (limited liability company).

 $\begin{tabular}{ll} Appendix 2 \\ Chinese companies involved in infrastructure and hydropower construction in Cameroon \\ \end{tabular}$

CHINESE COMPANY	LOCATION	SECTOR	NATURE OF THE PROJECT	INVESTMENT (BILLION CFA)	DATE OF CONTRACT SIGNING	CHINESE INVESTMENT (BILLION CFA)	FINANCE FROM CHINA AS % OF TOTAL	FINANCE FROM CAMEROON AS % OF TOTAL
China Harbor Engineering Company (CHEC)	South	Port infrastructure	Deep water port in Mboro and Kribi	282	2010	225	80	
China International Electric Corporation (CWE)	East	Hydroelectric power	Lom Pangar Dam	150	2010		0	
Sinohydro Corporation	South	Hydroelectric power	Memve'ele 201MW hydropower dam / Ntem River	365	2011	270	74	
China National Electric Engineering Corporation (CNEEC)	South	Hydroelectric power	Mekin hydropower dam / Dja River	25	2011	21	85	15
China international water and electric corporation (CWE)	North West	Hydroelectric power	Menchum 72MW hydropower dam / Menchum River	191.8	2013			
China First Highway Engineering (CFHE)	Centre, Littoral	Road infrastructure	Yaoundé-Douala highway (80km)	284	2010	241	85	15
Sinohydro / China Road and Bridge Corporation / China Communication Construction Company (CCCC)	Centre	Road infrastructure	Yaoundé-Nsimalen freeway	154	2013			0
China Harbour Engineering Company	South	Road infrastructure	Kribi-Lolabé double carriageway road	215	2014	192.91	06	15
China Communication Construction Company (CCCC)	South West	Road infrastructure	Kumba-Mamfe road	98	2013	62	72	28

CHINESE COMPANY	LOCATION SECTOR	SECTOR	NATURE OF THE PROJECT	INVESTMENT DATE OF (BILLION CONTRAC CFA) SIGNING	DATE OF CONTRACT SIGNING	CHINESE INVESTMENT (BILLION CFA)	FINANCE FROM CHINA AS % OF TOTAL	FINANCE FROM CAMEROON AS % OF TOTAL
China Machinery Engineering Corporation (CMEC)	Littoral	Sport infrastructure	Modern stadiums in Douala and Yaoundé		2010			
CGC Overseas Construction Group (CGCOC) Cameroun	Littoral	Water supply infrastructure	Enhancing potable water capacities in Douala	63				
China Machinery Engineering Corporation (CMEC)	Centre	Water supply infrastructure	Water project to supply Yaoundé with 400,000m³ from Sanaga River	400	2014	339.15	85	15
Shenyang	Centre, Littoral	Construction	Social housing project Yaoundé and Douala	45	2012	33.5	75	

Source: Mala, W and Mougou, J (2015) État des lieux et problématique des investissements chinois affectant lutilisation des terres forestières au Cameroun. Unpublished report. WWF and IIED.

Note: MW: megawatts.

Acronyms

ANAPI Agence Nationale pour la Promotion des Investissements (National Promotion

Investment Agency)

APEC Asia-Pacific Economic Cooperation **BCM** Bilateral Coordination Mechanism CAF Chinese Academy of Forestry

CFA Central African francs

COMILU Compagnie Minière de Luisha (Luisha mining company) Compagnie Minière de Musonoï (Musonoi mining company) COMMUS COVEC China Overseas Engineering Group Corporation Limited

CTLVS Chinese timber legality verification system **CREC** China Railway Engineering Corporation

Democratic Republic of Congo DRC

European Commission EC

EGILAT Expert Group on Illegal Logging and Associated Trade

EITI Extractive Industries Transparency Initiative

EU European Union

Food and Agriculture Organisation of the United Nations FAO

FDI foreign direct investment

FLEGT Forest Law Enforcement, Governance and Trade

FOCAC Forum on China-Africa Cooperation

GDP gross domestic product

hectares ha

IIED International Institute for Environment and Development

MOF Ministry of Finance **MOFCOM** Ministry of Commerce

Ministry of Foreign Trade and Economic Cooperation (now Ministry of Commerce) MOFTEC

MOST Ministry of Science and Technology memorandum of understanding MoU

MW megawatts

NGO non-governmental organisation **OFDI** overseas foreign direct investment **PRC** People's Republic of China

Registre du Commerce et du Crédit Mobilier (trade and personal property credit register) **RCCM** REDD+ reducing emissions from deforestation and forest degradation, plus conservation, sustainable

management of forests and enhancement of forest carbon

RWE roundwood equivalent

Sino-Congolaise des Mines (Sino-Congolese mining company) Sicomines

société anonyme (anonymous company) SA **SAFE** State Administration of Foreign Exchange

SAT State Administration of Taxation

société à responsabilité limitée (limited liability company) SARL

SFA State Forestry Administration

SPRL société privée à responsabilité limitée (private limited liability company)

US United States of America

VPA Voluntary Partnership Agreements **WWF** World Wide Fund for Nature

Related reading

Weng, X. and Buckley, L. (eds) (2016) Chinese businesses in Africa: perspectives on corporate social responsibility and the role of Chinese government policies. IIED, London. http://pubs.iied.org/17581IIED

Weng, X. (2015) Recognizing informality in the China-Africa natural resource trade. IIED, London. http://pubs.iied.org/17286IIED

Sun, X *et al.* (2014) Chinese views of African forests: evidence and perception of China-Africa links that impact the governance of forests and livelihoods. IIED, London. http://pubs.iied.org/17569IIED

Chang, Y and Peng, R (2015) Timber flow study: export/import discrepancy analysis China vs. Mozambique, Cameroon, Uganda and DRC. IIED, London. http://pubs.iied.org/13579IIED

China's investment and trade in Africa's natural resource sectors have significant implications for Africa's forests. Many investments are in forest areas. Some directly engage in logging while others, such as mining, infrastructure and agribusiness, affect forests and rural livelihoods. This report provides an overview of trends, evidence and issues related to the impacts on forests of Chinese investments in four African countries: Cameroon, Democratic Republic of Congo, Mozambique and Uganda. It explains Chinese overseas investment policies and presents data on trends in forest-related trade and investment in these four countries. It highlights issues of concern and opportunities for engaging with Chinese and African stakeholders to support improved forest governance.

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