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China's role in the East African oil and gas sector: a new model of engagement?

The oil and gas bonanza currently underway in East Africa looks set to alter the broader economic and geopolitical landscape of the region. As China continues its quest for energy security, East Africa is becoming an increasingly important region. Both Chinese state and non-state companies have gained a foot-hold in Uganda, Tanzania, Ethiopia and Kenya, where they are involved in both upstream and downstream activities. The Chinese presence, while significant, is off-set by a host of Euro-American, Middle Eastern and other Asian companies also involved in exploiting the region's energy reserves. Infrastructural underdevelopment in the region is forcing Chinese companies to engage on the continent in new ways including the rise of joint Chinese-Euro-American ventures. This trend, in which China and its partners own financial stakes in infrastructure projects located in geo-politically unstable regions, will have future implications regarding security and national sovereignty within the region.

While prospectors have been aware of potential oil and gas reserves in East Africa for over a century, geological complexity and political instability have conspired to hamper exploration. A recent game-changer has been a stratospheric rise in global oil prices. Up until the early 2000s, exploration in "frontier" regions such as East Africa proved economically unviable. However, with the spectacular rise in oil prices over the second half of the 2000s, exploration and development offer the potential for handsome returns.

The Chinese Presence

China is one actor amongst many within East Africa and has by no means secured the lion's share of these new energy finds. Within countries containing natural gas, the Chinese presence is either limited to downstream activities or is absent. In Tanzania, the state-owned giant CNPC (Chinese National Petroleum Corporation) is involved in the construction of a 500km 1.2 billion dollar pipeline which will transport Tanzania's gas from Mtwara to Dar-es-Salam. Chinese enterprises, however, are not involved in upstream extraction; such activities are dominated by multi-nationals such as Statoil (Norway) and ExxonMobil (US) (see table 1). In the case of Mozambique, where significant gas deposits have been discovered, Chinese enterprises are largely absent (although they are heavily involved in the extraction of other energy sources, such as cooking coal).

China's lack of involvement in upstream gas extraction reflects the country's persistently low reliance on natural gas as an energy supply. Crude oil is the largest segment of the oil & gas market in China, accounting for 95 per cent of the market's total value. While the IEA (International Energy Agency) sees China's gas demand increasing by 6 per cent annually through 2035, such requirements are at present being met through supplies from neighbouring Central Asian countries (a natural gas pipeline already links Turkmenistan with China's Xinjiang region) as well as large reserves of untapped shale gas, with unknown potential for exploitation.

Chinese companies are significantly involved in pipelines projects in the region. In addition to the Tanzanian pipeline mentioned above, Uganda will be the beneficiary of two shorter pipelines which will link Lake Albert to a nearby refinery. Another potential pipeline will link oil finds in the Ogaden Basin (Ethiopia) to Berbera, a port in the autonomous region of Somaliland; Hong Kong-based PetroTrans President, John Chine, has expressed interest in this project, although construction has not yet begun. A major pipeline has been set to connect recently independent South Sudan's oil fields to the port of Lamu in Kenya, thereby offering South Sudan a way to transport its oil to market without having to go through its adversary, Sudan. However, recent visits between Chinese delegates and South

Sudan President Salva Kiir, seem to suggest that China remains non-committal toward the costly project.

Chinese-Western Joint Ventures

China's upstream presence in East Africa's oil producing countries is more significant. Until recently, the state owned National Offshore Oil Corporation (CNOOC) was involved in exploration drilling in northern Kenya; while attempts were unsuccessful and the company pulled out, they later attempted to enter into a further exploration partnership

Table 1: East African Oil and Gas Reserves

Country	Oil Reserves (barrels per day)	Gas Reserves (cubic meters)	Chinese Involvement	Select Multi-National Involvement
Ethiopia	430 000	113 bn	PetroTrans (non-state owned)	Titan Resources (US); African Oil Corp (Canada/Sweden)
Kenya	No figures available	No figures available	CNOOC	Anadarko (US); BG Group (UK); Cove (UK); Tullow (UK)
Mozambique	0	127 bn	—	Anadarko (US); ENI (It.); Total (Fr.)
Somalia	0	5.6 bn	CNOOC	African Oil Corp (Can.); Ophir (Aus./S.A.); RAK gas (UAE)
Tanzania	0	6.5 bn	CNPC	Shell (UK/Holl.); Exxon-Mobile (US); Hollick (Aus.)
Uganda	1 bn	14 bn	CNOOC	

with UK's Tullow Oil (which Tullow rejected). Within the Ogaden region of Ethiopia, the government has awarded exploration rights to eight blocks as well as natural gas fields to the privately owned Hong Kong firm, PetroTrans. In Uganda, CNOOC has been more successful, holding a one third stake, along with Tullow and France's Total, in the development of oil blocks within the Lake Albert region, where reserves are estimated to be at around 2.4 billion barrels. The lake, which constitutes an international borderline with the DRC (Democratic Republic of Congo), contains significant reserves on the Congolese side, although these have yet to be as fully developed as those on the Ugandan side.

The Ugandan finds in particular point toward potential new forms of Chinese commercial engagement on the continent. The deal has seen the Ugandan government obliging the development of a refinery, to be built at Hoima, east of Lake Albert, which will cost an estimated 1.5 billion dollars and

will be jointly funded by CNOOC, Tullow and Total. While it is common for a given company to purchase drilling block permission from a given government and then to sell these rights off to other companies, joint ventures involving Chinese and western companies in the development of downstream infrastructure is a more recent phenomenon. A pre-cursor in this regard is the construction of Sudan's 1600km Greater Nile Oil Pipeline, which involved Indian, Malaysian and Chinese companies (the latter of whom, China National Petroleum Corporation, own 40 per cent stake in the operation as well as managing the operating of the pipeline).

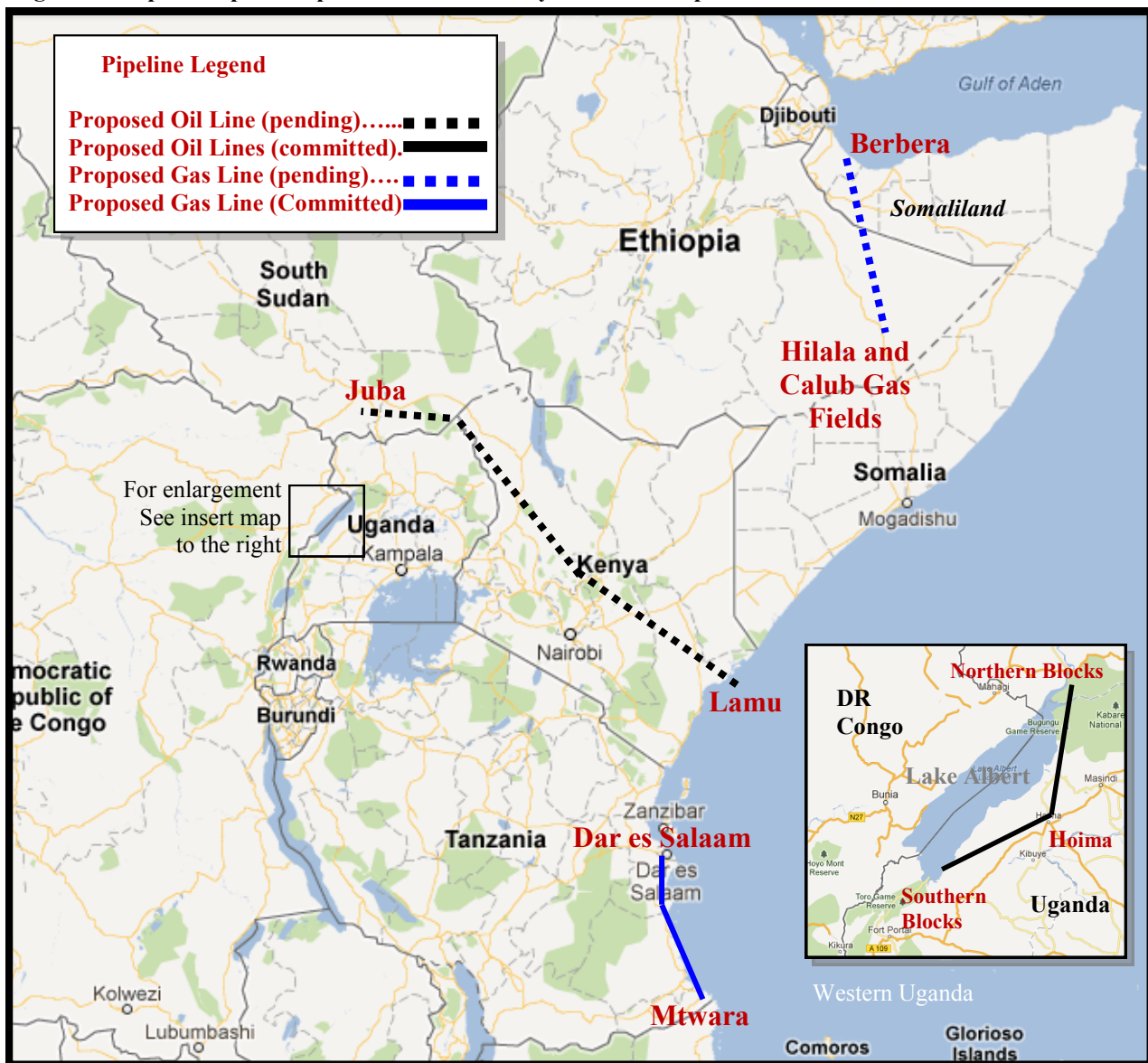
A Potential Future Model?

In recent years, a chorus of voices have portrayed China as ruthlessly exploiting Africa's energy and minerals, often at the expense of western corporate involvement. However, within the East African context, it is evident that the Chinese presence is fragmented and that investment decisions are based on financial logic, as opposed to a top-down, state-level project of geo-strategic encroachment. This can be seen, for instance, in the freezing of plans to build the South Sudan-Kenya pipeline: the decision was based on economic forecasts predicting that oil supplies will not last long enough to warrant the cost of the pipe's construction.

Another obvious factor in China's scattered presence is the sheer number of companies with which the Chinese have to compete; a Jeffries Group report states that over 50 energy firms are currently involved in East Africa: Norway's Statoil, British Gas and Cove Energy (UK); America's ExxonMobil; France's Total; Italy's ENI, India's GAIL and ONGC and Thailand's PTTEP are just some of the player involved in the region.

The varied nature of such investment is giving rise to new forms of co-operation, such as the construction of the Ugandan refinery. While China is already significantly involved in the construction of refineries on the continent (see table 2) they are usually constructed in conjunction with the given African country's state-owned oil company. This is what sets the Ugandan refinery apart: it involves a conglomerate of foreign firms rather than an exclusively Chinese-African state owned enterprise venture. In forecasting China's future engagement in Africa's oil and gas extraction industry, it is prudent to keep the multi-national joint-venture model in mind. This particular collaboration arose as the Ugandan government insisted on the construction of the refinery, which will satisfy the country's (as well as some of its neighbours') oil demands. The cost of such a project obliged all partners to cooperate, as they exceeded Tullow's capacities. If more African countries

Figure 1: Map of Proposed Pipeline Construction by Chinese Companies in East Africa



containing oil oblige the construction of domestic refineries, it is possible that such partnerships may be more common in the future. More specifically, the challenge of overcoming specific problems in under-developed infrastructure and geological complexity make East Africa a potential site for further joint co-operation projects.

Security Implications

Due to political instability in various parts of Africa, the security risks involved in oil and gas extraction are high. The Chinese have experienced this first hand, with attacks on personnel in the DRC and Nigeria, where the rebel group MEND (Movement for the Emancipation of the Niger Delta), who have targeted foreign oil investors, warned that the Chinese presence "places its citizens in our line of fire".

Ethiopia and Sudan have also witnessed the abduction and murder of Chinese workers. Within East Africa, many significant oil fields lie in troubled border areas and disputed territories, including the Abeyi sector of Sudan, northern Kenya, the Lake Albert region in Uganda and the Ogaden and Sool regions between the Somali secession territories of Somaliland and Puntland. Such potential for conflict has a direct bearing on the protection of assets and personnel invested within a given region. Within both Sudans for instance, the part-Chinese owned Greater Nile Oil Pipeline has been subject to alleged attacks by the Sudanese government upon portions of the pipeline in South Sudan. The South Sudanese Information Minister, Barnaba Marial Bejamin recently stated that such attacks are "the same as bombing the resources of China".

Table 2: Chinese refinery involvement in Africa

Country	Refinery Name	Chinese Involvement	African Partners	Refinery Quantities
Algeria	Adrar	China NPC	SONATRACH	13 000 bpd
Chad	Djermaya	CNPC	SRN	20,000 bpd
Nigeria	Kaduna (under Chinese management)/ Kogi, Bayelsa, Lekki (in planning)	CNOOC/ CSEEC	NNPC	110 000 (Kaduna); proposed 100 000 bpd (Kogi and Bayelsa)/ 200 000 bpd (Lekki)
Sudan	Khartoum	CNPC	The Sudan Khartoum Refinery Company	20,000 bpd
Uganda	Hoima	CNOOC	—	25 000 bpd (projected to reach 200 000 bpd at full capacity)

If the trend of joint ventures between Chinese state owned enterprises and other multi-nationals continues, it is likely there will be a rise in jointly owned assets on the continent. Such assets, particularly in volatile regions such as East Africa, will require protection. This arrangement complicates the process of one state securing assets located in another state. Rather, in this scenario, companies stemming from several states will, ideally, be obliged to secure their assets jointly. Such a phenomenon will have implications for China's "go out" strategy insofar as official policy concepts of "win-win" and "non-interference" are predicated on bilateral state relations between two sovereign nations. A hypothetical event in which Chinese and Western companies are obliged to jointly defend assets against a domestic African incursion challenges the common perception that China and the West are pitted against each other in Africa. On the contrary, such an arrangement might feed into certain localized attitudes which view the Chinese, along with the Euro-American presence, as part of a larger neo-colonial project of economic exploitation.

Conclusion

Hydrocarbon ventures in East Africa are by no means exhausted: with only 480 wells drilled thus far (as opposed to 14 500 in West Africa) and new prospective reserves in countries such as Somalia and Madagascar, an array of new challenges and opportunities await those companies willing

to invest. The role of the Chinese in the region is varied, with a significant presence in the oil (as opposed to the gas) sector and downstream infrastructure. In terms of China's longer term energy security strategy, the East Africa instance highlights the possibility of future joint-multi-national ventures. Such partnerships mark a shift in China's engagement on the continent thus far and have implications for the future security of the region.

Because oil and gas exploration in Africa has contributed to inequalities, fueled ethnic conflict and exacerbated corruption, there is a significant chance that similar issues will arise within the East African context.

Recommendations

A common criticism leveled at Chinese investment practices in Africa is that they are lacking in the field of international business standards. China is frequently accused of lack of transparency, propping up repressive regimes and not showing sufficient commitment to environmental concerns. With the rise of joint ventures, Chinese firms will have more exposure to best business practices as western firms often face greater pressure to conform to such measures. Chinese firms should embrace this opportunity as it will facilitate greater integration between Chinese and Western business practices in Africa. Likewise, Western firms, which have shown a mixture of puzzlement, admiration and fear of Chinese success on the continent, will gain better insights into Chinese business practices, including, speed of construction and cost efficiency.

The rise of such ventures will also increasingly put a question mark upon the viability of Beijing's claim that Chinese engagement is unique and different in nature from Western engagement. If such trends continue, China will need to shift its policy so as to reflect such increasingly complex transnational ventures. Using its embassies and consulates abroad, the Chinese government should be very clear as to what investments, or portions of investments, it owns. This may help dispel misplaced local perceptions of a "monolithic" Chinese presence which may be the target of local discontent.

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