SAIIA

OCCASIONAL PAPER NO 44

China in Africa Project

September 2009

China's Role in Infrastructure Development in Botswana

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South African Institute of International Affairs

African perspectives. Global insights.

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SAIIA gratefully acknowledges the generous support of the main funders of the project: The United Kingdom Department for International Development (DfID) and the Swedish International Development Agency (SIDA).

ABSTRACT

Botswana, a landlocked country in Southern Africa, is often characterised as a major success story on the continent. Consistent economic growth, effective democratic institutions and strong forward planning contribute to the country's overall reputation as a developmental state. Infrastructure development is always at the core of the national government's long-term programme, which makes Botswana an attractive destination for foreign investment. A close examination of Chinese investment in Botswana highlights the diversity and complexity of Chinese engagement in this country. With its robust regulatory environment, coupled to a strong commitment to accountable and transparent practices, Botswana provides an illuminating perspective on China's changing role in the infrastructure sector in Africa and the challenges it faces. The co-operation between Standard Bank of South Africa and the Industrial and Commercial Bank of China in financing the Morupule B Power Station project advances a new model of Chinese involvement in infrastructure development in Botswana that sets an example for the rest of Africa.

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INTRODUCTION

Botswana, a landlocked country in Southern Africa, is often characterised as a major success story on the continent. With an average growth rate of 11.3% over the period 1980–89, it has a track record of consistent economic growth, effective democratic institutions and strong forward planning, contributing to its overall reputation as a developmental state.[1] Botswana's economy is dominated by resources, with the diamond mining industry providing 40% of gross domestic product, followed by services (48.8%), construction (7%), manufacturing (3.4%) and agriculture (1.8%).[2] Linking this vast country to its towns and urban centres has been a priority of government since independence, along with the need to build a modern infrastructure to accommodate a burgeoning population. This puts infrastructure development at the core of long-term programming, which, along with its steady stream of revenues, makes Botswana an attractive destination for foreign investment.

China's interest in contributing to infrastructure development in resource-rich economies in Africa is well documented. The pattern in countries like Angola has typically involved the Chinese government providing financial support for Chinese state-owned enterprises (SOEs) building infrastructure as part of a wider package negotiated with the African host government. However, a close examination of the Botswana case highlights the diversity and complexity of Chinese engagement in this sector. With its robust regulatory environment, coupled to a strong commitment to accountable and transparent practices, Botswana provides an illuminating perspective on China's changing role in the infrastructure sector in Africa and the challenges it faces.

CHINESE INVESTMENT IN INFRASTRUCTURE PROJECTS IN BOTSWANA

Since the establishment of diplomatic relations in January 1975, bilateral relations between China and Botswana 'have gone through smooth and upward development. The exchanges and co-operation in the political, economic and social fields have been frequent and fruitful'.[3] China and Botswana share common views and support each other on major international issues, with Botswana adhering to the 'One China' policy, which recognises Taiwan as part of China.[4] All three presidents of Botswana have visited China, and there are frequent visits of state leaders and high-ranking officials between the two nations.

Bilateral trade between the two countries surged from nearly zero 30 years ago to $52.4 million in 2004, $69 million in 2006 and $149 million in 2007. With China becoming the second largest luxury diamond consumer in the world, importing $1.66 billion worth of diamonds in 2004, trade volumes between the two countries would surely increase should China be allowed to import diamonds directly from Botswana. China's total imports from Botswana surged from $8.1 million in 2006 to $26 million in 2007, while China's export to Botswana increased from $61 million in 2006 to $118 million in 2007. Although no detailed trade breakdowns can be sourced, the upward import trend and the surging figures correspond with Chinese construction companies' footprint in Botswana.[5]

China Civil Engineering Construction Company (CCECC) was the first Chinese company to work in Botswana. It came to the country in 1985 to rehabilitate the railway line as an aid project granted by the Chinese government. Since then, Chinese constructions firms have been active in the construction industry in Botswana and have made satisfactory returns on their investment. In addition to the construction industry, Chinese companies have also invested in the textiles, wholesale and retail sectors of Botswana. However, although many Chinese companies showed strong interest, to date, there is no Chinese investment in the mining sector in Botswana.[6] Moreover, the government of Botswana does not encourage Chinese investment in the retail and wholesale sectors, fearing that it may cause damage to the local manufacturing industry.

The Botswana government has taken numerous steps to liberalise many sectors of the country's economy and attract foreign investors. According to the respected Chinese journal *The Economic Observer*, while many economies of the same size are not so open to Chinese deals, Botswana has developed a reputation in China as a place where one can be successful.[7]

UNPACKING CHINESE INVOLVEMENT IN INFRASTRUCTURE: CHINESE CONSTRUCTION COMPANIES, THE CONTRACTING PROCESS AND CURRENT PROJECTS

Chinese firms are actively involved in the building industry in Botswana. Contrary to the common assumption that Chinese firms are sent by the Chinese government for Chinese government projects, most Chinese construction firms operating in Botswana work on public tenders independently awarded by the Botswana government through the Public Procurement and Asset Disposal Board (PPADB).[8] One reason for this is that Chinese government-funded aid projects are usually granted to the least-developed countries, and Botswana does not fall into this category. However, the Chinese government does offer preferential loans to Botswana in the form of interest-free or low-interest concessional loans, but the percentage of such projects is very low compared to other local public tender projects run by Chinese construction firms in Botswana.

According to the Chinese Embassy,[9] 16 Chinese SOEs are operating in Botswana, 13 of which are top construction companies, all reaching the construction contractor top grade granted by the PPADB. In total, they operate 18 projects in Botswana, as listed in Table 1 on page 6.

Besides the Chinese SOEs, about 10–20 private Chinese companies run by overseas Chinese are operating in Botswana. The exact list of such companies is hard to obtain as they are not obliged to report to the Chinese Embassy. In general, the size of the privately owned Chinese firms is relatively smaller compared to SOEs and their professional grading is inferior (although there are a few exceptions who also obtained top government grading in Botswana). Judged by the complaints issued by the major Chinese SOEs, with advantages such as lower overheads, fewer administrative procedures and freedom in moving funds, these private firms offer strong and growing competition to the SOEs.

Table 1: Current projects implemented by Chinese companies in Botswana

Project	Developer/ ownership	Contract value ($)	Contractor	Timeline
Serowe Institute of Education	Ministry of Works and Transportation	20.69 million	China State Construction Engineering Corporation (CSCEC)	Started 11 April 2008, to be completed in 18 months
Bokamoso Private Hospital	Bokamoso Private Hospital consortium	29.15 million	CSCEC	Started 3 March 2008, to be completed in 16 months
Civil works for Block 5, Francistown	Francistown Municipality	36.33 million	CSCEC	Started 7 January 2008, to be completed in 30 months
Francistown Airport runway and ancillary works	Department of Civil Aviation	34.31 million	CSCEC	Tender won on 26 May 2008, project has started
Dam	Ministry of Water and Mines	195.6 million	Sinohydro	Started 9 March 2008, to be completed in 4 years
New terminal building for Khama International Airport	Department of Civil Aviation	70 million	Sinohydro	Started 10 June 2008, to be completed 10 May 2010
Lobatse Hospital	Ministry of Health	43.44 Million	China Civil	Started 24 May 2004, to be completed in 36 months
282 housing units (flats) on plot 59718, Block 7, Gaborone	Botswana Housing Institution	16.68 million	China Civil	Started 31 March 2008, to be completed in 13 months
Multifunctional building for University of Botswana	University of Botswana	40 million	China Civil	Started 22 August 2007, to be completed in 25 months
Serowe Rehabilitation Hospital	Ministry of Works and Transport	23.72 million	China Civil	Started 26 April 2007, to be completed in 25 months
Mahalapye Hospital	Ministry of Health	31.4 million	China Civil	Started 13 January 2003, completed in 30 months

Goodhope Institute	Department of Building and Engineering Services	53.91 million	China Jiangsu International	Started January 2007, to be completed in 12 months
Lobatse development	Lobatse Municipality	19.01 million	China Jiangsu International	Started October 2007, to be completed in 24 months
Civil works for Tselofelo, Gaborone	Gaborone Municipality	19 million	China Jiangsu International	Started in November 2007, to be completed in 24 months
Lobatse Stadium	Ministry of Youth and Sports	22 million	China Jiangxi International	Started 11 January 2008, to be completed in 24 months
Francistown stadium	Ministry of Youth and Sports	26.7 million	Tuwana (Pty) Ltd	Started 17 March 2008, to be completed in 31 months
Audi Institute of Art	Ministry of Education	29.42 million	Tuwana (Pty) Ltd	Started 4 December 2006, to be completed in 26 months
Four schools project	Local government	29.42 million	Tuwana (Pty) Ltd	Started 25 April 2007, to be completed in 14 months

As noted above, the first Chinese project in Botswana was the railway rehabilitation project started in 1985, which was later extended to five phases. CCECC has been the key implementing party during all phases of the project. The last phase, which was started in 1997 and finished in 2001, was financed by a Chinese concessional loan. Currently, the highway under construction by CSCEC is financed by a similar loan. The China Overseas Engineering Group Co., Ltd (COVEC) housing project, comprising 424 affordable houses built in 2005, was also financed by a concessional loan from the Chinese government. Furthermore, following China's Forum on China–Africa Co-operation commitment in 2006, the Chinese government has donated funds to support two rural schools, and has contributed food, agricultural machinery and office equipment and sent medical equipment and a medical team to Botswana to support the country's development.[10]

According to an official at the Chinese Embassy in Botswana, all infrastructure projects using Chinese loans were initiated and proposed by the Botswana government.[11] The Chinese government then sends a technical team to assess the project, but the final decision about the project is made by Botswana. In the meantime, if the Chinese company undertakes to design the project, it attempts to adjust the design and plan to suit the local needs and requirements proposed by the Botswana government. Once a bilateral agreement is signed on the project, when needed, the parties involved will work together to renegotiate increases in cost arising from any amendment to the agreement.

With the scope of the project agreed to by both the host government and the Chinese, identifying the actual implementing agents occupies the next stage of the process. The Chinese Ministry of Commerce has its own internal tendering process for projects using Chinese concessional loans according to which at least three Chinese companies should tender for a project before a tender is awarded.

Although traditionally most Chinese construction firms are actively involved in building infrastructure in Botswana — i.e. building residential houses, hospitals, schools or government buildings — with intensified competition 'internally' among Chinese companies, the larger SOEs, which have both the expertise and capacity to deliver major road transportation projects, have started to shift their business focus to the sectors with less competition. These include moving into the construction of highways, where a lot of initial capital investment is needed to start up a given project. Many of these SOEs, nevertheless, underestimate the cost of going into a new sector that requires investment in substantial capital costs at the beginning of a project. Furthermore, for a road project to be profitable, a firm has to take into consideration the cost of material transportation, i.e. the distance to the gravel pit. The project delivery time can also be delayed because of the location of such a pit, which in turn can cause penalties to be levied against the contractor. Therefore, although they have been successful in winning tenders for roads projects and completing these projects, many Chinese companies risk their profit in actually running these projects.

Botswana, being a landlocked country, is central to both Southern Africa and Africa as a whole, playing an important role as a corridor in linking up north and south of the region/continent by roads and rail. There is, however, no evidence that the Chinese government is set to initiate either road or rail transportation projects in Botswana aimed at regional integration. A project of this kind could qualify for a concessional loan offered by the Chinese government if the project follows the accepted procedures, e.g. the government of Botswana proposes the project, and both the Chinese government and the Export-Import (Exim) Bank of China assess the project and decide on the terms of loan. Both CSCEC's highway project and its railway rehabilitation projects are cases in point.

THE COMPETITIVE ADVANTAGES OF CHINESE INFRASTRUCTURE INVESTMENT IN BOTSWANA

Understanding Chinese success in penetrating the infrastructure sector in Botswana requires a careful consideration of the mode of entry, the role of Chinese government support, and the low-cost bidding strategy utilised by the SOEs and private firms. Setting aside some individual problems, the overall benefits of Chinese engagement in this sector to Botswana have been to substantially lower the costs of infrastructure projects and create new employment opportunities for the local people.

Mode of entry

There are basically three modes of entry for Chinese construction firms. Firstly, most Chinese SOEs have come to Botswana in conjunction with Chinese government aid projects. They develop and accumulate work experience and knowledge in understanding the local government, market and people, as well as related local policies, during the project period. As such, and knowing their own competitive advantages and the needs of the market, they are better prepared to tender for local government projects and beat the traditional players of the market substantially in terms of price (i.e. South African firms and European construction companies). Indeed, working for Chinese government aid projects is the starting point for most Chinese companies to enter the construction market in Botswana, as shown by the example of CCECC.

Secondly, when a national SOE wins a tender for a large-scale construction project, depending on its capacity at the time, it sometimes choose to play the role of a project management company and bring in medium-sized Chinese construction firms (i.e. regional or provincial firms) from China who then subcontract part or all of the project from them. These smaller companies usually have a good working relationship with the national SOE's head office in China or in their other international projects. Through this subcontracting process, these smaller firms gradually take a foothold in the industry with the support of the bigger SOEs. It is also in this way that the bigger SOEs organise and co-ordinate the strength (competitive advantages) of all these firms to enhance and extend their own capacity and capability.

Thirdly, seeing the profit potentials of the market and with the expertise gained in the previous projects, some of the employees of the Chinese SOEs, especially those in managerial positions, then quit and start up their own construction firms (i.e. private firms), who then mostly subcontract to bigger Chinese SOEs.

It is understandable that the Chinese SOEs prefer to subcontract their projects to smaller Chinese firms because of fewer language and cultural differences. With the established long-term relationship between them, there is long-standing mutual trust and reliability.

Strong Chinese government support

Under the Chinese government strategy of 'Going Global' and with the strong financial support provided by concessional loans, Beijing encourages its firms to invest and operate overseas. Chinese firms are especially active in Africa, as it is an underdeveloped continent offering enormous investment potentials and, concurrently, the Chinese government is committed to promoting African development. According to Mr Nthekela, the senior research manager of the Botswana Export Development and Investment Authority,[12] one of the key drivers for Chinese companies investing in Botswana is the desire to develop a new market to expand their business and, at the same time, internationalise their own brand. To them, it is a question of killing many birds with one stone.

As noted above, in the case of government-initiated aid projects, the Chinese Ministry of Finance or China Exim Bank provides finance, i.e. concessional loans, while the Chinese Ministry of Commerce administers the internal tender process and oversees project implementation.

The Chinese Embassy, through the economic and commercial affairs office, offers assistance to the registered Chinese companies in providing investment guidance and to a certain extent regulates the lawful behaviour of these companies. In several cases where disputes arise between the Chinese companies and the local government, i.e. especially with regards to Chinese government aid projects, the embassy serves to mediate the negotiation of the dispute.

The embassy also calls for meetings of the senior management of the registered companies at times to brief them on the incentive policies of both governments and to discuss the successes and failures of Chinese overseas investment. The embassy works closely with the Ministry of Foreign Affairs of Botswana to help communicate and mediate the Chinese investments and to protect their safety. However, the embassy does not get involved in the management of specific projects. Such government intervention is seldom present in investment from other countries.[13]

Low-cost structure and low-profit strategy

One of the key success factors of the Chinese construction firms is their low bidding price. For instance, of the six companies that tendered for the Khama International Airport project, Sinohydro's submission was the lowest in price. The deputy director of the Department of Civil Aviation acknowledged that Sinohydro won the bid because of its low bid.

How are Chinese firms able to do this? Chinese companies adopt a low-profit-margin strategy and use a substantially lower price to undercut other competitors. Firstly, it is a Chinese belief that smaller profits attract bigger turnover, which eventually increases the sum of the total profit. Therefore, they adopt a different budget/cost structure as compared to their foreign competitors. While their European or South African competitors add a 30–50% profit margin, the Chinese companies only work on 10–15%. However, the narrow margin is also risky in terms of accommodating any mistake/setback in the project. Secondly, all Chinese firms adopt a hands-on management style that not only enhances productivity, but also strengthens efficient cost saving. Thirdly, the labour cost of Chinese management is substantially cheaper than that of its competitors. A survey of 35 Chinese construction companies throughout Africa shows that 91% of the Chinese companies management personnel came from China, 8% were local Africans and 1% from a third country. The same survey also reveals that Chinese managers in Ethiopia are paid $700 per month, and those working in China receive $200–400 per month, whereas American managers working in Africa are paid over $10,000 per month.[14] Last, but not least, as China becomes the world's manufacturing base, Chinese companies take advantage of importing materials and machinery that China can supply at a competitive price. However, the Chinese firms in Botswana indicated that most of their machinery is internationally sourced. When procuring materials, they take into consideration the time constraints of procurement, as well as the cost of transport and custom duties. They will not import unless there are no or limited supplies locally (which includes supplies in the region, e.g. South Africa and other Southern African countries in the case of Botswana).[15]

Hands-on management strategy

As noted above, one of the key differences between Chinese firms and their competitors is that Chinese companies adopt a hands-on management style. Except for the head office of the company, which in Botswana is normally located in the capital city, Gaborone, all management teams for particular projects reside on or close to site.

There are several reasons for this. Firstly, it makes for the efficiency and convenience of the management process, as the management team can deal with problems as they emerge on site, thus avoiding any delay or further damage. Secondly, it saves on the cost of transportation and accommodation. Usually, there is a staff canteen for the team and a Chinese chef who also grows some Chinese vegetables to suit Chinese preferences. Thirdly, it is because most of the team cannot communicate in English or any local languages and will surely encounter communication problems should they reside separately, by themselves. The rumour that Chinese companies employ prisoners who are confined to their own camp to save costs is indeed a misperception.

Experience and expertise in building infrastructure in developing countries

Given the demand for infrastructure in a booming economy in the last 30 years in China, Chinese construction companies have gained experience and expertise in operating in a market with a developing economy where time and budget are the common constraints. Moreover, apart from operating in China, many of them have ventured into the international market and have globalised their brand.

CSCEC serves as a case in point. The company came to Botswana in 1988 to build the Chinese Embassy and then started to work on more local government projects thereafter. Gaborone now serves as CSCEC's head office in overseeing its projects in Southern Africa, e.g. in Angola and the Democratic Republic of Congo. Besides Southern Africa, CSCEC has projects in East Asia, and North and South America. It won a bid in 2003 to build a $240 million Marriott Hotel in New York. CSCEC is also reported to have built a $17 million conference centre at the University of South Carolina and a school in South Carolina worth $15 million. In 2005 it was reported that CSCEC had sales volumes of $300 million in the United States (US).[16]

According to the international ranking of construction companies, in 2008 CSCEC ranked 21st and another five Chinese firms were all ranked in the top 100, as shown in Table 2.

Table 2: World's largest Chinese construction firms

World rank	Company name	Sales volume ($ billions)
21	CSCEC	9.03
22	China Railway Construction Corporation	8.47
43	China Metallurgical Construction	4.43
59	China Harbour Engineering Company	3.33
85	China National Water Resources & Hydropower & Engineering Corporation	2.22
88	China Road & Bridge Corporation	2.01

Source: Department of Policy Making, Urban Development and Reconstruction of Moscow, 2008, <http://www.stroi.ru/eng/>.

Table 3: Revenues of 35 Chinese construction firms operating in Africa

Chinese construction firms in Africa	International revenue ($ millions)	Total revenue ($ millions)	ENR ranking
China Jiangsu International Economic Technical Co-operation Corporation	102.30	191	142
Chongqing Construction Engineering Group	33.50	78	206
China Dalian International Co-operation (Group) Holdings	90.40	228.90	153
Beijing Uni-Construction Group	38.80	866.30	202
Jiangsu Geology & Engineering	n/a	n/a	n/a
China Shanghai Corporation for Foreign Economic & Technological Co-operation	75.30	101.50	162
Fujian Construction Engineering Group Corporation	n/a	n/a	n/a
China Huanqiu Contracting & Engineering	49.90	89.60	185
China Weihai International Economic & Technical Co-operative	n/a	n/a	n/a
Qingdao Construction Group Corporation	143	769	129
China Jiangxi Corporation for International Economic & Technical Co-operation	36.50	36.50	204
China Nuclear Industry Huaxing Construction	n/a	n/a	n/a
China Railway Engineering Corporation	477.90	15,359.80	67
COVEC	159.30	185	123
Shanghai Urban Construction (Group)	n/a	n/a	n/a
Beijing Municipal Engineering Group	23.60	798.20	217
China Water Conservancy & Hydropower Engineering Bureau No. 5	n/a	n/a	n/a
Transtech Engineering Corporation	44.10	61.20	194
Hunan Construction Engineering Group Corporation	n/a	n/a	n/a
China National Machinery Industry Complete Engineering Corporation	759.50	1,269.50	50
Jiangsu Nantong No. 3 Construction Group	47.50	675	189
China Road & Bridge Corporation	759.50	1,269.50	50
China Petroleum Engineering Construction Group	552.50	552.50	60
Henan Province Construction Engineering Corporation	n/a	n/a	n/a

China National Machinery & Equipment Import & Export Corporation	107.20	107.20	138
China National Electronics Import & Export Corporation	n/a	n/a	n/a
Nanjing Dali Construction Group	n/a	n/a	n/a
Sinohydro Corporation	460.30	3,867.10	68
Jintan Construction & Installation Engineering Company	n/a	n/a	n/a
China Major Bridge Engineering	n/a	n/a	n/a
China International Water & Electric Corporation	270	355.10	97
China Oil & Gas Pipeline Bureau	50.60	71.50	183
CSCEC	2,076.10	12,525.00	20
CCECC	355.50	412.20	76
Beijing Construction Engineering Group	53.50	2,502.10	180

Source: *Engineering News Record (ENR)*, August 2006.

THE COMPETITORS OF CHINESE COMPANIES IN BOTSWANA

Companies from South Africa and some European countries had long dominated the construction industry in Botswana before the Chinese companies arrived. The Chinese Embassy, the Chinese companies and many Botswana government officials interviewed for this research all agreed that the Chinese construction firms bring competition into the construction industry in Botswana. The government of Botswana thus gained substantial savings in its public infrastructure projects, which in turn bring in broader benefits to the taxpayers of Botswana. The cost saved is estimated to be about one fourth to as much as one third. For the construction industry in Botswana, Chinese firms are seen as an alternative choice to the European or South African firms. Moreover, many government departments in Botswana welcome the participation of Chinese companies. In a country that lacks the capacity to develop its own infrastructure, Chinese firms add value to the competitiveness of the tendering process.[17]

More recently, the presence of Chinese companies in the infrastructure sector in Botswana has been growing, as many South African firms are operating at full capacity to meet the infrastructure demands for the Soccer World Cup in South Africa to be held in 2010. This echoes the findings of a recent World Bank study on infrastructure in Africa, which suggests that there was an annual $22 billion infrastructure backlog on the continent and, consequently, plenty of opportunities for traditional actors and newcomers like China.[18] However, Chinese companies' competitive advantages are also becoming more salient: they offer lower costs and comparable quality standards, and they are prepared to work longer hours and commit to delivering the projects in a shorter time.[19]

THE CHALLENGES FACING CHINESE INFRASTRUCTURE INVESTMENT IN BOTSWANA

Quality

Quality is always on top of the agenda when evaluating Chinese projects or products. As an interviewee for this research remarked, people associate China with poor quality work — 'quality from Fong Kong' are the words Botswana people use to describe the substandard of Chinese products or Chinese work.[20] This is, however, a complex issue where perceptions mix with facts, which is further confused by the issue of responsibility. Some of the Botswana officials and researchers interviewed for this research show understanding and regard the issue of standards as part and parcel of the developmental process, echoing the trajectory towards improving outputs as seen in the economies of South Korea and Japan. They feel that Chinese companies will start to realise the problems associated with this issue and improve their quality control.[21]

At the same time, many other people interviewed for the research show deep concern over the issue. They say that the end users' or beneficiaries' interests are severely damaged because of the poor standard of work and the bad quality of cheap Chinese imports. There are indeed many complaints regarding the quality standard of Chinese work/products. For example, a resident in a house built by the Chinese for the Botswana Housing Corporation (BHC) complained that the Chinese contractor used stainless steel pipes instead of the normal brass pipes to save money. When there are problems with the stainless steel pipes, the residents cannot find replacements in the local market, as they are not a standardised item. Complaints like this need further investigation as to who should take responsibility for these problems, i.e. whether or not the developer — in this case, the BHC — clearly specified the technical standards to be met in the tender document. If it did, it has the right of recourse with the Chinese contractor. It is, however, a pity that many complaints on quality are informal and have not been properly documented or investigated. A major issue contributing to this problem or, at the very least, the perception of problems is the fact that no proper evaluation or assessment has been done of project delivery by these particular Chinese firms.

There are fewer quality complaints in road construction, according to the chief engineer of the Department of Road Works, and the same quality rules are applicable to everyone. He said that the percentage of rejects is not high when comparing Chinese work with that of other contractors. In general, the Chinese companies keep a good working relationship with the department and they are willing to take advice and instruction from the government.[22]

Labour

The biggest challenges faced by Chinese construction firms in Botswana, according to Counsellor Gong from the Chinese Embassy, is manpower. He said that both the local government and the Chinese government encourage firms to employ local people; however, there is not a sufficient local supply of skilled labour in Botswana. Sinohydro once advertised in a local newspaper to recruit skilled professionals for its airport project, but received no response locally. Chinese firms face the risk of winning the tender but having not enough staff running the project should their Chinese team not been granted visas. Gong explained that it is not Chinese companies' preference to bring in Chinese staff, because if all the costs are taken into consideration (accommodation, international flight, insurance, salary, etc.), the cost of employing a Chinese from China is higher than the salary of an equivalent local employee. However, in general, Chinese staff are more productive and efficient in their work.

According to Gong, the ratio of Chinese employees to local employees among Chinese firms operating in Botswana is between 1:6 and 1:10. There are in total 900 Chinese people working for Chinese SOEs in Botswana, and the total number of local staff amounts to over 5 270, according to the companies' reports to the embassy. The Chinese Embassy requires the Chinese SOEs to conform to the minimum wages of Botswana. A conflict hence arises: on the one hand, there is a shortage of skilled labour locally, while, on the other, the Chinese companies are always blamed for not employing local people, for bad labour relations and for lack of technology transfer.

Other challenges

Many Chinese firms face the risk of losing money on their projects because they tender in terms of market entry and do not make adequate provision for the costs and risks involved in the projects themselves. The Chinese government-funded finance is a source of finance administered by the Ministry of Finance and the Ministry of Commerce; it is, however, not a guarantee of commercial profit. The companies may lose money even in these government grant projects if a project is not properly managed. They need to understand and assess the market carefully in order not to lose money and to succeed.

Chinese companies have also been criticised for their lack of fulfillment of social responsibilities. The Chinese government encourages Chinese companies to give back to the society in which they are working and the SOEs are starting to put corporate social responsibility higher on their agendas. To list a few examples: CSCEC invited two Chinese agricultural specialists to teach the local people about irrigating using recycled waste water in its first local projects as early as the mid-1990s; China Jiangsu donated computers to the office of the Ministry of Foreign Affairs in Botswana and built houses for the local people; while Sinohydro donated generators to the school it helped to build. These Chinese companies might have done a lot, but they did not publicise this properly or communicate it to the public. Chinese companies still need to learn to work with the media on how to manage their public relations.

Interestingly enough, given the high profile that corruption assumes in many discussions of investment in Africa, Chinese officials do not see this as particularly problematic in Botswana. This is due to the robust attitude that the Botswana government has with respect to transparency and accountability, giving rise to a zero tolerance for corruption.

Finally, language and cultural barriers cause a lot misunderstanding in labour relations, because the middle management of the Chinese team on site is usually an individual technician with no or little English, and it is hard for such a person to communicate efficiently with the local workers. The less communication, the more barriers, and hence misunderstanding arise between the local people and the Chinese. A case in point is local people's complaints about the labour practices of the Chinese firms, on the one hand, while on the other, the Chinese firms complain about the lack of understanding of their local staff and the latter's low productivity output.

A NEW MODEL DEVELOPED

On 12 May 2009 the Standard Bank Group and the Industrial and Commercial Bank of China (ICBC) announced that they had been mandated as joint lead arrangers to finance the expansion of the Morupule B Power Station project in Botswana. Driven by the Botswana Power Corporation, the $1.6 billion power station is a major Botswana government initiative that involves the installation of four 150 megawatt coal-fired air-cooled units. With the China National Electric Equipment Corporation being granted the $970 million contract to supply and build a significant portion of the power station, ICBC and the Standard Bank Group are arranging a $825 million loan for 20 years, backed by a Botswana Ministry of Finance guarantee and a Sinosure[23] guarantee covering the project's political and commercial risks.

This is the first project of its kind since ICBC became a 20% stakeholder of Standard Bank in late 2007. A new funding model is being shaped for infrastructure development in Africa through this project. When a Chinese company is appointed to carry out an infrastructure project that is being guaranteed by a local government, Sinosure is willing to provide a credit insurance/guarantee so that the Chinese bank, ICBC, together with its local business partner, Standard Bank (which has an on-the-ground presence in Botswana as well as experience and expertise in project finance), can work jointly to present a single funding proposal for the project. Facing the challenges of the current (2009) credit crunch and financial crisis, this is a milestone project for both the banks and infrastructure development in Africa. If they are granted the abovementioned financial support, the Chinese construction firms are better positioned in their competition with firms from Europe, the US and South Africa. Echoing this new trend towards diversification of Chinese support for African infrastructure development is the recent conclusion of an unprecedented deal in Mozambique, in which China Exim Bank agreed to finance a Brazilian company to build the Mphana Nkuwa hydroelectric dam on the Zambezi River. This increasing commercialisation of Chinese financing in Africa reflects the changing nature of the Chinese banking sector since 1994.

CONCLUSION

Chinese firms involved in infrastructure construction in Botswana have carved out a prominent place in a sector once dominated by South African and European firms. Their methods have contributed to the longstanding development aims of the Botswana state, while the experience they have gained has enabled them to establish a foothold in Southern Africa. At the same time, there are both opportunities and risks in the infrastructure construction industry in Botswana. Chinese companies bring competition to the industry that to a certain extent benefits the local people. At the same time, these firms need to be aware of the risks involved in operating in Botswana and work to ensure that they observe quality standards.

Misperceptions about China and Chinese companies need to be addressed and informed by empirical evidence rather than rumour. Therefore, more fieldwork needs to be done to get first-hand information and enable more objective discussion and analysis in this regard. Research of this kind is extremely helpful in overcoming misunderstandings: for example, one of the Botswana interviewees for this research believed that all Chinese SOEs get government finance and that their staff are paid by the government, and for that reason these companies did not need to make a profit.

Debates around the importation of Chinese labour, material and equipment need to be balanced against the availability of material and local labour, as well as the commercial needs of participating firms. If all sustainable business runs on earning commercial profit, then the Chinese companies will have to budget for their costs in labour, material and equipment, and therefore need to source globally for the cheapest available. Concurrently, who is responsible for the training of local labour and skills transfer? Is time allowed and are channels in place for such transfer? How should the language and cultural differences be addressed along with training and skills transfer? Should the burden of responsibility rest with the host government to set more strict rules on skills and technology transfer when negotiating projects with either the Chinese government or Chinese firms?

Projects are initiated by the Botswana government, whose responsibility it is to assess and address the needs of the local people. However, once a project is proposed for Chinese involvement, the Chinese government should also evaluate the project holistically from all perspectives, including its technical practicality and standards, economic feasibility, environmental impacts, and the social responsibilities involved.

It is the responsibility of the local government to put adequate law in place and monitor the enforcement of such law. The evaluation of projects and proper communication between the contractor and the project owner are vital. At the moment, although there are complaints from the end users, such complaints are neither investigated nor documented; therefore, there are no forms of recourse with the Chinese contractors, and more sadly, nothing can be learned from these problems. It also important to investigate and differentiate whose fault it is when there is a problem. With the complaints that Chinese contractors deliver substandard projects and use Chinese products of bad quality, one also needs to investigate the tender document closely to check the particular specifications to find out whether the Chinese are in fact to blame or rather just a scapegoat for the failures of the developer of the project.

Finally, Chinese firms also need to assess the local market more carefully and adopt a better management style, otherwise they will suffer the consequences. Although market entry is important, profit generation is the only way to achieve sustainable business development. Poor assessment of risk cannot only cost the business, but in the long run is damaging to future opportunities and the general reputation of Chinese companies operating in a particular country.

As this paper has demonstrated, there are many 'Chinese companies'. They range from Chinese SOEs to private Chinese businesses, while some of these firms are under the direct leadership of the national government and others are under a particular provincial government. Although to a certain extent the state can monitor the business operation of SOEs, it has no or little control over private Chinese businesses. Competition among these different Chinese entities is also a feature of China's engagement in Botswana, along with the potential risks to the reputation of Chinese operations in general posed by their conduct. Recognising this diversity and the fact that it is replicated across Africa are crucial to understanding the changing and deepening pattern of Chinese engagement on the continent.

ENDNOTES

1 <http://www.imf.org/external/pubs/ft/aids/eng/chapter9.pdf>, accessed 18 January 2009.

2 <http://web.worldbank.org/WEBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/BOTs>, accessed 14 September 2008.

3 <http://bw.china-embassy.org/eng/dszc/Info/P020050928144852194783.pdf>, accessed 14 September 2008.

4 *Ibid*.

5 National Bureau of Statistics, *China Statistical Yearbook*, *2008*. Beijing: China Statistics Press, 2008.

6 Interview with Kgomotso Abi, chief engineer, Department of Mines, Botswana, 1 August 2008.

7 <http://www.mmegi.bw/2006/May/Monday8/274371471408.html>, accessed 14 September 2008.

8 The PPADB (Public Procurement and Asset Disposal Board) is the independent authority responsible for the co-ordination and management of public procurement of public works, supplies and services for government and for the disposal of assets. The Public Procurement and Asset Disposal Act came into force in July 2002 to address the increased volume and complexity of government procurement.

9 Interview with Heping Gong, counsellor for economic and commercial affairs, Chinese Embassy in Botswana, 1 August 2008.

10 *Ibid*.

11 *Ibid*.

12 Interviewed 2 August 2008.

13 Interview with Dr Themba Mhlongo, national integration adviser, Southern Africa Trust, 7 August 2008.

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21 Interview with Dr Themba Mhlongo, national integration adviser, Southern Africa Trust, 7 August 2008.

22 Interview with Jacob R Sello, chief engineer, Department of Road Works, 2 August 2008.

23 Sinosure is the official export credit agency of China.

SAIIA'S FUNDING PROFILE

SAIIA raises funds from governments, charitable foundations, companies and individual donors. Our work is currently being co-funded by AusAid, the Bradlow Foundation, the Department of International Development (DFID), the Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), the European Commission, the Finnish Ministry for Foreign Affairs, the Ford-Foundation, the Friederich Ebert Stiftung (FES), the Graduate Institute of International Studies (GIIS), the International Development Research Centre (IDRC), the International Institute for Sustainable Development (IISD), INWENT, the Konrad Adenauer Foundation, the Organisation for Economic Co-operation and Development (OECD), the Royal Norwegian Ministry of Foreign Affairs, the Royal Danish Ministry of Foreign Affairs, the Royal Netherlands Ministry of Foreign Affairs, the South Centre, the Swedish International Development Agency (SIDA), the Sustainable Development Policy Institute (SDPI), the United Nations Conference on Trade and Development (UNCTAD), the United Nations International Research & Training Institute for the Advancement of Women (INSTRAW), the South African Department of International Relations and Cooperation (DIRCO), Trade and Industrial Policy Strategies (TIPS), the Department of Environmental Affairs (DEAT) of South Africa and the South African Revenue Service (SARS).

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