

**China's Engagement in the Construction Industry of
Southern Africa: the case of Mozambique**

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1. Introduction

This paper is the output of a preliminary study of the Chinese construction business in Mozambique, describing the current status of Chinese involvement and possible threats and opportunities for the various stakeholders in the local construction sector. The paper focuses specifically on the impact on South African contractors that had entered the Mozambican market less than 10 years ago and that are now confronted with stiff competition.

For this study the IDS background papers of the envisaged global research program and the websites of the Government of Mozambique and China were consulted. Subsequently interviews were held with high level representatives of key Government institutions in Mozambique, namely the Ministry of Housing and Public Works, the National Roads Authority and the Mozambique Investment Promotion Centre, with the Economic Department of the Chinese Embassy in Mozambique and with Chinese, South African and European contractors.

2. Mozambique – facts and figures

Mozambique, formerly a Portuguese colony, is located on the East coast of Southern Africa along the Indian Ocean and has a strategic position towards its hinterland (South Africa, Zimbabwe, Botswana, Zambia, Malawi) due to its long coastline of nearly 2000km and various deep water ports.



The country became independent in 1975, but suffered a civil war that started in 1978. In 1992 a peace agreement was achieved, with the first democratic elections in 1993. Since then a steady reconstruction process has taken place in a stable political climate

and with remarkable economic growth. Mozambique's economic potential is mainly in the field of agriculture, tourism, hydropower and the exploitation of transport infrastructure. In terms of mining large deposits of natural gas are since recently being exploited, whereas there are also upcoming investment projects related to mineral sands and coal mining. The larger investment projects are a.o. led by South Africa, Brasil, Australia; none of them by Chinese investors. Possibly other natural resources exist, but further prospection is required.

Mozambique is a member of the Southern Africa Development Community (SADC) and since 1995 of the Common Wealth.

2003 Mozambique - Macro economic data¹	
Population	19 million
Life expectancy	40,7 years
GDP	US\$ 4,3 billion
GNI	US\$ 3,9 billion
GNI per capita	US\$ 210
GDP growth	2001: 7.5% 2002: 7,4% 2003: 7,1% 2004: 7,2 %

3. Short history of recent Mozambique – China relations

Strong friendship ties were established between Mozambique and China during Mozambique's liberation struggle which started in the middle of the sixties. Mozambique and China have a formal diplomatic relationship since its Independence in 1975 and the bilateral relations were actively nurtured ever since, although naturally less intensive during the years of war.

In 2001 China and Mozambique signed a mutual Trade Agreement and an Agreement on the Promotion and Reciprocal Protection of Investment; they also set up a joint Economic and Trade Commission. Mozambique participated in the first China-Portuguese speaking forum for Economic and Trade Cooperation in 2003 and will participate in the 2006 forum in Macao. Mozambique also participates in the recently created Sino-Africa platforms. China relieved partially the expired debt of Mozambique which should have been repaid by the end of 1999.

Trade relations with China are growing sharply, as the following table shows:

Year	Trade volume
2002	US\$ 48 million
2004	US\$ 120 million
2005 (January through August)	US\$ 110 million

¹ *South Africa is an important economic power house for Mozambique and SA's main macro-economic data of 2003 are: GDP USD 159.9 billion, GNI per capita USD 2750, GDP growth 3.6% (2002), 1.9% (2003)*

In 2002 exports of China were US\$ 26 million and imports of China US\$ 22 million.

The China-Mozambique cooperation has had a strong momentum since the end of the '90ies and is centered around:

- Exchanges of top-level visits and exchanges of legislative bodies, government agencies and political parties;
- Economic and trade cooperation in such areas as agriculture, mining, infrastructure construction and human resources development;
- Coordination and cooperation in international and regional affairs.

BOX 1 – Interests of some other similar countries for Mozambique

Mozambique has economic ties with many other countries around the world, each one of them stemming from a specific historical perspective and comparative advantage. The Mozambican Government has demonstrated a pragmatic approach in exploring the opportunities the various partner countries have to offer and not to concentrate on some specifically. Hereafter are some examples that are relevant in the context of this paper.

*The links with neighbouring **South Africa** have steadily become stronger since the end of the apartheid regime. The two most significant Mozambique-South Africa Public Private Partnerships (PPP) are the Mozal Aluminium Smelter, a US\$ 2 billion investment where bauxite is transformed into aluminium ingots and which came on stream end 2000, as well as the Sasol Natural Gas Project, an investment of over US\$ 1 billion and which was completed in June 2004. Both projects were important drivers for the country's strong economic growth. And specifically the construction business experienced a significant boost with many South African contractors establishing themselves in Mozambique.*

*In 2004 the reconstruction and management of the Sena Railway line were awarded to the **Indian** company Rites and Ircon, also in the format of a PPP. The World Bank is looking to provide \$104.5 million in soft loans (IDA funds), with Rites and Ircon investing an additional \$35 million, to restore this line. Construction will require three and a half years.*

*The Sena railway line connects the Moatize coal mines with the sea, for which the concession was awarded end 2004 to a consortium comprising **Brazilian** mining and logistics company Companhia Vale do Rio Doce (CVRD) and North American coal producer American Metals and Coal International (AMCI) to explore the Moatize coal deposits in central Mozambique, in partnership with the Mozambique Government. The CVRD/AMCI consortium bid US\$122.8 million for the concession, which has estimated reserves of around 2.4 billion tonnes and will allow the extraction of both coking and thermal coal.*

*Moma is a new mine containing considerable reserves of the titanium minerals, ilmenite and rutile. The concession was awarded to Kenmare, an **Irish** company. The project, with over US\$250 million investment costs, is currently under construction and completion is expected by the end of 2006.*

*Corridor Sands (**Australia**) will make an investment of US\$500 million for the initial production level of some 400,000 tonnes of titanium dioxide slag per year. The firm intends to begin construction in 2006 and the first heavy mineral sands mining and processing is projected for 2008.*

4. Infrastructure construction – recent achievements

After the peace agreement in 1993, the Mozambican Government made a large effort to establish and/or maintain good relations with a wide variety of countries and focussed on recovery of the economy through the attraction of FDI for mega and larger projects. The most prominent examples are related to the country's natural resources, namely the Mozal Aluminium Smelter, Sasol Natural Gas, Kenmare Mineral Sands, Moatize Coal Mines and Corridor Sands Titanium Project (SEE BOX 1). There are no Chinese investments in this regard.

Since the country's infrastructure was badly damaged, the Government also concentrated on this area. The pace of rehabilitation was slow in the beginning, but has increased since the end of the '90ies. The following large infrastructure projects were undertaken – either in terms of rehabilitation or completely new constructions: Maputo Port Development Project, the Limpopo railway line, the Zambezi Bridge construction (2006-2009), the rehabilitation of the Sena railway line. Until present, Chinese construction companies hardly participated in these large and mega projects, partially due to restrictions for tender participation (see also par. 5). However, Chinese companies are also operating on the Mozambican construction market, but in different segments - so far. The following projects can be identified:

A. Real estate:

The most prominent examples of public infrastructure projects are: the Mozambique Parliament buildings (1999), Ministry of Foreign Affairs (2004), Chissano Conference Centre (2003) and the new military quarter; an additional important Government building is most likely to follow soon. These projects are all largely donations of the Chinese Government and in a smaller part concessional loans. The amounts involved vary from 5 million US\$ (Conference Center) to 12 million US\$ (Ministry of Foreign Affairs), and in the new Government project will entail around US\$ 20 million.

For the works the Chinese Government launched tenders in China with only Chinese companies participating and the winning contractors bring most of the required resources, such as materials, equipment, including human resources, directly from China.

Also in the private sector a growing presence of Chinese construction companies can be noted. An example is the recently built soja processing plant of China Grains & Oils Group – CGOG - in Beira (US\$ 10 million) by Sojeco, which might be the first development with regards to the so-called 'soja valley' in the centre of the country and which is expected to produce extra amounts of soja in addition to the Brazilian production. Other examples are the prawns production plant in the Centre of the country (investment US\$ 12 million), for which the infrastructure was also built by Chinese contractors, a large shopping centre in the capital of Mozambique, an industrial warehouses also in Maputo, etc.

B. Roads & Bridges:

The Chinese Embassy is actively informing Chinese construction companies regarding upcoming international tender opportunities in the road construction sector,

and the result is now that over 1/3rd of Mozambique's current road construction programme, amounting to 600km roads, is carried out by Chinese road contractors. Also the tender for a large bridge in the North of Mozambique and which connects Mozambique and Tanzania was won by a Chinese company. According to the National Roads Authority ANE Chinese participation on international tenders is a given since 2003 and they generally offer lower prices than their South African and European competitors against good quality.

C. Water and Sanitation:

Also here growing participation of Chinese companies through international tender procedures, more specifically in the rehabilitation of the urban water supply systems of the main provincial capitals, namely Maputo (US\$ 30 million) and Beira and Quelimane (totaling US\$ 15 million). Chinese companies are also expected to participate in the international tender for the rehabilitation of a large irrigation scheme in the Southern part of Mozambique.

D. Industrial zones:

Initial involvement of Chinese companies with regards to infrastructure development zones, including urban, industrial and commercial areas, can be noted. A study was done for a Free Trade Zone in the surroundings of Nacala in the North of Mozambique by TEDA (Thengui Economic Development Agency) and another potential project was identified in Catembe, the outskirts of the capital Maputo (US\$ 200 million). At the moment the investment costs are too high to qualify for donations, but in the near future direct FDI might become a realistic option, possibly jointly with a donated portion.

5. Findings, comments and remarks

According to the Mozambican authorities Chinese construction companies deliver overall good quality jobs, within schedule and at very competitive prices. The price difference is often significant and can be 25% to 50% cheaper than the competitor's offers.

A number of SA contractors, which entered the Mozambican construction market around 8 years ago, stated that only 15% of the price difference can be explained by higher margins for SA and European companies, the rest must be related to special favourable conditions, they say.

The Representative of the Chinese Embassy referred to the various agreements that exist between Mozambique and China on economic and technical cooperation and for which support schedules exist such as concessional loans with low or even zero interest rates, and donations. It was not clear whether specific support schemes exist for Chinese contractors coming in to Mozambique to carry out specific support projects, e.g. in the form of entry grants.

The Chinese contractors operating in Mozambique are mostly large Chinese firms, often already with offices on the African continent and coming over from countries

such as Tanzania, Zambia. Examples are AFFEC (Anhui Foreign Construction (Group) Co Ltd), MCC (China Metallurgical Construction (Group) Corporation, China Geo Engineering Corporation, Chico, Sinohydro.

Local difficulties

Various sources commented that Chinese companies also had their specific difficulties when operating for the first time in Mozambique, e.g. the failure to hire the required design expertise for the construction of one of the bridges, adequately managing labour issues, which happened in one of the roads construction projects, or wrong judgment of the local real estate market in a large FDI project of one of the established Chinese contractors in Mozambique. But it was equally recognized that Chinese companies are fast learners and that the difficulties were normally overcome rather fast.

Competitive prices

Various reasons were mentioned by the various stakeholders for the cheaper prices of Chinese contractors, some of which are only rumours and should be checked out:

- Chinese staff is cheap, a.o. since they are already paid for in China by the Chinese Government via social services systems; Chinese workers also very often accept lower living standards than Mozambican workers;
- Chinese construction sites are generally very strictly organized, with much more direct control of the workers and therefore a.o. less theft – which is a serious cost factor for other Mozambican construction projects;
- No activity seems to be outsourced by Chinese contractors to local Mozambican or regional suppliers; all goods and services – from design up to decoration after construction completion - are provided directly or indirectly by the Chinese contractor, contrary to EU and SA contractors, who only deliver the core parts of the business. Management and other important staff are brought in from China, whereas a smaller amount of less critical workers are hired locally.
- Chinese contractors and project developers offer ‘mass construction projects’, which can be easily repeated elsewhere in the world at low cost.
- Chinese projects do not apply western construction standards, such as environmental standards, accepted comfort standards etc. But other stakeholders stated that Chinese contractors deliver according to ISO standards.
- The Chinese Government buys hard currency earned by Chinese contractors overseas at preferential rates;
- Chinese companies are allowed to bring in all required staff, which is a restriction of the Mozambique Government for other foreign construction companies;
- The Chinese Government provides subsidies to Chinese companies when they establish themselves overseas

Impact on local market

SA and European contractors commented that Chinese contractors do not train and transfer skills to local staff, which they say they do. Also the impact on the local market is less since Chinese contractors hardly outsource anything to local or regional suppliers. ‘We are trying not to be a foreigner in Mozambique and get Mozambicans involved’, an interviewee of a SA contractor stated.

EU and South African contractors also said that they are starting to lose out against the cheaper Chinese contractors, especially in international tenders. Fear exists of a repetition of the Botswana experience in Mozambique, where Chinese contractors are predominant now and have taken over a significant part of the business.

Tied aid

It is clear that the old paradigm of tied aid still rules: China protects their businesses, whereas the West protects theirs, and this is carefully managed through the set up of various support programs and financing facilities. A good example is the recent tender for the Zambezi bridge (US\$ 80 million investment costs), which will be financed solely through grants from Sweden, Italy and the EU, and where only companies from the European Union could participate in the tender. Or the granted bridge in the South of Mozambique by two of the Nordic countries, where again only Nordic companies could tender. The same holds true for projects with funding from the African Development Bank. On the other hand, when the Mozambican authorities launch a public international tender, any country can participate, and it is clearly in these tenders that there is growing (successful) participation of Chinese companies.

In ‘donations and soft loan agreements’ China and Chinese companies are in a better bargaining position and conditions can be imposed on Mozambique, including with regards to labour requirements. In international tender procedures, the bargaining position of the Mozambique Government is stronger and the limits for foreign personnel and rules for acquisition are set out in the tender documents.

It is worth mentioning that the so-called G17, composed of EU member states, Japan and Canada, are jointly providing direct budget support to the Mozambique Government. China is not providing this type of support.

Access to natural resources

The often heard assumption that China’s involvement in infrastructure projects is directly related to access to natural resources, and more specifically to mining projects, is not very clear at the moment in the case of Mozambique, given that many mining concessions were already handed out to other international companies (see box 1). However, China is clearly on the outlook for opportunities. The link with agricultural resources seems to be more relevant at this point in time, but here Chinese involvement and support are only in the beginning phase. It seems that the current focus of collaboration is mostly related to maintaining good ties between the two Governments and to secure access to the possible natural resources for a later stage.

6. Changing production models

In response to severely increased competition SA and EU contractors are starting to question whether their current profit margins are adequate, but for now the interviewed companies stated that these seem to be fair and therefore do not need to be adjusted.

However, South African contractors mentioned that analysis of their cost structure has made it clear that their usual local sourcing is a high cost factor. SA companies are now starting to procure goods and services on the global market instead of only within South Africa. In other words, they are becoming integrated in global value chains instead of continue to operate in an isolated fashion.

Another survival option is to move into more difficult business areas – in the case of Mozambique into territory that is further away, where familiarity with local circumstances is required and where there is less competition at present; or to move into other, more profitable, but also more risky, countries, such as Angola. Some contractors have already moved in, others are more risk averse and prefer to wait.

An interesting example of how a locally operating Chinese construction firm became integrated in a global value chain is the very recent establishment of a Chinese-Mozambique joint venture for FDI in a soja processing plant in the Centre of Mozambique. Construction is part of the overall investment and the actual building of the processing plant (cost: around US\$ 10 million) was done by one of the Chinese construction companies that was already established in Mozambique and had carried out several of the earlier donated infrastructure projects.

The Mozambique Investment Promotion Centre had facilitated actively in this deal and both the Mozambican and Chinese Governments hope that this model will be repeated in the future through other joint ventures between Mozambican and Chinese entrepreneurs, possibly also with regards to mining. In this particular example the Mozambican partner brought in natural resources and the Chinese partners investment capital, including for construction. It would be interesting to know whether the Chinese EXIM bank has specific attractive schemes for concessional loans for natural resources investment projects.

7. Opportunities & Threats

China's interest in Mozambique can be deducted from the frequent and targeted business visits that are coming over to the country and vice versa, the various trade agreements, as well as its active facilitation of Mozambique's participation in the China-Portuguese speaking forum for Economic and Trade Cooperation and the Sino-Africa forum.

Natural resources are likely to be a significant driver for this engagement, with agriculture, forestry and fishery being the most realistic opportunities for now and mining possibly in the near future. The exportation of unprocessed timber is continuing to grow at a rapid speed, whereas the investment of one of China's larger agricultural ventures, the China Grains & Oils Group (CGOG) in a soja-processing plant is a significant sign of growing interest in the soja sector. With regards to another natural richness of Mozambique, raw cashew nuts, it should be mentioned that production levels have increased significantly and are back to levels of 25 years ago. Over 60% of the raw cashew nuts is being exported to India and the Mozambican Cashew Institute INCAJ studying at present the opportunities of the Chinese market

The construction sector is an important and profitable sector in an emerging post-war economy as Mozambique and is one of the specifically targeted areas for cooperation by China. It has proven to be an important entry point for Chinese involvement.

Mozambique is very keen to maintain good relations with China and to explore the opportunities offered by the Chinese Government, which not only results in the provision of quality construction projects for less costs, but also in re-balancing the aid-dependency on Western countries.

Furthermore, Mozambique, but also China, are keen to explore new ways of South-South cooperation in such a way that they are also beneficial to Mozambican entrepreneurs. An example are Chinese – Mozambican joint ventures, where Mozambican partners bring in one part of the resources, such as arable land, land rich in mineral resources or labour, and the Chinese investors capital, knowledge and technology.

The donated public infrastructure projects are often the stepping stone for Chinese firms to enter the country, followed by participation in public international tenders and ultimately by local construction firms becoming engaged in larger private FDI projects – not only within the country but also in the wider region. Another tendency is that Chinese construction firms, once locally established, start becoming an investor themselves in real estate.

Over the last 10 years China has gained specific innovative knowledge with regards to city planning. Currently financial restrictions from Government donation funds (e.g. for the estimated US\$ 200 million Maputo/Catembe urban IFZ expansion area) exist, but it is expected that they will turn into interesting FDI opportunities when there is increased familiarity with the country and its economic and investment climate.

8. Theoretical embedment

A first attempt for theoretical embedment is made by categorizing the findings according to the analytical framework set out by Schmitz (Schmitz, 2005). Schmitz defined three types of Asian drivers, with Asian driver 1 focusing on changes in the quantity and direction of trade, Asian driver 2 on changes in the way production and trade are organized and Asian driver 3 focusing on changes arising from the re-location of innovation activities. In the Mozambican construction sector the categorization of the findings is as follows:

Asian Driver 1	<p><i>Expansion of Chinese construction business</i></p> <ul style="list-style-type: none"> • Chinese contractors have entered more intensively the public Mozambican construction market some 5 years ago, more specifically real estate, roads and bridges, water and sanitation • Their presence is also growing in the private construction market, partly driven by growing presence of Chinese investors in other business sectors in Mozambique • They are increasingly taking over business from South African and European construction firms • They are offering far more competitive prices for good
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	<p>quality and on-time delivery</p> <p><i>Impacts on receiving country:</i></p> <ul style="list-style-type: none"> • Lower prices are beneficial to the Mozambican Government and other requestors of their services • Supposedly less spill over to local business, in terms of skills transfer, hiring of local suppliers, etc.
Asian Driver 2	<p><i>Business Innovation & expansion:</i></p> <ul style="list-style-type: none"> • In their struggle for market share, South African contractors are starting to procure required goods and services globally instead of locally, as they were used to do, whereas European contractors are more and more limited to participation in restricted tenders • South African contractors are also increasing their mobility and moving into more remote (North of Mozambique) and riskier markets (e.g. Angola) <p><i>Standards:</i></p> <ul style="list-style-type: none"> • Chinese contractors are introducing their own construction standards instead of working according to accepted European building standards, e.g. with regards to environment and/or comfort <p><i>Partnerships:</i></p> <ul style="list-style-type: none"> • The Chinese Government is actively searching for synergies with their trade partners through various international business forums in order to establish common regulatory frameworks which facilitate the way goods are produced and traded. • Frequent and intensive exchange visits between the governments of both countries, their investment promotion centres and the private sector are facilitated and financed by the Chinese Government, leading to deeper integration between the two countries • Mozambique is actively trying to identify opportunities for mutual benefit for Mozambican and Chinese entrepreneurs, and the pilot with a Chinese-Mozambican joint venture is considered very important in this regard.
Asian Driver 3	<ul style="list-style-type: none"> • Chinese innovative knowledge with regards to city planning can be transferred to developing countries, such as Mozambique • Chinese contractors are introducing cheaper building techniques in Mozambique • Chinese contractors are incorporated in global value chains of other business sectors

9. Further research questions:

The current involvement of Chinese companies in the Mozambican construction sector seems to be only the beginning of a long term and broader framework of collaboration between the two countries. In order to better understand the dynamics of

this collaboration, as well as for Mozambique to take most benefit of the forthcoming business and development opportunities, the following issues could be further researched:

1. *Procurement*: How do Chinese contractors organize their procurement of goods and services: directly via their own construction company or indirectly through an international value chain?
2. *Financial support schedules*: Are there specific support schedules for Chinese contractors that are starting to operate in developing countries, such as establishment subsidies, co-financing of staff hire, attractive loans? Does EXIM bank have specific schemes for natural resources investment projects in developing countries? Are specific funding sources and subsequently specific tender conditions an important factor that regulates Chinese and non-Chinese participation?
3. *Partnerships*: What are experiences so far with joint ventures between Chinese entrepreneurs and of a developing country? Are there examples in the construction sector? How is the construction sector getting involved?
4. *Responses to increased competition*: What are the survival techniques of non-Chinese contractors? To what extent are they innovative?
5. *Local benefits*: To what extent are Chinese contractors training local staff (skills transfer)? To what extent is the local business environment benefiting from increased activity of Chinese contractors? To what extent is the local Government and/or private sector benefiting from cheaper Chinese infrastructure projects?
6. *Costing*: what exactly makes Chinese bids more competitive than others? To what extent is 'massification' a relevant factor?
7. *Market expansion*: What are the most important factors that drive the expansion of Chinese construction business into developing countries? Are there intentional strategies, specifically with regards to natural resources, more specifically agriculture (e.g. soja, forestry), fisheries and mining?
8. *Innovation*: To what extent are innovative construction methods and/or techniques introduced in developing countries? Or innovative concepts of city planning?
9. To what extent can the interest in infrastructure projects be 'stand alone'? What is the relation with resources the partner country has in abundance – such as mining, agriculture, fishery, forestry?

Interviewees

Embassy of China in Mozambique – Economic Counselor
Managing Director of a South African construction Company
Managing Director of a Chinese construction company
Director Civil Works of a European Construction Company
Head of Department National Roads Authority
National Director Public Works, Ministry of Housing and Public Works
Managing Directors of a large and small Mozambican construction company
Brazilian architect
Deputy Head of Mozambique Investment Promotion Centre

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