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Preparing for FOCAC VI: China-South Africa co-operation in conservation and renewable energy

As China's development puts increasing pressure on the environment, various measures have been implemented both domestically and, increasingly, abroad in an attempt to limit the impact. China's environmental engagement at an international level, including the agreement between the United States (US) President Barack Obama and Chinese President Xi Jinping to cut carbon emissions (12 November 2014), signals the growing urgency of the issue. Within the context of the China-South Africa engagement, there are also signs of this shift. Two key areas where this is evident are in China's growing role in conservation and the renewable energy sector. China's domestic demand for wildlife goods has motivated the Chinese government to sign a number of Memorandums of Understanding (MoUs) with African governments. In the renewable energy sector again, Africa's energy needs and untapped capacity for electricity generation from renewable energy (RE) has created a vast potential market for global Chinese renewable energy firms. Both areas have become increasingly important topics within China-Africa relations, and feature on the Forum of China Africa Co-operation (FOCAC) agenda. This policy brief examines the role of these two themes as a way of demonstrating some of the concrete ways in which China-Africa interaction is evolving in a world where sustainable development has become key.

China, South Africa and relations in conservation

The increasing loss of biodiversity globally has led to an urgent need among the global community to protect the environment and safeguard thousands of species. In developing countries like China and South Africa, factors like the growth and development of urban and rural spaces, industrialisation, high population growth and agriculture activities have added extra pressures to the countries' environments. Within China, this has had a severe effect on the habitat of wildlife such as the Panda Bear. This has led to significant strategies and action by the Chinese government in order to save the panda, including establishing panda sanctuaries such as the Sichuan Giant Panda Sanctuaries, home to more than 30 per cent of the world's pandas which are classed as highly endangered. While South Africa does not have to cope with the same level of population density, a significant Chinese demand (which includes other

consumer countries, such as Vietnam) for wildlife products, is putting pressure on local African wildlife, including on elephants, perlemoen and the critically-endangered rhino.

The illegal wildlife trade of rhino horn has increased dramatically over the last few years, with record numbers of rhinos poached, bringing some rhino species towards the verge of extinction in some African and Asian regions. There are currently five species of rhino in the world: two African species (black and white rhino); and three Asian species (greater one-horned, Javan, and Sumatran rhino) found in South and south-East Asia. Historically, an estimated 65,000 black rhino were to be found across Africa in the 1960s but poaching wiped out nearly the entire population. At the lowest point in the early 1990s there were just over 2,000 black rhino left; while the white rhino was near extinction a century ago. Currently, there are approximately 4,800 black rhino and 20,000 white rhino

surviving. As the majority of the world's black and white rhinos are found in South Africa, the country has been a key target for rhino poachers. In 2013, the South African Department of Environmental Affairs (DEA) reported a record number of 1004 rhinos poached in South Africa, and in 2014 there were 1215 rhinos poached. China is known as one of the top consumer countries for rhino horn.

The successes

South Africa and China signed the MoU on Co-operation in the field of Environmental Management on 26 August 2010 during President Jacob Zuma's state visit to China. The main objective of the MoU was to promote co-operative efforts of environmental protection between the two countries (Department of Environmental Affairs, 2010). Further meetings took place between the environmental ministers of both countries in 2011 regarding the implementation of the MoU. This MoU, however, was not enough to curb the growing poaching crisis for rhino horn. In June 2012, Chinese authorities stepped up law enforcement on the online selling of rhino horn after TRAFFIC, an international wildlife trade monitoring network, had found 3,389 advertisements for tiger bone, ivory, rhino horn and hawksbill turtle products being offered through 15 Chinese-language e-commerce sites and associated auction websites and chat rooms. Thus, on 26 March 2013, South Africa's Minister Edna Molewa and China's Minister of Environmental Affairs, Wang Yi, signed a MoU, with the aim to promote co-operation in the particular field of biodiversity conservation and protection. This MoU was aimed at curbing the scourge of rhino poaching through co-operation in law enforcement, compliance with international conventions and other relevant legislation.

There have also been other multi-lateral frameworks where both China and South Africa have participated in campaigns against international wildlife crime. An operation, codenamed Cobra II, was co-organised by China, the USA, South Africa, the Lusaka Agreement Task Force, the Association of Southeast Nations (ASEAN) Wildlife Enforcement Network, and the South Asia Wildlife Enforcement Network in 2014. During the operation, tons of illegal endangered animal products were confiscated and more than 400 suspects arrested.

Conservation challenges

Although there have been successes, especially in co-operation between China and South Africa; also Kenya (who established a MoU with China on environmental management and conservation in 2014), the illegal wildlife trade in Africa continues to grow today. In South Africa, the Kruger National Park alone has lost 827 rhinos to poaching in 2014, while the number of alleged poachers, couriers and syndicate members arrested has risen from 343 in 2013 to 386 in 2014. Elephants are also being poached on a massive scale for their ivory, the

majority of which is destined for the Chinese market. TRAFFIC reported that at least 20,000 African elephants were killed in 2013; Central Africa has particularly been affected, where many populations are plummeting towards local extinction. Related to this, is the illegal harvesting of abalone in South Africa which is listed as an endangered species. This traditional Chinese delicacy is in high demand in China and Hong Kong.

The wildlife poaching crisis will not be resolved soon and more needs to be done on the part of affected African governments. The protection of wildlife is important for both conservation and recreation purposes. It forms part of key ecological processes necessary for sustaining biodiversity; and it is also significant for many African economies as wildlife tourism is a major attraction for many tourists. More African governments need to enter into bi-lateral agreements on environmental conservation with China so that the regulations on illegal wildlife trade and law enforcement measures are implemented on both sides and that criminals found guilty of these crimes will have to be dealt with according to the law.

China-South Africa co-operation in the renewable energy industry

Growth of renewable energy in South Africa

China's engagement with South Africa in the renewable energy sector is another way in which co-operation can be fostered and sustainable development promoted. South Africa was the first country on the African continent to initiate a renewable energy electricity generation scheme on scale, with the first Request for Proposals being issued in 2011. In 2012 South Africa made the top ten list for countries who had invested the most in renewable energy for the year. By 2014 RE spending had surpassed an estimated US\$ 14 billion in South Africa, up from US\$ 5.7 billion in 2012.

Chinese companies, along with other international companies were attracted to South Africa to cash in on the boom in the RE industry. Chinese involvement has shifted from direct tender participation towards the component supply side over the years (or from Round 1 to Round 3), though Chinese companies are still involved in all sectors of the industry.

The successes: Chinese renewable energy companies in South Africa

On the supply side, Jinko Solar, a Chinese company incorporated in the Cayman Islands and listed on the New York Stock Exchange, opened an R80 million (US\$ 7.4 million) solar photovoltaic (PV) factory in Cape Town, South Africa in 2014. At its launch the factory was the most modern and largest of its kind in Africa with a production capacity of 1300 solar panels per day, or 120 Megawatts generation capacity per year. According to Jinko, the factory was built to service the demand that has

been created through the South African government's Renewable Energy Independent Power Producer Procurement Program (REIPPPP) project. By August 2014 the factory had captured 30 per cent of market share in South Africa. It is hoped by the provincial and national South African government that direct investment such as the Jinko factory will boost the Western Cape (South Africa) to become a green hub for southern Africa.

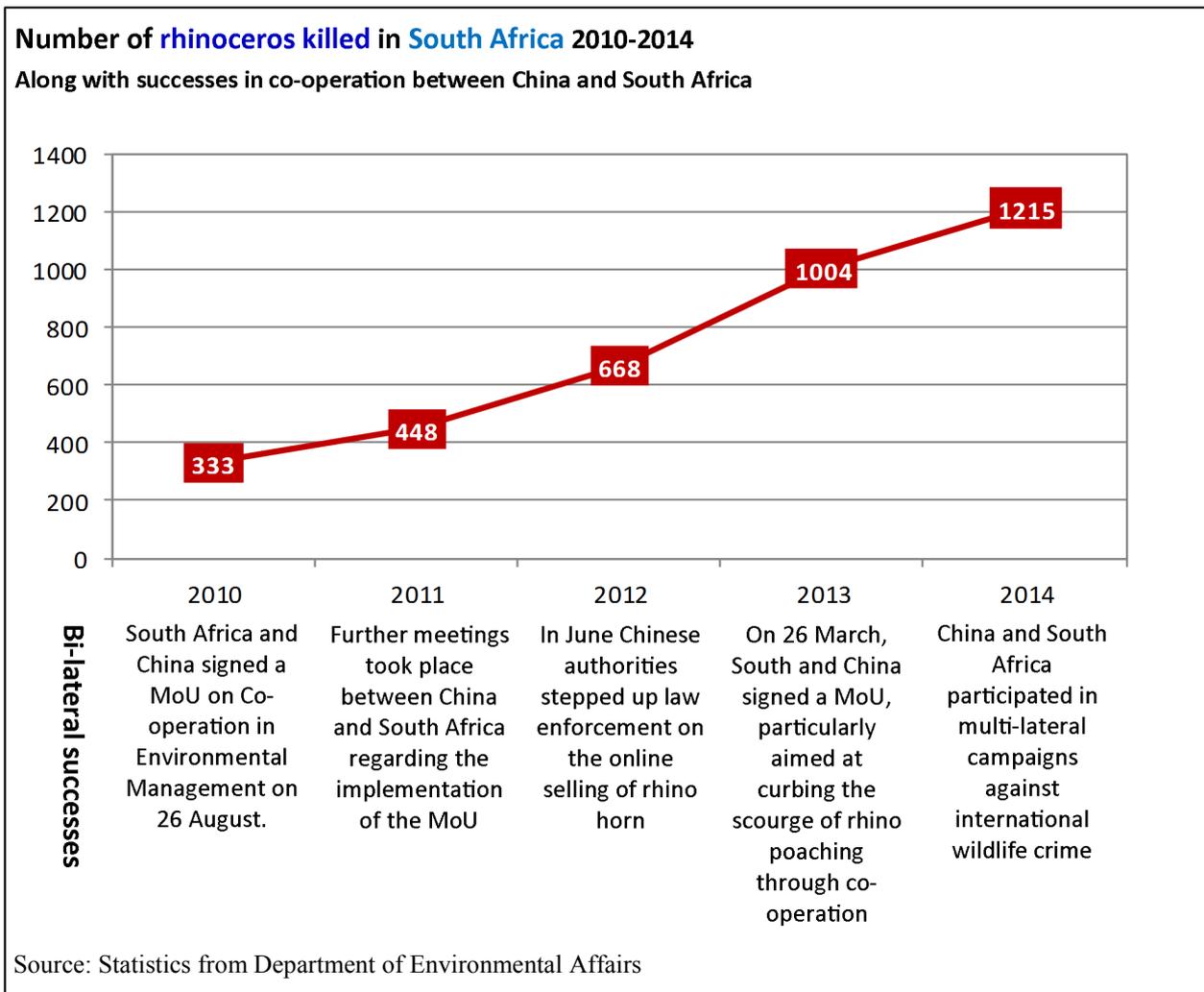
Direct Chinese involvement in the REIPPPP process is also ongoing, for example, through projects such as Longyuan Power Group Corp Ltd's 244 MW wind parks to be built in the Northern Cape, announced in early 2015. Longyaun is working in co-operation with Mulilo Renewable Energy Ltd and the Black Community Co. The projects were allocated to Longyuan and its partners by the South African Department of Energy in the third round of the REIPPPP. Currently, there are no special agreements with China that benefits Chinese RE companies when competing in South Africa, yet the market in South Africa is strong enough to attract foreign interest and keeps on

attracting Chinese companies.

In addition to stimulating investment through policy, the size of South Africa's renewable energy project and the continuing issuing of tenders have also contributed to create a sense of market security. Thus, political will (through policy) and market security created an environment that was favourable to foreign direct investment (FDI). The fact that Jinko was willing to put "bricks and mortar" on the ground in South Africa and that Chinese companies (along with other international RE companies) are willing to partake in the South African governments REIPPP is noteworthy, as the process is both time consuming and cost intensive with no guarantees.

Challenges

Though Chinese involvement is still present on both the content supply side and the investment side of South Africa's RE industry, there has been a shift toward component supply. This can be attributed to various factors, including lack of understanding of the local context. Due to the traditional top-



down hierarchical structure of Chinese companies, local advisors are often frustrated by their inability to make independent (and informed) decisions leading to decisions being made in China.

Other factors, such as a change in the way in which Chinese companies invest in Africa has also played a role. Chinese companies are becoming more risk averse and as a result have turned to creating partnerships with local companies as a risk mitigating factor, resulting in a reduction in direct FDI – or an increase in making use of local partnerships. This could be one factor influencing investment trends of Chinese RE companies.

Additionally, problems have arisen on the South African government's side. Eskom, South Africa's only power utility, has at times failed to connect new wind and solar plants to the grid quickly enough, creating a bottleneck. There is also resistance to plans that would allow households to sell excess capacity back to the grid. If households were able to sell excess RE that they generate it would act as a great stimulus for the residential market. These problems speak to the issue of state monopolies that still dominate many African industries. Although policy advisors and academics have pushed for the breaking-up of these monopolies (for example, as China did with its own State Power Corporation), governments (including the South African government) have remained resistant. African governments seem to be hesitant to privatise parastatals that oversee sensitive services such as water and electricity.

By looking at the case of RE development in South Africa it is clear that there is potential for co-operation with China in the right environment. Political will, market security (in RE created through Renewable Energy laws) and an investor friendly atmosphere (such as breaking up of state monopolies) are needed. Chinese companies are willing to invest when the environment is conducive, but the South African government must be proactive in creating a favourable investor friendly climate.

Lastly, there is a need to understand that investments alone are not enough. It is essential that skills and technical knowledge are also transmitted along with investments. FOCAC, as one example, is an opportune platform to push for the promotion of technology transfers. South Africa is a very healthy and lucrative market for Chinese RE companies, and Chinese RE companies have much to offer the emerging South African RE industry. If South Africa is able to engage China in constructive co-operation, the South African experience in RE can act as an example for other African economies who wish to develop their own RE industries. If China becomes an active partner in this process, there is much to be gained for all parties involved.

Recommendations

- Co-operation between South Africa and China illustrates that agreements made need to be specific to the issue of concern. The second MoU in 2013 was particularly aimed at curbing the scourge of rhino poaching through co-operation in law enforcement, compliance with international conventions and other relevant legislation. Since the agreement, the Chinese government have been more co-operative. Thus, more African governments affected by the poaching crisis need to enter into detailed agreements on environmental conservation and illegal wildlife trade in order for effective regulation and law enforcement.
- FOCAC should be used as a platform to address the problem where African governments, especially South Africa, can set the agenda regarding illegal wildlife trade and put hard pressure on their Chinese counterparts by bringing poachers to book.
- South Africa is a lucrative market for Chinese RE companies, but the local RE industry requires more skills and technical (technological) knowledge if it is to truly become sustainable on the long-term. More should be done on a bi-lateral basis to formalise the transfer of skills and technical knowledge between South African and Chinese actors in the RE sector. Technology transfer should be more clearly articulated in any new FOCAC agreements as a priority in China-Africa co-operation.
- The South African RE case has shown that a combination of laws and the provision of market security can stimulate economic investment in which African economies can themselves move up the value chain. South Africa with its relatively strong administrative capacity should provide assistance to fellow African states to follow suit.

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