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Green Dreams: Myth and Reality in China's Agricultural Investment in Africa

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ABSTRACT *What role does China play in the recent rush for land acquisition in Africa? Conventional wisdom suggests a large role for the Chinese government and its firms. Our research suggests the opposite. Land acquisitions by Chinese companies have so far been quite limited, and focused on production for African consumption. We trace the evolution of strategy and incentives for Chinese agricultural engagement in Africa, and examine more closely several of the more well known cases, sorting out the myths and the realities.*

In the first two decades of the 21st century Brazil, Russia, India and China (BRIC) emerged as highly visible traders and investors. This visibility was particularly noted in the rush of interest in agricultural investment following the global commodity price spike in 2008. A cycle emerged whereby news reports of foreign investor interest were collected in media-based databases, which became solidified in a conventional wisdom that the governments of certain countries—in particular, China and several Middle Eastern states—were attempting to secure large tracts of land in Africa to ensure their own food security.

This article analyses this cycle though a focus on China in Africa, where there is little direct evidence to support this conventional wisdom. It proceeds in several steps. First, we identify the initial, influential media reports of Chinese interest in African farmland. We then identify the ways in which these media reports were solidified in a conventional wisdom, and repeated uncritically by significant policy makers and respected scholars. Following this, we briefly outline the Chinese government's policies towards outward investment in agriculture, the history of agricultural engagement, and existing data on Chinese agricultural investment in Africa.[1] We follow this by several case studies in which we contrast the perception of large-scale land acquisition with the reality on the ground.

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Our argument makes four key points. First, there is as of yet no evidence of a coordinated Chinese government effort to obtain land in Africa, for food security or for other agricultural investment. However, and second, a small number of Chinese agribusiness companies did pursue land acquisitions in Africa as part of China's general 'going global' surge of trade and outward foreign investment (these are the 'green dreams' of the title). In most cases the amounts of land at stake in these negotiations were far smaller than reported, and the projects themselves were either commercial, import-substitution production (mainly rice and sugar), or biofuels (oil palm, jatropha). Third, for a combination of political and economic reasons, this interest has not, so far, translated into significant land acquisitions in Africa. Finally, the key role of African agency—investors and governments—in this process has seldom been acknowledged. In the dominant narrative Africa and Africans appear primarily as passive bystanders, even victims, not active agents.

Sub-Saharan Africa contains multiple areas where large-scale agricultural investments could be risky for local people. Protection of poor people's property rights is inadequate in many countries, and women are especially at risk. These concerns have been behind the attention given to compiling lists of 'land grabbers' in Africa, lists that have (often erroneously) featured Chinese companies as large-scale, new investors. Our own research depends primarily on fieldwork conducted between 2007 and 2013 in China and a number of African countries, including the Democratic Republic of Congo (DRC), Ethiopia, Malawi, Mozambique, Republic of Congo, Sierra Leone, Sudan, Tanzania, Zambia and Zimbabwe. We supplement this fieldwork through interviews, secondary research by other scholars, and a careful review of information on the internet in Chinese, French, Portuguese and English. Our case studies join a new wave of scholarly literature that has criticised the methods employed by the media-based 'land grab' databases, the lack of attention to national investors, and the absence of agency on the part of host governments.[2]

How conventional wisdom was built

China's rise as a global investor country coincided with the global price increases of food, oil and many other commodities in 2007 and 2008. An intense media interest in China's role as an emerging investor, in the context of concern over global food security, led first to a spate of newspaper articles, blog postings and media reports. Many of these reports contained significant errors (discussed below) but were nonetheless circulated uncritically and became the foundation for databases and, later, scholarly analyses.

Media reports

One of the earliest reports appeared on the Swiss International Relations and Security Network website in August 2007.[3] The author, then a student in Singapore, claimed that 'Beijing and Maputo' had signed a Memorandum of Understanding (MOU) in 2006 to build 'a massive agricultural project in the Zambezi river valley' that would bring in 'as many as 20 000 Chinese settlers' to run farms 'to supply the ever more affluent Chinese market.[4] In April 2008 French television visited what they said was a 10 000 hectare (ha) Chinese farming project in Cameroon, claiming that the investors wanted to ship their rice production back to China.[5] The Associated Press published a story in May 2008 with the title: 'China farms the world to feed a ravenous economy'.[6] The article claimed: 'In the Democratic Republic of the Congo, a Chinese telecommunications giant, ZTE International, has bought more than 7 million acres of forest to plant oil palms. In Zimbabwe, state-owned China International Water and Electric Corp reportedly received rights from the government to farm 250 000 acres (101 174 ha) of corn in the south.'[7] The DRC story was repeated in an article on agricultural outsourcing in *The Economist* in July 2009, and this was cited by a number of researchers.[8] We discuss all these stories as case studies below.

It did not take long for the first collections and analyses of these media reports to appear, usually on websites hosted by think-tanks and NGOs. In October 2008 an NGO, GRAIN, published its first analysis of land-grabbing based on media reports.[9] The words 'China' or 'Chinese' were mentioned 47 times in the paper, mainly as one of a group of countries whose chief goal was to 'outsource their domestic food production by gaining control of farms in other countries'.[10] The analysis also claimed (erroneously) that the Chinese government had established a $5 billion fund to allow Chinese companies 'to invest in African agriculture'.[11]

By 2012 two major, international databases on 'land grabs' existed, along with two papers containing lists of Chinese 'land grabs' in Africa. GRAIN published its own collection in February 2012, assembling 400 alleged deals.[12] In GRAIN's database 15 African projects were reported to be Chinese, at various stages of commitment, involving 393 940 ha of land. A more ambitious effort was set up by a coalition of research institutions and NGOs that established the Land Matrix, a sophisticated online system to allow media reports of investor interest in land to be verified through 'crowd-sourcing'. The Beta version of the Land Matrix was started in 2009 and launched publicly at a major World Bank conference in 2012. It listed nine allegedly 'verified' Chinese 'deals' (including mining and other land-intensive investments) in Africa, covering a total of 3 131 491 ha.[13] In March 2012 the *Journal of Peasant Studies* published an article containing a different list of 'Chinese investments', including 55 African projects, many without an indication of size.[14] Finally, a paper published in 2012 by the Canadian International Institute for Sustainable Development (IISD) contained a list of Chinese overseas 'investments' in agriculture that counted 17 'confirmed' Chinese investments in Africa, totalling 463 000 ha.[15] Several bloggers immediately criticised the initial Land Matrix data as problematic, pointing to specific 'investments' that were included as originally described by media sources, even though they had later been thoroughly investigated and found to be significantly smaller, abandoned, never to have proceeded beyond an initial expression of interest or, sometimes, never to have existed at all.[16] Yet the (very) large discrepancy among these sources did not attract any attention from the media.

Therefore, by 2012, a misleading image of Chinese agricultural engagement in Africa appeared to have solidified in the public mind: the Chinese were very actively acquiring large amounts of farmland in Africa. The Chinese government was leading the effort, using its state owned enterprises (SOEs) and sovereign wealth funds. The purpose was to secure food for China's own food security. In August 2012 the chief economist of the African Development Bank posted a blog entry that reflected this belief. Referring to the April 2012 launch of the Land Matrix database, he commented: 'At a recent World Bank-organized conference, China was identified as the biggest land grabber in the world *and in Africa*'.[17] This conclusion was also echoed in a quasi-scientific article based on the Land Matrix 'data' and published by the prestigious US National Academy of Sciences.[18]

Fieldwork-based critiques of the 'Chinese land grab' discourse

Parallel to the efforts to compile lists of Chinese agricultural investments by the media, several researchers travelled to Africa to investigate these emerging reports in the field. In 2009 the Food and Agriculture Organization (FAO) sponsored a study on 'land grabs' by the London-based International Institute for Environment and Development (IIED), which drew on fieldwork in China, Ethiopia, Ghana, Madagascar, Mali, Mozambique, Tanzania and Zambia.[19] The IIED authors cautioned that, although there was clearly Chinese interest in agricultural investment, the conventional wisdom appeared to be incorrect: 'A common external perception is that China is supporting Chinese enterprises to acquire land abroad as part of a national food security strategy. Yet the evidence for this is highly questionable.'[20] The researchers also pointed out that 'as yet, there are no known examples of Chinese land acquisitions in Africa in excess of 50 000 hectares where deals have been concluded and projects implemented'.[21]

A book by one of the present authors, as well as a co-authored article published in *China Quarterly* in 2009, raised serious questions about some of the stories being accepted as conventional wisdom, including the idea that the Chinese had pledged to invest $800 million into rice in Mozambique and/or to bring in Chinese settlers, an alleged 101 174 ha Chinese maize farm in Zimbabwe, and the reported three million ha size of the DRC oil palm project.[22] Researchers at the Center for International Forestry Research (CIFOR) also conducted fieldwork in Africa to investigate large-scale farmland acquisition.[23] Their investigations, published in 2011, further confirmed that two of the most widely circulated stories (the 'Chinese' request for two million ha in Zambia, and the 2.8 million ha 'acquisition' in the DRC) were far smaller in reality than the media reports (see Table 1).[24] They concluded: 'China is not a dominant investor in plantation agriculture in Africa, in contrast to how it is often portrayed'.[25]

Much of this field research was available, on the internet, to organisations like GRAIN or the Land Matrix that were (justifiably) concerned with large-scale land acquisitions. Yet the almost exclusive focus on media reports and, in many cases, the mission of the organisation, meant that there was little investigation or follow-up on the initial 'land grab' reports before they were published,

TABLE 1. MOFCOM-approved Chinese farming investment proposals, Africa

Country	No of Chinese companies (total)	No of Chinese companies, farming sector	Grain crop (corn, rice, cassava, etc)	Cash crop (sisal, sugar, rubber, etc)	Livestock (chickens, eggs, etc)
Zambia	158	16	16	10	16
Zimbabwe	81	7	4	7	3
Nigeria	270	6	4	4	4
Sudan	83	6	4	6	2
Mozambique	58	6	3	4	1
Tanzania	112	5	1	5	1
South Africa	175	4	2	3	3
Mali	37	4	1	4	
Kenya	91	3	2	3	1
DR Congo	89	3	3	3	
Cameroon	36	3	2		3
Ethiopia	130	2	1	2	1
Ghana	115	2	1	2	
Angola	102	2	2	1	1
Rep of Congo	36	2	2	2	2
Gabon	26	2	2	2	2
Madagascar	26	2	1	1	
Liberia	24	2	2	2	2
Egypt	109	1			1
Uganda	57	1	1	1	1
Mauritius	45	1		1	
Togo	30	1		1	
Sierra Leone	29	1		1	
Benin	26	1		1	
Eq Guinea	20	1	1	1	
CAR	7	1	1	1	
Malawi	6	1		1	
Totals	2372	86	56	69	44

Note: The total number of Chinese companies includes those across all sectors, in all African countries. From these totals we identified the companies that are directly involved in grain or cash crop cultivation and animal husbandry and only include those countries. We do not include firms solely involved in agricultural trade, including those that do not have direct production, but provide credit to smallholders and purchase their crops. Some firms are simultaneously involved in two or three farming activities.
Source: Ministry of Commerce (MOFCOM), People's Republic of China, Beijing, 2013.

becoming 'data' for others to analyse.[26] To be sure, these organisations had their own missions. In the case of GRAIN the organisation explained that it had specifically tried to attract attention to investor interest 'before the grabs happen', in the hope that activists could protest and derail the investment, and academics use the reports as a starting point for further investigation.[27] The Global Land Matrix desired to create a public tool, using community knowledge and crowdsourcing to raise awareness, while also verifying and amplifying reports.[28] The GRAIN database and the Global Land Matrix were also continually updated. Yet the nature of knowledge circulation is such that the first papers written on the initial analysis of (problematic) data often have much greater impact than papers written later, with revised and better data.[29] As one set of scholars has warned: 'the rapidity of easy access to "data" and the dangerous allure of Google have facilitated the recycling of facts long after their sell-by date'.[30] This is clearly the case with many of the 'facts' about Chinese engagement in agriculture in Africa.[31]

Chinese engagement in agriculture in Africa: an overview

China has been involved in agriculture in Africa since the 1960s. The Chinese government has featured agricultural technology transfer as a central component of its aid programme. As part of China's turn to the market in the 1980s, state-owned companies that had built state-owned farms and plantations for African governments often returned to manage them. In the 1990s these companies and others began to lease state-owned farms being privatised under structural adjustment programmes. By the new millennium the Chinese government had developed policy guidelines for outward investment in a number of sectors. Agricultural cooperation was one of the keystones of China's commitments under the Forum on China–Africa Cooperation and the January 2006 White Paper on China's Africa Policy. We elaborate on these below.

The origins of Chinese engagement in African agriculture: foreign aid

China's aid programme in Africa has always emphasised agriculture, a sector where Chinese expertise and African interest coincided.[32] The early years of the aid programme featured help for socialist governments in Africa to construct large, state-owned farms. In 1965, for example, Tanzania received Chinese help to build the Ruvu State Farm, 2834 ha of mixed farming, while Chinese technicians also built the Mahonda State Sugar Cane Farm on the island of Zanzibar, and the 5575 ha Mbarali Rice Farm Mbaye, which also featured poultry, dairy, hydropower and a rice mill.[33]

Large state farms became less frequent in the 1970s and 1980s, when Chinese teams began to take over agricultural projects abandoned by the Republic of China (Taiwan) when African countries switched diplomatic ties from Taipei to Beijing. By the end of 2009 Chinese teams had built at least 142 agricultural farms and demonstration centres for African governments, in 44 African countries, involving the development of a total of 61 500 ha.[34] Despite the political importance of agriculture, the Chinese found that it was hard to achieve sustainability for their rural projects. The World Bank, for example, reported a failure rate of 50% for its African rural development projects between 1965 and 1986.[35] The Chinese had similar difficulties.

During the 1990s the Chinese reformed their aid programme to enhance sustainability.[36] Turn-key projects with production potential could become joint ventures, rather than simply be given back to the host government, where they had generally failed to thrive.[37] In 2002 China's then vice minister in charge of foreign aid, Wei Jianguo, told a seminar encouraging Chinese agricultural investment in Africa that 'China–Africa agricultural co-operation in the new century *must be conducted by enterprises* and should be market-oriented'.[38] In agricultural aid the most visible sign of this new emphasis emerged in the launch of more than two dozen agro-technology demonstration centres across Africa. Chinese teams had built many agro-technology demonstration centres in past decades, only to watch them fail to be sustained. In 2006 they decided to experiment with a different model: getting Chinese companies and institutes, generally selected via a competitive tender system in China, to build and operate the centres for at least three years under a Chinese grant. During this time the companies were encouraged to seek out ways for the centres to earn income and become self-financing. They were also encouraged to investigate other business opportunities. Most centres were fairly small, less than 75 ha in size. In at least two cases, Cameroon and Mozambique, implementing companies have also made farming investments on their own.

Chinese investment in African agriculture: history and incentives

Chinese companies have been investing in agriculture in Africa since the mid-1980s. As China turned towards the market domestically, Chinese companies in Africa were encouraged to seek new sources of income. Most had arrived in Africa to carry out foreign aid projects, although some were sent by their parent companies to explore investment opportunities in agriculture, forestry and fisheries.[39] In the late 1980s and 1990s Chinese companies sought to lease several of the old Chinese aid projects that were being privatised under structural adjustment programmes: Segou sugar complex in Mali, Magbass sugar complex in Sierra Leone, Koba Farm in Guinea, Mpoli Farm in Mauritania, and so on. China State Farm Agribusiness Group (CSFAG) invested in two colonial-era sisal farms in Tanzania and began new agricultural investments in Zambia in 1989. By the new millennium CSFAG had seven agricultural investments in southeast Africa and West Africa, worth 290 million yuan (or roughly US$35 million).[40] These investments have continued in a pattern that has emphasised acquisitions of existing farms, as well as new, green-field investment. The largest Chinese agricultural acquisition in Africa occurred in 2008, when Chinese SOE Sinochem bought 51% of a Singapore rubber company, GMG Global. GMG Global had long term leases on rubber plantations in Cameroon and Côte d'Ivoire. Its largest concession comprised 41 000 ha in Cameroon (less than half under cultivation).[41]

The Chinese government has programmes to encourage agricultural investment overseas, although most of these are components of larger programmes promoting 'going global' across a number of sectors. Agriculture was included in the 'going global' programme as early as 2005, when the Ministry of Finance announced the establishment of special funds available to promote outbound foreign investment.[42] The Ministry of Agriculture and the China Development Bank signed an agreement in 2006 to work together in five areas, including development of projects using overseas land and water.[43] China Eximbank signed an agreement with the Ministry of Agriculture in 2008 to promote overseas investment in agriculture using export seller's credits and investment loans. In June 2010 China's top state-owned agribusiness group, China National Agricultural Development Corporation Group (CNADC) and the China–Africa Development Fund set up a joint venture, China–Africa Agriculture Investment

Co, Ltd (CAAIC). Funded at 1 billion yuan ($161 million), CAAIC was intended to be a platform to promote China's farming, fishing, animal husbandry, livestock, and agro-processing and marketing investments in Africa.[44] China's 12th five year plan (2011–15) encouraged Chinese firms to build productive capacity in developing countries with comparative advantage in agriculture, as part of the 'going global' strategy.[45] While most of these incentives were directed to state-owned firms, in 2010 the government announced that it would encourage private firms in the 'going global' effort.[46] Two years later China's State Council published notices outlining the new regulations for including private firms in the 'going global' framework.[47] Again, agriculture was included in the sectors eligible for special funds for foreign economic and technical cooperation.[48]

The focus of these incentives on Sino-African trade has yet to be felt. Chinese imports of African agricultural commodities are still relatively modest, and focused on agro-industrial imports: raw cotton (Burkina Faso), and tobacco (Zimbabwe). Indeed, some African countries import grain from China, including Eritrea, which is the second largest destination of Chinese maize exports. In 2011 African countries imported 101 968 metric tonnes (mt of cereals (wheat, rice, maize, etc) from China, while China imported less than one mt of cereals from Africa.[49] However, Chinese imports of oilseeds (mainly sesame seed from Ethiopia and groundnut from Senegal) are larger, with 366 954 mt imported into China from Africa in 2011, with a value of $489 million.[50]

According to China's State Council, as of the end of 2011, 2.5 per cent of the stock of China's foreign direct investment in Africa was in agriculture, which includes farming, forestry, animal husbandry, and fisheries, a total of $406 million.[51] For 2012, the annual figure was reported to be $82.47 million. However, we do not know the proportion of this that comes from farming alone. We include several estimates of the number of firms and the value of their investments, derived from surveys and from MOFCOM investment approval data. A survey done in 26 Chinese provinces and municipalities by the Foreign Economic Cooperation Centre of the Ministry of Agriculture estimated that, by the end of 2007, the average assets of medium-scale Chinese outward agricultural investments were about $2 million per company, with large-scale firms averaging about $10 million in assets per company.[52] We use this data to make estimates of the overall value of Chinese farming investments.

MOFCOM retains a database of approved Chinese overseas companies' investment proposals.[53] According to these data, there were 2372 African investments approved for medium and large-scale Chinese companies as of March 2013. Of these, 212 were somehow related to agriculture (grains, cash crops, animal husbandry, fisheries, forestry, agro-processing and commodity trade) in 37 African countries. Only 86 out of 2372 approved proposals were specifically related to farming (production of grains, cash crops or animal husbandry) in 27 African counties (see Table 1). The top four African countries for approved Chinese farming proposals—by number, not value—were Zambia (16), Zimbabwe (7), Mozambique (6), Nigeria (6) and Sudan (6). Not all of these approved proposals will be realised. Our fieldwork in Zambia and Zimbabwe showed that, as of June 2013, out of 16 farming investment proposals approved by MOFCOM for

Zambia, only eight were in operation, and some of these were very small. In Zimbabwe only two out of seven were actually producing, while other Chinese firms approved for farming were only operating as purchasers of cotton and tobacco. There are likely also to be some small investments under the minimum size for approval, and possibly other large acquisitions (such as Sinochem's GMG Global investment) that will not show up in the Africa data, as they were approved as investments in non-African countries, in this case Singapore.

Based on these numbers, we can say that the value of (approved) Chinese investment in farming in Africa is likely to be somewhere between \$172 million (86 projects, at \$2 million each) and \$488.5 million (\$406 million as of end-2011, plus the additional \$82.5 million in 2012). The lower average may be the more realistic figure. Researcher James Keeley reported that in 2008, in one country, Zambia, a total of 23 Chinese farming investment proposals had been approved by the Zambian authorities, many from large state-owned enterprises. The total projected value was \$10 million (or \$435 000 per farm on average).[54]

This overview of Chinese data on Chinese companies and state incentives suggests several things. Chinese companies are interested in investing in farming in Africa. Yet the number of firms is small compared with companies in other sectors. Their investments are also still fairly small, with the exception of leasing existing plantations in places like Cameroon, Mali and Sierra Leone, and several newer farms in Zambia.[55] The new policies may foster additional interest by Chinese private firms in Africa investment. Yet risks remain high.

Case studies: investigating myth and reality in Chinese agricultural investments in Africa

In this section we review the evidence on several of the widely publicised cases that have featured on various 'land grab' lists. The case studies below illustrate the risks of agricultural investment, while also shedding light on several of the reasons why reality differs from the conventional wisdom.

Cameroon: Sino-Cam IKO

In the introduction we provided the case of the '10 000 ha Chinese rice investment' in Cameroon, visited by a French television crew who said that the Chinese were shipping the rice they produced back to China. Another French article, entitled 'Chinese raid on Cameroonian land,' predicted that the 'Chinese conquest of African farmland' would provide a solution for millions of Chinese peasants deprived of their land. 'In Cameroon', the article predicted, 'the Chinese could eventually control the chain of cereal production'.[56] These ominous statements need to be juxtaposed with a more complex reality.

What the television crew actually visited was a 120 ha rice demonstration centre near Nanga Eboko originally established as a foreign aid project by Taiwan in the 1960s, later abandoned, but brought back into production by a team of 10 agriculturalists from a state-owned company in Shaanxi Province.

Shaanxi Agriculture Group (SAG) arrived in 2005 at the invitation of the Minister of Agriculture of the Government of Cameroon, who had visited China.[57] SAG set up a subsidiary, Sino-Cam IKO (also known as China–Cameroon Yingkao Agriculture Development Co, Ltd), a subsidiary of Shaanxi Overseas Investment and Development Co, Ltd.

The Chinese firm (not the Chinese government) signed an MOU with the Cameroonian government. They obtained provisional agreement to acquire up to 10 000 hectares of land: 6000 hectares in Nanga Eboko and 4000 hectares in Santchou in the West Region, and they pledged to invest $60.5 million.[58] On the strength of this they set to work in 2006 testing rice and maize varieties at the old Taiwanese farm. In 2008 the company was selected to build one of the agro-technology training and demonstration stations pledged for Africa at the 2006 summit of the Forum on China–Africa Cooperation (FOCAC). With the agreement of the Cameroonians it built the station at Nanga Eboko. This reversed the original model, which was that the centre would serve as a springboard for further investment.

Another French team visited the station in 2010, writing an article with the title, 'When Cameroon feeds China'. This led with the sentence: 'The Cameroonian government has ceded land to an Asian enterprise that exploits local peasants to cultivate rice destined for China'.[59] The reporters interviewed the acting director of Sino-Cam IKO, who told them that 'the rice we produce is destined for consumption in Cameroon'. He said that the MOU the Chinese firm had signed in 2006 specified that all the rice would be milled and sold locally.[60]

The French reporters decided to believe local activists who showed them bags of rice for sale in the market of Nanga Eboko covered with Chinese characters. This, the activists argued, was proof that the rice was meant for the Chinese market, not Cameroon. At present, they said, volumes were too low for export: 'When they can fill a boat, the rice will leave for China'. Rice, they predicted, will 'follow the trail of bananas and cotton'. Yet this left unanswered a fundamental question: why would businessmen decide to come to Cameroon to produce rice and ship it to China, where rice prices are controlled by the government, and rice sells for about 44 US cents per kilo, when Cameroon was importing 500 000 metric tons of rice a year from Asia at a market price of 79 cents a kilo?[61]

Several field investigations during 2010 noted that the company still had not been able to obtain final authorisation for any additional land beyond the old Taiwanese-aided farm.[62] The farm manager complained to a journalist that it had implemented its side of the MOU, but that the Cameroonian government was waiting an inordinate amount of time to approve the transfer of land for large-scale rice production. After working for four years at the Taiwanese farm and building a training centre that could serve 300 agriculture students, 'we only have 100 hectares. We have also been exploited.'[63] In 2011 Cameroon's imports of rice rose by over 35% yet, as one study pointed out, '90% of land suitable for rice-farming remains unutilized'.[64]

Democratic Republic of the Congo: ZTE and oil palm

One single project accounts for most of the hectarage on lists of Chinese 'land investments' in Africa: the ZTE (Zhongxing Telecommunications, one of China's premier telecoms companies) alleged purchase of as much as three million ha in the DRC.[65] The size of the alleged transaction towers over that from any other company. As in the Cameroon case, there is a substantial core of reality to this story—yet far less than suggested by the headlines.

ZTE had been active in the DRC as a telecoms firm since 2000. Rumours about its interest in oil palm investment arose in May 2007 in local Congolese papers. One reported that ZTE desired to invest 'one billion dollars' in an oil palm biofuels venture estimated to cover '3 million hectares'.[66] Several months later, the project was approved by the DRC Council of Ministers, but only for 100 000 ha—a very large concession, but less than 4% of the figure discussed in the media.[67] Furthermore, no land was ever actually allocated for this project. Yet in 2008 a figure of '7 million acres' (about 2.8 million ha) was circulated in an Associated Press report on Chinese land investments globally (the reporters did not appear to have visited the DRC).[68] This story, published in the *International Herald Tribune* and other major papers, is the one usually cited as a source for this project.

How much land did ZTE *want* to acquire? ZTE officials made several confusing statements about their intentions, at least as reported in English translations. In 2009 an official from ZTE Agribusiness spoke of the company's plans to acquire a total of one million hectares of agricultural land overseas within 10 years, with a focus on Indonesia and Malaysia.[69] The same year, in a July 2009 interview with China's news agency Xinhua, ZTE's Africa regional manager, Zhang Peng, claimed that its planned project in the DRC alone would be 'one million ha'.[70] The Chinese ambassador said that the project would be 300 000 ha.[71] The convention signed in November 2007 specified 'at least' 100 000 ha.[72]

ZTE was clearly interested in investing, sending at least two separate delegations to discuss the project with the DRC's Ministry of Agriculture.[73] However, as of May 2013, the ZTE oil palm project remained moribund and there was no longer a mention of it on the website of ZTE Agribusiness. The company had invested in oil palm in Indonesia and Malaysia and, as of 2010, was reporting that it was exploring opportunities in West Africa. In Beijing Chinese officials commented privately to the authors that ZTE believed the transport costs would be too high in the DRC to make the project profitable.[74] Instead of 100 000 ha of oil palm, ZTE had established a much smaller area of 256 ha producing maize, soy, meat, chicken and eggs.[75]

Mozambique: 'China's rice bowl'?

At nearly the same time as the DRC story of ZTE Agribusiness began to circulate, another tale arose with a focus on land grabbing, Chinese settlers and huge investments in Mozambique. Like the story of China acquiring 3 million ha in the Congo, the widely circulated Mozambique tale would later be revealed to be largely a myth. Yet it was enormously influential, appearing in most of the 'land grab' databases in 2009, and referenced uncritically by a number of other overviews.

In Mozambique the storyline alleged that China was 'aggressively' seeking 'large land leases' in the Zambezi river valley, and that the Chinese and Mozambican governments had signed an agreement for Beijing to grow rice on a very large scale in Mozambique to ship back to China (since Mozambicans allegedly ate little rice).[76] Beijing would bring in tens of thousands of Chinese farmers. According to this story, 'local outrage' allegedly scuttled those plans, but the Chinese government nevertheless intended to move forward with an $800 million investment to modernise the rice sector in Mozambique. The story was summarised in 2008, in a report by GRAIN:

> According to a study by Loro Horta, the son of Timor L'Este's President Ramos Horta, the Chinese government has been investing in infrastructure development, policy reform, research, extension and training to develop rice production in Mozambique for export to China since 2006. Eximbank has already provided a loan of US$2bn and pledged an additional US$800m for these works, though more is expected. Some 10 000 Chinese settlers will be involved.[77]

Rather than a well researched study, the source of this story was a brief report that had appeared in different form—without any fact checking—on two think-tank internet websites. The author, a student who had lived in Mozambique as a child, apparently did not visit Mozambique for this research. Researchers who did visit Mozambique to investigate the story further in 2009 and 2010 were unable, over a collective period of months, to find anyone who had even heard of its central claims: the pledge of $800 million, an agreement between Beijing and Maputo to bring in Chinese settlers, or public outrage or opposition to such a reported plan.[78] (The alleged loan of US$2 billion was not about rice, but part of an early negotiation for a Chinese bank to finance, and a Chinese firm to build, a large dam and hydropower project desired by the Mozambicans. This did not materialise.)

As noted above, the IIED study sponsored in 2009 by the FAO raised questions about the Mozambique story—that China was negotiating for land as part of a food security strategy—saying: 'the accuracy of these reports is hard to verify'.[79] A scholarly article published in 2013 dismissed the story: 'Contrary to hyperbolic claims in the international media (Horta, 2008…) China's role in the Mozambican land grab is so far primarily indirect, operating via its demand for raw materials…Secondly, the production of staple grain crops to ensure home country food security is not a major driver of Mozambican land deals.'[80]

In fact, as one researcher noted, rather than China 'aggressively' seeking large land leases, 'the now abolished Zambeze valley office (Gabinete de Promoção do Vale de Zambêze, or GPZ) tried hard to get Chinese investment and failed'.[81] Indeed, the Mozambican government was eager to grant concessions to investors, as a 2012 Oakland Institute study showed. Between 2004 and 2009 over 2.5 million ha were granted to foreign investors, mainly from Europe and South Africa; Chinese investors were conspicuous only by their absence.[82]

On the other hand, as in the Cameroon example above, it is clear that increasing the production of rice was of interest to Mozambique. The original story made an important, but erroneous, assumption, arguing that 'Mozambique's increased rice production is clearly destined for export to the Chinese market, since the staple accounts for just a tiny fraction of the Mozambican diet.'[83] Annual rice consumption in Mozambique was in fact over 500 000 mt and in 2006 the country imported 382 300 mt of milled rice.[84] 'Rice', noted the International Rice Research Institute, 'is considered a strategic crop in Mozambique where it is expected to contribute to ensuring food security in the country'.[85]

The question of agency arises particularly strongly here. The conventional wisdom presented Mozambique as a passive recipient of Chinese demand for land. In actuality Mozambican policy makers had a goal to revive the country's historic experience of irrigated rice production under the Portuguese, becoming self-sufficient and moving into rice exports. Mozambique identified four rice production clusters (Xai-Xai, Beira, Quelimane and Nampula), in which private investment, improved seeds, and research and extension would be the pillars of the strategy. A number of foreign partners agreed to assist with this goal, including the Bill and Melinda Gates Foundation, the International Rice Research Institute and bilateral donors, including the Chinese.[86]

China's Hubei Province Farming Bureau sent a delegation to Mozambique in 2005. Directed by the Mozambican government, they visited several spots, including the 12 000 ha Xai-Xai production cluster in Gaza Province, far from the Zambezi River. Gaza Province arranged to set up a joint venture with Hubei Province, offering 1000 ha of disused, colonial-era, irrigated rice fields for Hubei to set up a demonstration farm.[87] The first stage of the Hubei–Gaza Friendship Farm was approved in 2007, with an estimated cost of $1.2 million.[88] In October that year Hubei Province Farming Bureau also won a tender held in Beijing to build one of the agro-technology demonstration centres pledged through the 2006 FOCAC.[89]

The demonstration centre, near the capital, Maputo, was completed in 2011, the same year that the Hubei–Gaza Friendship Farm completed the rehabilitation of 100 ha of irrigated rice. Yet the Hubei company found it difficult to carry out its agreed cooperation tasks.[90] Hubei was joined by a private Chinese grain processing and marketing company, Xiangyang Wanbao Grain and Oil Investment Group, which agreed to invest RMB10 million ($ 1.6 million) to develop another 333 ha of rice, and to test soybeans, vegetables and other cash crops. If all went well, it hoped to be able to expand to 100 000 mu (6667 hectares), while offering (paid) technical assistance to local farmers to develop 20 000 ha of irrigated rice.[91]

In 2012 researchers visiting the farm reported that Wanbao was now in charge of the project, and that local people had raised concerns about displacement, resettlement and competition for water use if the expansion occurred.[92] Despite discouraging results from the earlier phase, Wanbao and Gaza province officials remained optimistic that the company would be able to produce rice profitably. In 2013 the company announced a five-year plan to expand to 8000 ha of rice and an additional 2000 ha of sugarcane, while also setting up an agro-processing cluster.[93] Meanwhile, the establishment of a Brazilian–Japanese–Mozambican plan, ProSavana, to create a multi-use plan for 14 million hectares of land in Mozambique's Nacala corridor, shifted attention toward a different set of external actors with apparently far larger ambitions.[94]

Zimbabwe: CIWEC's ill-fated contract

In May 2013 the 'revised' Land Matrix database contained an entry for an alleged 'Chinese' land investment of 101 171 ha in Zimbabwe.[95] In various forms over the years this figure has appeared in a number of reports.[96] For example, a story on the Voice of America quoted a think-tank expert who said: 'There are a lot of Chinese farmers there now tilling Zimbabwean soil growing crops that are sent back to China while the people of Zimbabwe starve'.[97] The article described the project as 'a quarter of a million acres' leased by China 'for the growing of maize, which it exports back to China'. However, the reality of this story turned out to be quite different from the initial reports. This story shows how a small amount of digging can reveal the reality of a situation.

Maize output dropped substantially after the Mugabe government implemented its violent 'fast track' land reform early in the new millennium. Casting about for ways to increase output of this important staple crop, the government of Zimbabwe decided to develop part of the 300 000 ha Nuanetsi Ranch for flood-irrigation of maize and sorghum. The tender to clear and develop 250 000 acres (about 101 000 ha) of the ranch was won by China International Water and Electrical Corporation (CIWEC).[98] Although the contract was widely reported as a Chinese 'investment', the *Guardian* reporter who broke the story outside Africa made it clear that it was a contract: 'Harare has not revealed how much it will pay China for the development of the huge agricultural scheme'.[99] Local news media reported that the land was being cleared by the Chinese firm and that it would be allocated to local farmers.[100] In 2005 it became clear that the project was in trouble. CIWEC halted work on the project when it failed to receive its scheduled payments.[101] A senior government official from Zimbabwe commented: 'it now appears our government negotiated in bad faith'.[102]

Given Zimbabwe's dismal economic conditions, it is not surprising that there was little investment in agriculture from China, aside from several firms operating out-grower schemes with local tobacco and cotton farmers. However, as the economy began to improve with the introduction of the dollar and the formation of a government of national unity in 2008, Chinese interest picked up. The Anhui provincial branch of China State Farm Agribusiness Corporation (SFAC) in Zimbabwe arrived for a round of visits. A year later it returned to establish a joint farming venture on a farm belonging to Zimbabwe's Chinhoyi University of Technology. It sowed 750 ha of wheat in 2011 and announced grand plans to develop 50 000 ha between 2013 and 2015, starting with a pilot phase of 1800 ha.[103] A Chinese researcher who visited the project in early 2013 reported that the company was finding it difficult to find any additional land to lease.[104] Discussions with Anhui SFAC in June 2013 suggested that it was still optimistic, and had found strong interest from Zimbabwean government entities, including the Ministry of Defence, which had been allocated farms in the land reform but were unable to put them to good use.[105]

Conclusion

The continent of Africa has been a food deficit region for decades. For example, in 2009 countries in Africa imported 10 million tons of milled rice, costing at least $5 billion.[106] The goal of increasing production in Africa is not controversial, but the means certainly are. Irrigation and high-yielding varieties are looked at as solutions by some, and as problems by others. Commercial production, foreign investment, fertiliser, hybrid seeds and mechanisation all present risks as well as potential rewards.

The Chinese have a strategy to foster overseas investment, including in agriculture. Chinese food consumption will increasingly require imports, particularly as scarce land is lost to development, and as more Chinese move into the middle class, consuming more meat. These realities underpin the readiness with which NGOs and others believed the 'hyperbolic' media stories on Chinese 'land grabbing' in Africa, and filled their databases with cases that were often more chimera than real. Yet the details of these stories suggest that the way they have been interpreted needs to be revised. In particular, these investments do not appear to be part of a coordinated Chinese strategy to secure land in Africa to grow food for China. Rather, they reflect the uncoordinated strategies of a number of different firms to explore commercial investment opportunities across multiple sectors.

As noted in the introduction, we have made four key points in this article. First, we see a small but growing role for the Chinese government and its companies, whether state-owned or private, in promoting agricultural investment in Africa as part of a general effort to increase outbound investment. Second, farming investments—including contract farming—by Chinese companies have been occurring for several decades, but have grown more rapidly in recent years. In almost all cases the crops of interest are either for commercial import-substitution (rice, wheat, maize, vegetables) or industrial inputs and biofuel exports (sisal, sugar, oil palm). The evidence suggests that Chinese agricultural investment in Africa will increase, but that African land is unlikely to become the offshore guarantee for China's food security.

Third, China's existing farming investments have grown slowly in Africa. We know of only one case in which Chinese investors have been granted— and proceeded to develop—a new area of over 10 000 ha of land: N-Sukala, the extension of the Sukala sugar complex in Mali, founded as a Chinese aid project in 1965. Even this was not simply 'Chinese' but a joint venture between the government of Mali (40%) and a Chinese company (60%), which took over Sukala when it was privatised in 1996.[107] There are two central reasons why the very real Chinese interest has not led to substantial investment. Chinese firms believe that the business environment—including poor infrastructure and government inefficiency—in most land-rich African countries is substantially worse than in Southeast Asia, the traditional target for Chinese agricultural investments. Furthermore, according to the Ministry of Commerce, 58% of Chinese investors in Africa are small and medium-sized private firms from China's land-scarce coastal provinces.[108] In Zhejiang, according to the 2008 survey by the Foreign Economic Cooperation Centre of the Ministry of Agriculture, private firms accounted for 81.9% of outbound agricultural investment. Two-thirds of these firms complained that they were unable to get loans from China's policy banks, either because they lacked collateral, or because their investment was below the minimum size for the policy banks.[109]

Finally, African governments and citizens, are playing a far more active role in all of this than is often acknowledged. They are investing as joint venture partners with Chinese firms, travelling to China to solicit technology and investment and, in some cases, reacting with great caution, and going slowly in actually allocating land. In the real story, as opposed to the myths, they are active agents.

Notes

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1 Throughout this paper we focus on farming investment and, where possible, do not include fisheries and forestry investment, conventionally included in Chinese agricultural investment statistics.

2 For examples, see M Edelman, 'Messy hectares: questions about the epistemology of land grabbing data', *Journal of Peasant Studies*, 40(3), 2012, pp 485–501; C Oya, 'Methodological reflections on "land grab" databases and the "land grab" literature "rush"', *Journal of Peasant Studies*, 40(3), 2013, pp 503–520; and I Scoones, R Hall, SM Borras Jr, B White & W Wolford, 'The politics of evidence: methodologies for understanding the global land rush', *Journal of Peasant Studies*, 40(3), 2013, pp 469–483. An article by L Cotula also addressed some of the problems with the database approach and the lack of attention to local agency. See Cotula, 'The international political economy of the global land rush: a critical appraisal of trends, scale, geography and drivers', *Journal of Peasant Studies*, 39(3–4), 2012, pp 649–680. Other recent studies that emphasis agency include a special issue on 'The Role of the State in Land Grabbing', *Development and Change*, March 2013; and T Lavers, '"Land grab" as development strategy? The political economy of agricultural investment in Ethiopia', *Journal of Peasant Studies*, 39(1), 2012, pp 105–132; and DA Alemu & I Scoones, 'Negotiating new relationships: how the Ethiopian state is involving China and Brazil in agriculture and rural development', *IDS Bulletin*, 44(4), 2013, pp 91–100.

3 L Horta, 'China–Mozambique: old friends, new business', at http://www.isn.ethz.ch/isn/Digital-Library/Articles/Detail/?id=53470&lng=en, accessed 10 May 2013. As of 2009 this story continued to be repeated by the writer. 'China and Mozambique invest in the Zambezi Valley to make Chinese "grain store", says researcher', *Macau Hub*, 21 July 2009.

4 *Ibid*.

5 French TFI News, 'La Chine exploite le riz', at http://tinyurl.com/6ful9s, accessed 10 May 2013.

6 D Gray, 'China farms the world to feed a ravenous economy', Associated Press, 4 May 2008.

7 *Ibid*.

8 'Buying farmland abroad: outsourcing's third wave', *The Economist*, May 2009, at http://www.economist.com/node/13692889, accessed 10 May 2009. 'China secured the right to grow palm oil for biofuel on 2.8m hectares of Congo, which would be the world's largest palm-oil plantation.' The ZTE story was repeated almost verbatim by environmentalist Lester Brown, who wrote that China 'has secured rights to 2.8 million hectares in the Democratic Republic of the Congo'. L Brown, *Plan B 4.0: Mobilizing to Save Civilization*, New York: WW Norton, 2009, p 9. Columbia University Professor Saskia Sassen wrote that 'China secured the right to grow palm oil for biofuels on 2.8 million hectares of Congo, which would be the world's largest palm oil plantation'. S Sassen, 'Land grabs today: feeding the disassembling of national territory', *Globalizations*, 10(1), 2013, pp 25–46.

9 GRAIN, 'Seized: the 2008 landgrab for food and financial security', 24 October 2008, at http://www.grain.org/article/entries/93-seized-the-2008-landgrab-for-food-and-financial-security, accessed 10 May 2013.

10 *Ibid*, p 2. For comparison, there were no mentions of 'United States' or 'American', and only one mention of a British company.

11 *Ibid*, p 3. The Chinese government pledged to establish the China–Africa Development Fund, which at maturity will be a $5 billion equity fund. The fund will support Chinese investments and joint ventures in any economic sector, not simply agriculture.

12 GRAIN, 'GRAIN releases data set with over 400 global land grabs', 23 February 2012, at http://www.grain.org/fr/article/entries/4479-grain-releases-data-set-with-over-400-global-land-grabs.

13 As the original Land Matrix database has changed since its launch in 2012, these figures were obtained from the *Guardian* newspaper's website, which downloaded the original database. 'International land deals: who is investing and where—get the data', *Guardian*, at http://www.guardian.co.uk/global-development/datablog/2012/apr/27/international-land-deals-who-investing-what, accessed 10 May 2013.

14 I Hofman & P Ho, 'China's "developmental outsourcing": a critical examination of Chinese global "land grabs" discourse', *Journal of Peasant Studies*, 39(1), 2012, pp 1–48. Although this article was critical of the existing data, the annex it included, with the title 'Chinese investments', was a largely uncritical compilation of all Chinese agricultural activities (including small agricultural aid projects) that had been mentioned in the media, by NGOs, or in academic sources.

15 C Smaller, W Qiu & Y Liu, 'Farmland and water: China invests abroad', International Institute for Sustainable Development, Manitoba, August 2012, p 8.

16 For examples of blogs critical of these studies, see 'land grab' postings at 'China in Africa: The Real Story', and 'Rural Modernity'.

17 M Ncube, 'The expansion of Chinese influence in Africa—opportunities and risks', 14 August 2012, at http://www.afdb.org/en/blogs/afdb-championing-inclusive-growth-across-africa/post/the-expansion-of-chinese-influence-in-africa-opportunities-and-risks-9612/, accessed 10 May 2013. Authors' emphasis.

18 MC Rulli, A Saviori & P D'Odorico, 'Global land and water grabbing', *Proceedings of the National Academy of Sciences*, 110(3), 2013, pp 892–897.

19 L Cotula, S Vermeulen, R Leonard & J Keeley, *Land Grab or Development Opportunity? Agricultural Investment and International Land Deals in Africa*, London/Rome: IIED/FAO/IFAD, 2009, p 55.

20 *Ibid*, p 55.

21 *Ibid*, p 37.

22 D Brautigam, *The Dragon's Gift: The Real Story of China in Africa*, Oxford: Oxford University Press, 2009; D Bräutigam & X Tang, 'China's engagement in African agriculture: "down to the countryside"', *China Quarterly*, 199, 2009, pp 686–706.

23 L German, G Schoneveld & E Mwangi, *Contemporary Processes of Large-scale Land Acquisition by Investors: Case Studies from Sub-Saharan Africa*, Occasional Paper 68, Bogor, Indonesia: CIFOR, 2011. This paper also makes the case for African agency.

24 G Schoeneveld, *The Anatomy of Large-scale Farmland Acquisitions in Sub-Saharan Africa*, Working Paper 85, Bogor: CIFOR, 2011, p 2.

25 *Ibid*, p 7.

26 See, for example, a World Bank paper that was based on the media reports collected by GRAIN. K Deininger & D Byerlee, *Rising Global Interest in Farmland*, Washington, DC: World Bank, 2011.

27 GRAIN, 'Collating and dispersing: GRAIN's strategies and methods', *Journal of Peasant Studies*, 40(3), 2013, p 533.

28 W Anseeuw, J Lay, P Messerli, M Giger & M Taylor, 'Creating a public tool to assess and promote transparency in global land deals: the experience of the Land Matrix', *Journal of Peasant Studies*, 40(3), 2013, pp 521–530.

29 For example, the Beta version of the Land Matrix database underpinned the analytical paper written by some of the coalition members. W Anseeuw, M Boche, T Breu, M Giger, J Lay, P Messerli & K Nolte, *Transnational Land Deals for Agriculture in the Global South: Analytical Report based on the Land Matrix Database*, Bern/Montpellier/Hamburg: International Land Coalition (ILC)/Centre de Coopération Internationale en Recherche Agronomique pour le Développement (CIRAD)/Centre for Development and Environment (CDE)/German Institute for Global and Area Studies (GIGA)/Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), 2012.

30 Scoones *et al*, 'The politics of evidence', p 473.

31 Although most of the recent literature on 'land grabs', including a special issue of *Globalizations* (March 2013) have touched on the many problematic assumptions about Chinese agricultural investments in Africa, few studies go into any details on China. Exceptions are: T Allan, M Keulertz, S Sojamo & J Warner, *Handbook of Land and Water Grabs in Africa*, London: Routledge, 2013, which contains a chapter by one of the authors of this article, D Bräutigam, 'Chinese engagement in African agriculture: fiction and fact', pp 91–113; and a collection of papers on China and Brazil in Africa in a special issue of the *IDS Bulletin*, 44(4), 2013.

32 D Bräutigam, *Chinese Aid and African Development: Exporting Green Revolution*, New York: St Martin's Press, 1998.
33 P Ai, 'From proletarian internationalism to mutual development: China's cooperation with Tanzania, 1965–95', in G Hyden & R Mukandala (eds), *Agencies in Foreign Aid: Comparing China, Sweden and the United States in Tanzania*, London: Macmillan Press, 1999, pp 156–201; and D Bräutigam & X Tang, *An Overview of Chinese Agricultural and Rural Engagement in Tanzania*, Discussion Paper 01214, Washington DC: Development Strategy and Governance Division, IFPRI, October 2012.
34 State Council of the People's Republic of China, 'China's Foreign Aid', Beijing, April 2011.
35 World Bank, cited in C Eicher, 'Flashback: 50 years of donor aid to African agriculture', paper presented at the InWEnt, IFPRI, NEPAD, CTA conference, 'Successes in African agriculture', Pretoria, 1–3 December 2003.
36 For a discussion of these changes, see Bräutigam, *The Dragon's Gift*, pp 232–272.
37 Bräutigam, *Chinese Aid and African Development*.
38 'Africa: top option for China's agricultural investment', Xinhua, 28 September 2002, emphasis added.
39 D Bräutigam, 'Doing well by doing good', *The China Business Review*, September–October 1983, pp 57–58; and Bräutigam, *Chinese Aid and African Development*.
40 C Wei, 'Zhongguo Nongye "Zou Chu Qu" De Xianzhuang, Wenti Ji Dui Ce' (Chinese agriculture "going global": situation, problems and countermeasures), *Guoji Jingji Hezuo* (International Economic Cooperation), 1, 2012, p 32.
41 GMG Global, 'Corporate profile', *GMG Global Annual Report 2011*. In October 2010 GMG Global established a second company in Cameroon to develop a 45 000 ha concession for rubber, but according to the GMG website, this concession is not yet in operation. GMG Global, 'Our business', at http://www.gmg.sg/business_divisions.html, accessed 11 May 2013. The *Annual Report 2012* listed a figure of 20 763 ha under cultivation in both Côte d'Ivoire and Cameroon (p 92).
42 Ministry of Finance, 'Duiwai Jingji Jishu Hezuo Zhuanxiang Zijin Guanli Banfa' (Regulations for management of the special fund for foreign economic and technical cooperation), Beijing, 9 December 2005, at http://qys.mof.gov.cn/czzxzyzf/201112/t20111206_613354.html, accessed 14 August 2013.
43 'China agri ministry, Development Bank support agri projects', *SinoCastChina Business Daily News*, 22 November 2006.
44 China–Africa Agriculture Investment Company, 'Guanyu women' (About us), at http://www.caaic.com.cn/Article_List.aspx?columnID=1, accessed 16 August 2013.
45 'China's twelfth Five Year Plan' (English Translation), at http://www.britishchamber.cn/content/chinas-twelfth-five-year-plan-2011-2015-full-english-version, accessed 25 May 2013; and National Development and Reform Commission, 'Shi Er Wuliong Waizi He Jingwai Touzi Guihua' (12th Five Year Plan of foreign capital utilization and overseas investment (2011–2015)), July 2012, at http://www.sdpc.gov.cn/gzdt/W020120724346802518900.pdf, accessed 12 August 2013.
46 State Council, 'Guanyu guli he yindao minying qiye jiji kaizhan jingwai touzi de shishi yijian' (Opinion on encouraging and guiding the implementation of the overseas investment of private enterprises), Beijing, 29 June 2012, at http://www.sdpc.gov.cn/zcfb/zcfbtz/2012tz/t20120703_489354.htm, accessed 16 August 2013.
47 State Council, 'Guanyu yinfa guli he yindao minying qiye jiji kaizhan jingwai touzi de shishi yijian' (Opinion on encouraging and guiding the implementation of the overseas investment of private enterprises), Beijing, 19 June 2012, at http://www.sdpc.gov.cn/zcfb/zcfbtz/2012tz/t20120703_489354.htm, accessed 14 August 2013.
48 Ministry of Commerce, Department of Outward Investment and Economic Cooperation, 'Guanyu zuo hao 2012 nian duiwai jingji jishu hezuo zhuanxiang zijin shenbao gongzuo de tongzhi' (Strengthening economic and technical cooperation in 2012: notice on special funds requirements), Beijing, 12 July 2012, *Cai Qi*, 141, 2012, accessed 13 August 2013. The programme on special funds for economic and technical cooperation allowed firms to apply for subsidies for fees, life and accident insurance. Several provincial governments, for example Anhui Province, also provided special funds for outward investment, including in agriculture.
49 People's Republic of China, Customs Statistics, 2013. Chinese exports of cereals to Africa include food aid. Additional details on China's food aid are available at World Food Program, International Food Aid Information System, at http://www.wfp.org/fais/reports/irma-by-recipient.
50 Customs Statistics.
51 Information Office of the State Council, 'China-Africa Economic and Trade Cooperation (2013), People's Republic of China, August, 2013.
52 Foreign Economic Cooperation Centre, 'Jingwai Nongye Ziyuan Kaifa Diaoyan Baogao' (Investigation report on Chinese overseas investment in agriculture resources), unpublished document, Ministry of Agriculture, People's Republic of China, Beijing, 2008. The survey covered investment in crops, animal husbandry and fisheries, but not forestry. All the companies were provincial and local state-owned companies; no central state-owned companies or private companies were included.

53 Ministry of Commerce, 'List of foreign-invested enterprises (institutions)', personal communication, May 2013.
54 S Marks, cited in B Sautman & H Yan, 'Chinese farms in Zambia: from socialist to "agro-imperialist" engagement?', *African and Asian Studies*, 9, 2010, p 314. Marks was reporting on a presentation by J Keeley (confirmed by personal email communication from Keeley, 7 June 2013).
55 B Sautman & H Yan 'Chinese farms in Zambia', pp 307–333.
56 P Fandio, 'Razzia chinoise sur terres camerounaises', *Arte*, 12 September 2009, at http://www.arte.tv/fr/razzia-chinoise-sur-terres-camerounaises/2837674,CmC=2837676.html, accessed 23 May 2013.
57 X Ren, 'Gengyun zai kamailong tudi shang—shanxi nongken shishi 'zouchu qu' zhanlue jishi' (Plough the land in Cameroon—Shaanxi Nongken's 'going out' strategy), 24 January 2007, at http://www.chinavalue.net/General/Blog/2007-1-24/4044.aspx, accessed 10 May 2013.
58 'China–Cameroon cooperation posts steady growth', Xinhua, 20 January 2007.
59 J-B Tagne & S Gouin, 'Quand le Cameroun nourrit la Chine', October 2010, at http//www.Politis.fr 21, accessed 22 May 2013. Unless otherwise indicated, all quotes in this paragraph are from this source.
60 C Ngorgang, 'Chinese in Cameroon: an agricultural misunderstanding', *Vita Magazine*, 30 December 2009.
61 Cameroon rice prices from 2008, at http://www.irinnews.org/Report/77971/CAMEROON-Lifting-of-import-taxes-fails-to-reduce-food-prices. Chinese rice prices from 2010.
62 GRAIN, 'Unpacking a Chinese company's land grab in Cameroon', October 2010, at http://farmlandgrab.org/16485 22 October 2010, accessed 10 May 2013.
63 J-B Tagne, 'Enquête sur la riziculture chinoise à Nanga-Eboko', *Le Jour* (Cameroon), 13 August 2010.
64 Economist Intelligence Unit (EIU), *Cameroon: Country Report*, London: EIU, March 2012, p 13.
65 Large Chinese firms not uncommonly diversify into what appear to be unrelated sectors. ZTE had established a subsidiary, ZTE Energy, which in turn set up a company, ZTE Agribusiness Corporation, to invest in biofuels.
66 F Kilubi, 'Un milliard Usd de Pékin pour des palmeraies à huile en République démocratique du Congo', *Le Phare*, 30 May 2007, at http://www.digitalcongo.net/article/44029, accessed 15 March 2010.
67 'Le Ministère de l'Agriculture et la Coopération [sic] ZTE ont signé une convention de partenariat', *Documentation et Information pour l'Afrique*, 2 November 2007.
68 Gray, 'China farms the world to feed a ravenous economy'.
69 'TEDA and ZTE Agribusiness Company Ltd sign an investment framework agreement', *Invest TEDA Newsletter*, 11 July 2009, at http://www.allroadsleadtochina.com/2009/07/11/invest-teda-newsletter/, accessed 15 March 2010.
70 B Tai, 'Chinese agribusiness company in DR Congo to offer thousands of jobs for locals', Xinhua, 10 July 2009, at http://news.xinhuanet.com/english/2009-07/10/content_11686244.htm, accessed 15 March 2010.
71 'L'ambassadeur Wu Zexian: la Chine n'a pas de vises impérialistes', interview in *Le Potential*, 14 January 2008, posted on the website of the Chinese embassy in the DRC, at http://cd.china-embassy.org/fra/xw/t399806.htm, accessed 8 December 2008.
72 L Putzel et al, *Chinese Trade and Investment and the Forests of the Congo Basin*, Working Paper 67, Bogor: CIFOR, 2011, p 33. See also 'Convention de Partenariat entre la RD Congo et la ZTE International Investment Co Ltd en vue de l'Implantation et de l'Exploitation d'une Palmaraie Industrielle', Ministry of Agriculture, DRC, 1 November 2007, p 2.
73 'Kinshasha's missing millions', *Africa-Asia Confidential*, 3(4), 2010.
74 Interview, Chinese official, Ministry of Agriculture, Beijing, 2011.
75 Putzel *et al*, *Chinese Trade and Investment and the Forests of the Congo Basin*, p 33.
76 Horta, 'China, Mozambique'; and Horta. 'The Zambezi Valley: China's first agricultural colony?', Center for Strategic and International Studies (CSIS), Africa Policy Forum Blog, 20 May 2008, at http://csis.org/publication/zambezi-valley-chinas-first-agricultural-colony, accessed 10 January 2012. All quotations are from these two sources.
77 GRAIN, 'Seized'.
78 S-MS Ekman, 'Leasing land overseas: a viable strategy for Chinese food security?', unpublished master's thesis, Department of Economics, Fudan University, Shanghai, 2010; and D Bräutigam & S-M Ekman, 'Rumours and realities of Chinese agricultural engagement in Mozambique', *African Affairs*, 111(444), 2012, pp 483–492.
79 L Cotula *et al*, *Land Grab or Development Opportunity?*, p 55.
80 M Fairbairn, 'Indirect dispossession: domestic power imbalances and foreign access to land in Mozambique', *Development and Change*, 2013, 44, pp 335–356.
81 Ekman cited in J Hanlon, 'Land moves up the political agenda', *Mozambique Political Process Bulletin*, 22 February 2011.

82 J Hanlon, *Understanding Land Investment Deals in Africa: Country Report Mozambique*, Oakland Institute, 2011, at http://www.oaklandinstitute.org/sites/oaklandinstitute.org/files/OI_country_report_mozambique_0.pdf, accessed 9 March 2012.
83 Horta, 'The Zambezi Valley'.
84 Coalition for African Rice Development (CARD), 'Mozambique's rice statistics', at http://www.riceforafrica.org/card-countries/g1/mozambique/353-mozambiques-rice-statistics, accessed 10 January 2012.
85 International Rice Research Institute (IRRI), 'Rice in Mozambique', at http://irri.org/partnerships/country-profiles/africa/mozambique/rice-in-mozambique, accessed 9 March 2012.
86 CARD, 'Mozambique's rice statistics'; IRRI, 'Rice in Mozambique'; and 'China to help Mozambique increase its rice production', *Macao Hub*, 31 March 2006.
87 X Teng, 'Policy proposals to buy and rent land overseas to grow grain submitted to the State Council,' *21st Century Business Herald*, 8 May 2008, at http://www.21cbh.com/, accessed 21 May 2008; and Y Zhang, 'Zhongguo Nongken Haiwai Tuohuang' (China State Farm Agribusiness Corporation farming overseas), *Oriental Outlook*, 12 June 2008. Unless otherwise noted, all information in this paragraph comes from these two sources.
88 S Chichava, *China in Mozambique's Agriculture Sector: Implications and Challenges*, Maputo: Institute of Social and Economic Studies (IESE), 2010, at http://www.iese.ac.mz/lib/noticias/2010/China%20in%20Mozambique_09.2010_SC.pdf, accessed 10 January 2012.
89 Centre for Chinese Studies, 'Evaluating China's FOCAC commitments to Africa and mapping the way ahead', University of Stellenbosch, January 2010, p 73.
90 S Chichava, J Duran, L Cabral, A Shankland, L Buckley, L Tang & Y Zhang, 'Brazil and China in Mozambican agriculture: emerging insights from the field', *IDS Bulletin*, 44(4), 2013, p 107.
91 Hubei Farm, 'Hubei–Gaza Friendship Farm agricultural development enters the phase of large-scale marketing operation', 29 July 2011.
92 S Chichava, J Duran, L Cabral, A Shankland, L Buckley, L Tang & Y Zhang, *Chinese and Brazilian Cooperation with African Agriculture: The Case of Mozambique*, Working Paper 49, London, Future Agricultures, March 2013.
93 'Zhuhu Feizhou Haiwai Nongchang Jianshi Tisu Zhuhu' (Africa overseas farms expand rapidly), 16 April 2013, at http://hubeifarm.com/news_show.asp?Class_Fid=140&Class_ID=6&ID=328, accessed 24 May 2013.
94 Chichava *et al*, *Chinese and Brazilian Cooperation with African Agriculture*.
95 http://landportal.info/landmatrix/get-the-detail/by-target-country/zimbabwe?investment_natures=A, accessed 24 May 2013.
96 For a sample, see C Friss & A Reenberg, 'Land grab in Africa: emerging land system drivers in a teleconnected world', Global Land Project, 2010, p 34, at http://www.globallandproject.org/arquivos/GLP_report_01.pdf; B Hurst, 'The twenty-first century land rush', American Enterprise Institute, 22 September 2010, at http://www.american.com/archive/2010/september/the-21st-century-land-rush, accessed 24 May 2013; Mo Ibrahim Foundation, *African Agriculture: From Meeting Needs to Creating Wealth*, November 2011, at http://www.moibrahimfoundation.org/en/media/get/20111113_Facts-and-Figures.pdf, p 19; and Smaller *et al*, 'Farmland and water', p 18.
97 P Pham, cited in W Ide, 'China supports global pariahs, gets resources and criticism in return', Voice of America News, 27 June, 2011, at http://www.voanews.com/content/china-supports-global-pariahs-gets-resources-and-criticism-in-return-124648814/141455.html, accessed 24 May 2013.
98 'Zhong shuidian gongsi zhongbiao jinba buwei zui da nongye kaifa xiangmu' (China International Water and Electricity Company wins largest agricultural development project in Zimbabwe), Ministry of Commerce, People's Republic of China, 23 February 2003, at http://www.mofcom.gov.cn/article/i/jyjl/k/200302/20030200070817.shtml, accessed 24 May 2013; and 'Zimbabwe: Minister Moyo denies Chinese group contracted to farm Nuanetsi Ranch', *The Herald* (Zimbabwe), 14 February 2003.
99 A Meldrum, 'Mugabe hires China to farm seized land', *Guardian*, 13 February 2003.
100 'Zimbabwe: Minister Moyo denies Chinese contracted to farm Nuanetsi Ranch'.
101 A Mukaro, 'Chinese firm abandons Nuanetsi project', *Zimbabwe Independent*, 8 April 2005, at http://www.theindependent.co.zw/local/12261.html, accessed 14 August 2008; and S Moyo, 'Land concentration and accumulation after redistributive reform in post-settler Zimbabwe', *Review of African Political Economy*, 38(128), 2009, p 269.
102 G du Venage, 'Harare's ties with Beijing begin to falter; China unhappy as unpaid bills mount up for aircraft, engineering work and construction projects across Zimbabwe', *South China Morning Post*, 19 May 2006.
103 G Bao , 'Anhui Nongken: "Zouchuqu" kaipi xintian di' (Anhui agribusiness: 'going out' to break new ground), *Zhongguo Nongchang* (China State Farms), 16 March 2012, at http://www.ahnk.com.cn/display.asp?id=6818, accessed 24 May 2013.
104 Interview, Chinese researcher, Beijing, 12 April 2013.
105 Interview, Anhui State Farm Agribusiness Corporation, Chinhoyi, Zimbabwe, June 2013.

106 Africa Rice, at http://www.africarice.org/arc2013/rationale.asp, accessed 25 May 2013.
107 At least 13 000 ha of land was allocated for this project. The factory was completed at the end of 2012, but the land development had not been completed as of this writing. F Maïga, 'Sucrerie: N-Sukala ouvre ses portes', *L'Essor*, 12 November 2012, at http://www.essor.ml/newspaper/sucrerie-n-sukala-ouvre-ses-portes.html; and interview, Chinese researcher, Beijing, 12 April 2013.
108 Data from MOFCOM, Beijing, April 2013.
109 Foreign Economic Cooperation Centre, 'Investigation report on Chinese overseas investment in agriculture resources'.

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